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Migration, Resilience, Vulnerability and Migrants' Health

Edited by
Lillian Mwanri, Nelsensius Klau Fauk, William Mude and Hailay Gesesew

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About the Editors

Lillian Mwanri

Associate Professor Lillian Mwanri graduated in Medicine from the University of Dar es Salaam, Tanzania, and held senior positions in both clinical and public health in Tanzania before migrating to Australia. Lillian has also worked in a wide range of settings including: governments, communities, and academia, both in Africa and Australia. In addition to her medical degree, Lillian has a Masters of Community Nutrition Degree from the University of Queensland and a Ph.D. from the University of Adelaide. She is also a Fellow of the Australasian Faculty of Public Health Medicine (FAFPHM). Currently, Lillian works at Torrens University Australia within the Research Centre for Public Health, Equity and Human Flourishing, in Adelaide South Australia. Professor Mwanri has a research interest in a wide range of areas including: general public, global health, migrants and vulnerable populations health, food and nutrition, infectious disease, including HIV, social determinants of health, chronic conditions, and inequities. Her research utilises mixed methods, comprising both quantitative and qualitative research methodologies.

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Dr Nelsensius Klau Fauk is a researcher at the Research Centre on Public Health, Equity and Human Flourishing, Torrens University Australia. He mainly applies qualitative methods and social cognitive theories to public health problems. His research focuses on understanding determinants of HIV transmission and impacts of HIV among various key population groups, access to healthcare services, mental health, disability, migrants' health, and impacts of parental migration on social life and mental health of left-behind children.

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Dr William Mude Is a Fellow of the HEA through the QUT Academy of Learning and Teaching and has a Ph.D., Master of Public Health, graduate Diploma in pharmacy and Bachelor of Science (Hon) degrees. Dr Mude has worked in a range of settings including in governments, non-governmental organisations (NGOs), and in communities, both in Canada and Australia. Dr Mude works at Central Queensland University within the School of Health, Medical and Applied Sciences in Cairns City, Queensland Australia. Dr Mude has a broad range of research interests including: global health, migrants health, inequalities and infectious diseases, including HIV and hepatitis; and social determinants of health. Currently, Dr Mude is undertaking among others, a research project characterising intergenerational food choices and behaviours among African Migrant Communities in South Australia.

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Dr Hailay Abrha Gesesew is NHMRC (National Health and Medical Research Council) Senior Research & Teaching Fellow at the Research Centre for Public Health, Equity and Human Flourishing in Torrens University Australia in Adelaide, South Australia. Dr Gesesew research area spans around war and public health including migration, infectious illness, including HIV, social determinants of health, and the epistemology of contemporary and alternative medicine. Dr Gesesew applies his expertise to guest edit the articles in this Special Issue.

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Editorial

Migration, Resilience, Vulnerability and Migrants' Health

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Migration has always been a feature of human populations, with people migrating and crisscrossing the globe for a wide range of reasons. During the 21st century [1], there have been substantial increases and changes in international migration and resettlement patterns due to factors including: people's ability to travel, ease of communication and technology, civil unrest and conflicts, seeking opportunities for greater equality and freedom, and career progression and achievement. As a result of these factors, global populations have increased and integrated across settings, challenging the differentiation between types of migrants such as refugees and economic migrants.

As part of this exploration, up to 15 April 2022, a special topic of the *International Journal of Environmental Research and Public Health* (*IJERPH*) entitled "Migration, Resilience, Vulnerability and Migrants' Health" was opened, and a dedicated team of scholars managed the editorial work as guest editors to facilitate the timely peer-review and publication of relevant manuscripts from multiple studies [2]. Between 20 February 2020 and 15 April 2022, a total of 44 manuscripts were submitted to the Special Issue, of which 14 were rejected and 29 published. A total of 128 authors from across the globe including Europe, Australia, China, and Malaysia contributed to the published articles. The published studies were conducted using different methodological approaches including mixed methods, qualitative, quantitative, and review studies. These studies involved participants whose migration involved both internal and international journeys, and they were both economic migrants and people with a refugee background. The published studies involved a wide range of population groups including men and women, children, young people, and people in different settings—such as aged care facilities, refugee camps, and in general community dwellings. By August 2022, the Special Issue had achieved 37,208 views.

In the Special Issue, a number of thematic areas were discussed including, but not limited to:

A. **Health literacy and communication**—For example, Klingberg et al. [3] identified disparities in the use of emergency care between asylum seekers and Swiss nationals with non-urgent complaints, and Patel et al. [4] synthesized evidence on communication/interaction in the primary health care consultation setting with refugees or asylum seekers in western host countries.

B. **Mental health and resilience**—For example, Hynek et al. [5] developed a system model of post-migration risk factors for mental health and their interactions, and Mwanri et al. [6] discussed how individual and community resilience factors supported the successful resettlement of Africans in Australia.

C. **Sexual and reproductive health services**—For example, Loganathan et al. [7] explored the provision of sexual and reproductive health education, contraception, abortion, antenatal, and delivery, as well as the management of gender-based violence.

D. **Identity and belongingness**—For example, Mude et al. [8] explored the identity and belonging of refugees in a host country.

E. Policy for disability among migrants in Europe—For example, Martin-Cano et al. [9] critically reviewed the structure of social and professional intervention policies, at the international level, towards refugees with disabilities in Europe.

Conclusion: It is evident from these research activities that migrants, being internal or international and migrating for opportunities or as forced migrants (refugees), face a number of challenges, but opportunities do exist as well. Despite their vulnerability, especially for those migrating with a refugee background, through their resilience and adaptation to whatever adversity they face, they do survive and continue to contribute to their new place of residence.

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Article

Prevalence and Risk Factors for Hypertension among Myanmar Migrant Workers in Thailand

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Abstract: Background: Non-communicable diseases (NCDs) are showing an increasing trend worldwide, and the COVID-19 pandemic may interrupt or delay NCD care, the leading cause of mortality in Thailand, which is hosting 2–3 million migrant workers. The transition of epidemiological risk factors, limited access to health-promoting activities, and pandemic containment measures may adversely impact NCD risks. Therefore, hypertension and associated risk factors were determined among registered Myanmar migrant workers in Thailand. Methods: A cross-sectional survey with structured questionnaires was conducted in Thailand in 2017. Having hypertension was analyzed as a dependent variable, and the associated risk factors were explored by binary logistic regression analysis. Results: A total of 414 participants with a mean age of 29.45 ± 9.03 years were included, and 27.8 percent of the study participants were hypertensive, which was a rate higher than that in their host country (24.7%) and country of origin (26.4%). An older age, being male, current alcohol drinking, and being overweight and obese with reference to the body mass index (BMI) were significantly associated with hypertension. Conclusions: Our findings reaffirmed the idea that NCDs are important public health concerns, and a simple BMI measurement would be a valuable tool with which to determine hypertension risks. Targeted surveillance and an appropriate health policy are necessary for such a vulnerable population in Thailand.

Keywords: body mass index; hypertension; migrant workers; non-communicable diseases; Thailand

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1. Introduction

Non-communicable diseases (NCDs) are an increasing trend globally, and according to the World Health Organization (WHO), NCDs kill over 41 million people each year, equivalent to 71% of all the deaths worldwide. NCDs are chronic diseases that could affect the long and multifactorial origins of genetic, physiological, environmental, and behavioral factors. The WHO aims to reduce premature mortality from NCDs by one-third by 2030 [1]. The mortality from NCDs also ranks first in Thailand, and the mortality for all ages caused by prevalent NCDs is as follows: diabetes (4%), chronic pulmonary diseases (9%), cancer (17%), and cardiovascular diseases (CVDs) (29%), respectively—according to the WHO country profile for Thailand 2018 [1]. The highest proportion of mortality contributed by CVDs included stroke and ischemic heart diseases (IHDs), accounting for a quarter of all CVD deaths. The mortality from stroke has doubled, and that of IHD has increased by 50%

in the past decade. Hypertension was attributed to two-thirds of stroke cases and half of IHDs in Thailand in 2017 [2]. Hypertension is a serious medical condition that significantly increases the risks of heart, brain, kidney, and other diseases. It is defined as systolic BP (SBP) $\geq$ 140 mmHg and/or diastolic BP (DBP) $\geq$ 90 mmHg, or reported treatment for hypertension [3]. The prevalence of hypertension is rising globally, and it is predicted to increase to 29.2% by 2025 [4]. Hypertension is one of the established modifiable risk factors for CVDs, and its prevalence is also increased in Thailand. According to the Thailand national health survey in 2014, one out of four Thai adults has hypertension, a disease named as a silent killer [5].

Thailand is currently hosting 2–3 million migrant workers from its neighboring countries such as Myanmar, Cambodia, and Laos [6]. Amongst them, Myanmar migrant workers comprised 80% of the total migrant population in Thailand. Moving to a country richer than their native country, they may adopt unhealthy lifestyle behaviors, which could affect exposures and vulnerability to NCD risk factors throughout their migration process, as highlighted by the International Organization for Migration [7]. Furthermore, upon return, some migrants arrive home less healthy than when they left, and the health care facilities there are limited. The burden of NCDs by migration is variable, and it depends on the migration status, country of settlement, and type of NCD [8]. In fact, modifiable behavioral risk factors for NCDs have been established, and much literature on preventing NCDs through lifestyle modifications, health education, and health-promoting activities may be limited in its accessibility for migrant workers. According to the Thailand Migration Report 2019, migrant workers are only screened for infectious diseases upon registration, and little is known about NCDs [9]. Even though NCDs are the number one cause of mortality in Thailand, screening for NCDs and long-term follow-up for chronic health conditions are still lacking among the migrant population. The affected individuals may be relatively young, and CVDs may not be a current problem. However, they may become a problem soon. The transition of epidemiological risk factors, limited accessibility to health-promoting activities due to the language barrier, and poor health education may impact their risks for NCDs. Moreover, their mobile nature and variable immigration status may determine the daily self-management of their diseases, continuing medical treatment, and follow-up visits to nearby health care facilities, subsequently affecting the complications of NCDs among this vulnerable population. The potentially higher burden of NCDs, by not being prevented or effectively controlled, could impact healthcare costs and the labor productivity of the host country. Therefore, it is important to determine migrant workers' risky health behaviors to prevent prevalent NCDs such as hypertension. Our study aimed to determine the prevalence and associated risk factors for hypertension among migrant workers from Myanmar legally working in Thailand, since migration itself is a specific health challenge, and research focusing on the health and social security threats of migrant populations is consistently necessary to ensure a healthy global workforce.

2. Materials and Methods

2.1. Research Design

A cross-sectional survey using structured questionnaires was completed by face-to face interviews. Adult migrant workers (18 to 60 years old) who were willing to participate in the study by voluntarily giving written informed consent were recruited.

Population and Study Population

Sample size was calculated by using the Taro Yamane formulae, with reference to the total population of 81,299 Myanmar migrant workers in Chiang Mai province [10]. A sample size of 398 was calculated, and it was increased by 5% to compensate for incomplete data.

2.2. Research Instruments

Questionnaires were validated in the languages of targeted population, both in Thai and Myanmar versions. Following the WHO process of instrument translation and adap-

tation process, researchers investigated the readability and comprehension of the questionnaires by a pilot study including thirty migrant workers who voluntarily consented to participate. Pilot study participants were similar to the potential participants planned to be recruited in the future cross-sectional surveys in that they were (1) an immigrant person from Myanmar to Chiang Mai, Thailand, for labor; (2) ethnically either Myanmar or Shan; (3) either male or female gender; and (4) willing to participate in the research. The pilot study was conducted in March 2016 in Chiang Mai, Thailand [11]. The questionnaires were revised upon reviewing the results of pilot study to develop a final version. Validated questionnaires consisted of 3 parts to explore both modifiable and non-modifiable risk factors for hypertension: (1) socio-demographic characteristics, (2) health behaviors, and (3) measurements. Socio-demographic characteristics of the study participants included age, gender, history of chronic diseases such as diabetes, educational attainment (no formal education, primary school completed, and secondary school and above), marital status (single or married), types of job, and years of stay in Thailand. Regarding health behaviors, smoking and drinking alcohol, sleeping hours per day, and exercise habits were included. "Current smokers" were defined as those who smoked any tobacco products either on some days or every day. Former smokers or those who never smoked cigarettes were categorized as "current non-smokers". Those who consumed any type of alcoholic drinks (spirit, beer, wine) regularly or irregularly during the previous year were categorized as "current alcohol drinkers". Exercise activity was assessed: type of exercise such as walking, running, playing football, or playing badminton; duration of each exercise session; and number of exercise sessions per week were recorded. Measurements of height (m), body weight (kg), waist circumference (cm), hip circumference (cm), and blood pressure (mmHg) were completed.

2.3. Data Collection

The study participants were recruited with their written informed consent during the whole month of December 2017. The research team recruited the participants while they were waiting for the registration process at the provincial employment office, Chiang Mai. Data collection was completed using a stratified sampling technique and face-to-face interviews by the trained research assistants who were able to speak the languages of the study participants (Thai, Myanmar, and Shan languages).

A portable stadiometer was used to measure the standing height without shoes (m) and a weighing scale to measure the body weight without any jacket (kg). Body mass index (BMI) was determined by calculating weight (kg)/height (m^2).

Using a standard measuring tape, measured to the nearest 0.1 cm, the midway between the lowest palpable rib and the anterior superior iliac crest was measured as waist circumference (cm), and the widest part of the buttock as hip circumference (cm). Additionally, then, waist/hip ratio was calculated to determine whether central obesity was present or not.

Digital sphygmomanometer was used to measure blood pressure. Following NICE guideline, measurement was repeated after taking rest for 5 min for those whose initial blood pressure measurement was over 140/90 mmHg to avoid white-coat hypertension [12].

2.4. Data Analysis

Data analysis was completed using SPSS version 24, and the final analysis included 414 participants. Socio-demographic variables were analyzed by descriptive analysis, and they included age (completed years), sex (male or female), ethnicity (Shan or Myanmar), marital status (single or married), and years of stay in Thailand. Educational status was categorized into three groups: no formal education, primary school completed, and completed secondary school and above. Type of jobs included no current employment; cleaning/household jobs; and construction, agriculture, or factory work.

According to WHO guidelines, BMI was categorized into three groups: Normal: BMI 18.5–24.9, Overweight: BMI 25–29.9, and Obese: BMI $\geq$ 30 [13].

Central obesity was determined by using WHO cutoff points for sex-specific waist/hip ratio. Participants with a waist/hip ratio $\geq$ 0.9 in males and $\geq$ 0.85 in females were regarded as having central obesity [14].

Exercise activity was grouped as "No exercise" for the study participants who never exercised or who had less than 150 min of moderate-intensity aerobic physical activity per week and "Exercise" for those who had at least 150 min of moderate-intensity aerobic physical activity or at least 75 min of high-intensity aerobic physical activity per week, following the WHO guidelines [15].

Blood pressure measurements were initially categorized into three groups: normotension: systolic blood pressure (SBP) < 120 mmHg and diastolic blood pressure (DBP) < 80 mmHg, pre-hypertension: SBP between 120–139 mmHg and/or DBP 81–89 mmHg, and hypertension: SBP $\geq$ 140 mmHg and/or DBP $\geq$ 90 mmHg, in accordance with hypertension screening in Thailand [16]. Thereafter, a dichotomous scale of "having hypertension" (SBP $\geq$ 140 mmHg and/or DBP $\geq$ 90 mmHg) or "no hypertension" (SBP < 140 mmHg or DBP < 90 mmHg) was recorded, and it was analyzed to be a dependent variable.

The basic statistical association between "having hypertension" and potential independent risk factors were initially evaluated by Chi-square tests. Variables with p values less than 0.7 were entered in the multivariable regression analysis to identify factors associated with "having hypertension". Adjusted odds ratios (adjOR) with 95% confidence interval (95%CI) and p value $\leq$ 0.05 were considered to be significant associated factors.

3. Results

3.1. Characteristics of the Study Participants

The final analysis consisted of 414 participants, and their mean age was 29.45 $\pm$ 9.03 years. Male participants made up 55.8%, with females comprising 44.2%; 70.0% were married persons, and 49.0% did not have any formal school education, shown in Table 1.

Table 1. Characteristics of the study participants (n = 414).

Variables	Hypertension		Total (n%)
	Yes (n%)	No (n%)	
Age			29.45 $\pm$ 9.03 years
Sex			
Male	84 (73.0)	147 (49.2)	231 (55.8)
Female	31 (27.0)	152 (50.8)	183 (44.2)
Marital status			
Single	25 (21.7)	99 (33.1)	124 (30.0)
Married	90 (78.3)	200 (66.9)	290 (70.0)
Education			
No formal education	61 (53.0)	142 (47.5)	203 (49.0)
Primary school completed	32 (19.1)	81 (27.1)	113 (27.3)
Secondary school and above	22 (19.1)	76 (25.4)	98 (23.7)
Years of stay in Thailand			6.36 $\pm$ 5.70 years
Types of job			
Cleaning/household works	29 (25.2)	97 (32.4)	126 (30.4)
Construction	43 (37.4)	82 (27.4)	125 (30.2)
Agriculture	29 (25.2)	80 (26.8)	109 (26.3)
Factory	13 (11.3)	26 (8.7)	39 (9.4)
Currently unemployed	1 (0.9)	14 (4.7)	15 (3.6)
Diabetes			
Yes	2 (1.7)	2 (0.7)	4 (1.0)
No	109 (94.8)	283 (94.6)	392 (94.7)
Never checked	4 (3.5)	14 (4.7)	18 (4.3)

Table 1. *Cont.*

Variables	Hypertension		
	Yes (*n*%)	No (*n*%)	Total (*n*%)
Sleeping hours per night			
<8 h	83 (72.2)	199 (66.6)	282 (68.1)
>8 h	32 (27.8)	100 (33.4)	132 (31.9)
Exercise			
No	96 (83.5)	255 (85.3)	351 (84.8)
Yes	19 (16.5)	44 (14.7)	63 (15.2)
Current smoking			
No	69 (60.0)	36 (78.9)	305 (73.7)
Yes	46 (40.0)	63 (21.1)	109 (26.3)
Current alcohol drinking			
No	46 (40.0)	199 (66.6)	245 (59.2)
Yes	69 (60.0)	100 (33.4)	169 (40.8)
Central obesity			
No	79 (69.3)	231 (77.3)	310 (75.1)
Yes	35 (30.7)	68 (22.7)	103 (24.9)
Body Mass Index (BMI)			
Normal 18.5–24.9	68 (59.1)	260 (87.0)	328 (79.2)
Overweight 25–29.9	37 (32.2)	31 (10.4)	68 (16.4)
Obese ≥ 30	10 (8.7)	8 (2.7)	18 (4.3)

Regarding associated NCDs, about 4.3% of study participants had never checked their diabetes status, and 1.0% had history of diabetes. Metabolic determinants of hypertension, such as the BMI and waist/hip ratio, along with behavioral determinants, such as current smoking, current alcohol drinking, and exercise habits, were assessed. About 15.2% of the participants exercised regularly; current smokers made up 26.3%; 40.8% had current alcohol-drinking habits; 68.1% did not have enough sleeping hours at night (less than 8 h); and more than 20% were overweight (16.4%)/obese (4.3%) (abnormal BMI), and 25% of participants had central obesity (raised sex-specific waist/hip ratio) (Table 1)

3.2. Prevalence of Hypertension and Associated Factors

About 27.8% of the study participants were hypertensive (Figure 1). The mean systolic blood pressure was 127.52 ± 18.24 mmHg, and the mean diastolic blood pressure was 83.13 ± 11.95 mmHg. When exploring the factors associated with hypertension, we noted that increased age was associated with an increased likelihood of having hypertension (AdjOR: 1.10, 95% CI: 1.07–1.13), and being male (AdjOR: 2.42, 95% CI: 1.12–5.24) compared to female, current alcohol drinking (AdjOR: 2.80, 95% CI: 1.41–5.57), and overweight (AdjOR: 5.88, 95% CI: 2.99–11.55) and obese (AdjOR: 6.10, 95% CI: 1.96–8.99), in terms of BMI, resulted in higher risk of hypertension (Table 2).

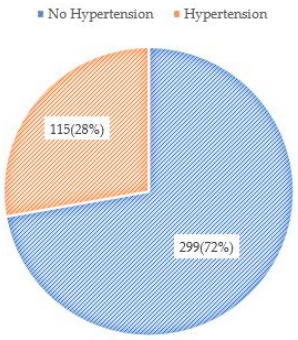

Figure 1. Prevalence of hypertension among Myanmar migrant workers in Chiang Mai, Thailand (2017).

Table 2. Factors associated with hypertension among Myanmar migrant workers in Thailand.

		Hypertension 95% Confidence Interval		
	***n* (%)**	**Adjusted OR**	**Lower**	**Upper**
Age (years)		1.10 **	1.07	1.13
Sex				
Female	31 (16.9)	Referent		
Male	84 (36.4)	2.42 *	1.12	5.24
Current alcohol drinking				
No	46 (18.8)	Referent		
Yes	69 (40.8)	2.80 *	1.41	5.57
Current smoking				
No	69 (22.6)	Referent		
Yes	46 (42.2)	1.21	0.64	2.29
Exercise				
Yes	19 (30.2)	Referent		
No	96 (27.4)	1.26	0.62	2.56
Central obesity				
No	79 (25.5)	Referent		
Yes	35 (34.0)	1.18	0.61	2.29
Body Mass Index				
Normal 18.5–24.9	68 (20.7)	Referent		
Overweight 25–29.9	37 (54.4)	5.88 **	2.99	11.55
Obese $\geq$ 30	10 (55.6)	6.10 **	1.96	18.99

* p value ≤ 0.05; ** p value ≤ 0.01.

4. Discussion

We noted the important finding that 27.8% of the current study participants were hypertensive, a higher percentage than that of the host country (24.7%) and country of origin (26.4%) [1]. Hypertension was also more prevalent than in another study conducted among Shan migrant workers in Northern Thailand in 2011 (23.5%), comparable with the prevalence of hypertension among the Karen ethnic minority in Thailand (27.0%) and lower than that of South East Asian immigrants in the United States (29.1%) [17–19]. Age-related increases in blood pressure owing to vascular aging have been observed in almost every population, and we also noted that the increasing age of the study participants was associated with a higher prevalence of hypertension [20,21]. Distinct gender differences in the incidence and severity of hypertension were well-established, and hypertension was more common in men than women [22,23]. It is evident that blood pressure levels and hypertension increase with age in both sexes; however, men have higher blood pressure at a younger age than women [24,25]. Numerous previous observational epidemiological studies have supported that alcohol consumption can elevate blood pressure, and previous studies noted that males drank significantly more alcohol than females [26–28]. Being male per se is one of the non-modifiable CVD risk factors, and our finding of current alcohol drinking and its association with hypertension is an important but alarming issue in the goal of preventing hypertension by the modification of lifestyles among male migrant workers.

About 26.3% of study participants were current daily smokers, which was higher than Thailand's 2021 national figure of 17.0% and that of Myanmar of 15.0% [29]. The effects of tobacco smoking on hypertension are complex, and it is evident that smoking raises blood pressure over time. Moreover, both smoking and hypertension act as independent risk factors for cardiovascular diseases [30,31]. Even though we did not find any significant association of current smoking status with hypertension, the higher prevalence of current daily smokers in this study should be considered for the prevention of NCDs and subsequent burdens. Furthermore, less than a quarter of participants had regular exercise habits

(15.2%), and the proportion of physical inactivity in this study population (84.8%) was also higher than that of the host (25.0%) and native country (10.0%) [1]. One-third of study participants could have adequate sleeping hours (>8 h per night). However, hypertension was not significantly affected by "no exercise" and lack of sleep in this study.

The association of obesity with hypertension was explored both in terms of central obesity by the sex-specific waist/hip ratio and overweight/obesity by the BMI. We did not find any significant association of central obesity with hypertension whereas the overweight and obese study participants (in terms of the BMI) had significantly higher association with hypertension than those with a normal BMI. The risk of hypertension among overweight participants was as high as among obese ones (about six times higher than their normal BMI counterparts). Pre-existing literature reported that excessive body weight (high BMI) is an important determinant of hypertension, and obese people had a higher risk of developing hypertension when compared to people with normal weight. This obesity-associated hypertension may be due to abnormal kidney function with a subsequent increase in blood pressure [32–34].

Our findings highlighted the prevalence of hypertension and its associated behavioral risk factors among young, working migrants, to prevent NCDs, which would be valuable in maintaining a healthy workforce and increasing productivity in a host country. Moreover, currently, the burden of the COVID-19 pandemic may affect NCDs. As of November 2021, over 260 million confirmed COVID-19 cases and nearly 5.2 million deaths have been reported globally. Persons with chronic diseases, such as NCDs and other diseases, have a greater risk of severe COVID-19, probably leading to higher mortality or prolonged hospitalization. Additionally, the postponement or interruption of NCD care and pandemic containment measures such as lockdown and social distancing may increase unhealthy lifestyle behaviors, such as poor diets, alcohol, and physical inactivity, which may constitute increased risks for NCDs and subsequent negative impacts on morbidity and mortality [35].

Limitation and Strength of This Study

The generalizability of our findings to represent all Myanmar migrant workers in Thailand is affected by the fact that most of the study participants are ethnic Shan due to the geographical proximity between Chiang Mai, Thailand, and the Shan state of Myanmar. Another limitation of the present study is that information about poor diet, especially salt intake, is missing. Assessment of renal function to exclude an important disease underlying hypertension was not included in this cross-sectional survey, adding one more limitation to this study. The family history of hypertension could not be explored, as participants could neither remember the history of their family nor realize the importance of such family history. The prevalence of hypertension, as determined by the objective assessment of resting blood pressure in a crowded data-collection site and repeating BP measurements a second time only for those whose initial BP was over 140/90 mmHg, may limit the main outcome of this study. However, reaching a vulnerable population with well-validated questionnaires and well-trained research assistants who were able to speak three languages (Thai, Shan, and Myanmar) of the targeted study population strengthened the valuable findings of our study.

5. Conclusions

Despite the limitations, our study reaffirmed that NCDs are important public health concerns among the migrant population. Moreover, the measurement of BMI to determine hypertension risks would be a valuable, easy, and simple assessment tool. Our findings also provided insights into the epidemiological patterns of risk behaviors of hypertension, which could impact the negative consequences of NCDs and the global workforce. Even though they share the same NCDs risk factors with people of the host country and those of the native country, they may have more potential risks due to lack or inaccessibility of health care services in Thailand. This may put them at risk of developing hypertension and an increased burden of NCDs while in the host country and once they return home. Targeted

surveillance and urgent health policy are recommended for this migrant population in Thailand by strengthening partnerships in cross-border and international global health.

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Informed Consent Statement: Written informed consent has been obtained from all study participants to participate in this study and to publish the research findings while preserving their anonymity.

Data Availability Statement: The data will be available from the corresponding author upon a reasonable request.

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Internal Migration Experience and Depressive Symptoms among Middle-Aged and Older Adults: Evidence from China

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Abstract: Background: This study aimed to examine the association of internal migration experience with depressive symptoms among middle-aged and elderly Chinese, as well as explore possible mechanisms of the relationship. Methods: Participants were from the China Health and Retirement Longitudinal Study (CHARLS), a nationally representative sample of residents aged 45 years and older (n = 43,854). Survey data on depressive symptoms and internal migration experience were collected from biennial CHARLS surveys (CHARLS 2011/2013/2015) and a unique CHARLS life history survey in 2014, respectively. Multiple logistic regressions and the Karlson–Holm–Breen (KHB) method were employed in the statistical analyses. Results: The overall prevalence rate of depressive symptoms among middle-aged and older adults was 34.6%. Internal migration experience was associated with higher risks of depressive symptoms (OR = 1.07, 95% CI = 1.02–1.12, $p < 0.01$), especially among females (OR = 1.08, 95% CI = 1.01–1.14, $p < 0.05$), middle-aged adults (OR = 1.12, 95% CI = 1.06–1.19, $p < 0.001$), rural-to-urban migrants who had not obtained an urban *hukou* (OR = 1.13, 95% CI = 1.07–1.19, $p < 0.001$), and those who had low migration frequency and first migrated out at 35 years of age or older. Chronic disease (17.98%, $p < 0.001$), physical injury (7.04%, $p < 0.001$), medical expenditure (7.98%, $p < 0.001$), pension insurance (4.91%, $p < 0.001$), and parent–child interaction (4.45%, $p < 0.01$) were shown to mediate the association of internal migration experience with depressive symptoms. Conclusions: This study indicates that there is a significant association between internal migration experience and high risks of depression onset later in life. It is suggested to reduce institutional barriers for migrants and implement evidence-based interventions to improve migrants' mental health.

Keywords: depressive symptoms; internal migration experience; middle-aged; elderly; China

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1. Introduction

With the growing scope, complexity, and diversity of population movement, migration is becoming one of the determining global issues of the 21st century [1]. As the most populous country, China has witnessed large-scale internal population migrations since the last century, including migrations due to war, famine, send-down movement before the 1980s, and the massive rural-to-urban and urban-to-urban migrations during the past few decades. According to the seventh national census of China in 2020, there were 376 million internal migrants whose residences were not the places of household registration (*hukou*), with 249 million rural-to-urban migrants and 127 million urban-to-urban migrants, respectively [2]. Although migrating to urban areas is often beneficial to promote individual socioeconomic status in comparison with nonmigrants in the place of origin, city life is also widely considered as stressful because "cities are polluted, unhealthy, tiring, overwhelming, confusing, alienating" [3]. They are also "the places of low-wage work, insecurity, poor

living conditions and dejected isolation" for the disadvantaged groups, such as the non-native permanent residents [4,5]. This is also true for China's internal migrants who have encountered challenges of institutional barriers (e.g., *hukou* system) and acculturation problems [6–8]. Some existing evidence has documented that internal migration contributes to the mental disorders among China's rural-to-urban migrants [9,10]. However, few studies have investigated the association and its mechanisms between internal migration experience and psychological wellbeing from the life-course perspective. Research on these issues is important to the understanding of the long-term mental health consequences of the massive internal migration in China and other similar developing countries, as well.

The accumulation of the risk model and the pathway model are two crucial components of the life-course theory, which is often perceived as a conceptual framework to explain associations of early-life experiences with later-life outcomes [11,12]. The accumulation of risk model posits that later-life outcomes are formed in an accumulative pattern and the risks for human wellbeing tend to occur in clusters. The clustered deleterious exposures at different life-course stages can inflict accumulative risks and directly predict poor outcomes in later life [13,14]. The pathway model indicates that early-life conditions can indirectly affect later-life wellbeing through chains of risks or a series of linked adversities (mediating factors) that interact and aggregate with each other across the life span [15,16]. The above two theoretical models suggest that both direct and indirect effects should be of concern when investigating the association between internal migration experience and migrants' mental health.

The household registration (*hukou*) system has long been the main institutional constraint for internal migrants in China. On the one hand, the *hukou* system has been closely associated with local social programs and resources, such as health care access and retirement pension [17,18]. As a result, China's migrant workers, especially the low-skilled rural-to-urban migrants, are disproportionately employed in 3D jobs—dangerous, dirty, and demanding [19]. The physically demanding job and poor work environment may induce migrants' chronic diseases and physical injuries, which subsequently increase the risk of mental illness. Furthermore, due to the limited access to health care and the poor flexibility of medical insurance transferability, migrants may have to bear more burden of medical expenses without reimbursement, which can also contribute to their life pressure and emotional problems [20–22]. In addition, with the lack of social pension insurance, migrants might also develop negative emotions, such as anxiety and depression, when considering their living quality after they become old [23,24]. This is particularly the case for internal migrants who are employed in 3D jobs for a long time with relatively low levels of working skills and heavy family financial burden [25]. On the other hand, the *hukou* system can also result in a split-household arrangement in which migrants work and live in cities while their family members (e.g., children) are left behind in home communities [26–28]. The separation of family members often leads to the absence of intra-household emotional support such as parent–child interactions, which in turn affects the psychological wellbeing of migrants. This negative effect is likely to be more prominent for those who have suffered long-term family separation [29].

The purpose of this study was to examine the association between internal migration experience and the presence of depressive symptoms among middle-aged and older adults. Differences in the mental health effects of migration experience by gender, age, and type of *hukou* were also investigated. Given that females are more susceptible to the risk factors for mental health than males [30,31], we assumed that the association of internal migration experience with depression was more salient for females. In addition, provided that middle-aged adults are more likely to be employed in high-intensity jobs and may suffer from more physical health loss than the older cohorts [32], the adverse mental health consequences might be more significant for middle-aged people. Compared to urban-to-urban migrants, rural-to-urban migrant workers are often less educated due to lower levels of household income and educational resources [33]. As a result, rural-to-urban migrant workers are more likely to be employed in 3D jobs and they are more prone to experience physical injury,

chronic disease, long-term family separation, and consequent mental disorders, especially among the rural migrants who have not changed their rural *hukou* to an urban one. In addition, we explored potential mechanisms underlying the relationship between internal migration experience and depressive symptoms, including physical health (e.g., chronic diseases, physical injuries), social security (e.g., medical expenditure, pension insurance), and emotional support (parent–child interaction).

Accordingly, we proposed three hypotheses as follows:

Hypothesis 1 (H1). *The internal migration experience is adversely associated with depressive symptoms among middle-aged and older adults.*

Hypothesis 2 (H2). *The association between internal migration experience and depressive symptoms is more significant for females, middle-aged adults, and rural-to-urban migrants who have not obtained an urban hukou.*

Hypothesis 3 (H3). *Chronic disease, physical injury, medical expenditure, pension insurance, and parent–child interaction mediate the association of internal migration experience with depressive symptoms.*

2. Methods

2.1. Participants

This study drew data from the China Health and Retirement Longitudinal Study (CHARLS). CHARLS is a nationally representative longitudinal survey for Chinese residents aged 45 and older to support research on middle-aged and elderly Chinese. The survey is designed after the Health and Retirement Study (HRS) in the U.S., and it adopts a multistage, stratified, proportional-to-size (PPS) sampling process. The baseline wave of CHARLS was launched in 2011 to cover 28 of the 34 administrative divisions. It involved over 10,000 households and 17,500 individuals in 150 counties/districts and 450 villages/resident committees [34]. The 2013 and 2015 waves of CHARLS followed up with the baseline respondents and added new participants to compensate for the loss to follow-up. In addition, CHARLS conducted a unique life history survey in 2014, from which we could draw information on participants' migration experience and other early-life conditions. According to the China Health and Retirement Report by the CHARLS team [35], the follow-up rates in 2013, 2014, and 2015 were 88%, 86%, and 87%, respectively. The ethnics application for the data collection was approved by the Biomedical Ethics Review Committee of Peking University (IRB00001052-11015). Ethnics application for the use of CHARLS data was approved by the University of Newcastle Human Research Ethics Committee (H-2015-0290).

To better control for the effect of time on depression, our study used data from the baseline CHARLS survey in 2011 and follow-up surveys in 2013 and 2015, as well as the 2014 life history survey, to investigate the association between internal migration experience and depressive symptoms among middle-aged (45–64 years) and older adults (65 years and older). We imposed two sample restrictions. First, we excluded observations (about 12%) that could not be matched with participants in the 2014 life history survey due to loss to follow-up. Second, we excluded missing observations (about 3%) on depressive symptoms, internal migration experience, and other study covariates. Finally, our sample included a total of 43,854 observations, with 10,124 participants interviewed three times (10,124 $\times$ 3 = 30,372 observations), 4586 participants surveyed twice (4586 $\times$ 2 = 9172 observations), and 4310 participants surveyed once (4310 $\times$ 1 = 4310 observations). Figure 1 demonstrates the specific distribution of the number of observations among biennial CHARLS surveys from 2011 to 2015.

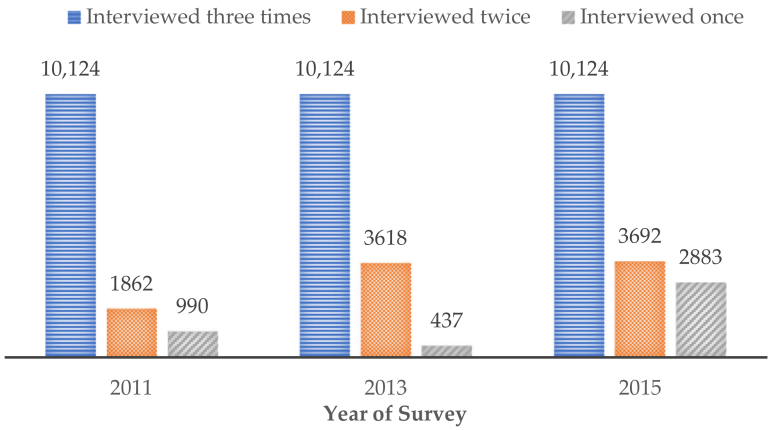

Figure 1. Distribution of the number of observations among CHARLS surveys.

2.2. Measures

2.2.1. Internal Migration Experience

The information regarding internal migration experience was from the residence module of the CHARLS life history survey. If the participant had ever left their place of residence (across county boundaries but within national boundaries) for at least 6 months, which is often considered as the threshold of migration or changing place of usual residence in China [36], then the participant was regarded as having "internal migration experience" and the corresponding response was assigned to "Yes". If the participants had never moved out from their place of residence for 6 months and above, the participant was regarded as having "no internal migration experience" and the corresponding response was assigned to "No". Overall, 32.1% of the total sample had internal migration experience.

In addition, internal migration frequency and the timing of the first migration experience were also investigated. We measured internal migration frequency by the number of times participants had migrated before the life history survey and divided it into four categories, including no migration experience (67.9%), once (14.6%), twice (10.5%), and three or more times (6.9%). In line with previous studies [21], we grouped ages at initial migration into four categories, including no migration experience (67.9%), 0–17 years old (7.2%), 18–34 years old (18.3%), and 35 years and above (6.6%).

2.2.2. Depressive Symptoms

The depressive symptoms were measured by the 10-item Center for Epidemiological Studies Depression Scale (CES-D), a widely used self-reported screening tool for depression during the past week (Appendix A Table A1). Each question of the CES-D-10 scale is rated using a four-scale metric, including rarely (<1 day), some days (1–2 days), occasionally (3–4 days), and most of the time (5–7 days). The sum of the 10 items provides a total score of 0 to 30 points, which is consistent with the scoring metric suggested by Radloff [37]. As suggested by Andresen et al. [38], a depression score equal to or above 10 points was used as the cut-off point to identify the presence of depressive symptoms. Accordingly, we generated a dichotomous depression variable (yes = 1, no = 0). A participant was considered to have depressive symptoms if he/she scored no less than 10 points in the CES-D-10. Otherwise, the participant was defined as having no depressive symptoms.

2.2.3. Mediators

Physical health, medical expenditure, pension insurance, and parent–child interaction were regarded as potential mediators underlying the association between internal migration and the presence of depressive symptoms among middle-aged and elderly Chinese.

Physical health was measured by two dichotomous variables (yes = 1, no = 0): chronic disease and physical injury. Chronic disease was scored as 1 if a participant was diagnosed with at least one of the following chronic diseases by the time of interview: hypertension,

dyslipidemia, diabetes or high blood sugar, cancer, chronic lung disease, liver disease, heart disease, stroke, kidney disease, stomach disease, psychiatric problems, memory-related diseases, arthritis or rheumatism, and asthma. Physical injury was coded as 1 if a participant ever had a physical injury resulting in permanent handicap, disability, or limitations in daily life. Medical expenditure was measured by the logarithm of per capita household medical expenditure (RMB yuan) in the year before the interview. Accounting for inflation over time, we adjusted the expenditure based on the consumer price indexes (CPI) from 2011 to 2015 in China. Pension insurance was measured as a dichotomous variable (yes = 1, no = 0) and it was coded as 1 if a participant was covered by social pension insurance at the time of the survey. The parent–child interaction was defined by the survey question "How often do you have contact with your children either by phone, text message, mail, or email, when you didn't live with them?". Having less than weekly contact with their children was regarded as a low frequency of parent–child interactions and scored as 1, otherwise, the variable was coded as 0.

2.2.4. Control Variables

Individual, household, and personal life history characteristics were controlled as covariates in our regression analyses. Among them, individual and household characteristics included individual age, gender (male = 1), years of education, marriage status (living with spouse = 1), difficulty in activities of daily living (ADLs) (yes = 1), cognitive function (0–21 points), personal income (RMB yuan, in logarithm form), and family size (number of family members). Difficulty in ADLs was coded as 1 if a participant reported difficulty in performing any of the following six tasks: eating, bathing, dressing, toileting, transferring (e.g., getting into or out of bed, lifting), and continence (control of urination and defecation) [39,40]. Cognitive function was reflected by combining the mental intactness scores (0–11 points) and episodic memory scores (0–10 points) from the survey. Personal income was measured by annual income in the year before the interview, which was also adjusted by the CPI to account for inflation.

In terms of individual life history characteristics, seven indices were used to measure childhood socioeconomic status (SES) through polychoric principal component analysis (PCA), including the availability of clean cooking fuel (coal/gas/electricity, yes = 1), clean water (tap water, yes = 1), electricity (yes = 1), death of a biological parent (yes = 1), parental occupation (both parents were farmers = 1), parental education (both parents were literate = 1), parental political identity (at least one parent was a communist party member = 1). Childhood health status was self-reported by participants through comparing with their cohorts aged 15 years or younger (much less healthy = 1, somewhat less healthy = 2, about average = 3, somewhat healthier = 4, much healthier = 5). Household registration status was measured using two indicators, including original household registration (*hukou*) status (rural *hukou* = 1) and whether the participants have changed from rural *hukou* to urban *hukou* (yes = 1). In addition, we included survey years in the model to control for the time effect from 2011 to 2015.

2.3. Statistical Analysis

Descriptive statistics were calculated for all variables used in this study. Independent sample *t*-tests or chi-square tests were implemented to compare the difference between participants with and without internal migration experience. Multiple logistic regressions were employed to examine the relationship between internal migration experience and depression onset for the overall sample (Model 1) and subsamples stratified by gender, age groups, and types of *hukou*. Specifically, the subsamples included males (Model 2), females (Model 3), middle-aged adults (45–64 years; Model 4), older adults (65 years and older; Model 5), participants who always had rural *hukou* (Model 6), participants who changed from rural *hukou* to an urban one (Model 7), and participants who always had urban *hukou*

(Model 8). Following Kim et al. (2021) and Li et al. (2021) [41,42], the multiple logistic regression model was specified as follows:

$$\frac{\pi_{it}}{1-\pi_{it}} = \exp(\beta_0 + \beta_1 Mig_{it} + \gamma_1 X_{1it} + \cdots + \gamma_k X_{kit}) \quad (1)$$

where π_{it} and $(\pi_{it}/1-\pi_{it})$ were the probability and odds of having depressive symptoms for the ith participant in period t, respectively, Mig_{it} was a dummy variable indicating whether a participant had internal migration experience, and we treated participants who had never experienced migration as the reference group. $X_{1it} \cdots X_{kit}$ represented a set of control variables, including individual, household, and personal life history characteristics, and year dummies. To better interpret the results, we reported odds ratios (OR) to measure how strongly the presence of depressive symptoms was associated with internal migration experience. Using the same model and treating participants with no migration experience as the reference group, we also investigated the associations of internal migration frequency and age at the first migration with depressive symptoms in Model 9 and Model 10, respectively.

Further, we employed the Karlson–Holm–Breen (KHB) method to explore the possible mechanisms and contributions of potential channels [43]. The KHB method is an unbiased decomposition approach that can be applied to nonlinear probability models to decompose the total effect of a variable into direct and indirect effects and calculate the contributions of each component of potential mediators (indirect effects). In addition, we conducted several robustness checks. On the one hand, to test the robustness of our main findings to the panel data structure, we restricted our sample to the participants who were interviewed and followed in 2011, 2013, and 2015 (balanced panel data) and re-estimated the multiple logistic regression models. On the other hand, we used some proxy indicators regarding psychological status as dependent variables, including CES-D depressions score (Model 12), self-reported health (Model 13), and life satisfaction (Model 14). In these cases, linear regressions (ordinary least square, OLS) and ordered logit models were applied for continuous and ordinal dependent variables, respectively. The statistical significance for all analyses was set at $p < 0.05$, two-sided. All data analyses were conducted using Stata, version 15.1 (StataCorp, College Station, TX, USA).

3. Results

Table 1 describes the summary characteristics of the full sample and two groups defined by migrant status. In the sample, as a whole, the prevalence of depressive symptoms was 34.6%. The mean age and education of the total sample were 59.97 years (SD = 9.56) and 5.30 years (SD = 4.20), respectively, and 48.1% were men. Without considering the confounding effects of control variables, participants who had experienced internal migration (n = 14,093) were less likely to suffer from depressive symptoms (33.0% vs. 35.3%, $p < 0.001$) than those without internal migration experience (n = 29,761). Meanwhile, participants with internal migration experiences were more likely to be men ($p = 0.006$), older ($p < 0.001$), lived with smaller family sizes ($p < 0.001$), and without a spouse ($p < 0.001$). In comparison with nonmigrants, migrants had higher levels of childhood SES ($p < 0.001$), childhood health status ($p < 0.001$), educational attainment ($p < 0.001$), cognitive function ($p < 0.001$), and personal annual income ($p < 0.001$). In addition, participants who experienced internal migration were less likely to have a rural *hukou* as first *hukou* (85.6% vs. 93.7%, $p < 0.001$) and more likely to change to urban *hukou* (29.5% vs. 18.0%, $p < 0.001$).

Table 2 presents the association between internal migration experience and depressive symptoms adjusting for individual and household characteristics, as well as early-life conditions. For the full sample regression estimates, internal migration experience was significantly associated with the presence of depression symptoms (OR = 1.07, 95% CI = 1.02–1.12, $p < 0.01$) (Model 1). In terms of gender differences, while internal migration experience had no significant relationship with depression among males (Model 2), it was significantly and positively associated with females' depression onset (OR = 1.08, 95% CI = 1.01–1.14, $p < 0.05$) (Model 3). In terms of age differences, the results showed that internal migration experience

significantly increased the risk of being depressed among the middle-aged participants (OR = 1.12, 95% CI = 1.06–1.19, $p < 0.001$) (Model 4); however, it had no significant effect on the depressive symptoms among older adults (Model 5). For the heterogeneity by the type of *hukou*, the results in Table 3 showed that internal migration experience was significantly and positively linked to the depressive symptoms among rural-to-urban migrants who always had rural *hukou* (OR = 1.13, 95% CI = 1.07–1.19, $p < 0.001$) (Model 6), whereas it was not statistically significant for the depression onset among rural-to-urban migrants who had already obtained an urban *hukou* (Model 7) and urban-to-urban migrants (Model 8).

Table 1. Summary characteristics of the participants.

Variables	Full Sample (n = 43,854)	With Internal Migration Experience (n = 14,093)	Without Internal Migration Experience (n = 29,761)	p-Value (Chi-square Test/t Test)
Depressive symptoms				
No, *n* (%)	28,702 (65.4%)	9438 (67.0%)	19,264 (64.7%)	<0.001
Yes, *n* (%)	15,152 (34.6%)	4655 (33.0%)	10,497 (35.3%)	
Gender				
Female, *n* (%)	22,759 (51.9%)	7180 (50.9%)	15,579 (52.3%)	0.006
Male, *n* (%)	21,095 (48.1%)	6913 (49.1%)	14,182 (47.7%)	
Age (years), Mean (SD)	59.97 (9.56)	60.31 (9.83)	59.81 (9.43)	<0.001
Years of education, Mean (SD)	5.30 (4.20)	6.13 (4.37)	4.91 (4.06)	<0.001
Marriage				
Living without spouse, *n* (%)	7542 (17.2%)	2585 (18.3%)	4957 (16.7%)	<0.001
Living with spouse, *n* (%)	36,312 (82.8%)	11,508 (81.7%)	24,804 (83.3%)	
First *huko*u as rural *hukou*				
No, *n* (%)	3906 (8.9%)	2036 (14.4%)	1870 (6.3%)	<0.001
Yes, *n* (%)	39,948 (91.1%)	12,057 (85.6%)	27,891 (93.7%)	
Having changed to urban *hukou*				
No, *n* (%)	34,344 (78.3%)	9930 (70.5%)	24,414 (82.0%)	<0.001
Yes, *n* (%)	9510 (21.7%)	4163 (29.5%)	5347 (18.0%)	
Childhood SES (PCA score)	−0.36 (0.80)	−0.20 (0.93)	−0.44 (0.72)	<0.001
Childhood health status				
Much less healthy, *n* (%)	2253 (5.1%)	670 (4.8%)	1583 (5.3%)	<0.001
Somewhat less healthy, *n* (%)	3478 (7.9%)	1178 (8.4%)	2300 (7.7%)	
About average, *n* (%)	22,689 (51.7%)	7027 (49.9%)	15,662 (52.6%)	
Somewhat healthier, *n* (%)	8171 (18.6%)	2837 (20.1%)	5334 (17.9%)	
Much healthier, *n* (%)	7263 (16.6%)	2381 (16.9%)	4882 (16.4%)	
Having difficulty in ADLs				
No, *n* (%)	20,795 (47.4%)	6743 (47.8%)	14,052 (47.2%)	0.220
Yes, *n* (%)	23,059 (52.6%)	7350 (52.2%)	15,709 (52.8%)	
Cognitive function, Mean (SD)	10.84 (4.43)	11.54 (4.27)	10.50 (4.47)	<0.001
Personal income (RMB yuan, in logarithm form), Mean (SD)	1.38 (3.36)	1.48 (3.48)	1.33 (3.30)	<0.001
Family size (number of family members), Mean (SD)	3.26 (1.86)	3.17 (1.69)	3.31 (1.93)	<0.001
Year of survey				
2011, *n* (%)	12,978 (29.6%)	4067 (28.9%)	8911 (29.9%)	0.001
2013, *n* (%)	14,177 (32.3%)	4486 (31.8%)	9691 (32.6%)	
2015, *n* (%)	16,699 (38.1%)	5540 (39.3%)	11,159 (37.5%)	

Notes: SD, standard deviation; SES, socioeconomic status; PCA, principal component analysis; ADL, activities of daily living.

Table 2. Overall and stratified association between migration experience and depressive symptoms.

	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**
	Overall	**Men**	**Women**	**Age: 45–64**	**Age ≥ 65**
	OR (95% CI)	OR (95% CI)	OR (95% CI)	OR (95% CI)	OR (95% CI)
Internal migration experience					
No	Ref.	Ref.	Ref.	Ref.	Ref.
Yes	1.07 (1.02–1.12) **	1.07 (1.00–1.15)	1.08 (1.01–1.14) *	1.12 (1.06–1.19) ***	0.98 (0.90–1.07)
Gender					
Female	Ref.	Ref.	Ref.	Ref.	Ref.
Male	0.75 (0.72–0.78) ***	1.00 (1.00–1.00)	1.00 (1.00–1.00)	0.75 (0.71–0.80) ***	0.72 (0.66–0.78) ***
Age	0.99 (0.98–0.99) ***	0.98 (0.98–0.99) ***	0.99 (0.98–0.99) ***	0.99 (0.99–1.00) **	0.97 (0.96–0.98) ***
Years of education	0.99 (0.98–1.00) *	0.99 (0.98–1.00) *	0.99 (0.98–1.00)	0.99 (0.98–1.00) **	1.01 (1.00–1.02)
Marriage					
Living without spouse	Ref.	Ref.	Ref.	Ref.	Ref.
Living with spouse	0.72 (0.68–0.77) ***	0.64 (0.59–0.71) ***	0.78 (0.72–0.83) ***	0.65 (0.61–0.70) ***	0.79 (0.73–0.87) ***
First *hukou* as rural *hukou*					
No	Ref.	Ref.	Ref.	Ref.	Ref.
Yes	1.25 (1.13–1.37) ***	1.23 (1.06–1.42) **	1.27 (1.12–1.45) ***	1.17 (1.04–1.31) **	1.51 (1.27–1.79) ***
Having changed to urban *hukou*					
No	Ref.	Ref.	Ref.	Ref.	Ref.
Yes	0.83 (0.79–0.88) ***	0.87 (0.80–0.95) **	0.80 (0.75–0.87) ***	0.86 (0.80–0.92) ***	0.78 (0.71–0.87) ***
Childhood SES	0.89 (0.86–0.92) ***	0.87 (0.82–0.92) ***	0.91 (0.87–0.95) ***	0.89 (0.86–0.93) ***	0.93 (0.87–0.99) *
Childhood health status	0.82 (0.80–0.84) ***	0.84 (0.81–0.87) ***	0.80 (0.78–0.83) ***	0.80 (0.78–0.83) ***	0.85 (0.82–0.89) ***
Having difficulty in ADLs					
No	Ref.	Ref.	Ref.	Ref.	Ref.
Yes	3.44 (3.25–3.64) ***	3.50 (3.23–3.78) ***	3.41 (3.15–3.69) ***	3.43 (3.21–3.66) ***	3.40 (3.06–3.78) ***
Cognitive function	0.93 (0.93–0.94) ***	0.93 (0.92–0.94) ***	0.93 (0.92–0.94) ***	0.93 (0.92–0.94) ***	0.93 (0.92–0.94) ***
Personal income	0.96 (0.96–0.97) ***	0.96 (0.95–0.97) ***	0.97 (0.96–0.98) ***	0.96 (0.96–0.97) ***	0.98 (0.96–1.01)
Family size	0.98 (0.97–0.99) **	0.99 (0.97–1.01)	0.98 (0.96–0.99) **	0.98 (0.96–0.99) **	0.99 (0.97–1.01)
Year of survey					
2011	Ref.	Ref.	Ref.	Ref.	Ref.
2013	0.40 (0.38–0.43) ***	0.43 (0.39–0.47) ***	0.38 (0.35–0.42) ***	0.42 (0.39–0.45) ***	0.36 (0.32–0.40) ***
2015	0.42 (0.40–0.45) ***	0.44 (0.40–0.48) ***	0.41 (0.38–0.45) ***	0.44 (0.41–0.47) ***	0.39 (0.35–0.43) ***
Pseudo-R-squared	0.109	0.097	0.090	0.115	0.097
Number of observations	43,854	21,095	22,759	30,577	13,277

Notes: OR, odds ratio; CI, confidence interval; Ref., reference group; SES, socioeconomic status; ADL, activities of daily living. Wald test (Z statistic) was performed to check statistical significance; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 3. Association between migration experience and depressive symptoms by type of *hukou*.

	Model 6	**Model 7**	**Model 8**
	Always Rural *hukou*	**Changed to Urban *hukou***	**Always Urban *hukou***
	OR (95% CI)	OR (95% CI)	OR (95% CI)
Internal migration experience			
No	Ref.	Ref.	Ref.
Yes	1.13 (1.07, 1.19) ***	1.01 (0.91, 1.11)	0.95 (0.81, 1.12)
Control variables	Yes	Yes	Yes
Pseudo-R-squared	0.099	0.106	0.083
Number of observations	30,417	9499	3938

Notes: OR, odds ratio; CI, confidence interval; Ref., reference group; Wald test (Z statistic) was performed to check statistical significance; *** $p < 0.001$.

Table 4 shows the association of depressive symptoms with migration frequencies (Model 9) and ages at initial internal migration experience (Model 7). The results demonstrated that participants who migrated once (OR = 1.09, 95% CI = 1.02–1.15, $p < 0.01$) and twice (OR = 1.11, 95% CI = 1.03–1.19, $p < 0.01$) had a significantly higher risk to have depressive symptoms than that of participants with no internal migration experience, while participants who experienced migration three or more times had no significant difference in depression compared with nonmigrants (Model 10). In terms of heterogeneity by the age of the first migration, in comparison with participants who had never migrated since birth, respondents who first migrated at 35 years or older had significantly higher probabilities of developing depressive symptoms (OR = 1.14, 95% CI = 1.05–1.25, $p < 0.01$), whereas no significant difference was depicted among those who first migrated below 35 years of age.

Table 4. Association between migration experience and depressive symptoms by internal migration frequency and age at the first migration experience.

	Model 9	**Model 10**
	OR (95% CI)	OR (95% CI)
Frequency of internal migration experience		
No migration experience	Ref.	–
Once	1.09 (1.02–1.15) **	–
Twice	1.11 (1.03–1.19) **	–
Three times or above	1.01 (0.92–1.10)	–
Age at the first migration experience		
No migration experience	–	Ref.
0–17 years old	–	1.08 (0.99–1.18)
18–34 years old	–	1.05 (0.99–1.11)
35 years old or above	–	1.14 (1.05–1.25) **
Control variables	Yes	Yes
Pseudo-R-squared	0.109	0.109
Number of observations	43,854	43,854

Notes: OR, odds ratio; CI, confidence interval; Ref., reference group; Wald test (Z statistic) was performed to check statistical significance; ** $p < 0.01$.

As shown in Table 5, the KHB method was employed to explore possible underlying mechanisms of the association between internal migration experience and depressive symptoms. The results suggested that chronic disease (17.98%, $p < 0.001$), physical injury (7.04%, $p < 0.001$), medical expenditure (7.98%, $p < 0.001$), pension insurance (4.91%, $p < 0.001$), and low frequency of interactions with children (4.45%, $p < 0.01$) had statistically significant mediating effects, explaining 42.36% of the total effect ($p < 0.001$). Given that chronic disease had the highest contribution among the mediators proposed in this study,

we further investigated which chronic disease was the leading channel underlying the association between internal migration experience and depressive symptoms. Specifically, we used the three most prevalent chronic diseases in our sample, including arthritis or rheumatism (33.4%), stomach or other digestive diseases (22.9%), and hypertension (22.7%), as potential mediators and employed the KHB method to estimate their contributions for the total effects. The results (Appendix A Table A2) showed that arthritis or rheumatism had the strongest mediating effects (10.09%, $p < 0.001$) among the chronic diseases.

Table 5. Mechanism analysis using the KHB method.

	Chronic Disease	Physical Injury	Medical Expenditure	Pension Insurance	Low Frequency of Parent–Child Interaction
Estimated value (components of indirect effects)	0.013 (0.008–0.018) ***	0.005 (0.002–0.008) ***	0.006 (0.003–0.009) ***	0.004 (0.002–0.006) ***	0.003 (0.001–0.006) **
Mediating effects (%)	17.98%	7.04%	7.98%	4.91%	4.45%
Total effect	0.073 (0.024–0.123) **				
Direct effect	0.042 (−0.007–0.092)				
Indirect effect	0.031 (0.024–0.038) ***				

Notes: 95% confidence intervals in parentheses. Wald test (*Z* statistic) was performed to check statistical significance. ** $p < 0.01$, *** $p < 0.001$.

Table 6 presents robustness checks for the main findings of this study. First, we generated balanced panel data from 2011 to 2015 and re-estimated the multiple logistic regression for the overall sample (Model 11). The results also showed a significant and positive association between internal migration experience and depressive symptoms (OR = 1.09, 95% CI = 1.03–1.16, $p < 0.01$). Second, we directly used the depression score (CES-D) as the dependent variable and employed a multiple linear regression to examine the association between internal migration experience and depression score (Model 12). The results indicated that internal migration was significantly associated with higher levels of depression among middle-aged and older adults (β = 0.17, 95% CI = 0.05–0.29, $p < 0.01$). Third, given that subjective wellbeing is highly correlated with mental health status [44], we used self-reported health (ranges from "very poor" = 1 to "very good" = 5) and life satisfaction (ranges from "not at all satisfied" = 1 to "completely satisfied" = 5) as dependent variables and applied ordered logit models to investigate the relationship between internal migration experience and subjective wellbeing. As shown in Model 13 and Model 14, internal migration experience was significantly and negatively associated with self-reported health (β = −0.12, 95% CI = −0.16–−0.08, $p < 0.001$) and life satisfaction (β = −0.10, 95% CI = −0.14–−0.06, $p < 0.001$). To sum up, these results suggested that our main findings were robust to the structure of panel data and measures of mental wellbeing.

Table 6. Robustness checks of the association between migration experience and depressive symptoms.

	Model 11 Depressive Symptoms (Balanced Panel)	Model 12 CES-D Score (OLS)	Model 13 Self-Reported Health (Ordered Logit)	Model 14 Life Satisfaction (Ordered Logit)
	OR (95% CI)	Coefficient (95% CI)	Coefficient (95% CI)	Coefficient (95% CI)
Internal migration experience				
No	Ref.	Ref.	Ref.	Ref.
Yes	1.09 (1.03, 1.16) **	0.17 (0.05–0.29) **	−0.12 (−0.16–−0.08) ***	−0.10 (−0.14–−0.06) ***
Control variables	Yes	Yes	Yes	Yes
R-squared/Pseudo-R-squared	0.105	0.176	0.063	0.035
Number of observations	30,372	43,854	43,854	43,854

Notes: Ref., reference group; CI, confidence interval; The *t*-test (*t* statistic) were performed for statistical inference of linear regression in Model 12. Wald test (*Z* statistic) was performed to check the statistical significance of multiple logistic regression and ordered logit regressions in Model 11, Model 13, and Model 14. ** $p < 0.01$, *** $p < 0.001$.

4. Discussion

Using a large representative sample from the CHARLS, this study investigated the association between internal migration experience and depressive symptoms among middle-aged and older adults in China. Toward this end, we first employed multiple logistic regressions to examine whether internal migration experience predicted a higher risk of depression onset for the overall sample. Second, we compared the differences in the mental health consequences of internal migration experience by gender, age group, and type of *hukou*. Third, we examined the heterogeneous effects of different migration frequencies and timing of initial migration on depressive symptoms. Finally, we used the KHB method to explore potential pathways through which internal migration experience affects depressive symptoms, including chronic disease, physical injury, medical expenditure, pension insurance, and parent–child interaction.

This study found that the prevalence of depressive symptoms was 34.6% among middle-aged and elderly Chinese. Internal migration experience was found to be positively associated with participants' risk of being depressed, which is consistent with our first hypothesis and previous studies regarding the psychological health effects of migration in developing countries [45,46]. A recent study conducted in Mexico also found that domestic migrants reported more anxiety, chronic fatigue, and pain than nonmigrants [47]. Congruent with the second hypothesis, our results showed that, compared with men, older adults, and participants with an urban *hukou*, internal migration experience was more significantly linked to higher risks of depressive symptoms among participants who were women, middle-aged, and rural-to-urban migrants without having an urban *hukou*, respectively.

Moreover, when considering internal migration frequency, our analyses suggested that participants with low frequency (once and twice) of internal migration experience were more likely to suffer from depressive symptoms, while high migration frequency (three times or above) was not significantly associated with the presence of depressive symptoms. One potential reason is that high migration frequency represents more frequent travels between workplace and hometown, which can reduce the negative effects of family separation due to migrating for work. The CHARLS life history survey has documented the reasons for each time of individual migration. The results showed that "work away (not including the army)" (35.1%), "return to hometown" (24.5%), and, once again, "work away (not including the army)" (46.0%) accounted for the highest proportion among the reasons for the first, second, and third times of internal migration, respectively. This implies that many Chinese internal migrants return to their hometown once in a while to briefly reunite with their family members, and such a family reunion is beneficial to improve migrants' mental wellbeing [48,49]. In terms of the heterogeneous effects by the age of initial migration, our analysis demonstrated that internal migration experience significantly increased the risk of being depressed among those who firstly migrated at 35 years or older, compared with the younger cohorts. A feasible explanation is that, compared with younger migrants, migrants aged 35 years or older need to take on more family financial responsibilities when they first migrate to cities, such as children's educational expenditure and economic support for elderly parents [50].

In line with the third hypothesis in this study, our mechanism analysis indicated that chronic disease, physical injury, medical expenditure, pension insurance, and parent–child interaction played important mediating roles in the association of internal migration with depressive symptoms among middle-aged and older adults. Meanwhile, chronic disease, especially arthritis or rheumatism, had the largest contribution among the pathways for the total indirect effects, suggesting that the physical health loss due to internal migration could be the leading reason why internal migration experience affects mental health. These results are also consistent with the literature regarding the determinants of the psychological wellbeing of migrants [51–53].

Our findings suggest that migration policies should be improved to promote the psychological wellbeing of internal migrants in China. First, actions such as reducing the institutional barriers for nonnative residents are needed to lessen the risk of involuntary

split-household arrangements for migrants' families. Second, preferential social policies and intervention programs are also encouraged for the disadvantaged groups in urban areas, such as female internal migrants and those who have low job skills and high levels of household financial burden. Third, given that overwork status, job security, social insurance (e.g., health insurance and pension insurance), and emotional support are crucial determinants of migrants' mental health, these dimensions of human wellbeing also deserve policymakers' attention.

Despite the contribution to the literature about the mental health consequences of internal migration experience in China's context, this study also has several limitations. First, although the CES-D scale we used has been shown to have a high level of reliability for the measurement of depression, it is a screening tool for depressive symptoms and cannot provide a clinical depression diagnosis. As such, conducting studies with more rigorous clinical diagnostic techniques is encouraged to understand the impacts of migration on psychological wellbeing in China as well as other contexts. Second, due to the data constraints, the potential mediators we proposed and empirically examined in our mechanism analysis may not fully explain the associations between internal migration experience and depressive symptoms. Meanwhile, since the mediating variables used in this study were also extracted from the later-life period, the mechanism analyses in this study should be interpreted as associations rather than causal inferences. Third, our sample only included migrants who were aged 45 and above, and they were not representative for younger cohort migrants, indicating that our findings should be interpreted and generalized with caution.

5. Conclusions

In this study, we found that Chinese middle-aged and older adults with internal migration experience were more likely to develop depressive symptoms than those who never move out from their hometown. This association was more significant among females, middle-aged people, and rural-to-urban migrants who had not obtained an urban *hukou*. We also found that the adverse mental health effect of internal migration could be reduced for those who often reunite with their families and migrate at a younger age with less household financial burden. Association between internal migration experience and the presence of depressive symptoms was shown to be mediated by chronic disease, physical injury, medical expenditure, pension insurance, and parent–child interaction, with the largest contribution of chronic disease. Our findings highlight the necessity and importance of reducing the institutional constraints for internal migration. Evidence-based intervention programs, such as through equalization of health resources and reduction of employment discrimination, as well as social and emotional support, are beneficial to facilitate psychological health among internal migrants.

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Data Availability Statement: The CHARLS data can be accessed through its official website (http://charls.pku.edu.cn/index/en.html (accessed on 17 July 2021)).

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Appendix A

Table A1. Questions and scoring of the CES-D-10 scale.

	Items	Rarely or None of the Time (<1 day)	Some or a Little of the Time (1–2 days)	Occasionally or a Moderate Amount of the Time (3–4 days)	Most or All of the Time (5–7 days)
1.	I was bothered by things that don't usually bother me				
2.	I had trouble keeping my mind on what I was doing				
3.	I felt depressed				
4.	I felt everything I did was an effort				
5.	I felt hopeful about the future				
6.	I felt fearful				
7.	My sleep was restless				
8.	I was happy				
9.	I felt lonely				
10.	I could not "get going"				
Scoring					
	Items 5 and 8	3	2	1	0
	All other items	0	1	2	3

Table A2. Mechanism analysis using the KHB method: chronic diseases.

	Arthritis or Rheumatism	Stomach or Other Digestive Diseases	Hypertension
Estimated value (components of indirect effects)	0.007 (0.003–0.011) ***	0.002 (−0.001–0.005)	0.000 (−0.001–0.001)
Mediating effects (%)	10.09%	2.76%	0.51%
Total effect		0.073 (0.024–0.123) **	
Direct effect		0.062 (0.015–0.108) **	
Indirect effect		0.009 (0.004–0.015) ***	

Notes: 95% confidence intervals in parentheses. Wald test (Z statistic) was performed to check statistical significance. ** $p < 0.01$, *** $p < 0.001$.

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Impact of Family Separation on Subjective Time Pressure and Mental Health in Refugees from the Middle East and Africa Resettled in North Rhine-Westphalia, Germany: A Cross-Sectional Study

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Abstract: Little is known about social determinants among refugees resettled in Germany. This study aims to examine the impact of family separation on refugees' subjective time pressure and mental health. Data come from the FlueGe Health Study (n = 208), a cross-sectional study administered by Bielefeld University. We used logistic regression analysis to investigate the effect of family separation on (i) being time-stressed and (ii) having a high risk for adverse mental health, considering sociodemographic and postmigration factors. As a result, more than 30% of participants with a spouse or partner and about 18% with a child or children reported separation. Multiple logistic regression showed that family separation was not associated with being time-stressed, but separation from at least one child was associated with adverse mental health (OR = 3.53, 95% CI = [1.23, 10.11]). In conclusion, family separation primarily contributes to adverse mental health among refugees from the Middle East and Africa resettled in North Rhine-Westphalia, Germany. Therefore, policies and practices that facilitate family reunification can contribute significantly to the promotion of refugees' mental health and well-being.

Keywords: family separation; time pressure; mental health; health disparities; refugees

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1. Introduction

In 2015, the ongoing wars and conflicts in the Middle East and Africa led to a dramatic increase in refugees making their way to Europe crossing the Mediterranean [1]. Most of the refugees originated from Syria, Afghanistan, Iraq, and Central Africa. Many of them have been subjected to stressful and adverse experiences on the individual, family, and community level, as reflected in high rates of mental health issues during the postsettlement period [2–5]. There is a large body of literature showing that refugees experience mental rather than physical impairments [5–7]. A study published by the German Federal Chamber of Psychotherapists showed that about half of adult refugees residing in Germany suffered from mental illnesses such as post-traumatic stress disorder (PTSD) and depression [2]. In addition, the literature reveals that prevalence rates in mental disorders were frequently increased in war refugees, even many years after resettlement [8]. Therefore, it seems important to understand the factors that predict postmigration stress and adverse mental health in order to promote refugees' long-term mental health.

Many refugees are dealing with loneliness and the experience of loss [9,10]. Refugee families are often separated by conflict-induced displacement [11,12] or the migration policies of the host country [13]. In some cases, family members are left behind to seek asylum in the hope of eventual reunification [12]. In Germany, family reunification is linked to a residence or settlement permit [14]. Due to the growing number of asylum applications in 2015 and 2016 [1], the duration for the decision-making in asylum procedures increased

from 8 months on average in 2015 [15] to 18 months on average in 2018 [16], which in turn led to delays in family reunification applications. This situation can be seen as a serious threat leading to high levels of psychological stress, as those affected have limited coping capacities in the host country, e.g., family support resources, which is in line with Lazarus' psychological stress and coping theory [17]. Consistent with Hobfoll's conservation of resources theory [18], which focuses on the change and conservation of resources in the context of environment and social processes, we argue that refugees separated from their family experience time pressure as a type of psychological stress. Time pressure occurs when a person has less time available (real or perceived) than is necessary to complete a task or obtain a result [19], such as family reunification. Evidence suggests that the presence of a family member in an individual's postmigration country has a positive effect on postmigration stress [20]. In contrast, family separation is shown to be associated with reduced health-related quality of life (HRQoL) [21,22]. Furthermore, a lack of information about family members left behind is associated with mental illnesses such as depression, somatization, anxiety, and PTSD, while information about family members left behind is associated with better self-rated health [3]. Thus, we hypothesized that refugees who are separated from their family members (particularly from spouse or partner and/or child or children) experience adverse mental health and time pressure as a type of psychological stress after resettlement.

Time pressure has one objective dimension and one subjective dimension [23]. The objective dimension embraces a measurable time shortage, e.g., not having time for an activity, while the subjective dimension is a predominantly subjective emotional experience of fragmented time, demands to do things faster, or feeling rushed. To the best of our knowledge, no study so far aimed to explore the association between family separation and subjectively perceived time pressure, a potential social determinant of health [24], in refugee populations. Previous research on subjective time pressure showed associations with mental health problems such as anxiety and depression [25,26], and a causal relationship in either direction is conceivable [19,27].

Several studies show that family separation may affect refugees' mental health [22,28,29] and well-being [30]. A previous study conducted amongst adult refugees resettled in Australia [31] focused on the impact of family separation and worry about family and friends on post-traumatic stress symptoms and psychological distress. The study also examined the contributions of demographic and postmigration stressors, with older age and female sex found to be more consistent predictors than family separation and worry about family and friends. An older study has also shown that a long asylum procedure and a longer stay in the host country can have a negative impact on refugees' overall health situation and well-being [32]. Concurrently, there are often barriers to receiving medical services and accessing the social system [33]. Although a study by Wetzke et al. [34] shows that primary care is most needed directly after arrival, refugees in Germany still have limited access to medical care during their asylum process [35]. From a public health perspective, information is needed on factors that promote and impair health among refugees seeking protection in Germany.

Thus, the goal of our study was to investigate the impact of separation from spouse or partner and/or child or children as a nuclear family on mental health and subjective time pressure, as it may be a stressor involved in the stress–distress relationship, among refugees in North Rhine-Westphalia, Germany, considering sociodemographic and postmigration factors as the main relevant confounders.

2. Materials and Methods

2.1. Sample Description and Procedure

Data come from the FlueGe Health Study (FHS), a cross-sectional study administered by Bielefeld University, conducted on refugees from the main countries of origin that contributed to the European refugee crisis in 2015 and 2016 in the region of East Westphalia-Lippe in North Rhine-Westphalia, Germany. The data were collected between February and

November 2018 and included personal interviews and physical examinations, carried out by trained interviewers. Informed consent forms, information letters, and the questionnaire were translated into the following five languages by Kantar Public, a consulting and market research institute: Arabic, Farsi, Kurmanji, English, and German. Participants were recruited from shared and private accommodation in eight different locations in East Westphalia-Lippe, with municipal cooperation partners and social workers providing access to potential participants. The FHS included all participants who were willing to participate (convenience sampling) and signed informed consent, excluding those who were younger than 18 years of age; could not speak Arabic, Kurmanji, Farsi, English, or German; or had been in Germany for more than five years. Prior to the interviews, all potential participants were personally informed by the field team about the aims and procedure of the study during an on-site visit with an invitation to participate. The field team consisted of an academic researcher and trained interviewers in the required languages. All potential participants who could not be contacted in person received a letter informing them of the study aims and procedure and asking them to contact the field team by telephone. Approval from the Ethics Commission of Bielefeld University was obtained before the data were collected to ensure ethical and data protection guidelines were followed.

A total of 827 men and women aged 18 to 75 years were assessed for eligibility and invited to the study. Of these, n = 130 had an inadequate language level, and n = 371 refused to participate in the study. The main reasons were personal reasons and no interest in the research. A total of 326 men and women signed informed consent (recruitment rate, 46.8%) and completed the study. Prior to data analysis, the FHS study population was reduced to individuals with a spouse or partner and/or a child or children (n = 208).

2.2. Measures

2.2.1. Time Pressure

Subjectively perceived time pressure was assessed using a single-item question from the German Socioeconomic Panel (SOEP): "Please think about the last four weeks. How often did it occur within this period of time that you felt rushed or pressed for time?" with five possible responses: "Always", "Often", "Sometimes", "Seldom", and "Never" [36]. In order to identify associated factors, time pressure was dichotomized with participants who rated "always" or "often" being categorized into the time-stressed group, whereas those who rated "sometimes", "seldom", or "never" were categorized into the not time-stressed group, which is consistent with the literature [37].

2.2.2. Mental Health

Mental health was measured using the mental component summary (MCS) score of the Short Form-12 Health Survey-SOEP (SF-12-SOEP) [38]. To compare to published means, the MCS scale was transformed into a range from 0 (minimum) to 100 (maximum), with a higher value indicating a better state of mental health. Additionally, norm-based scoring was performed by first z-transforming MCS scale using factor loadings for weighting served by the SOEP2004 data as the norm population [38] and then transforming them to a mean value of 50 and a standard deviation (SD) of 10. Further, the MCS scale was dichotomized with the sample mean value as a cut-off point to classify people at lower ($\geq$MCS cut-off point of 44.5) and higher risk (<MCS cut-off point of 44.5) for mental health problems. This is consistent with the literature, in which optimal cut-off values to screen for depressive disorders in a general population vary between MCS scores of 42.0 [39] and 45.6 [40].

2.2.3. Family Separation

Family separation was indicated by asking participants the following question: "Where do your (i) spouse or partner and (ii) child or children live now if present?" with predefined response categories: "Here in the facility/flat", "Nearby, in another facility/flat",

"Elsewhere in Germany", "In our native country", "Elsewhere abroad", "I don't know" and "Deceased". Responses were categorized into separated (elsewhere in Germany, in our native country, elsewhere abroad, and I don't know) versus not separated (here in the facility/flat, nearby, in another facility/flat).

2.2.4. Sociodemographic and Postmigration Data

Sociodemographic and postmigration information included age, sex, country of origin, residence status according to the German residency law, and length of stay since the arrival to Germany. Information on country of origin was categorized into six groups: Syria, Afghanistan, Iraq, Iran, African countries, and other countries. Residence status was categorized as secure (entitlement to asylum, refugee protection, subsidiary protection, and a national ban on deportation) and insecure (in procedure, temporary suspension of deportation, and a requirement to leave). The length of stay since arrival in Germany was determined using an official proof of arrival and the time of the interview, categorized as <12, 12–24, 25–36, and >36 months.

2.3. Statistical Analyses

Statistical analyses were performed using STATA MP in version 16. Descriptive statistics were used to examine participants' time pressure, adverse mental health, family separation, sociodemographic, and postmigration characteristics. Differences in time pressure and adverse mental health by family separation, sociodemographic, and postmigration factors were analyzed using chi-squared, Fisher's exact, and *t*-test. Multiple logistic regression [41] was applied to examine whether family separation, sociodemographic, and postmigration factors were potential risk factors for (i) being time-stressed and (ii) having a higher risk for adverse mental health. The null hypothesis was that family separation was not a potential risk factor for (i) being time-stressed and (ii) having a higher risk for adverse mental health considering the main relevant confounders of sociodemographic and postmigration factors. Cases presenting a missing value for at least one of the modeling variables were excluded from analyses (listwise deletion). Nevertheless, we could not find any specific characteristics for incomplete answers. Independent variables considered in the multivariable analyses were age, sex (as a dummy variable (DV)), country of origin (DV), residence status (DV), length of stay since arrival (DV), separation from spouse or partner (DV), and separation from child or children (DV). Hosmer–Lemeshow goodness of fit test was used to evaluate the logistic regression models. We computed odds ratios (ORs) and 95% confidence intervals (CIs), and the significance was set at $p < 0.05$.

3. Results

Table 1 presents the characteristics of the study population. The majority were male, most immigrated from war-affected Middle Eastern countries, and the mean (SD) length of time since arrival in Germany was 29.9 (11.6) months. More than 30% of participants with a spouse or partner, and about 18% with a child or children reported separation. About 38.9% of participants subjectively experienced time pressure always (19.4%) or often (19.9%), with a mean (SD) MCS score of 39.6 (13.9). Participants who subjectively experienced time pressure sometimes (28.2%), seldom (8.7%), and never (23.8%) had a mean (SD) MCS score of 47.5 (14.3). Overall mean (SD) MCS score was 44.5 (14.6).

Table 1. Characteristics of the study population (n = 208).

	n	%
Age		
Mean (SD)	36.5 (11.2)	
Sex		
Male	140	67.3
Female	68	32.7
Country of origin		
Syria	87	41.8
Afghanistan	22	10.6
Iraq	58	27.9
Iran	8	3.9
African countries [a]	14	6.7
Other [b]	19	9.1
Residence status		
Secure	131	63.0
Insecure	68	32.7
Missing values	9	4.3
Length of stay since arrival		
<12 months	24	11.6
12–24 months	16	7.7
25–36 months	94	45.2
>36 months	71	34.1
Missing values	3	1.4
Separation from spouse or partner		
Not separated	129	62.0
Separated	57	27.4
Missing values	22	10.6
Separation from child or children		
Not separated	124	59.6
Separated (from at least one child)	27	13.0
Missing values	57	27.4
Time pressure		
Time-stressed	81	38.9
Not time-stressed	125	60.1
Missing values	2	1.0
Adverse mental health		
Higher risk	97	46.6
Lower risk	100	48.1
Missing values	11	5.3

n, quantity; %, proportion; SD, standard deviation; [a] Algeria (14.3%), Eritrea (14.3%), Nigeria (28.6%), Somalia (7.1%), Ghana (14.3%), Morocco (7.1%), Egypt (14.3%); [b] Azerbaijan (5.3%), Bangladesh (21.0%), India (5.3%), Lebanon (15.8%), Palestine (10.5%), Russia (10.5%), Tajikistan (5.3%), Turkey (10.5%), stateless (15.8%).

Table 2 provides detailed information on sociodemographic and postmigration factors stratified by time pressure and adverse mental health groups. More than half of the female participants were classified in the higher risk for adverse mental health group, while most male participants reported less time pressure and better mental health. Frequency in the time-stressed group increased with length of stay since arrival in Germany from 29.2% (<12 months) to 44.3% (>36 months). Nevertheless, the majority of participants who reported family separation were in the not time-stressed group but in the higher risk for adverse mental health group.

Table 2. Time pressure and adverse mental health groups across independent variables (n = 208).

	Time Pressure					Adverse Mental Health				
	Time-Stressed		Not Time-Stressed		p	Higher Risk		Lower Risk		p
	n	%	n	%		n	%	n	%	
Age					0.339					0.205
Mean (SD)	35.6 (10.7)		37.1 (11.5)			35.7 (10.5)		37.7 (11.9)		
Sex					0.419					0.069
Male	52	37.4	87	62.6		59	44.7	73	55.3	
Female	29	43.3	38	56.7		38	58.5	27	41.5	
Country of origin					0.529					0.025
Syria	32	36.8	55	63.2		35	41.2	50	58.8	
Afghanistan	11	50.0	11	50.0		16	80.0	4	20.0	
Iraq	22	38.6	35	61.4		25	45.5	30	54.5	
Iran	5	62.5	3	37.5		6	75.0	2	25.0	
African countries [a]	6	42.9	8	57.1		6	46.1	7	53.9	
Other [b]	5	27.8	13	72.2		9	56.3	7	43.7	
Residence status					0.161					<0.001
Secure	49	37.4	82	62.6		50	40.0	75	60.0	
Insecure	32	47.8	35	52.2		46	71.9	18	28.1	
Length of stay since arrival					0.348					0.279
<12 months	7	29.2	17	70.8		12	52.2	11	47.8	
12–24 months	4	25.0	12	75.0		7	46.7	8	53.3	
25–36 months	39	41.5	55	58.5		50	55.0	41	45.0	
>36 months	31	44.3	39	55.7		26	39.4	40	60.6	
Separation from spouse or partner					0.338					0.089
Not separated	47	36.4	82	63.6		54	43.5	70	56.5	
Separated	25	43.9	32	56.1		31	57.4	23	42.6	
Separation from child or children					0.957					0.077
Not separated	42	33.9	82	66.1		51	42.5	69	57.5	
Separated (from at least one child)	9	33.3	18	66.7		16	61.5	10	38.5	

n, quantity; %, proportion; SD, standard deviation; p, p-value; [a] Algeria, Eritrea, Nigeria, Somalia, Ghana, Morocco, Egypt; [b] Azerbaijan, Bangladesh, India, Lebanon, Palestine, Russia, Tajikistan, Turkey, stateless.

Concerning family separation, it was found that the majority of respondents with a partner and at least one child were not separated (76.5%), while 11.8% of respondents who were separated from their spouse or partner were also separated from their child or children.

Table 3 shows the regression model between being time-stressed as the dependent variable and independent variables (n = 129), which had an acceptable fit (Hosmer and Lemeshow statistic: χ^2 = 1.87, df = 8, p = 0.985). Participants with insecure residence status were more likely to be time-stressed as compared to those with a secure status.

Table 3. Results of logistic regression analysis on predictors for being time-stressed (n = 129).

Time-Stressed	OR	95% CI		p-Value
		Lower	Upper	
Age	0.99	0.95	1.03	0.692
Sex				
Male	1.00			
Female	1.19	0.48	2.94	0.710
Country of origin				
Syria	1.00			
Afghanistan	0.95	0.19	4.73	0.950
Iraq	0.59	0.19	1.82	0.357
Iran	0.98	0.11	8.58	0.983
African countries [a]	1.14	0.23	5.60	0.874
Other [b]	0.19	0.03	1.34	0.095
Residence status				
Secure	1.00			
Insecure	3.33	1.08	10.28	0.037
Length of stay since arrival				
<12 months	1.00			
12–24 months	0.81	0.13	5.08	0.819
25–36 months	1.07	0.29	4.00	0.922
>36 months	1.69	0.46	6.24	0.428
Separation from spouse or partner				
Not separated	1.00			
Separated	1.40	0.67	2.91	0.370
Separation from child or children				
Not separated	1.00			
Separated (from at least one child)	1.23	0.26	5.82	0.797

OR, odds ratio; CI, confidence interval; [a] Algeria, Eritrea, Nigeria, Somalia, Ghana, Morocco, Egypt; [b] Azerbaijan, Bangladesh, India, Lebanon, Palestine, Russia, Tajikistan, Turkey, stateless.

Table 4 displays the final model with factors associated with higher risk for adverse mental health (n = 124), also with an acceptable fit (Hosmer and Lemeshow statistic: χ^2 = 8.63, df = 8, p = 0.375). Separation from at least one child was strongly associated with a higher risk for adverse mental health. Furthermore, female sex and insecure residence status were also found to be positively associated with a higher risk for adverse mental health, while a length of stay of more than three years since arrival was negatively associated.

Table 4. Results of logistic regression analysis on predictors for higher risk for adverse mental health, $n = 124$.

Adverse Mental Health, Higher Risk	OR	95% CI		*p*-Value
		Lower	Upper	
Age	0.99	0.95	1.03	0.471
Sex				
Male	1.00			
Female	3.16	1.33	7.51	0.009
Country of origin				
Syria	1.00			
Afghanistan	1.64	0.32	8.38	0.552
Iraq	0.82	0.30	2.27	0.704
Iran	2.21	0.20	24.42	0.518
African countries [a]	0.70	0.13	3.77	0.676
Other [b]	0.85	0.17	4.28	0.842
Residence status				
Secure	1.00			
Insecure	2.96	1.04	8.42	0.042
Length of stay since arrival				
<12 months	1.00			
12–24 months	0.40	0.07	2.33	0.308
25–36 months	0.71	0.21	2.45	0.587
>36 months	0.27	0.08	0.99	0.048
Separation from spouse or partner				
Not separated	1.00			
Separated	2.10	0.60	7.38	0.247
Separation from child or children				
Not separated	1.00			
Separated (from at least one child)	3.53	1.23	10.11	0.019

OR, odds ratio; CI, confidence interval; [a] Algeria, Eritrea, Nigeria, Somalia, Ghana, Morocco, Egypt; [b] Azerbaijan, Bangladesh, India, Lebanon, Palestine, Russia, Tajikistan, Turkey, stateless.

4. Discussion

This study aimed to investigate the association of family separation with time pressure and adverse mental health considering the main relevant confounders of sociodemographic and postmigration factors among refugees in North Rhine-Westphalia, Germany. This study showed that separation from at least one child was positively associated with a higher risk for adverse mental health; however, separation from spouse or partner and/or child or children was not associated with being time-stressed.

In our sample, about 38.9% of refugees were classified as being time-stressed; however, one study examining the relationship between socioeconomic characteristics and time pressure in the German general population based on SOEP data in its 2002 wave version using the same instrument [37] showed a lower overall prevalence of being time-stressed (35.3%). Therefore, time pressure is prevalent in our studied refugee sample. As this study may be the first to explore the association between family separation and subjectively perceived time pressure in a resettled refugee population, we did not find support for our hypothesis that refugees separated from their family members experience time pressure

always or often. Nevertheless, it is interesting to note that a study primarily focusing on the mental health consequences of family separation for refugees found that separation from family members was a major stressor because family reunification was one of the refugees' primary needs [22]. This stressor could be exacerbated in times of the COVID-19 pandemic, as asylum and resettlement processes are disrupted by lockdowns [42].

Concerning our second hypothesis that refugees who are separated from their family members experience adverse mental health, we did find support that separation from at least one child might be a source of health inequalities among resettled refugees. Our findings show that separation from a child may be a risk factor for mental illness, which is consistent with previous research highlighting the negative impact of child separation on migration-related stress [43], distress [22], and mental health and well-being [44]. In the contrast, prior research shows that children who were separated from their parents report greater symptoms of anxiety [45], depression [46], and psychotic disorders [47]. The findings of our study extend previous work by demonstrating the adverse impact of child separation in resettled refugees from diverse language and ethnic groups. We also observed that Afghans and Iranians in particular were at higher risk for mental health problems. However, origin itself was not a significant influencing factor in the multivariable analyses.

Concerning sociodemographic and postmigration factors, multiple logistic regression revealed that insecure residence status was positively associated with both being time-stressed and having a higher risk for adverse mental health. This is consistent with the literature, as previous research showed that insecure residence status can cause postmigration stress [48] and pose a psychological risk [32,49,50]. A study comparing hair cortisol concentration (HCC) of recently fled asylum seekers with and without PTSD found no difference in HCC; however, compared with permanently settled immigrants, recently fled asylum seekers showed higher HCC [51]. This finding has important policy implications, as refugees with insecure residence status suffer from stress, which in turn can negatively affect mental and physical health [52,53]. From a public health perspective, it is therefore critical that legal restrictions on refugees' access to health care be lifted, regardless of their residence status. The relation of adverse mental health with female sex is established by prior studies [31,54]. As female refugees represent a minority, the lack of gender-specific reception and housing conditions must be addressed. Generally, life in reception centers is more difficult for single women since they lack male protection [55]. In addition, length of stay longer than 36 months since arrival was found to be negatively associated with a higher risk for adverse mental health. A study assessing the prevalence and risk factors for mental distress among refugees in Germany showed that a shorter duration of residence permission was shown to be associated with more severe symptoms of PTSD [56]. Another study focusing on the association between length of stay in asylum centers and mental disorders found that a longer length of stay was associated with an increase in cases of mental disorders [57]. Further data collection and analysis are needed to draw a conclusion. Together these findings suggest that in addition to family separation, sociodemographic and postmigration factors pose major risks for health and well-being among refugees.

There are several limitations to our research. First, we utilized data from the FHS, and selection bias may be an issue because participants in the FHS were self-selected. This means that individuals who were not interested in health issues have decided not to participate in the FHS. In addition, the research questions for this study were developed after the data were collected, so we lack some important information that could be helpful to further understand the relationship between family separation and time pressure. Asking about premigration stressors and reasons for time pressure since their arrival might be beneficial to further understand time pressure as a potential determinant of health among refugees. Another limitation arises in connection with the cross-sectional design. Thus, we were unable to examine the temporal relationship of family separation with time pressure and adverse mental health; longitudinal design studies are recommended. Moreover, there is a need to disentangle the pathways between family separation, time pressure, and mental health through mediation analyses. In addition to that, both outcome variables were

dichotomized for regression analyses, resulting in a loss of information [41], particularly for the MCS score; however, the sample mean MCS score was within the range of an optimal cut-off point to screen for adverse mental health such as depressive and anxiety disorders [40] and more than five points below the respective general population mean; thus, it was within the range of five to ten points as a minimally important difference [58]. Since our data only included a convenience sample of 208 refugees from East-Westphalia-Lippe, caution should be taken on the generalizability of the results. It should also be noted that the refugees who were able to come to Germany from Africa and the Middle East might be in relatively better health than refugees who settled in neighboring countries of their home country. Finally, our sample was heterogeneous in terms of origin, causes of flight, and ethnocultural family orientation. Despite its limitations, this study provides new data on subjectively perceived time pressure as a postmigration stressor and on the mental health of refugees from the Middle East and Africa resettled in North Rhine-Westphalia, Germany.

5. Conclusions

The study investigated the association of family separation with subjectively perceived time pressure and adverse mental health considering the main relevant confounders in a resettled refugee population in North Rhine-Westphalia, Germany. Participants' with insecure residence status experienced more time pressure, whereas females, those with an insecure residence status, and those separated from at least one child were at higher risk for adverse mental health. We believe that the present findings help to underscore the importance of family for refugee mental health. Therefore, policies and practices that facilitate family reunification can contribute significantly to the promotion of refugees' mental health and well-being and thus their integration. Future studies may take a closer look at the temporal relationship of family separation with time pressure and adverse mental health.

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Institutional Review Board Statement: The study was conducted according to the guidelines of the Declaration of Helsinki and approved by the Ethics Committee of Bielefeld University (23 December 2017/2017-072W).

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The data presented in this study are available from the corresponding author upon reasonable request, due to privacy and ethical reasons.

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Article

Complexities of Socio-Labor Integration in Chile: Migrating Colombian Women's Experiences

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Abstract: The objective of the article is to understand Afro-Colombian women's emotional experiences of the migratory process, and their labor insertion in Chilean territory. The Antofagasta region is one of the doors that connects Chile with its neighbors; at the same time, it is a national territory that is linked to important economic and human movements due to its mining activity. In the analysis of the data collected through of group and individual interviews conducted in the city of Antofagasta, we found experiences of xenophobia, labor abuse, discrimination, prejudices, and stereotypes articulated, along with the tendency of Chilean culture to value European traits over native Latin American traits.

Keywords: south-south migration; women; work; discrimination; Chile

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1. Introduction

Human mobility among territories, conceptualized as migration, has occurred since the beginning of the first human settlements. As a process, it is not a new phenomenon or a contemporary product. With the exception of Africa and historically depopulated territories, there are no "native peoples", since cultures are usually overcome by other cultures; this is why a nativist policy that imposes restrictions on the rights of those not born in a defined territory is not supported [1]. This process has somehow left its mark on the mentalities, affectivity, and practices of human societies, whether they give refuge to foreigners or strive to protect themselves from the others, the different, the travelers. This is a temporary set of attitudes that is more or less ambiguous, but subject to the situation and political interests of a particular group. There is practically no religion, set of historical norms or formal laws, folklore or family history that does not include a position and a discourse regarding migrating, migrants, and the phenomenon of migration as a whole. However, the increase in populations as a result of modernity, increased access to means of transportation, and the development of electronic communications and knowledge about promising places to settle, as well as the brutal increase in economic, political, social, and, increasingly, environmental pressures that force relocation have made the phenomenon of migration, under conditions that are contrary to human well-being and are increasingly frequent and complex, typical of this moment and of the last decades of the twentieth century.

Chepo et al. [2], in their analysis of international migration processes, report unprecedented figures as part of a complex global phenomenon. They indicated that in 2017, there were 258 million international migrants (3.3% of the world population) [3]. In recent years, there has been an increase of 15% in migratory flows to countries of the Organization for Economic Cooperation and Development (OECD); among these, Chile stands out, with an increase of 33% in new entries registered between 2015 and 2016 [4]. Currently, it is estimated that there are a total of 1,251,225 international migrants in the country (7.1% of the total population) [3]. The predominant migratory flow is south-south, distributed

throughout countries such as Venezuela (23%), Peru (17.9%), Haiti (14.3%), and Colombia (11.7%) [5]. A total of 5.6% of the total migrant population in Chile (7000 people) corresponds to refugees and asylum seekers. In this study, all of the interviewees were economic migrants, considering that those who requested refuge had to travel to Santiago (the country's capital) to undergo a complex process of recognition by the migration authorities, [6].

Among the phenomena derived from human mobility is the collision between groups that are established in a territory and those who are newly arrived, which results in harmful behaviors toward people who move. The question is, what motivates the unequal treatment, abuse, and exclusion that some social groups show toward others? What elements underlie the feeling of superiority that some groups (the inhabitants of a certain place) show over others (newcomers)?

Regarding the legal difficulties of migration processes, we know that the Migration Law in Chile, contained in Decree Law 1094 of 1975, which was in force until April 2021, originated during the period of military dictatorship. This, when considered within a logic of national security, gave excessive discretion to authorities, especially at the border, to control the entry and exit of people, a situation that is susceptible to being permeated by officials' prejudices and stereotypes [7,8]. The content of this law established five types of temporary residence permits: student, subject to contract, temporary, resident with political asylum, or refugee. Refugee applications have been reviewed and are currently regulated by Law 21325 of 2021 [1].

One of the particularities of postmodern displacement is that it brings with it a strong presence of Afro-Latin women from different latitudes. María Emilia Tijoux (see Appendix A) [9] points out that the presence of migrant women in the country has generated an unsatisfied demand for domestic work. Thus, the need for child and elderly care among middle- and upper-class Chilean families creates a labor niche that has been covered by these Afro-Latin women. Within this nucleus, however, irregularities and human rights abuses are generated [9]. Since there are no strategies for domestic co-responsibility in terms of gender and no public policies regarding this matter exist when domestic workers ("nannies") are hired, these gaps favor the prejudicial view that such work is for women with a lower socioeconomic status and a low educational level, even though in recent times, migrant women do not necessarily correspond to this stereotype, [1,10,11]. In line with the analysis of Tijoux [9], Millie Thayer points out that it usually happens that the south-south migrant population arrives in the country of destination to occupy a specific segment of the labor market, and Chile is not outside of this reality. The country's citizens reject certain jobs for reasons related to salary or status, and these are typically precarious jobs that migrants usually fill. This population tends to occupy a subordinate position in the occupational structure, lower than that of the country's citizens [12]. The preceding shows that many migrant workers do not have the option to access jobs with better working conditions, evidencing an intersection between migration and categories, such as gender, that deepen labor stratification [13].

The labor, economic, and political gaps that women already experience become more complex when they are intersected with the situation of migrants. In Chile, migration in recent years has increased from 45,000 people at the beginning of the 1990s [14], a period in which migratory flows to Chile intensified [15], to 1,492,522 as of 31 December 2019 [16]. Along with a transformation in volume, the feminization of migration has been observed worldwide [10,17,18] and in Latin America [19], and is accompanied by an increase in south-south migration, in which Chile appears to be one of the most frequent and desired destinations for migrants [20–22].

Regarding female participation in the labor market, as of 2017, approximately 43.4% of women nationwide were employed [23]. However, this rate is still much lower than the male employment rate of 60%, which has remained stable over time [24,25].

From a psycho-sociocultural perspective, we have observed that women are displaced not only by the political and economic problems they face daily in their countries of origin,

but also by the greater demand of migrant women to insert themselves into certain types of work in the destination society [10]. For example, housework and cleaning, waitresses, caregivers of the elderly or children, among others, are very difficult to achieve for migrants who in some cases did not have paid jobs, and in others who were not paid enough to be self-employed. To understand how these works are inserted in the host society, gender is a category of analysis that makes visible power relations linked to the feminization of migration; it is a fundamental instrument for distinguishing the factors and processes that structure opportunities and rights—whether conventional or legal—for men and women in different societies, [24–26] Gender is linked to the scope of recognition, power, and status in any society. Gender operates in the structural organization of each culture by setting men and women in socially differentiated spaces (public or private), placing them in a hierarchical category (higher or lower) in the economic structure, and simultaneously imposing on them a social status (of greater or lesser prestige).From the perspective of the labor redistribution of migrant women, gender can be understood as one of the organizing principles in which they will be located in the economic structure of the receiving society (women, Afro-migrants, without a university education). From these classifications, the gaze of recognition is built, and with gender belonging, cultural patterns of interpretation are encoded in social status, which, on the one hand, makes it easier for them to earn more money, but remains precarious. [27,28].

The latest studies [28,29] note that Latin American women who move have 10 or more years of education, including secondary, technical, and higher education. This should allow them to expand their life plans and diversify their possibilities to achieve economic autonomy.

In the female experiences that will be analyzed in this article, a wide range of motivations and expectations can be observed, ranging from those that are focused on the family, to those that are defined by the women's individual projects. In this research, we seek to answer the following questions: what does the experience of labor insertion in Chile mean for Afro-Colombian women integrated into the Antofagasta context? What emotional processes emerge in the face of different work interactions with Chilean employers?

1.1. Women Crossing Borders

According to different studies on the feminization of migration in the late 21st century, women have become advance subjects in contemporary migration networks. This trend has been observed in different Latin American countries [30–32]. Thus, they pave the way for other groups in their countries of origin, becoming the central nucleus of social networks that are progressively "transnationalized" [31,33,34]. The group of migrant women is articulated and organized into different national territories, thus reinventing the ways of being a family and the processes involved in socializing and caring for children [35,36]. Among their strategies for addressing problems when crossing international borders, migrant women expand their networks of contacts, express the emotional capacity to overcome adversity, and quickly incorporate knowledge of different cultures, which facilitates their displacement. Hence, we can consider them transnational subjects in the terms of Schiller et al. [37].

Regarding the motivations for displacement, economic needs are relevant. Migrant women have expectations, such as improving the quality of life of their children and saving and/or reunifying their family group; additionally, the need to be autonomous and independent is also observed. Many are divorced, are single mothers, or have unstable partners, (Figure 1 illustrates the trends found in this and other studies).

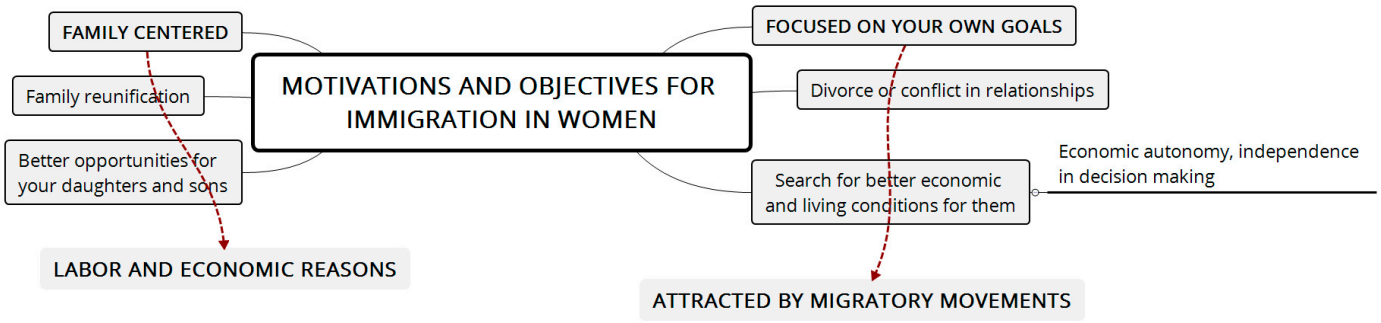

Figure 1. Motivations for the migration of Afro-Colombian women. Source: Own elaboration.

1.2. Motivations for the Migration

The following figure presents the motivations and objectives for the south-south migration of women, with two central focuses: family and personal goals.

2. Materials and Methods

This article reviews the selected results regarding the migration-labor axis from a broad qualitative study on the displacement of Afro-Colombian women to the Antofagasta region of Chile, and the psychosocial and emotional implications of their integration into the workplace.

In this article, we review the selected results regarding the migration-labor axis from a broad qualitative study on the displacement of Afro-Colombian women to the Antofagasta region of Chile, and the psychosocial and emotional implications of their integration into the workplace. The expanded research collects the experiences of men and women aged 18 to 60 years old (see Table 1), especially based on the motivations of migration and how they have been received in both work and study spaces, in the case of the youngest.

Table 1. Afro-Colombian women participating in the research.

No. of Participants	Code	Age	Occupation		City of Origin (in Colombia)
			Minor, Unskilled, Day Laborer, Domestic Service	Unskilled Occasional, and Informal Work	
1	Betty	40		√	Antioquia
2	Tolúa	26		√	Bogotá
3	Aurelia	60	√		Cali
4	Ovia	33	√		Cerritos
5	Cris	30	√		Buenaventura
6	Tina	43	√		Buenaventura
7	Yiam	55			Bolívar
8	Darlis	41		√	Nariño
9	Estrellita	35		√	Bogotá
10	Salomé	43	√		Risaralda
11	Daysi	22	√		Valle del Cauca
12	Mary	27	√		Valle del Cauca

We have decided to focus this article on the women, migration, and work axis, since the Afro-Colombian women group in particular has suffered discrimination. We observe that the studied region, Antofagasta, has been culturally characterized by preserving a

hierarchical and androcentric base in terms of work and gender, possibly due to its roots in mining work, in which men largely predominate.

This research was framed in a qualitative methodology, and the interpretative analyses were based on the experiences obtained from four conversation groups of six people each, and six in-depth interviews. The participants were Colombian women over 18 years of age who were included using the snowball technique. They were contacted in cultural centers and while waiting in lines at the Aliens and Immigration Affairs offices in Antofagasta, Chile. All of the participants signed an informed consent form permitting the use of their information and ensuring their anonymity, and the tool used in the study was evaluated and approved by the Ethics Committee of CONICYT (Comisión Nacional de Investigación Científica y Tecnológica.). Regarding educational level, the majority of the participants reported having completed high school. Regarding marital status, the participants were single, married, or partnered, and had one or more children. Additional interviews were also conducted with key informants who were workers at the regulatory institutions—Aliens and Immigration Affairs—and whose stories served as analytical counterpoints.

From the beginning, a good environment to conduct the interviews was challenging to obtain, as the women did not have much free time. These interviews were taken at the end of their work hours, in their free time, in long waiting lines (on the street) at immigration offices, and in places of recreation, such as parks or restaurants on holidays. We were willing to meet where they decided. We managed to meet for an hour and a half per session.

The interviews were organized based on a set of guide categories, such as (a) life story and reason for migration; (b) experience of the journey and arrival at destination; (c) relationship with residents of the contact countries; and (d) work experiences.

All were recorded, after being authorized by the participants, and transcribed by the team. During all the meetings, field notes were taken, which were used as an informative basis for the first analysis. In the analyses, we used the grounded theory proposal, without the application of software, described in the Figure 2.

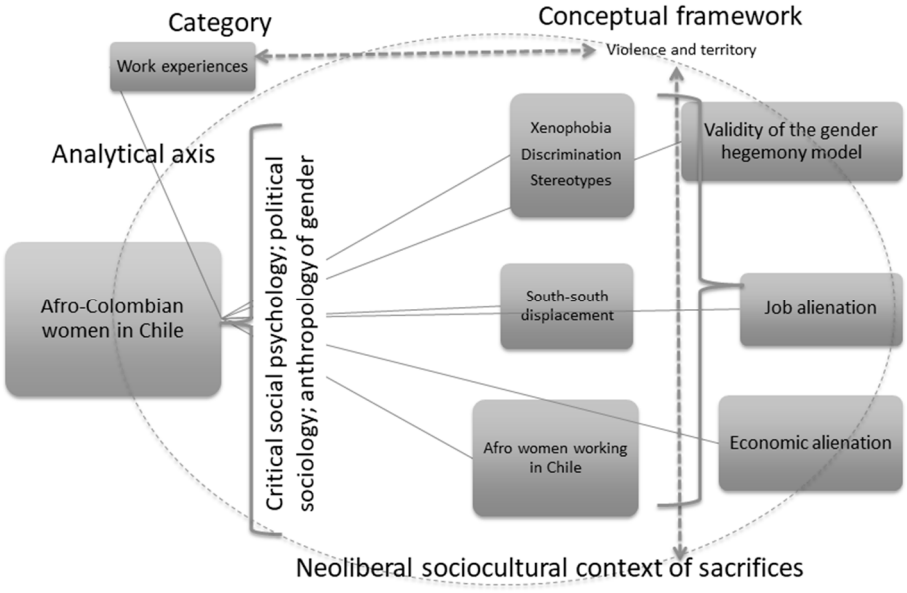

Figure 2. Global synthesis. The theoretical framework that supports the study. Source: Own elaboration.

The experiences of the women interviewed from these groups gave us information that allowed us to saturate experiences, mainly in the aspects of xenophobia, discrimination, and gender violence. Among the products generated by this research, such as their stories and interviews, the research is synthesized in a documentary, elaborated based on script

workshops carried out with the group of men and women. The final product was delivered to each of the participants as part of the return.

For the analysis of the corpus, we worked according to the grounded theory (GT) (see Figure 3) of Strauss and Corbin [38], applying a critical and gender perspective [39,40].

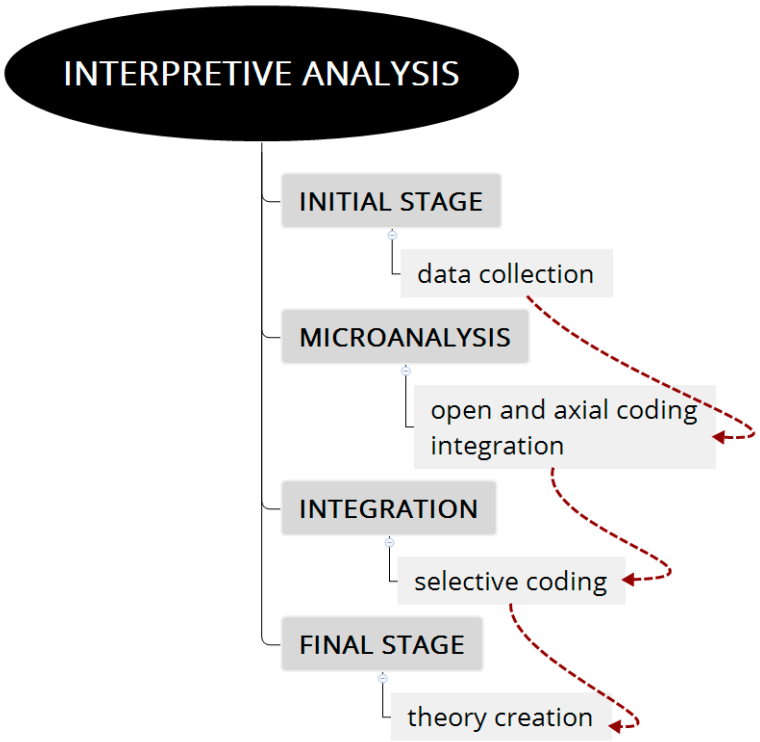

Figure 3. Diagram of the GT analysis process. Source: Own elaboration.

3. Synthesis of the Interpretative Analysis of the Findings

The following section presents the main categories of analysis that emerged in this study. These are organized under the Labor Situation of Afro-Colombian migrant women in northern Chile: Antofagasta axis, in which the following categories are identified: (a) work experiences and interpersonal relationships; (b) labor exploitation; and (c) self-employment.

3.1. Work Experiences and Interpersonal Relationships

According to United Nations [41], in the last four decades, there has been a gradual increase in the employment of women, which has modified women's life options, situation, and gender position. The demand for women workers in the market is, in turn, linked to the association between domestic work and gender, which has stimulated the migration of women in different parts of the Western world. This movement is more strongly emphasized in the receiving countries, where the labor supply is permeated by functions associated with the female gender.

> *A friend told me one day that, in Chile, they paid very well. "So, what do you work on there?" She told me doing cleaning in restaurants. "How much do they pay monthly?" Monthly, they pay her three million pesos! And I, oh, well, I'm going for six months! I'll make money, and I'll return to pay my debts. So, I went ahead, mortgaged my house for six million Chilean pesos, and I came here. When I arrived, how did my friend earn a little money? I am not good at that! I am old and I am embarrassed. In addition, in Chile, what I had to earn was 150,000 pesos. I'm telling you; I regret having come here! I had to work hard, to send the remittance, to pay the mortgage because otherwise, the bank would take my house. I paid it; now I am still working to send the remittance to my children, and for my own savings.* (Aurelia, 60 years old)

In this sense, the massive hiring of immigrant women to perform domestic tasks and sex work accounts for the gender norms and stereotypes in the receiving countries. Likewise, the expectations that they bring with them from their country of origin—namely, that they will send remittances—can correspond to an increasing expansion of their role as main providers, breaking with the traditional position assigned to women-mothers-housewives, and with the collective imagination about the opportunities they might have in the receiving country.

> *I thought I was going to earn like 100 million pesos (laughs), and when I arrived here, I did not earn anything. In addition, when I arrived here, yikes! This is a desert, it seemed to me, because there in Colombia, everything is green. I cried. I said to myself, "Why did I come here?", but I have to stay! Because if I leave, I lose my house. (Addressing another person in the group) Did you think anything like that? Surely you did not think anything, that the change would be hard. No, you don't think anything. Now you just have to deal with it.* (Tolúa, 26 years old)

In the case of the mobilization of Colombian women, it is observed that, in their socio-cultural context, family responsibilities have been reversed, as the women have assumed paid work outside the home, becoming heads of household to improve their family's situation and their own survival. With these cultural modifications, the father has been displaced, and his figure as an absolute provider has become blurred. In contrast, when the participants arrived in Chile, they were forced into a place of subordinate domesticity that was subcontracted but paid. The whole process is linked to intercultural tensions, such as failures in migration laws, delays or high costs associated with processing or obtaining professional titles, documents or contracts that give them labor dignity and security.

> *My mother is a very intelligent woman. She told me, "Daughter, why don't you reconsider and leave, instead of staying here, waiting. You will not earn the same as you earned in Spain, but you will earn better than here with all the work you do". So, it was those verbatim words from my mother that prompted me to make the decision. My fear was to leave my children because I have a 15-year-old girl, a 14-year-old boy, and a 7-year-old baby. I thought about protection: who is going to take care of them, you understand? That was my fear; also, fear for the older ones, that they would lose their way alone with my mother. She told me, "Trust, my daughter, that God, me and your sister are not going to let your children lose their way". It was very painful to leave my family . . . I know that my mother is very important, my siblings, but to leave my children is to leave my life. Leaving them was the most difficult step I have ever taken.* (Betty, 40 years old)

In this research, we analyzed testimonies of Colombian women, who describe the changes in the meaning of family well-being that are associated with gender advances: they consider themselves to be taking more risks than the Colombian men with whom they are involved, since they go out in search of ways to improve their lives. They also recognize gender differences in the meaning of family well-being. They point out that many men believe that stability, security, and taking few risks is the way out of their situations, while some women seek the stability of a better future for their children through risky actions, for example, by migrating. In doing so, they risk not only gender discrimination, but also ethnic discrimination in a country that retains strongly xenophobic cultural traits.

> *People come here with their university studies, and they have not been able to get a job. If you are a university graduate, you will not go to a kitchen to wash dishes for 10,000 a day, because that is why you burned yourself out studying. I, who have not studied, nor the lady there who has not studied, nor the one here who has not studied, we can start washing dishes. It does not hurt us, because we do not have that gift of greatness; we could not go study, and so we start washing dishes.* (Ovia, 33 years old)

According to Tijoux (2007), the presence of the Afro-Latin population in the public sphere questions the normative order based on the belief that, in Chile, there are no people of African descent, and the fiction that this country is a mostly "whitened" society, which makes people of other skin tones, native peoples, and those of mixed Andean races invisible.

By ignoring this characterization of the Chilean population, the dark-skinned foreigner shakes up what the population is trying to deny: ethnic/racial origin.

> *Here, there are many girls in the nightclubs; they have to make a living. It is because of the way they are treated at work; they are paid very little, they are humiliated a lot, because of their brown skin. So, what they do, they do not have much to think about; they have to earn to survive, to send home. And so, the first way out they saw was that: the nightclub.* (Cris, 30 years old)

In addition, the fear that the "other" will have relationships with Chilean men or women, have children, and "contaminate the blood" is exacerbated. There is a need to whiten bodies to make them more akin to European bodies, those of a "dominant civilization". Thus, according to cultural studies, a hidden racism is inscribed as a prominent feature of Chilean identity [42] (p. 231), a product of the historical reconfiguration of society.

3.2. Labor Exploitation

According to various accounts, labor exploitation and violations of current labor laws operate together with discrimination. In the Antofagasta region, there are sectors in which migrant workers are concentrated, such as domestic services, industrial cleaning, and working in the kitchens and waiting on tables in restaurants. In these positions, migrant women are preferred by employers, since they adapt to demands to meet their survival needs and the family commitments they have assumed. As a result, they are required or exposed to excessive work hours with low salaries and under worse conditions than Chileans who work in the same positions [10,27].

> *I had to work for Doña Rosa even on Sundays—did you hear that? —For 7000 pesos (US $9.45) per day that she was going to pay me but then never did; I ended up working for free.* [And you cannot report her?] *No; the money she said she would pay me; she says she already paid it to me. There is no point in confronting her.*
>
> *And if I do other things, it's bad. If I go to work at a nightclub, it's bad. If I am a street vendor, too. What do I do? Because if I go to work at a store, they pay me 8000 (US $10) for washing dishes all day.*
>
> *Not even for 10,000 pesos (US $13). But for 10,000 pesos, I will not work for anyone! No, I'm not going to break my back working. Start at eight in the morning, leave at six or seven in the afternoon. Breaking my back all day for that money? No!* (Tina, 43 years old)

It should be noted that discrimination is applied equally for most female immigrants.

> *Well, on several occasions, I have been standing like this, taking the car, and one day some people called us "black", and I . . . I no longer know how God forgives. Get out of my country. I was with my daughter; we came from church. They do not know how we are (. . .) because some compatriots work in those places (of prostitution). We are not all [like that]. They believe that we are all equal, and we are all discriminated against for the same reason, we women, because we are Colombian (. . .) whether we are white or black, that all Colombians come to prostitute themselves, but no, it is not like that. Because we have some people who come to work honestly, right? For them to know us, they have to look at people . . . those who have come to prostitute themselves, and those who are honest, who work honestly.* (Yiam, 55 years old)

These prejudices and ethnic stereotypes fall mainly on Afro-Colombian women, who express feelings of being assaulted because of who they are. These conditions are not sufficient to avoid the humiliation and violence that they continue to experience during the process of labor integration. The experiences of Daysi and Mary illustrate this point:

> *Getting a job is easier for women than for men in the sense that the trip to another country is easier than for men because women find work easier than men. He (her partner) does not leave Colombia. He has his son; well, he plays it safe, as they say there (to keep an*

ecologically stable place). He has a monthly pension. So, he is not going to retire from there to receive that money. I seek to improve my life. (Daysi, 22 years old)

Yes, you do not turn your nose up at it; there is more work for a woman because we can get involved in washing dishes, as a waitress in a hotel, taking care of children, washing bathrooms, whatever. This is not the case for men. (Mary, 27 years old)

3.3. Being Self-Employed

Some participants compared the situations of salaried work and self-employment. Their work is related to the informal sale of food. They risk being detained daily, along with fines and the loss of their investment if it is confiscated. The independence of working on their own, although it enables them to avoid being mistreated by an employer, brings with it vulnerability. For example, these informal independent workers do not have access to social assistance services (health benefits, pensions, housing loans, etc.) due to the lack of a contract. However, they achieve independence, which gives them feelings of satisfaction and dignity.

I have all my credentials as an instructor, as a trainer, as a teacher; I have all my credentials, and I also have my degree, which I studied for in Colombia, in Cali. Terra Instituto de Cali; I finished. I have not been able to get a good job here.

I am a hairdresser. I studied manicures, pedicures, cutting and styling. All those things. I do have the papers for that. [And what do you work on here?] *I sell potatoes.*

She does that like that other girl who sells rice; she goes around with a supermarket cart. The police bother her at all hours because they know she is selling. One day, they threw away her food. They took away the breaded chickens, and the rice was thrown away. So, she lost her money, her invested money. Thank God, they have never taken it from me. (Darlis, 41 years old)

Self-employment offers the women the advantages of managing their time and acquiring economic power and greater profits. However, they must accept and face the associated risks; thus, they are located in agency and in opposition to labor subordination. On the one hand, they are aware of the benefits they would have if their work were organized according to municipal and health regulations, but on the other, they avoid unequal interactions with employers who do not respect their labor rights.

So, I work better with mine; I sell potatoes, and the money I earn is mine.

When I arrived, I worked in the Santa Isabel supermarket doing cleaning. They paid me 144,000 pesos. Imagine, what was that enough for? For nothing. (Selling potatoes), I earn more: my money to pay my rent, send to my children and survive. (Estrellita, 35 years old)

As another point of tension, they must face the demands from immigration services, which indicate that they should not work because they do not meet the required length of stay in Chile. In this situation are women and their partners who have not been able to legalize their residence, but must nonetheless find a way to meet their day-to-day survival needs. Not only must they engage in informal work, but their lives are precarious, and they are trapped in feelings of anguish, hopelessness, anger, and injustice.

The carabinieri cannot see me selling because [if they do], they chase you. Because you do not have permission to sell. However, I have been to the municipality several times, and they do not give permission to sell street food; they do not give permission. I have the final visa. What they take from you, they eat it; sometimes, they throw it away. That food has never hurt anyone. If I had hurt someone, then no, do not let us sell it. However, it is a very clean thing, very hygienic and all those things. This past week, the inspectors of the municipality took a part of my earnings. I have to go from Monday to Tuesday to pay there. I am looking for a venue, and I cannot find one. They are very expensive venues, a million and something. I cannot pay a million and something, no.

There was a girl who was pregnant, who was already ready; on these days, she gave birth here, in the hospital. Anderson (the father) was deported; he is still there in Colombia, and the woman stayed here. Well, she had her mother here, and she gave birth; the mother helped her, [and] they deported him. She was appealing and appealing, and they had not answered anything. She has sent papers because he had already paid for his resident card. (Salomé, 43 years old)

4. Remittances Resulting from Work

According to Benito [43], remittances increase family income, and constitute a source of poverty reduction. In developing countries, remittances provide support for family members who do not migrate, and are invested in education, health, and housing. This makes it possible to access better levels of education and health, and reduces the social vulnerability of family members, especially women and children; furthermore, it allows the children to achieve greater cultural capital in the long term, which can balance the deficiencies in the countries of origin caused by emigration. In 2006, remittances comprised 2.9% of Colombia's GDP (The Gross Domestic Product). In this way, the remittances sent by the interviewees improved the quality of life of their families in Colombia and increased their opportunities to study and have a better future. This, to some extent, compensates for the departure of Colombian nationals.

I tell you that I live in the Pinares sector, Iquique Street. I have to pay remittances for my son and daughter, who are over there, and here, I have to pay 90,000 pesos a month in rent. An apartment, it has a bathroom. There is the kitchen; it is where we put the bed at night. The whole sky can be seen above, all hollow, all broken. When it rained, everything got wet. They charge the rent and do not fix anything for you. I live very badly. I am looking for an apartment or a little house. That neighborhood where I live is like the neighborhood of El Chavo—very ugly, very horrible house. Many people, many shacks. (Daysi, 22 years old)

Those of us who live there are almost all Colombians. There are Colombians, Peruvians, and Chileans. I have to live like this because most of what I earn, I send to my children and my mother, who takes care of them. Here where I am is the neighborhood of El Chavo. There are like 23 rooms, but we all get along well. Yes, the house is very large; we all live well there. The little house is ugly, they have it all ugly, but [it is] very, very quiet there. There are like four bathrooms shared for everything. My room is about this size, from here to there, the size of the living room; large. The lady pays for everything. That is, if she disconnects the light in one room, she only disconnects it there, not in the other rooms. So, she knows who owes . . . the lady pays for her water and electricity. (Tolúa, 26 years old)

5. Discussion

In recent decades, countries receiving migrant women have seen an increase in the commercialization of domestic work. In recent years, Chile has become an emblematic example of a country that has a deficit of care workers and that, to meet these needs, has become a recipient of migrant workers to take over the work of social reproduction, which was previously occupied by mothers who were exclusively dedicated to domestic work.

Studies from the last decade in Latin America [10,44,45] have shown that the feminization of south-south migration is not solely the result of economic problems in the society of origin or the gaps in certain sectors (childcare, elderly care, home care, etc.) of the destination society. In Latin America, this mobility of women can also be understood as part of the normative changes in the gender order through which women have been constructing subjectivity in contemporary societies. Acosta [44] states that migratory models among Latin American migrant women are highly diverse, and range from migration focused on the family to migration defined according to the individual expectations of the migrant woman [44,45].

Regarding the valuation of migrant women's labor potential, Fraser [46] links tensions to the field of recognition, arguing that gender refers to a two-dimensional social differentiation, a hybrid category that is simultaneously involved in the economic structure and the status of society. From the perspective of redistribution, gender can be approached as an organizing principle of the economic structure of society, while from the perspective of recognition, gender encodes cultural patterns of interpretation into social status. With Honneth [47], we can review the idea that the cultural valuation of specific capacities for success leads to the social demarcation of professions, and addresses the relationship between recognition and gender, evidencing the existence of prejudices regarding the capacities of women in the social construction of labor and professional fields. According to the author, in a hierarchy of social status, work activities that are predominantly practiced by women will tend to have decreased prestige and recognition, while those predominantly practiced by men will tend to have increased prestige and recognition, which explains the undervaluation of work that is primarily performed by women.

This situation has revived the exploited labor situation that had been disappearing in previous decades due to the massive entry of women into education, and their access to greater economic power [48,49]. Women had expanded their citizenship rights, and there was a clear resistance to subordination [39–50]. However, the emerging increase in female migration has unleashed a proliferation of precarious jobs, social discredit, low wages, lack of regulation, and invisibility for women who migrate [10,51], who, in turn, develop feelings of hopelessness and anguish for both themselves and their children.

The precariousness of migrant women is intertwined with institutional deficiencies, prejudices, and stereotypes; inefficient regulations, as well as a weak political will to improve immigration processes. Migrant women are exposed to work without a contract, abuse by employers, and the risk of labor exploitation. These experiences are also associated, in many cases, with feelings of insecurity caused by procedural factors because of delays between decisions and the issuing of official papers that result in missed deadlines.

It was observed that some women do not report abuses due to ignorance of their options, lack of accurate information, and emotional factors, such as the fear that they, and not their employers, will be sanctioned; therefore, labor abuse in the private spaces of the power relationship between employee and employer is invisible. It was observed that among employers that exploit Afro-Colombian women, there are Chilean men and women who take advantage of migrant women's desperation in relation to labor insertion and the low level of prestige that female domestic work has, which leads to an association with low pay and decreased respect for and symbolic value of the person who performs it.

These attitudes, which are intertwined with xenophobia, are found in all socioeconomic levels of the population, and feed a perverse circle, falling as they do on both migrant women and on Chilean women who perform the same work. Women in both groups are hindered in accessing economic capital; they face restricted opportunities to incorporate cultural capital, and are limited and trapped in fields with less symbolic capital because they are migrant women, of African descent, and are considered displaced (however, this is less true for Chilean women, who have achieved greater protection of their rights, and therefore are exposed to less discrimination than migrant women).

Some limitations of the study can be found in that the interviewees belong to a medium-low socioeconomic level where the research was focused, leaving out the work experiences of women with more resources. Regarding the experience of researching in this field, the team allowed it to open a comprehensive line of community work, guiding collaboration groups with greater clarity on the needs of the migrant population, such as prevention of violence, sexual body self-care, among others. We received very significant feedback that was recorded in the documentary produced with a joint script.

Figure 4 below shows a synthesis of the analytical process that helped to answer the initial questions from an intersectional and gender perspective, articulating the processes of insertion of Colombian women into an androcentric context that hypervalues whitened skin and its European ethnic associations over Caribbean and Latin American appearances.

These predominant cultural characteristics in the country of arrival (Chile), with respect to Afro-Colombian women, generate attitudes laden with symbolic violence, which makes it difficult for the participating women to achieve dignified labor insertion with respect to their basic human rights. In contrast, their arrival in Chile was marked by tension, and they have experienced situations that have generated painful emotions (illustrated in Figure 3).

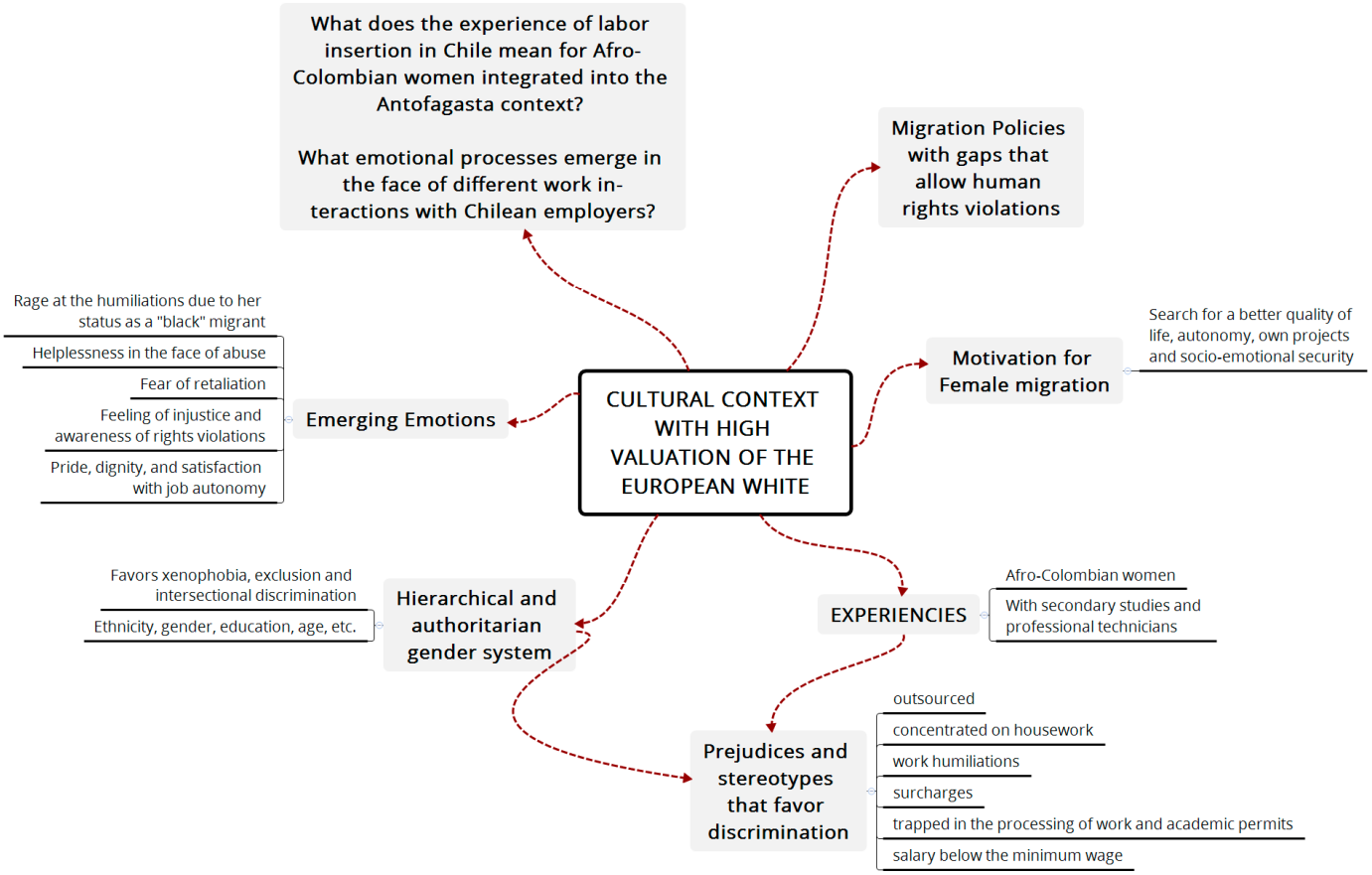

Figure 4. Emerging Analysis Model. Source: Own elaboration.

Emerging Emotions

Emotional expression comprises a symbolic structure that is articulated from the dynamics between the individual's experience in daily life and the normative and gender order that have has culturally constructed to regulate these experiences (see Figure 5). That is, as we have explained in the analysis of the narrated experiences, these processes are required conditions for understanding the sources of these women's emotions, associating their emotional experiences with the framework of the culture of origin and the culture of arrival and, as stated at beginning the of this article, identifying the ways in which their emotions are embodied to serve as a link between individual experience and the subject's *Verstehen* of the reality that they discover.

In this context, we find that many women travel to Chile with high expectations. Upon arrival, they are faced with a reality that generates contradictory emotions, such as feelings of regret that are aggravated by the impossibility of returning to their country of origin due to the economic risks that they assumed when they migrated. The interviewees expressed longing for their country of origin, and constant comparisons between Chile and Colombia characterized by a greater appreciation of their native country. According to Julve et al. [52], the existence of a positive memory of the country of origin arises from mourning for the loss of proximity to customs, land, and contact with their own ethnic group, among other factors that influence perceptions regarding the place of origin and the

receiving country. In this sense, Restrepo [53] points out that in Spain, immigrant women also express generalized feelings of nostalgia for the better housing conditions in Colombia. A more favorable memory of their past life reflects the pain of being uprooted. In this sense, housing not only represents a change in infrastructure conditions, for better or for worse, but also a void with respect to social and cultural relations [52].

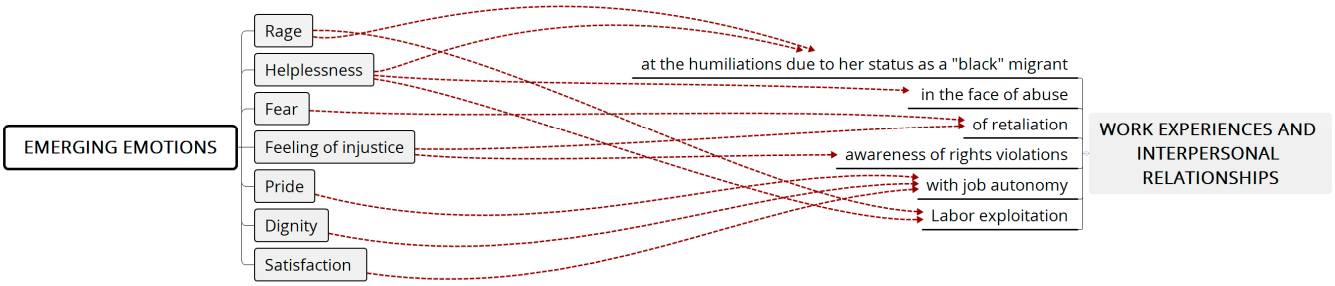

Figure 5. Emerging emotions. Source: Own elaboration.

Chile must address immigration in two fundamental ways. First, it must define how it will face migratory flows from other countries and clarify what type of border opening will be the most appropriate for the coming years. Second, the government should specify how it will manage its internal policies or propose the creation of new policies regarding the treatment of undocumented immigrants who enter and settle in Chile [54], especially given the repercussions that such regulations have on the beliefs of nationals. In addition, the adopted decisions must be consistent with agreements that have already been signed with the constitutional regulations, and the way in which they are expressed in the education of Chileans. As the interviewees reported, there is a greater emphasis on the preparation of intellectuals than on implementing integration policies.

As Larraín points out that, when "national identity is not defined as an unchangeable essence, but rather as a permanent historical process of construction and reconstruction of the 'imagined community' that is the nation, then the alterations that occur in its constituent elements do not necessarily imply that national identity has been lost, but rather that it has changed, that it is being built" [42]. The reconstruction of national identity must incorporate the presence of people of other nationalities who have come to stay, and to increase the national cultural heritage, enriching it with greater variety.

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Institutional Review Board Statement: The study was conducted according to the guidelines of the Declaration of Helsinki and approved by the Institutional Review Board (or Ethics Committee) of CONICYT (approval date, March 2018).

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The data supporting the findings of this study are available on re-quest from the corresponding author (J.S.S., FONDECYT 1180079). The data are not publicly available, due to their containing information that could compromise the privacy of research participants.

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Afro-descendant migration has published in mainstream books and magazines. The field work for contacts with institutions and groups of migrants has been carried out by E.C.R. with a degree in Psychology, with intensive training in human rights and gender, who participated in the analysis and synthesis of findings. During the process of organizing the analytical corpus, 2 students in psychology practice participated under the supervision of J.S.S.).

Conflicts of Interest: The authors declare no conflict of interest.

Appendix A

María Emilia Tijoux

We consider the historical sociological analyses of Tijoux and Stefoni, who add depth to our analysis of the problem under study, incorporating new edges in the framework (María Emilia Tijoux, Sociologist and Doctor in Sociology at the Paris 8 University. She is an academic and researcher in the Department of Sociology at the Faculty of Social Sciences and Coordinator of the Doctorate in Social Sciences at the University of Chile. She coordinates the Research Center Sociology of the body and emotions and is Director of the Actuel Marx Interventions Magazine. Her research addresses immigration in recent decades, xenophobia, racism, sexualization and racialization of immigrants and their dehumanization processes. She has just edited the book "Racism in Chile: skin as a mark of immigration".

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Article

Race, Ethnicity, Nativity and Perceptions of Health Risk during the COVID-19 Pandemic in the US

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Abstract: Previous research demonstrates that pandemics, including COVID-19, have disproportionate effects on communities of color, further exacerbating existing healthcare inequities. While increasing evidence points to the greater threat posed by COVID-19 to Latinx communities, less remains known about how identification as Latinx and migration status influence their perception of risk and harm. In this article, we use cross-sectional data from a large national probability sample to demonstrate a large positive association between ethnic identity and migration status and perceptions of harm from COVID-19 in the US. We find that individuals identifying as Hispanic/Latinx and first-generation immigrants report significantly greater risks of becoming infected by COVID-19 in the next three months, and dying from the virus if they do contract it. Further, subgroup analysis reveals that health risks are especially felt by individuals of Mexican descent, who represent the largest share of US Latinxs. Collectively, our results provide evidence about how the pandemic places increased stress on people from Latinx and immigrant communities relative to White non-Hispanic individuals in the US.

Keywords: race; ethnicity; immigration; health risk; COVID-19; survey research

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1. Introduction

The COVID-19 pandemic has caused widespread suffering and death around the world. Hundreds of millions of people have been infected by the virus, and at least 4.9 million people have died from COVID-19. However, the effects of the virus have not been equally distributed, with countries that explicitly prioritized economic incentives above public health having greater numbers of cases and fatalities [1]. Furthermore, there are widespread inequities in countries such as the United States, with the COVID-19 pandemic having disproportionate effects on communities of color, further exacerbating existing healthcare disparities [2–4]. Yet, while increasing evidence points to the greater threat posed by COVID-19 to Latinx communities, less is known about how identification as Hispanic/Latinx and migration status influence individuals' perception of risk and harm.

In this article, we use cross-sectional data from a large national probability sample to demonstrate a large positive association between ethnic identity and migration status and perceptions of harm from COVID-19 in the US. Through an OLS regression of over 150,000 survey responses, we find that individuals identifying as Hispanic/Latinx and first-generation immigrants perceive themselves to be at significantly greater risk of becoming infected with the virus, and dying if they contract the virus. Collectively, our results provide evidence about how the pandemic places increased stress on people from Latinx and immigrant communities relative to non-Hispanic White individuals in the US. As a result, not only do Hispanic/Latinx individuals and immigrants face greater health consequences of COVID-19, but they also face a disproportionate mental burden.

This article proceeds in four further sections. First, we provide a potted review of the scholarly literature on public health among Latinxs and communities of color, especially during the COVID-19 pandemic. We conclude this section by introducing our hypotheses based on this literature. Second, we outline the data and methods employed to run our tests, including describing the data and variables from the Understanding America Study's Understanding Coronavirus in America surveys run from the Center for Economic and Social Research at the University of Southern California. Next, we describe our results and their significance for the understanding of health disparities in pandemics. Finally, we summarize our results in the context of the broader literature, describe some limitations of the manuscript, and provide recommendations for future research to build on the findings of this article.

2. Determinants of Health Risk Perception

Public perception of health risks is influenced by multiple factors including the possible feelings of dread, comprehension of the complexity of the situation, uncertainty about its effects, familiarity with the risk, the possibility of solving the situation by oneself, perceived incentives for accuracy, and news coverage of public health threats [5–7]. However, as these risks are often domain-specific, people can differentiate between particular threats and outcomes in the process of assessing the nature of the risk [8]. Context also plays an important role in risk perception [8]. This is particularly important for minority populations in the US. Following Ferrer and Klein, we can argue that racists and xenophobic attacks on African Americans and US Latinxs can influence risk perceptions, increasing pessimistic feelings toward the possible effects of threats.

Pessimistic feelings towards possible effects of threats are furthered evidenced by Martinez Tyson, Arriola, and Corvin's [9] research which finds that Latinx individuals across certain subgroups have comparable perceptions of risks posed particularly by mental health symptoms and diseases. Martinez Tyson and colleagues [9] also mention that economic and social discrimination could be responsible for a lack of healthcare visits by Latinx community members even though they accurately perceive symptoms and risks of diseases. Meanwhile, Bucay-Harari et al. [10] suggest that there may be a correlation between Latinx individuals and more severe mental health symptoms. Following this line of thought, we could argue that Latinx individuals are more likely to have severe mental health issues that often are exacerbated by the economic and social discrimination they experience which causes them to perceive a higher risk to their own health.

First, it is important to discuss how discrimination itself has been linked to adverse mental health outcomes in order to show its effects on the Latinx community and minority communities broadly, and to paint a linkage between discrimination and perceived health risk during COVID-19. Discrimination has been shown to be a determinant of health risk perceptions among minority groups. A number of studies have linked experienced and perceived discrimination to adverse mental health outcomes which are associated with higher perceptions of health risk [11]. Thompson [12] found that experienced discrimination is related to intrusion and avoidance symptoms regarding Black Americans, an issue that could lead towards social isolation. In particular, Thompson [12] found that appraisal of the stressfulness of the discriminatory experience was associated directly with the experiences of intrusion or avoidance symptoms. Similarly, Salgado de Snyder [13] found that experiencing discrimination for being Mexican among Mexican women was correlated with higher scores in depression on the CES-D depression scale. Williams et al. [14] showed that experiencing discrimination is linked to lower levels of subjective well-being and high distress, particularly among Black Americans.

Some research has found specific variables that are linked with psychological distress in Latinx individuals and other minorities. For instance, Brown et al. [15] found that, among Black Americans in particular, financial security is correlated with lower levels of distress, age is negatively correlated with distress (younger individuals and women generally had higher levels of distress), and higher levels of formal education are negatively correlated

with distress. Brown and colleagues [15] also found that higher self-reporting of discrimination was not associated with prior mental health issues and, instead, self-reported experiences of discrimination were the factor indicating adverse mental health and distress. Bucay-Harari et al. [10] have indicated that being underinsured/uninsured is an important factor in distress, anxiety, and greater severity of mental health problems, particularly in the Latinx community. Bucay-Harari and colleagues [10] also indicate that migrants and Latinx individuals are more likely to be uninsured because of increasing barriers to these individuals in accessing private or public health insurance due to immigration status, socioeconomic factors, and a lack of political representation. At the same time as Latinx individuals are more likely to have adverse health outcomes, distrust in public institutions broadly makes reaching out to people in distress due to disasters difficult [16].

These studies help to demonstrate that there is a certain stress or distress associated with discrimination and how it can exacerbate increasing sociopolitical barriers to healthcare that could lead to communities more likely to experience or perceive discrimination having higher perceptions of health risk during COVID-19. One way that discrimination can correlate with higher perceptions of health risk is through the concept of stigma. This concept describes the labeling of others with attributes that are devalued or discredited by those in a position of power, stereotyping such negative attributes, and using them to separate these others from the dominant group. As a result of this separation, the stigmatized group suffers from loss of status and discrimination. Direct consequences of this stigmatization are mental and physical illness at the individual level, and unequal access to healthcare and socio-economic inequality at the macro level [17,18].

Oaten, Stevenson, and Case [19] found that while stigma surrounding fear of disease outbreak can cause heightened hygiene and disease avoidance at first, generally stigmatization can become a barrier to health care access. Earnshaw and Chaudoir [20] find that stigmatized groups tend to have internalized senses of inferiority compared to unstigmatized groups. Fischer et al. [21] also found that stigma can cause a significant reduction in public health measure compliance or generally impede outbreak controls.

Stigmatization also tends to affect minority groups above others. Health-related stigmas are generally found to have adverse effects on Latinx or African American adults. Darrow, Montanea, and Gladwin [22] found that perception of HIV-infection among Latinx or African American adults is correlated with having never received an HIV test. Rueda et al. [23] demonstrated that health-related stigmas also are correlated with higher levels of anxiety, stress, and avoidance strategies. Nadeem and her colleagues [24] show that this is particularly relevant for immigrant women who are more likely than non-immigrant women to report stigma-related concerns over care and particularly over mental health care. Perreira and Pedroza [25] argue that anti-immigrant sentiments can produce higher mortality, poorer self-reported overall health and mental health specially among Latinx children and adults living in mixed-status families. Finally, Faccini et al. [26] found that, generally, stigma hinders contract tracing efforts which can then exacerbate risk in stigmatized communities. With mental health distress and a lack of healthcare access prominent with both discrimination and stigma, we can begin to discuss more direct vulnerabilities that the Latinx community has in relation to COVID-19 specifically. Due to persistent systemic inequalities in the United States, minority populations tend to have disproportionately high hospitalization rates associated with COVID-19 while also being more likely to abide by regulations or change behavior to stop the spread of disease [27,28]. Olivo et al. [29] posit reasons for these communities' high rates of contraction of infectious diseases as being economically related to the struggle to get personal protective equipment (PPE), a dominating presence in service industry jobs that are unlikely to shut down, and generally from having to take on riskier jobs in exchange for money to leverage vulnerable economic situations, and culturally related to a higher likelihood to live in multi-generational homes. Political leaders and the public often focus on cultural factors to blame vulnerable communities for disease [30–32].

The view of cultural inadequacy rather than the general inequities driving risk factors may cause majority populations to stigmatize minority populations [30]. The reality of Latinxs' and immigrants' specific vulnerability to COVID-19 is compounded by their higher likelihood to avoid contact with educational or health care services due to increasing number of raids, federal immigration enforcement, and immigration surveillance at all levels of government disrupting their daily lives [33–35].

Immigrants in general are also more susceptible to infectious disease compared to native populations [36,37]. Limina et al. [36] found that the reasons for this increased likelihood of contracting infectious disease are the socioeconomic situations in the country in which they are living. Some of these situations are exacerbated by immigration status in the host country, social exclusion, discrimination, language difficulties, gender, and access to medical services, among other things [2,36]. Distress might be higher on undocumented immigrants having to choose on a day-to-day basis between employment status, financial security, and their health and well-being [37] as legal residency status permeates immigrants' position in a stratified system [25,34].

From the perspective of the state, increased discrimination toward minority groups regarding their access to health benefits also makes them more susceptible to increased negative effects in health crises. Perreira and Pedroza [25] argue that a decline in public assistance coverage increased poverty and food insecurity among immigrant households and mixed-status families, simultaneously decreasing health utilization among immigrant women and their children.

Far less is known about the extent to which the public perceives health risks associated with public health emergencies and infectious disease outbreaks such as COVID-19 [38]. In this area, studies have primarily come from multiple global pandemics such as the SARS and avian influenza epidemics [39], the H1N1 swine flu [40–43], and the Ebola outbreak [44,45]. Most of this literature, however, relies on nationally representative and cross-sectional data, which provides challenges in analyzing minority populations such as foreign-born groups, and racial and ethnic minorities.

In this article, we build on prior research to develop a thorough understanding of the mental health toll of the COVID-19 pandemic on Latinx and migrant individuals. Given prior work that demonstrates the disproportionate stress of public health threats for the Hispanic/Latinx community and for immigrants in the United States, we expect that perceptions of risk and harm will be greater among individuals from Latinx and first-generation immigrants than non-Hispanic/Latinx and non-immigrant individuals. Building on previous work that identifies greater levels of exposure to COVID-19 risk and harm among Latinx communities than other communities, we expect this to also be reflected in greater degrees of worry about becoming infected or dying from the virus. As a result, our hypotheses are:

Hypothesis 1 (H1). *Latinx individuals report a higher chance of becoming infected and dying from COVID-19 compared to non-Latinx individuals.*

Hypothesis 2 (H2). *First-generation immigrants report a higher chance of becoming infected and dying from COVID-19 compared to non-immigrants.*

Hypothesis 3 (H3). *Latinx individuals who are also first-generation immigrants report a higher chance of becoming infected and dying from COVID-19 compared to other individuals.*

3. Materials and Methods

All data for this study came from the Understanding America Study's (UAS) Coronavirus in America Survey conducted by the Center for Economic and Social Research (CESR) at the University of Southern California. We used Waves 1–25 of the Understanding COVID-19 national studies conducted between 10 March 2020 and 31 March 2021. In total, most variables in our analysis have over 140,000 observations over this entire period,

although, given not all questions were asked in each survey wave and nonresponses, we end with varying numbers of observations in each model.

3.1. Dependent Variables

Our two dependent variables of interest reflect participants' perception of health risks from COVID-19. Participants were asked to indicate their perceived chance of contracting COVID-19 in the next three months and their chance of dying from COVID-19 if they do get infected by the virus. For both questions, they were asked to place their risk on a scale from 0 percent to 100 percent. To address the positive-skewed distribution of both variables and make the results more substantively meaningful, we divided these variables into quintiles.

3.2. Independent Variables

We have two independent variables of interest. First, we are interested in how identifying as Hispanic/Latinx affects perception of health risks from COVID-19. This was measured through a dichotomous variable where participants were coded as 1 if they identified as Hispanic/Latinx, and 0 if they did not.

Second, we expected that an individual's immigration status would influence their perception of health risks from COVID-19. This was measured through participants' identification as a non-immigrant (0); first-generation immigrant (immigrant who migrated to the US) (1); second-generation immigrant (US-born children of at least one foreign-born parent) (2); third-generation immigrant (US-born children of at least one US-born parent, where at least one grandparent is foreign-born) (3); or unknown immigrant status (4). Given the absence of information about how to interpret the unknown immigrant status response, we recoded this response to indicate that these are missing values, and they were excluded from our analysis. As a result, this variable ranges from 0 to 3 with each number corresponding to the generation.

3.3. Control Variables

We also employed a host of control variables in our analysis to control for many plausible alternative explanations for perception of health risks from COVID-19. First, it is possible that people who experience higher levels of anxiety on a daily basis perceive higher levels of risk of becoming infected or dying from COVID-19. We took advantage of a generalized measure of anxiety in the UAS survey to control for anxiety through a measure that indicates how many days the participant had felt anxious in the past two weeks, ranging from 0 (not at all) to nearly every day (3).

Second, given prior literature on discrimination and stigma on the health of minority communities, we created a discrimination index from felt discrimination related to COVID-19. Participants were asked whether: (1) people had acted afraid of them, (2) they had received poorer service, (3) had been threatened or harassed, or (4) treated with less courtesy and respect due to others suspecting they had COVID-19. After each of these questions were recoded to become dichotomous variables (0 = no or unsure; 1 = yes), we compiled an index by adding up the total score across all four questions.

Third, given the importance of minority languages as barriers to public health services and health literacy, we included a measure of language in our models [46,47]. The survey was available for participants to complete in either English (0) or Spanish (1), so we include a dichotomous variable that captures if a participant took the survey in Spanish or not to reflect their level of comfort with completing the survey in English. Based on literature showing that infectious disease outbreaks can create disproportionate adverse effects for linguistic minorities, we accounted for Spanish as a potential limitation to properly accessing health services [46]. Our expectation was that those completing the survey in Spanish were more likely to have greater difficulty accessing public health services in the US due to many of these services not being offered in Spanish.

Fourth, it is likely that having health insurance would shape people's perceptions of health risk during the pandemic, especially in our models relating to the risk of dying from

COVID-19 if they were to contract the virus. We expected that participants with health insurance were less likely to be worried about the health risks of COVID-19, so we included a dichotomous measure of having health insurance in our models.

Fifth, race could also play a role in perceptions of health risk during the COVID-19 pandemic. As a result, we also included a host of dichotomous control variables capturing whether a participant identifies as White, African American, Native American, Asian, or Hawaiian or other Pacific Islander.

Finally, we included variables for household income, whether an individual is disabled, their level of education, whether they are currently employed, their gender, and their age. Table 1 presents the operationalization, coding scheme, and descriptive statistics for all variables used in this analysis.

Table 1. Descriptive Statistics.

Variable	Coding	Observations	Mean	S.D.
Perceived Risk of Infection	1 = Low risk; 2 = Medium-low risk; 3 = Medium risk; 4 = Medium-high risk; 5 = High risk	153,741	2.815	1.295
Perceived Risk of Dying	1 = Low risk; 2 = Medium-low risk; 3 = Medium risk; 4 = Medium-high risk; 5 = High risk	153,693	2.920	1.418
Hispanic/Latinx	0 = Not Hispanic/Latinx; 1 = Hispanic/Latinx	155,692	0.152	0.359
Nativity/Immigrant	0 = Not immigrant or unknown; 1 = First-generation immigrant; 2 = Second-generation immigrant; 3 = Third-generation immigrant	151,497	0.966	1.199
Anxiety (number of days feeling anxious in past two weeks)	0 = Not at all; 1 = Several days; 2 = More than half the days; 3 = Nearly every day	153,467	1.576	0.835
Discrimination Index	Index from 0–4 (0 = No discrimination; 4 = High Discrimination)	140,791	0.079	0.430
Spanish Language (Survey)	0 = English; 1 = Spanish	155,715	0.007	0.082
Health Insurance	0 = No health insurance or unsure; 1 = Has health insurance	148,141	0.903	0.296
White	0 = Not White; 1 = White	154,542	0.830	0.376
African American	0 = Not African American; 1 = African American	154,542	0.096	0.295
Native American	0 = Not American Indian or Alaska Native; 1 = American Indian or Alaska Native	154,542	0.052	0.222
Asian	0 = Not Asian; 1 = Asian	154,542	0.068	0.252
Hawaiian/Pacific Islander	0 = Not Native Hawaiian or other Pacific Islander; 1 = Native Hawaiian or other Pacific Islander	154,542	0.018	0.132
Household Income	1 = Less than $24,999; 2 = $25,000 to $49,999; 3 = $50,000 to $74,999; 4 = $75,000 to $99,999; 5 = $100,000 to $149,999; 6 = $150,000 or more	155,366	3.182	1.650
Disabled	0 = Not Disabled; 1 = Disabled	155,628	0.084	0.277
Education	1 = Less than High School Diploma; 2 = High School Graduate; 3 = Some college, no degree; 4 = Bachelor's degree; 5 = Master's degree; 6 = Professional or Doctorate degree	155,673	3.358	1.134
Currently Working	0 = Not working or unsure; 1 = Currently working	155,628	0.565	0.496
Male	0 = Female; 1 = Male	155,714	0.414	0.493
Age	Numeric without decimals (range from 18–111)	155,576	51.282	16.060

3.4. Methods

Our panel data were derived from a national probability sample weighted on gender; age; whether the participant was born in the US; education; race/ethnicity; census region; whether the participant resides in an urban, rural, or mixed zip code; employment status; number of members in the household; and household income. We weighted observations for each participant by the final post-stratification survey weights relative to the survey mean as described in the dataset.

As our dependent variables were transformed into interval measures, we conducted cross sectional analysis through ordinary least squares (OLS) regression to determine the

relationship between identification as Hispanic/Latinx and immigration status on perceptions of health risks from COVID-19, with the survey data weighted as described above.

Our model can be expressed by the following:

$$\text{Perceived Risk} = \beta_0 + \beta_1 \text{ Hispanic Latinx} + \beta_2 \text{ Immigration Status} + \epsilon. \quad (1)$$

An alternative approach would be to use ordered logit regression to analyze the data given we have ordinal dependent variables. While we present results from ordinary least squares regression due to its more intuitive results, we also report results from ordered logit regression in Tables S1–S4 in the Supplementary Materials. In short, our results are robust to these alternative specifications, with the main findings consistent across these models.

4. Results

Collectively, the results from our analysis support our theoretical expectations that identifying as Hispanic/Latinx and as a first- and second-generation immigrant is associated with increased perceived health risks from COVID-19. However, our results also demonstrate the complexity of race, ethnicity, nativity, and risk perceptions related to health during the pandemic. Digging deeper into heterogeneity in the results provides us with insights into both the interaction between race/ethnicity and immigration on health risks, as well as important differences in the risk perceptions among different major subgroups of the Hispanic/Latinx community in the US. Just as political scientists are increasingly calling for greater attention to heterogeneity between different Hispanic/Latinx communities in politics [48–51], our results suggest this attention to heterogeneity should also guide our understanding of health risks during the pandemic.

In this section, we first present results of the perceived risk of infection before turning to the perceived risk of dying from COVID-19. We also present results from subgroup analyses, demonstrating the variation within the Hispanic/Latinx community and the need for scholars to pay close attention to different risk perceptions among these groups.

4.1. Perceived Risk of Infection

First, Table 2 presents results from regressions on the perceived risk of infection among participants in our panel. To our mind, there are several important takeaways from this analysis.

First, in Model 1, a model with no control variables, identifying as Hispanic/Latinx was associated with a greater perceived risk of infection. However, this association was no longer present when controlling for alternative explanations in Model 2, suggesting other variables better explain variation in perceived risk of infection. Similarly, being a first- or second-generation immigrant did not appear to be associated with a greater perceived risk of infection as seen in Models 1 and 2. These results are counter to our expectations, suggesting that identification as Hispanic/Latinx or as a first- or second-generation immigrant do not account for risk perception by themselves.

Models 3 and 4 suggest that the interaction of these factors might be associated with greater perceived risk of infection. Identifying as a first-generation Hispanic/Latinx individual was associated with an 0.191 increase in the perceived risk of infection ($p = 0.084$) compared to individuals who are neither Hispanic/Latinx nor an immigrant, although this result did not hold at standard thresholds of statistical significance at $p < 0.05$.

It is also important to note that the results for other variables included in the models largely fall in line with what we might expect across both Models 2 and 4. For instance, we found a positive correlation between anxiety, discrimination, and taking the survey in Spanish with perceived risk of infection. It is also worth noting the size of these correlations, with Model 4 reporting a one-unit increase in anxiety associated with a 0.253 increase in perceived risk of being infected ($p = 0.000$), a one-unit increase in the discrimination index was associated with a 0.083 increase in the perceived risk of infection ($p = 0.001$) and taking the survey in Spanish was associated with a 0.539 increase in perceived risk of infection ($p = 0.002$).

Table 2. Perceived Risk of Infection.

	(1)	(2)	(3)	(4)
Hispanic/Latinx	0.148 *	0.067		
	(0.062)	(0.068)		
First-generation immigrant	0.012	0.067		
	(0.064)	(0.076)		
Second-generation immigrant	0.014	0.055		
	(0.060)	(0.065)		
Third-generation immigrant	−0.052	−0.025		
	(0.044)	(0.046)		
Hispanic/Latinx × First-generation immigrant			0.256 *	0.190 +
			(0.103)	(0.110)
Hispanic/Latinx × Second-generation immigrant			0.145 +	0.108
			(0.084)	(0.086)
Hispanic/Latinx × Third-generation immigrant			0.051	0.052
			(0.133)	(0.135)
Anxiety		0.253 ***		0.253 ***
		(0.016)		(0.016)
Discrimination Index		0.083 ***		0.083 ***
		(0.025)		(0.024)
Spanish Language		0.594 ***		0.539 **
		(0.165)		(0.172)
Health Insurance		−0.032		−0.030
		(0.055)		(0.055)
White		0.083		0.068
		(0.092)		(0.093)
African American		−0.026		−0.041
		(0.096)		(0.097)
Native American		−0.096		−0.100
		(0.094)		(0.094)
Asian		−0.076		−0.061
		(0.108)		(0.109)
Hawaiian/Pacific Islander		0.212		0.200
		(0.164)		(0.167)
Household Income		−0.040 **		−0.040 **
		(0.012)		(0.012)
Disabled		0.100		0.101
		(0.070)		(0.070)
Education		−0.012		−0.011
		(0.016)		(0.016)
Currently Working		0.075 +		0.076 *
		(0.039)		(0.039)
Male		−0.057		−0.058
		(0.035)		(0.035)
Age		0.000		0.000
		(0.001)		(0.001)
Constant	2.811 ***	2.751 ***	2.816 ***	2.767 ***
	(0.022)	(0.135)	(0.022)	(0.136)
Observations	149,613	128,858	149,613	128,858
R^2	0.002	0.040	0.003	0.040

Standard errors in parentheses + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Taken together, Table 2 presents mixed results for our hypotheses, with inconclusive results about the relationship between identification as Hispanic/Latinx and as a first- and second-generation immigrant with perceived risk of infection. To better understand these results, we conducted further tests to examine differences among different ethnic subgroups within individuals identifying as Hispanic/Latinx.

Table 3 presents results from subgroup analysis that demonstrates the heterogeneity between different subgroups within the broader Hispanic/Latinx label. Model 2 demonstrates that identifying as Mexican was associated with a 0.160 increase in perceived risk of infection from COVID-19 ($p = 0.45$). However, identifying as Cuban was associated with a 0.600 decrease in the perceived risk of infection from COVID-19 ($p = 0.008$), and identifying as Central/South American was associated with a 0.280 decrease in the perceived risk of infection ($p = 0.095$). These results help to explain the findings in Table 2—there is a lot of variation within the Hispanic/Latinx community, which arguably reflects the cumbersome

all-encompassing label for a diverse group of individuals. At the same time, nativity does not appear to be meaningfully associated with perceived risk of infection in Model 2.

Table 3. Perceived Risk of Infection, by Subgroup.

	(1)	(2)	(3)	(4)
Mexican	0.239 ***	0.160 *		
	(0.072)	(0.080)		
Puerto Rican	−0.057	−0.162		
	(0.171)	(0.176)		
Cuban	−0.504 *	−0.600 **		
	(0.230)	(0.227)		
Central/South American	−0.165	−0.282 +		
	(0.165)	(0.169)		
Other Spanish	0.265 +	0.179		
	(0.151)	(0.147)		
First-generation immigrant	0.053	0.118		
	(0.063)	(0.074)		
Second-generation immigrant	0.018	0.067		
	(0.060)	(0.065)		
Third-generation immigrant	−0.056	−0.031		
	(0.044)	(0.046)		
Mexican × First-generation immigrant			0.529 ***	0.438 ***
			(0.107)	(0.119)
Mexican × Second-generation immigrant			0.201 *	0.164
			(0.097)	(0.104)
Mexican × Third-generation immigrant			0.174	0.198
			(0.155)	(0.156)
Puerto Rican × First-generation immigrant			−0.337	−0.488
			(0.394)	(0.398)
Puerto Rican × Second-generation immigrant			0.135	0.143
			(0.208)	(0.207)
Puerto Rican × Third-generation immigrant			−0.125	−0.157
			(0.284)	(0.314)
Cuban × First-generation immigrant			−0.473 +	−0.495 *
			(0.243)	(0.240)
Cuban × Second-generation immigrant			−0.426 +	−0.281
			(0.249)	(0.234)
Cuban × Third-generation immigrant			0.000	0.000
			(.)	(.)
Central/South American × First-generation immigrant			−0.150	−0.156
			(0.208)	(0.224)
Central/South American × Second-generation immigrant			−0.244	−0.337
			(0.260)	(0.224)
Central/South American × Third-generation immigrant			1.026 *	0.766 +
			(0.456)	(0.428)
Other Spanish × First-generation immigrant			0.774 **	0.680 **
			(0.257)	(0.231)
Other Spanish × Second-generation immigrant			0.183	0.157
			(0.350)	(0.325)
Other Spanish × Third-generation immigrant			−0.494	−0.524 +
			(0.329)	(0.304)
Anxiety		0.254 ***		0.257 ***
		(0.016)		(0.016)
Discrimination Index		0.085 ***		0.083 ***
		(0.024)		(0.024)
Spanish Language		0.667 ***		0.561 ***
		(0.153)		(0.153)
Health Insurance		−0.029		−0.025
		(0.055)		(0.054)
White		0.122		0.091
		(0.090)		(0.091)
African American		0.019		−0.010
		(0.094)		(0.094)
Native American		−0.103		−0.109
		(0.095)		(0.094)

Table 3. *Cont.*

	(1)	(2)	(3)	(4)
Asian		−0.071		−0.052
		(0.108)		(0.108)
Hawaiian/Pacific Islander		0.188		0.148
		(0.165)		(0.179)
Household Income		−0.039 **		−0.037 **
		(0.012)		(0.012)
Disabled		0.101		0.105
		(0.070)		(0.070)
Education		−0.010		−0.009
		(0.016)		(0.016)
Currently Working		0.076 *		0.075 *
		(0.038)		(0.038)
Male		−0.058 $^{+}$		−0.060 $^{+}$
		(0.035)		(0.035)
Age		0.001		0.001
		(0.001)		(0.001)
Constant	2.808 ***	2.682 ***	2.816 ***	2.706 ***
	(0.022)	(0.134)	(0.022)	(0.134)
Observations	149,613	128,858	149,613	128,858
R^2	0.006	0.044	0.011	0.048

Standard errors in parentheses $^{+}$ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Delving deeper into the data, Models 3 and 4 show the interaction between ethnicity and migration. Again, these results demonstrate the complexity of identity and perceived risk of infection during the pandemic, with individuals identifying as first-generation Mexican associated with a 0.439 greater perceived risk of infection ($p = 0.000$) and those identifying as first-generation other Spanish individuals associated with a 0.678 increase in perceived risk of infection ($p = 0.003$) compared to individuals not identifying as Hispanic/Latinx or as an immigrant.

Finally, Table 3 reports similar findings to Table 2 in illustrating the positive relationship between anxiety, discrimination, and taking the survey in Spanish with perceived risk of infection from COVID-19. These results are consistent across Models 2 and 4, and the size and statistical significance of the results mirror those presented in Table 2, illustrating the importance of anxiety, discrimination, and taking the survey in Spanish on how individuals perceive the risk of becoming infected from COVID-19.

4.2. Perceived Risk of Dying

While it is important to understand individuals' perceived risk of infection, the COVID-19 pandemic has been particularly lethal for people of color. As a result, we turn next to analysis of individuals' perceived risk of dying from COVID-19 if they contract the virus to see whether there are systematic differences in perceived risk related to mortality from the virus.

Table 4 presents the results of models examining the relationship between identification as Hispanic/Latinx and migration on perceived risk of dying. Results from Model 2 with all covariates included show that identifying as Hispanic/Latinx was associated with a 0.256 increase in perceived risk of dying of COVID-19 ($p = 0.001$). Consistent with earlier results, no generational nativity status was statistically different from not being an immigrant.

Turning to Model 4, the interaction between Hispanic/Latinx and nativity appears to be positively correlated with perceived risk of dying. Identification as a first-generation Hispanic/Latinx individual was associated with a 0.262 increase in perceived risk of dying ($p = 0.018$), while identifying as a second-generation Hispanic/Latinx was associated with a 0.324 increase in perceived risk of dying from COVID-19 ($p = 0.000$) relative to non-Hispanic and non-immigrant individuals. In short, it appears that the combination of being Hispanic/Latinx and a first- or second-generation immigrant is related to increased perceived risk of dying from COVID-19.

Table 4. Perceived Risk of Dying.

	(1)	(2)	(3)	(4)
Hispanic/Latinx	0.181 *	0.256 ***		
	(0.072)	(0.078)		
First-generation immigrant	0.068	0.060		
	(0.074)	(0.085)		
Second-generation immigrant	0.001	0.035		
	(0.073)	(0.074)		
Third-generation immigrant	0.091	0.017		
	(0.055)	(0.054)		
Hispanic/Latinx × First-generation immigrant			0.289 **	0.261 *
			(0.107)	(0.110)
Hispanic/Latinx × Second-generation immigrant			0.203 *	0.325 ***
			(0.096)	(0.089)
Hispanic/Latinx × Third-generation immigrant			0.149	0.222
			(0.172)	(0.152)
Anxiety		0.223 ***		0.223 ***
		(0.019)		(0.019)
Discrimination Index		0.073 **		0.074 **
		(0.025)		(0.025)
Spanish Language		0.693 ***		0.747 ***
		(0.183)		(0.183)
Health Insurance		−0.121 +		−0.123 +
		(0.064)		(0.064)
White		−0.207 *		−0.190 +
		(0.099)		(0.101)
African American		−0.035		−0.018
		(0.103)		(0.104)
Native American		−0.031		−0.027
		(0.105)		(0.105)
Asian		0.017		0.011
		(0.113)		(0.114)
Hawaiian/Pacific Islander		0.016		0.028
		(0.164)		(0.163)
Household Income		−0.110 ***		−0.110 ***
		(0.014)		(0.014)
Disabled		0.161 +		0.161 +
		(0.083)		(0.083)
Education		−0.113 ***		−0.113 ***
		(0.018)		(0.018)
Currently Working		−0.119 **		−0.120 **
		(0.043)		(0.043)
Male		−0.069 +		−0.068 +
		(0.040)		(0.040)
Age		0.019 ***		0.019 ***
		(0.001)		(0.001)
Constant	2.890 ***	2.883 ***	2.890 ***	2.866 ***
	(0.027)	(0.147)	(0.027)	(0.147)
Observations	149,572	128,843	149,572	128,843
R^2	0.003	0.123	0.003	0.123

Standard errors in parentheses + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

As with earlier models, results relating to our control variables largely fall in line with what one might expect, with anxiety, discrimination, Spanish language, and age associated with greater perceived risk of dying from COVID-19 if they contract the virus. Similarly, factors that might reduce health risks were associated with decreased perceived risk of dying, such as having health insurance, identifying as White, greater household income, and education. Identifying as male was also associated with decreased perceived risk of dying.

However, it is important to further analyze the perceived risk of dying by subgroup. Table 5 presents the results of this analysis. First, we found a large degree of heterogeneity in the results, with large variations in the relationships between subgroups and perceived risk of dying. Identifying as Mexican was associated with a 0.340 increase in perceived risk of dying from COVID-19 ($p = 0.000$) and identifying as Other Spanish increased perceived

risk of dying by 0.311 ($p = 0.050$). Like with previous models, nativity alone did not appear to be related to perceived risk of dying.

Table 5. Perceived Risk of Dying, by Subgroup.

	(1)	(2)	(3)	(4)
Mexican	0.265 **	0.340 ***		
	(0.085)	(0.092)		
Puerto Rican	−0.034	0.015		
	(0.186)	(0.161)		
Cuban	−0.088	−0.186		
	(0.166)	(0.208)		
Central/South American	−0.093	0.034		
	(0.186)	(0.201)		
Other Spanish	0.240	0.311 *		
	(0.183)	(0.158)		
First-generation immigrant	0.095	0.092		
	(0.075)	(0.086)		
Second-generation immigrant	0.006	0.043		
	(0.074)	(0.075)		
Third-generation immigrant	0.087	0.013		
	(0.055)	(0.054)		
Mexican × First-generation immigrant			0.619 ***	0.541 ***
			(0.110)	(0.124)
Mexican × Second-generation immigrant			0.225 *	0.377 ***
			(0.112)	(0.109)
Mexican × Third-generation immigrant			0.202	0.273
			(0.197)	(0.181)
Puerto Rican × First-generation immigrant			−0.248	−0.387
			(0.436)	(0.310)
Puerto Rican × Second-generation immigrant			0.244	0.219
			(0.223)	(0.187)
Puerto Rican × Third-generation immigrant			−0.453 +	−0.178
			(0.250)	(0.248)
Cuban × First-generation immigrant			0.026	−0.112
			(0.167)	(0.212)
Cuban × Second-generation immigrant			−0.320	−0.015
			(0.260)	(0.427)
Cuban × Third-generation immigrant			0.000	0.000
			(.)	(.)
Central/South American × First-generation immigrant			−0.134	−0.070
			(0.215)	(0.243)
Central/South American × Second-generation immigrant			−0.011	0.289
			(0.338)	(0.319)
Central/South American × Third-generation immigrant			1.561 ***	1.636 **
			(0.444)	(0.498)
Other Spanish × First-generation immigrant			0.366	0.432
			(0.368)	(0.285)
Other Spanish × Second-generation immigrant			0.206	0.240
			(0.421)	(0.300)
Other Spanish × Third-generation immigrant			0.199	0.136
			(0.542)	(0.426)
Anxiety		0.224 ***		0.225 ***
		(0.019)		(0.019)
Discrimination Index		0.075 **		0.074 **
		(0.026)		(0.025)
Spanish Language		0.743 ***		0.768 ***
		(0.172)		(0.173)
Health Insurance		−0.118 +		−0.117 +
		(0.063)		(0.063)
White		−0.176 +		−0.175 +
		(0.099)		(0.099)
African American		0.003		0.009
		(0.103)		(0.102)
Native American		−0.037		−0.034
		(0.105)		(0.105)

Table 5. *Cont.*

	(1)	(2)	(3)	(4)
Asian		0.027		0.013
		(0.114)		(0.111)
Hawaiian/Pacific Islander		0.002		−0.000
		(0.163)		(0.164)
Household Income		−0.109 ***		−0.107 ***
		(0.014)		(0.014)
Disabled		0.163 *		0.166 *
		(0.083)		(0.083)
Education		−0.111 ***		−0.111 ***
		(0.018)		(0.018)
Currently Working		−0.118 **		−0.120 **
		(0.043)		(0.043)
Male		−0.069 $^{+}$		−0.072 $^{+}$
		(0.040)		(0.040)
Age		0.019 ***		0.019 ***
		(0.001)		(0.001)
Constant	2.887 ***	2.827 ***	2.890 ***	2.811 ***
	(0.027)	(0.148)	(0.027)	(0.148)
Observations	149,572	128,843	149,572	128,843
R^2	0.005	0.125	0.008	0.126

Standard errors in parentheses $^{+}$ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

However, when turning to the interaction between ethnic group and immigration, we found that first- and second-generation Mexican individuals reported an increased risk of dying, by 0.541 (p = 0.000) and 0.377 (p = 0.001), respectively. Similarly, third-generation Central/South American individuals were associated with a 1.629-fold increase in perceived risk of dying. The lower self-reported risk among first- and second-generation Mexicans might be explained by Latinxs individuals who feel closer to the "canonical immigrant" tending to underreport distress as a way of defying stereotyping [52,53]. As with previous models, we found that our control variables report results in line with how one might expect them to be related to perceived risk of dying from COVID-19.

Overall, while controlling for alternative explanations, identification as Hispanic/Latinx and being first-generation was associated with greater perceived health risks from COVID-19. This was particularly true of participants of Mexican descent. However, these results are complex, and speak to the importance of treating heterogeneity among the Hispanic/Latinx community seriously in social science and public health research. We also found that anxiety, discrimination, and taking the survey in Spanish were also consistently positively associated with both the perceived risk of becoming infected and the perceived risk of dying from COVID-19. In the next section, we discuss the implications of these results.

5. Discussion

The COVID-19 pandemic has affected people around the world, but its effects have been particularly acute for people of color, exacerbating inequities in healthcare that existed prior to the pandemic. In this article, our findings demonstrate that people identifying as Hispanic/Latinx, and as first-generation immigrants perceive a greater likelihood of getting infected and of dying from COVID-19 than other individuals.

Furthermore, we find important differences between different subgroups, with individuals identifying as Mexican reporting greater perceived health risk than other subgroups within the Hispanic/Latinx community. Collectively, these results build on our understanding of perceived health risks during COVID-19, demonstrating the increased perceived risks of the Hispanic/Latinx community in the US, and of first-generation immigrants especially. Building on previous studies, our results also indicate that anxiety, discrimination, and completing the survey in Spanish are also correlated with greater perceived risks of becoming infected and of dying from COVID-19. Taken together, our results add to the collective understanding of migration and public health, illustrating how ethnic

identity and migration status influence individuals' perceptions of risk during public health emergencies, including COVID-19.

While this study focuses exclusively on perceived risks and not realized health effects of the pandemic among participants in the study, these findings are significant for several reasons. First, it is likely that risk perceptions affect people's behavior, including the adoption of protective behaviors, whether people remain in the labor force, and where people live [54,55]. Risk perceptions could exacerbate existing problems and induce the cycle of harm. For one example, perceived risks could be associated with vulnerable workers continuing to work at meatpacking plants in Nebraska where social distancing measures were insufficient, or the underground economy where lawful or safe employment is not possible [32,56].

Of course, workers at meatpacking plants and in other workplace environments that are particularly conducive to the spread of COVID-19 may have few alternative options for employment [57]. Further, an individual may not feel they have much choice but to work in an environment where there may be a heightened risk of exposure to COVID-19 because they need the income regardless of how they feel about the risks from the virus, and this is a very different calculation than a discretionary decision to drink at a bar. Understanding these nuances will be critical in future research to building a thorough understanding of risk perception, attitudes, and behavior in the COVID-19 pandemic.

In particular, further research should examine the relationship between perceived risks and behavior during the pandemic, especially among the Hispanic/Latinx and immigrant communities, to better understand the adoption of protective behaviors and continued employment, especially in essential services, and how it affects internal and external migration.

Second, building on the findings of this study, there remains scope for further exploring the mental health burden of the COVID-19 pandemic on Hispanic/Latinx and immigrant individuals. This is especially critical given the extended duration of the pandemic, and the fact that the long-term implications of the pandemic on individuals' health, society, and the economy remain unknown at the time of writing.

Third, a broader implication of our results is that the pandemic may only amplify existing stresses felt by Hispanic/Latinx and immigrant individuals in the US, creating a dual crisis. A heightened anti-immigration climate may increase the chronic fear of deportation, which in turn "may exacerbate current health conditions while increasing vulnerability to others" [58] p. 592. In a pandemic, Latinx communities are likely to be impacted more as they are more vulnerable to sickness and can be afraid of going to health centers which, in the case of a communicable disease, makes it more difficult to maintain public health. The role of community advocates and the separation of ICE from local police are important in reducing fear from deportation and thus allowing immigrants to have better access to health [34]. Further research should build on this study to further examine the relationship between perceived health risks of COVID-19 and the broader social and political environment in the US and its hostility to Hispanic/Latinx individuals.

It is also important to note that there are also some limitations of this study that future scholarship could address. First, our study raises important questions about the disproportionate effect of COVID-19 on at-risk populations in the United States. Unfortunately, we were unable to examine perceptions of risk with realized health effects in this article given the nature of the study, but this presents an important avenue for future research to examine. Scholars could examine the extent to which individuals' expectations about becoming infected and dying from COVID-19 matched data about the prevalence and impact of the virus.

Second, the purpose of this study is to understand perceived risks about COVID-19 among the US population and to examine how race, ethnicity, and nativity influence risk perception. However, we are unable to speak directly to what drives our results. It is possible that some populations worry more (or less) about COVID-19 due to dissociation from the crisis, fatalistic attribution, or other factors that were not measured in the data

we used. We hope that further studies examine more of the causal mechanisms associated with perceived risks among different groups.

Third, studies could also examine how individuals responded to perceived risk in their behavior regarding COVID-19. For instance, higher risk perceptions regarding becoming infected and dying from COVID-19 could be associated with greater adoption of preventive behavior to reduce the risk of becoming infected. Alternatively, individuals with higher levels of perceived risk could adopt fatalistic attitudes about the virus and become more risk-accepting. Further research should build on this study to examine the consequences of risk perception about COVID-19 on behavior.

Fourth, while this article used panel data from a national probability sample, it is observational data; therefore, causal inferences are difficult to establish. As a result, our findings should be interpreted as correlational and not causal in nature. Further work should establish the causal mechanisms through which individuals report higher levels of perceived risk relating to becoming infected and dying from COVID-19, and longitudinal studies might shed some light on these processes. This is especially important because it is possible that there is a complex causal pathway from ethnic identification and nativity to perceived risks, and anxiety, discrimination, and other factors might serve as mediating or moderating variables through this process. Future scholarship should explore these complex relationships in greater detail and establish causal pathways leading to heterogenous perceptions of risk relating to COVID-19.

Finally, we are constrained in our analysis by the classification of the Hispanic/Latinx subgroups in the dataset, and these groups are not as specific or fine-grained as we would like. For example, it is difficult to interpret the 'other Spanish' classification in the data, and it would be a good practice to have additional follow-up questions to have a better understanding of the participants identifying as 'other Spanish.' We hope that future studies might have better data, but in our opinion this limitation further emphasizes the importance of understanding heterogeneity within racial and ethnic groups more broadly. We hope that datasets will have more fine-grained data along these lines in the future so that scholars can use them to better understand people's experiences of COVID-19.

6. Conclusions

In this article, we demonstrated the positive relationship between ethnic identity and immigration status on perceptions of harm from the COVID-19 virus in the United States. Hispanic/Latinx and first-generation immigrants reported higher perceived risk of becoming infected and dying from the virus. Further analysis illustrated that this association was especially true of individuals of Mexican descent in our sample, while other Hispanic/Latinx subgroups report mixed results. Further, we found that anxiety, discrimination, and taking the survey in Spanish were positively related to perceived risk of becoming infected and dying across all models.

Taken together, our results add further evidence about the heterogeneous impact of COVID-19 on vulnerable populations in the US. Beyond increased medical risks associated with the pandemic, these results suggest that Hispanic/Latinx individuals have a higher mental health burden than other individuals with an increased perception of health risks.

The COVID-19 pandemic has had a greater worldwide impact than other public health threats in recent memory, and its full effects are yet to be realized [1–4,59]. As such, we do not know to what extent our findings might generalize to other places, settings, and times. However, we hope this study helps build on the already-impressive scholarship on the pandemic to understand its effects on vulnerable populations and immigrant communities in the US and around the world.

Supplementary Materials: The following are available online at https://www.mdpi.com/article/10.3390/ijerph182111113/s1, Table S1: Ordered Logit Regression: Perceived Risk of Infection, Table S2: Ordered Logit Regression: Perceived Risk of Infection by Subgroup, Table S3: Ordered Logit Regression: Perceived Risk of Dying, Table S4: Ordered Logit Regression: Perceived Risk of Dying by Subgroup.

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Article

Health Status and Barriers to Healthcare Access among "Son-in-Law Westerners": A Qualitative Case Study in the Northeast of Thailand

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Abstract: The northeast of Thailand is well-known as a popular destination where many male Westerners marry Thai women and settle down there. However, little is known about their health and well-being. This study aims to explore the Western husbands' health status and identify barriers hindering their healthcare access. A qualitative case study was conducted from November 2020 to May 2021. In-depth interviews and focus group discussions with 42 key informants who were involved with social and health issues among these expatriates were carried out. The social determinants framework was adapted for guiding the interviews. Data were triangulated with field notes, document reviews, and researchers' observations. Inductive thematic analysis was applied. Results showed that most male expatriates who married Thai women in the northeast were in their retirement years and had non-communicable diseases, health risk behaviors, and mental health problems. Most of them did not purchase health insurance and held negative impressions toward Thai public hospitals' quality of care, which was denoted as the main barrier to accessing healthcare services. Other significant barriers consisted of high treatment costs commonly charged by private hospitals and language issues. While the improvement of healthcare quality and the provision of friendly health services are important, public communication with foreign residents, especially male expatriates, is recommended to increase understanding and improve perceptions of the Thai healthcare systems. A regular population-based survey on the health and well-being of expatriates in Thailand, a cost study of a health insurance package, a survey study on willingness to pay for health insurance premiums, and a feasibility survey exploring the opportunity to establish either voluntary or compulsory health insurance among this group should be undertaken.

Keywords: expatriates; Westerners; northeast; Thailand; health; healthcare services; healthcare access; barriers

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1. Introduction

International migration is a trend that continues to increase every year. The World Migration Report 2020 estimated that the number of people who crossed borders was close to 272 million worldwide, accounting for 3.5% of the global population [1]. The globalized economy creates global flexibility and mobility in workforces, and has consequently led to a significant jump in migration and expatriation [2]. As of 2017, the global expatriate population was defined as an individual who leaves their place of birth to reside in another country with a specific goal, e.g., to work, study, retire, have a new family and reside in another country for a certain duration (normally using a three-month benchmark) [3]. This population amounted to 66.2 million and was estimated to reach 87.5 million by 2021 [2].

The health and well-being of all people around the world is considered fundamental to achieving Universal Health Coverage (UHC). This idea was highlighted by the Sustainable Development Goals (SDGs) with the principle of "leaving no one behind" [4]. Given the substantial amount of migration and number of expatriates, healthcare for this group has become a significant issue. Hence, expatriates' health is of concern from the perspectives of policy makers and health practitioners. Expatriates have long been considered as one of the vulnerable populations because some have precarious migration statuses, live in substandard conditions, and are unfamiliar with the healthcare system and culture in the host country. International literature has confirmed these findings. For instance, a study among Portuguese expatriates in Angola and Mozambique revealed that one-third of expatriates faced psychological stress [5]. Moreover, 64% of them reported having psychological symptoms, and 20% needed medical assistance [6]. Similarly, a study in Saudi Arabia also revealed that expatriates were likely to have poor mental health [7,8], while another study indicated that road traffic accidents was the top health risk among expatriates in Saudi Arabia [9].Apart from experiencing health problems, expatriates' difficulties in accessing health services in the host country has also been an issue. These difficulties consist of several barriers such as cultural and language differences and inadequate medical infrastructure [10,11]. For instance, Asian expatriates in the Middle East with underlying chronic illnesses such as diabetes or asthma were reported to face difficulties in accessing health services in the host country as the medical infrastructure was generally tailored to its citizens [12].

Southeast Asia is one of the most economically dynamic regions in the world [13]. As one of the countries in this region, Thailand plays an important role in international migration and has become an expatriation hub due to its geographical location in the middle of the Indo-China peninsula [14]. According to recent data (as of June 2021) from the Ministry of Labour of Thailand (MOL), the number of expatriates with work permits residing in the country amounted to 2,380,767 people, accounting for 3.4% of the total Thai population of about 70 million [15]. The majority of this group (1,618,427 people) were workers from Cambodia, Lao PDR, Myanmar, and Vietnam (CLMV migrants), and accounted for 68.0% of the total expatriates, and 2.3% of the Thai population [15]. Approximately 80,000 expatriates (0.1% of the total Thai population), stayed in the country as retirees, which were mostly English, followed by American, German, Chinese, and Swiss, respectively [16]. It should be noted that the definition of expatriates used in this source may not be the same as used in this present study. In addition, it is widely accepted that it is not possible to have correct information about significant number of expatriates, particularly those who are undocumented and/or do not work in a formal sector [1]. Due to Thailand's needs for CLMV migrants to help foster its economic development, the Thai Government has introduced policies to protect these people's health. For example, the Ministry of Public Health (MOPH) implemented a national public insurance scheme in 2013 called the Health Insurance Card Scheme (HICS) for CLMV migrants who work in the informal sector [17]. The HICS covers comprehensive health benefits including inpatient (IP) care, outpatient (OP) care, high-cost treatments, health promotion, and disease prevention activities [18]. However, it appears that the Thai Government has not yet provided a clear direction for protecting the health of expatriates who do not fall under this category as the number of this group of people are relatively small when compared to CLMV migrants. There is a lack of data information about these people, yet data are important to be used for strategic planning in order to improve health and well-being of all non-Thais in the country, as laid out in the vision statement of the National Health Security Office that the health of all people living in the country will be protected [19]. Moreover, several Thai people, including the Government, perceive that these people are wealthy and able to pay for healthcare cost by themselves. Hence, this group of people seemed to be neglected. For instance, certain expatriates may have work permits but do not work in the formal sector and are therefore not covered by the Thai Social Security Scheme (SSS), a public health insurance scheme for workers in the formal sector regardless of nationality [17]. Furthermore, the

Thai Government does not have any mandatory policies for retired expatriates to obtain health insurance for their visa renewal (non-immigrant OA or long stay) [20].

In terms of health problems among non-CLMV expatriates in Thailand, the amount of research exploring this group's health and well-being is still limited. Most studies involving expatriate's health problems in Thailand revolved around Japanese and Western expatriates. For instance, a study on health service use among Japanese long-stay retirees in Thai tourist provinces revealed that most had underlying chronic diseases, such as hypertension, diabetes, and cardiovascular diseases [21]. Furthermore, a report produced by the Chiang Mai Expats Club and Lanna Care Net found that most expatriates were retirees from Western countries and a large proportion of them did not have any health insurance [22]. It was reported that 95% of them were of old age and had to seek medical care quite often, whereas there was no Government safety net for them and they were living on low pension [22]. Scuzzarello conducted a study in older Westerners in Thailand and found that many retirees could not afford private health insurance due to old age and chronic diseases [23]. The recent study by Khunakorncharatphong et al. (2021) analyzed health service utilization among expatriate patients in Thailand using hospital records of the MOPH during 2014–1018 [24]. It was reported that, for outpatient services, most expatriate patients were female, CLMV at working age, and used the services in the central region [24]. However, when looking at inpatient services, most admitted expatriates were the elderly with noncommunicable diseases (NCDs), and were admitted to hospitals in the northern region more than in other regions [24].

Despite having studies on the health of expatriates in Thailand, most of them were conducted in Bangkok or tourist areas, while research on expatriates in the northeastern region is quite scarce. This region is of particular interest because it is the largest area in the country and is a popular destination for extended stays among Western travelers [25]. More importantly, it is notable for the "Western husband"—mostly, the retired men or businessmen, who marry Thai women and settle down in the region [26,27]; the Western husband is known as "Keui farang" in Thai, which literally means "Caucasian son-in-law"—with the term "Farang" referring to Caucasians. In 2009, a local survey was conducted to estimate the approximate number of son-in-law Westerners, who had families and lived in Udon Thani, one of provinces in the northeast well-known for these matrimonies. It found that there were around 5700 Westerners from 33 different countries spread across 20 districts within the province [28].

However, most of the existing studies about Western husbands in the northeast region focused on societal and cultural factors in relation to transnational marriage rather than health aspects [29,30]. Therefore, the objective of this study is to explore the health status and perceived barriers hindering healthcare access among expatriates—and specifically the son-in-law Westerners—in the northeastern region of Thailand.

2. Materials and Methods

This study adapted the World Health Organization's (WHO) concept of social determinants of health for framing our interview guide regarding enabling factors and barriers to healthcare access as shown in Figure 1 below. The interviews with Western husbands in the northeast focused on all relevant enabling factors and/or barriers to healthcare access in Thailand—which ultimately influence their health and well-being in the country. These included three groups of factors: demographic factors (such as age and nationality); individual lifestyle factors (such as, cultural beliefs/attitudes, past experiences, and health behaviors); and social and environment factors (such as education, economic status, legal status, health insurance, Thai Government policies in relation to migrant and health, and availability of friendly health services that they could access). The semi-structured interview questions can be seen in the Supplementary File S1.

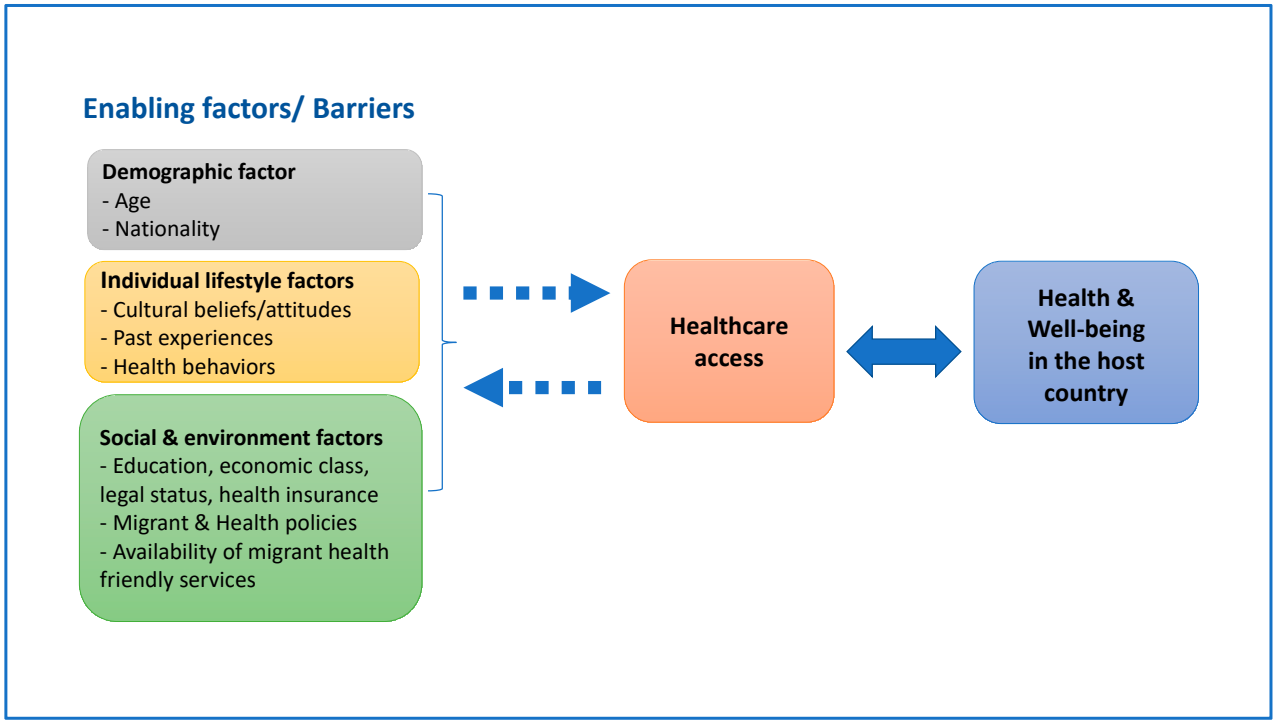

Figure 1. Conceptual framework for guiding the interviews and focus group discussions.

Besides interviews with Western husbands themselves, we also conducted the interviews with other relevant stakeholders whose work related to the issues around health and other social and environment factors that could affect their living status; this included MOPH policy makers, officers of other Ministries, NGO staff, Academia, and local public health officers in different levels of the health services in both public and private sectors. This helped us have perspectives from different angles, which would be very useful for informing policy design to improve the Thai health system.

For interviews with other key informants (KIs) who were not Western husbands, the researchers placed an emphasis on government policy directions toward expatriate well-being, such as existing legal mechanisms pertaining to their living status, health insurance and availability of supportive services, and views and attitudes of KIs towards the optimal approach that the Thai Government should implement in order to support expatriates' health and well-being (see interview questions in Supplementary File S1).

2.1. Study Design and Setting

This study employed a qualitative case study design. Data were collected via in-depth interviews and focus group discussions (FDGs) conducted among key stakeholders in relation to expatriates' health and well-being from November 2020–May 2021. All interviewees were purposively selected among relevant stakeholders, who had experiences of working in relation to health and well-being of international migrants and/or foreigners in Thailand as well as male expatriates themselves. Interviewees included policy makers, immigration bureau officers, non-governmental organization (NGO) officers, local healthcare providers (both public and private), and expatriates.

2.2. Study Population

The study population consisted of expatriates who married Thai citizens or lived together as partners or had family in the northeast of Thailand. There was a lack of data for this group, particularly health information, and they appeared to be underestimated by the Thai Government due to being smaller in number in comparison to CLMV migrants.

The study areas comprised the three provinces, namely Nong Bua Lam Phu, Udon Thani, and Khon Kaen, which were well-known for having many Western husbands.

2.3. Data Collection

As mentioned above, in-depth interviews and FDGs were the main methods used for data collection. Purposive sampling was used to identify KIs, and additional informants were also included by snowball selection. Semi-structured questions were employed for the interviews, which took approximately 40–60 min per each interview. The interviews took place in the interviewees' workplace, at the male expatriate's house or via video calls or the Zoom meeting application as requested by some participants.

FGDs were held with approximately four informants per group, using the same question as used for in-depth interviews, and two FDGs were conducted: (1) among local primary healthcare providers who had the chance to meet with expatriates and their families in the study area (see Table 1, F5–F8); and (2) committee members who produced the MOPH's healthcare service provision guidelines for foreigners [31] (see Table 1, A2–A5). Both interviews and discussions were recorded and transcribed upon receiving permission from participants. All interviews and discussions were conducted by SJ, NP, and MP. At the end of each day, research team members summarized the interviews and FGDs and discussed the main content and any inconsistent issues to reach a mutual consensus.

Table 1. List of interviewees about health status and barriers to foreigners' healthcare access.

Code	Involvement with Social and Health Issues among Expatriates
	MOPH Policy Makers
A1	Head of Health Security Development, Health Economics and Health Security Division
A2 *	Committee member who took part in the production of the guidelines for healthcare service provision for foreign tourists
A3 *	Committee member who took part in the production of the guidelines for healthcare service provision for foreign tourists
A4 *	Committee member who took part in the production of the guidelines for healthcare service provision for foreign tourists
A5 *	Public Health Technical Officer of the Specific Health Service Development Unit, Health Administration Division, MOPH
A6	Director of a community hospital located in the northeast that provides health services for oversea visitors
	Other Ministry Participants
B1	Consultant of the Ministry of Justice
B2	Diplomatic Service Officer of the Consular Affairs Department, Ministry of Foreign Affairs
B3	Inspector of the Udon Thani Immigration Bureau
B4	Officer of the Women and Family Development Leaning Center, Ministry of Social Development and Human Security
	NGO
C1	Staff who has experience in work related to health services and quality of life of migrants and/or foreigners

Table 1. *Cont.*

Code	Involvement with Social and Health Issues among Expatriates
	Academia
D1	Researcher with experience in conducting research on gender approach to migration and transnational studies
D2	Researcher with experience in conducting research on health status and quality of life among expatriates in Thailand.
D3	Researcher with experience in conducting research on transnational anthropology with gender sensitivity
	Primary Care Public Health Providers
E1	Deputy Director of a Provincial Health Office located in the northeast
E2	Director of a District Health Office located in the northeast
F1	Public health officer of a subdistrict health center in Nong Bua Lam Phu province
F2	Public health officer of a subdistrict health center in Nong Bua Lam Phu province
F3	Registered nurse of a subdistrict health center in Nong Bua Lam Phu province
F4	Public health officer of a subdistrict health center in in Nong Bua Lam Phu province
F5 *	Director of a subdistrict health center in Udon Thani province
F6 *	Director of a subdistrict health center in Udon Thani province
F7 *	Director of a subdistrict health center in Udon Thani province
F8 *	Director of a subdistrict health center Udon Thani province
F9	Director of a subdistrict health center in Khon Kaen
F10	Public health officer of a subdistrict health center in Khon Kaen province
F11	Director of a subdistrict health center in Khon Kaen province
	Community and Provincial Hospital Healthcare Providers
G1	Registered nurse of the Healthcare Service Department, MOPH, who is responsible for providing services for foreigners in local public hospitals
G2	Registered nurse of the Healthcare Service Department, MOPH, who is responsible for providing services for foreigners in local public hospitals
G3	Registered nurse at a local public hospital
G4	Registered nurse at a local public hospital
	Private Hospital Staff
H1	Staff working in the international affairs unit of a private hospital in Udon Thani province
H2	Staff working in the international affairs unit of a private hospital in Udon Thani province

Table 1. *Cont.*

Code	Involvement with Social and Health Issues among Expatriates
	Male Expatriates
I1	Male expatriate living in Nong Bua Lam Phu province
I2	Male expatriate living in Nong Bua Lam Phu province
I3	Male expatriate living in Nong Bua Lam Phu province
I4	Male expatriate living in Nong Bua Lam Phu province
I5	Male expatriate living in Udon Thani province
I6	Male expatriate living in Udon Thani province
I7	Male expatriate living in Udon Thani province
I8	Male expatriate living in Khon Khan province
I9	Male expatriate living in Khon Khan province

* People who were interviewed in groups.

At the end, there were 42 interviewees comprising 6 MOPH policy makers, 4 representatives from other ministries that deal with foreigner-related work (Ministry of Justice, Ministry of Foreign Affairs, Ministry of Social Development and Human Security, and Immigration Bureau of the Royal Thai Police Headquarters), 1 NGO staff, 3 academics, 1 Deputy Director of a Provincial Health Office, 1 Director of a District Health Office, 11 public health officers, 4 registered nurses, 2 staff from the international affairs unit of a private hospital, and 9 expatriates comprising 6 different nationalities (2 French, 2 English, 1 Swedish, 1 American, 1 Australian, 1 Canadian, and 1 Swiss). Details are shown in Table 1.

2.4. Data Analysis

Inductive thematic analysis was applied. The interviews were transcribed from audio records and coded by themes. The coding and generated themes were produced by SJ and NP by first reading the audio transcription, taking notes, and highlighting sentences and phrases with the same content to form groups. Subsequently, themes were generated, and several codes were introduced as subsets of the themes. Interview data were triangulated with field notes, document reviews, and researchers' observations.

Ethical approval to conduct the study was obtained from the Institute for Human Research Protection, Thailand (IHRP 036/2563). The data collection process strictly followed the Declaration of Helsinki. The informed consent process was approved by the IHRP. All informants were provided with a participant information sheet and informed consent was granted prior to conducting the interview and survey.

3. Results

Three themes were identified from the interviews and FGDs as key determinants in hampering access to healthcare services, namely: (1) the health status of Western husbands in the northeast of Thailand; (2) negative impressions toward the Thai healthcare system; and (3) language and financial barriers. Detailed information and transcribed portions from the interviews are presented below.

Theme 1. *Health status of Western husbands in the northeast of Thailand.*

3.1. Non-Communicable Diseases (NCDs), Health Risk Behaviours, and Mental Health Were Issues of Concern

Most of the expatriates were retirees and held retirement visas for living in Thailand.

"*First, I came here for holiday then I met my girlfriend. Then we got married and moved to Australia for a lot of years. Then, when I retired, we decided to settle down here.*" (I1)

Several participants also reported that most male expatriates had chronic diseases such as hypertension, diabetes mellitus, and cardiovascular diseases. This can be seen via sample statements below.

"*Male or female Westerners who have family in Thailand mostly have chronic diseases because they are elderly people.*" (A2)

"*I have a heart infarction, blood pressure, sugar in blood*" (I3)

Moreover, some expatriates reported having health risk behaviors such as smoking and drinking.

"*I saw that some of them drank beer and smoking day by day. It's their lifestyle. They were retired and didn't work nowadays. They can do everything whatever they want, even though they have emphysema. They should quit smoking but they don't. Whenever their conditions are out of control, it makes them sick.*" (G4)

Apart from physical health problems, expatriates also had mental health problems. Some expatriates seemed to be unable to adapt to Thai culture and society. Coupled with isolation from a familiar way of life and societal norms, this may have played a role towards their mental health issues. It was also reported that some expatriates had alcoholism and depression, eventually leading to suicide.

"*When they come to Thailand, they come with some dreams. But it might not turn out as they hoped for. Some of them broke up, got dump, and finally ended relationships with their girlfriends. It's a private life problem of them.*" (D1)

"*They drink alcohol and get drunk. This complicated situation had also resulted in family violence, mental health problem, leading to suicide.*" (E1)

3.2. They Preferred to Pay Out-of-Pocket Rather Than Buying Health Insurance

All expatriates noted that they were comfortable paying out-of-pocket when requiring health services instead of buying health insurance. Some of the reasons for not buying health insurance are as follows.

First, even though most of them were the elderly, living with NCDs, risky health behaviors, and mental health issues, they did not have a long-term plan for their health as they perceived that they did not need any healthcare services and thus ignored purchasing health insurance.

"*I'm still healthy. I don't have to take medicine regularly.*" (I2)

"*I hadn't gotten any health insurance here so far with my retirement visa. I'm not required to have a health insurance.*" (I1)

Second, expensive health insurance premiums were crucial in their decision to not buy health insurance. As most expatriates were in their retirement years (more than 55 years old), the cost of insurance was higher than other age groups and become more expensive the more the person aged.

"*Most of them are the elderly, the premium for health insurance is approximately 3033 USD per year. They don't have money to pay for health insurance.*" (F5)

"*It's hard to get health insurance when you're 72 years old. It'll be too expensive for me to get it so I put my money in my bank account for health.*" (I9)

Third, although some male expatriates had health insurance from their home countries, it did not cover health services provided in Thailand. Some expatriates stated that when they were seriously ill, they would rather return to their home countries instead of finding medical care here.

"*But I also ever thought if I got sick one day, I just jump to the airplane and go back home, because I have health insurance there. That's easy. It's easier than doing it here*"(I1)

Theme 2. *Negative impressions toward the Thai healthcare system.*

Several negative perceptions among expatriates dissuaded them from seeking healthcare services from Thai healthcare providers.

3.3. Large Crowds and long Waiting Times in Thai Hospitals

Healthcare providers and expatriates both commented that most expatriates had negative views toward Thai public hospitals due to the large crowds and long waiting times.

"*I had to be at the hospital at 5 o' clock, which means I had to get up since 4 o' clock. Around 6 or 7 o' clock I went home for my daily routine and I got to see the doctor at the 11 o' clock. I may be sick and sicker. It took so much time (laughing). That's why I go to the clinic. It's been a long time since I went to the hospital*." (I3)

3.4. Lack of Hygiene in Thai Hospitals Relative to Their Home Countries

Some key informants said that Thai public hospitals seemed less hygienic because of the large crowds and relatively old facilities.

"*Some foreigners don't use health services in public hospitals because the Thai hospital environment doesn't have good hygiene; old buildings, crowded patients. In their attitude, the hospital doesn't clean, they could sick when using health services in this place*." (H1)

3.5. Mistrust of Medicine and Service Quality

First, some expatriates were concerned that the medicines provided by Thai hospitals may be of lower quality than the equivalents prescribed in their home country. In the event that they had to visit a doctor other than their personal doctor, they chose to take brand-name drugs from their home countries rather than generic medicines.

"*They don't ask about the prescription of blood pressure drugs that we have... ... They don't used Thai medicines because they thought that their medicines in their homeland are superior to Thai medicines.*" (H1)

In some cases, expatriates chose to buy medicines from a pharmaceutical store instead of visiting a hospital because they could purchase the same medicines as in their home countries.

"*Some of them asked me for medicines for chronic diseases (which were not available at Thai district health centers). So, they choose to buy drug from pharmacies instead. The Westerners in this area intend to use only original medicines*." (F5)

Second, some of them raised concerns about the quality of health services at Thai providers. For example, an expatriate who had received treatment in a hospital mentioned that his wife's symptoms did not improve until he decided to visit a private hospital and received treatment from another doctor.

"*Here is an example. My wife had a Thyroid gland come up here, so we've been to the doctor in Hospital X, they gave a medicine for the first time, came back one month just to check the blood, came back one month to do something else. It took three months. So later we took her to Hospital Y, the doctor said "Why didn't you come here straight away? Those doctors are stupid." Bang . . . she (doctor) took the fluid away and it's gone. We have to go to see the doctor again this month, but it's already fixed*." (I1)

Theme 3. *Language and financial barriers were key determinants hampering access to care.*

3.6. High Cost of Treatment Charged by Private Hospitals

Some key informants identified that male expatriates preferred visiting private hospitals or clinics rather than public hospitals because of supposedly higher quality, faster, and more convenient healthcare services.

> "*The healthcare service cost in Thailand less expensive in foreign country. The private hospital is the best way to obtain the healthcare service in Thailand because of affordable price, feel more at ease, and easy access*." (E2)

However, it appeared that expatriates suffered from expensive health services in private hospitals in Thailand even though they were supposedly cheaper in Thailand.

> "*The private hospitals in Thailand like Farangs because they can charge 10 times more than they charge the Thai person. I was there some years ago because I had an accident. They charged me 30,000 Baht (905 USD) per day. What they did just to put fluid inside. You'd heard a lot of stories from Farangs here that they got stuck to get out of the hospital. They want millions of Baht. It's really crazy*." (I1)

3.7. Language Was a Significant Barrier for Both Healthcare Providers and Expatriates

A major obstacle to healthcare access was language. Communication is vital to diagnosing any illnesses or disorders accurately and promptly. However, experiences from the sample group of expatriates showed that many were unable to communicate in English and did not understand Thai. On the other hand, many Thai healthcare personnel were not competent in any language other than Thai. Therefore, even if the Thai staff were proficient in English, it would not have mattered as their patients' native tongues were in other languages.

> "*The nurse didn't understand English, but in the end, you found someone who understands English and tries to help you, but they cannot hold a conversation just hello and hi instead of phrases . . . . Some nurses they know my symptoms and my conditions in Thai, but they cannot express in English*. (I9)

> "*Expatriates from Germany, they don't speak English but they speak only Deutsch*. (F5)

Most of the time, expatriates' wives acted as translators between the healthcare staff and patient at the hospital.

> "*I got hands so I could use body language . . . . Besides that, my wife helps me*." (I1)

Some interviewees added that although the attending healthcare professional could not speak English, sometimes there were other staff who could help translate.

> "*There's always somebody there who can speak good enough in English. That's enough to get by. No problems*" (I1)

The summary of the study results is shown in Figure 2. The male expatriates or the son-in-law Westerners in living in the northeast of Thailand were found to have NCDs, health risk behaviors, and mental health problems. However, to seek health care or access to care or not may depend on their perceived health needs. This could be hampered by language barrier and financial barrier. The perception of high hospital fees charged by private hospitals would increase the financial barrier. In addition, negative impressions of the Thai health system, namely lack of hygiene, large crowds and long waiting times, could also worsen their desire access to health services. Most of them did not have health insurance, and the reason for purchasing it or not depended on their perceived need. However, having health insurance could help reduce their financial barriers in accessing health services.

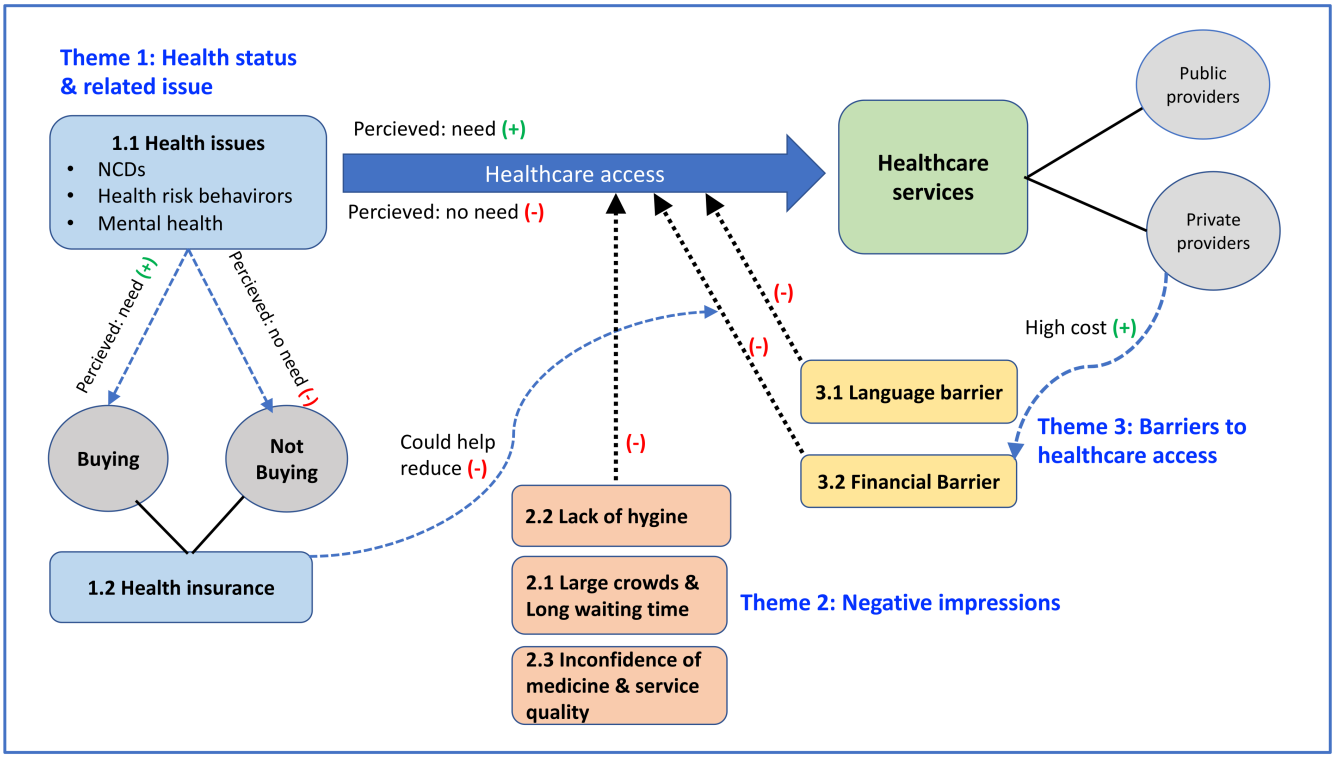

Figure 2. Summary of the study results.

4. Discussion

Overall, the study found that most Western husbands residing in the northeast of Thailand were generally in their retirement age and had chronic diseases. Furthermore, most perceived that they were still in a good shape and rarely visited Thai public hospitals. However, the reasons for not visiting Thai hospitals were not simply because they did not fall ill but it was due to certain negative impressions toward the Thai healthcare system as well. Furthermore, key determinants that deterred healthcare access among these expatriates included expensive treatment costs and language barriers.

A notable observation was that although this study focused on male expatriates who married Thai women, most of this group comprised Western retirees. This finding concurs with several previous studies indicating that Thailand is a popular destination for the retirement of many foreigners around the world [29,30,32]. Furthermore, having a family appeared to be an important reason for settling down in a new country. For example, Miyashita et al. reported that 25% of Japanese chose to retire in Thailand and marry Thai women [21]. Nakai et al. also found that 25.3% of male Japanese expatriates residing in the Philippines and Thailand generally lived with a non-Japanese partner [33]. A study on the health and social welfare of expatriates in Southeast Asia conducted by Wilde and Gollogly also revealed that over 90% of expatriates in Thailand were male and of old age, and some of them married their local partners and raised families there [34]. It is important to note that the male expatriates in this study comprised a mix of working-age expatriates and retired expatriates. The study also found that chronic diseases was the main health problem among the expatriates given their age profile. This finding was in line with the recent quantitative study by Khunakorncharatphong et al. (2021), which analyzed the health service records of the MOPH from 2014–2018 [24]. This study found that most expatriate patients, who were admitted to public hospitals in Thailand, were elderly and had noncommunicable diseases (NCDs); this was found more prevalent in the northern region than in other regions [24]. Diseases most frequently mentioned were hypertension, diabetes mellitus, and cardiovascular diseases. This is to be expected as chronic diseases, and particularly NCDs, are commonly found among older age groups [35].

This finding was consistent with a study conducted by Miyashita et al. which found that 33% of Japanese retirees in Thailand suffered from chronic diseases or sequela, even though that study was conducted in other parts of the country, including Bangkok (central), Chiang Mai (north) Chiang Rai (north), and Phuket (south) provinces [21].

However, other studies have also shown that NCDs among expatriates may occur in more than just retirees. A study in the United Arab Emirates (UAE) indicated a high prevalence of obesity and associated NCDs among working expatriates, suggesting that they may have led unhealthy lifestyles [35]. Another study of Indian expatriates living in Saudi Arabia reported a high prevalence of smoking in those aged 41–50 years (42%) and over 51 years (7%) [36]. Therefore, the same explanation may also apply to our study because some expatriates in the northeast of Thailand were heavily involved in health risk behaviors such as smoking and drinking. Hence, this information may help inform local healthcare providers in Thailand on how to play an active role in health promotion and prevention of NCDs among expatriates to help reduce NCD burden [37].

Most of the expatriates in this study preferred to pay out-of-pocket rather than purchasing or using health insurance when accessing health services. This is similar to previous studies among retired expatriates in other parts of Thailand, which also found that expatriates did not usually have health insurance [22,23]. Another study conducted among Korean expatriates living in Vietnam, Cambodia, and Uzbekistan by Kim et al. corroborates this result as well; it showed that only approximately 22% of Korean expatriates possessed health insurance [38]. Furthermore, a study in Saudi Arabia by Alkhamis et al. found that 30% of expatriate employees were uninsured or had not yet enrolled in any health insurance schemes, and 79.4% of these uninsured expatriates did not have valid reasons for remaining uninsured [39].

The lack of health insurance for expatriates is also a concern since most of them are considered elderly. If they were to fall severely ill, their families may experience catastrophic health expenditure, subsequently affecting their livelihoods. However, the reasons given for not buying health insurance in this study corresponded with a study conducted by Wilde and Gollogly; it reported that the purchase of health insurance becomes virtually impossible after the age of 70 since health insurance premiums jump substantially with advancing age [34]. Furthermore, it is feasible that substantial healthcare expenses for these households may not arise as some expatriates are still covered under their home country's health insurance schemes. Thus, if they were to fall severely ill, they would just return home to receive treatment. This phenomenon was also found by Kohno A, et al., and Miyashita et al., which reported that Japanese expat retirees who live in Thailand generally returned to Japan for the treatment of chronic or serious diseases [21,40,41]. Nevertheless, it should be noted that expatriates in the northeast were relative old and might not be able to travel back home right away when they become sick. Hence, the enactment of a compulsory health insurance in Thailand may be a better policy option on a long-term basis, particularly for those who did not have any health insurance and those that the health insurance they bought from the home country could not be applied in Thailand.

Male expatriates in this study perceived that most Westerners were charged extremely high treatment costs by Thai hospitals. This corresponded with a study performed by NaRanong et al., which was a 2003–2008 survey on the price of certain procedures at four private hospitals that provided services to foreign patients. The survey found that the prices of caesarean sections, appendicitis operations, hernia operations, gall bladder operations, and knee joint replacement operations were more expensive than public hospitals and continue [42]. Although the magnitude of the problems of access to care in association with this financial barrier cannot be known from this study, the information should be useful to help inform the Government and Thai healthcare providers that not all Westerners, and by extension expatriates, are wealthy and/or able to pay for high-cost care. Additionally, it might also be an opportune time for Thailand to convince expatriates about the importance of having health insurance to protect themselves and their families from facing potentially dire financial difficulties due to healthcare expenses. The Thai Government and relevant

authorities that oversee the health insurance scheme should start thinking about promoting knowledge about health insurance among expatriates as well as designing a comprehensive and holistic public health insurance scheme to protect all residents within the country. As mentioned earlier, the only public insurance scheme for non-Thais focuses on CLMV migrant workers. Therefore, a comprehensive scheme would help address the lack of health insurance for expatriates who have families in Thailand but are not classified as workers.

Negative attitudes toward the Thai healthcare system seemed to permeate throughout the expatriate community in the northeast region. The largest factors contributing to these perceptions included mistrust of the quality of medicines and hospital services, and the presence of non-hygienic environments in Thai public hospitals. This finding was consistent with a study among Japanese retirees in other parts of Thailand, which reported concerns about the quality of medical staff such as doctors and nurses, and other equipment operators and cleaning staff in Thai hospitals [40]. However, this is likely to be a lack of confidence among these expatriates about service quality, even though public hospitals in Thailand have been accredited by the Healthcare Accreditation Institute (Public Organization) or HAI since 1999 [43]. In addition to the HIA accreditation, several public hospitals have also been accredited by an international accreditation institute such as the Joint Commission Institute (JCI). For example, the Queen Sirikit Heart Center of the Northeast in Khon Kaen province and Thabo Crown Prince Hospital in Nong Kai province, both public hospitals, have already been awarded the gold standard by the JCI [44]. Their concerns about the quality of medicines may also be misplaced as the use of non-generic drugs does not necessarily mean low drug quality. In fact, all drugs used in Thai public hospitals must be approved by the National List of Essential Medicine (NLEM) committees [45]. However, while Thai people may feel confidence about the accreditation and approval of Thai hospital service quality, many Westerners may not be aware of this information and even if they know, they still might not feel confident in local standards.

Moreover, at the present, the Thai Government has established a development plan for health sector in order to make Thailand become the global "Medical Hub" [46], which would lead to significant improvement of Thai public hospitals. However, evidence has suggested that private hospitals in Thailand are the main choice of healthcare access among foreign tourists as well as expatriates. For instance, in preparation for being the Medical Hub, the MOPH survey in 2019 found that about 92.7% of foreign tourists visited private hospitals [47]. Similarly, the study among Japanese expatriates by Miyashita et al. also revealed that 87.7% of them used private hospitals or clinics, instead of public hospitals [21]. However, it is important to note that private hospitals or clinics are usually located in the big cities or urban areas. Thus, it may not be so convenient for long-term residents in local villages in some rural areas where most son-in-law Westerners have been living, compared to public hospitals, which are commonly established in every district and subdistrict in Thailand.

The finding of language barriers hampering healthcare access among expatriates was consistent with several previous studies that indicated that language differences were strong barriers to communication between healthcare providers and expatriate visitors in healthcare facilities [34,38,40,41,48,49]. For example, Kohno et al. reported that the language barrier was the most serious issue, affecting healthcare utilization among Japanese retirees living in Malaysia [41]. This suggests that friendly health services should be properly designed and implemented in Thai public hospitals to accommodate expatriates' health needs. For instance, hospitals with a significant number of foreign patients should provide language services in the form of translators or interpreters. This type of service has already been provided in some premium private hospitals in Bangkok such as providing translators or hiring Japanese-speaking doctor to cater to Japanese patients [21], but has not yet been fully implemented in public hospitals. Additionally, public health providers also hire migrant health workers (MHW) who serve as interpreters in public facilities and migrant communities in regions with a dense CLMV community, such as Samut Sakhon,

the densely CLMV migrant-populated province in central region [50]. However, this has not yet been operationalized in other parts of the country, including the northeast.

Although this study was conducted in a small group of expatriates under a specific context in the northeast of Thailand, it has provided additional information that could be useful for several developing countries in moving forward to achieve the UHC and SGDs in the concept of "leaving no one behind". Evidence from the study showed that even though expatriates are from advanced countries, and are usually deemed to be a wealthy group of people, some still face difficulties while living in unfamiliar environments in less affluent countries, particularly with their health. This issue does need policy attention. Several previous studies on expatriates in developing countries suggest the same direction; for example, U.S. retirees living in Mexico and Panama reported having difficulties in relation to healthcare choices, insurance availability, and quality of care [51]. Most expatriates (73.8%) from North America or Europe living in Western Ghana were found to have health problems, such as diarrhea and acute respiratory infections [52]. Portuguese expatriates in Sub-Saharan Africa had experienced both physical and mental health problems, which required medical attention [5,6]. Thus, in order to reduce barriers for the son-in-law Westerners in accessing the Thai public health services, an increase in public communication to gain confidence in service quality as well as the provision of friendly health services are crucial. Though there is no compelling evidence in this study that physical inaccessibility to healthcare existed amongst the son-in-law Westerners, the evidence about the doubt of service quality in public healthcare, the unfamiliarity with the Thai language and culture, and high out-of-pocket payment (especially when attending private facilities) might lead to "unmet need" for health services. Such a situation causes a problem not only for the son-in-law Westerners alone, but also for the Thai healthcare system, as the system may risk missing people with health need from the care.

The study faced some limitations. Firstly, the study focused on expatriates living in the northeast of Thailand only. Thus, the nature of purposive sampling and the use of certain provinces as study sites may limit generalizability. However, this study did not aim for generalizability in the first place, but rather transferability through the use of a case study approach [53]. Findings from this study would be useful and transferable to other different places to some extent. Secondly, the researchers collected data during the COVID-19 pandemic. Therefore, data collected in this study may not reflect an accurate picture of some other expatriates who travel more frequently due to travel restrictions implemented during this period. This may have resulted in certain biases that affected the outcomes of the interviews. Thirdly, as the son-in-law Westerners are not always physically presenting in the field and we conducted the data collection during the COVID-19 pandemic, which made it difficult to contact them and/or travel to their places, the interview samples were relatively small. However, having triangulated the data with other sources of information, we believe that the use of pragmatic considerations for determining the samples provided good enough data for the study [54]. Fourthly, the study may have also encountered social disability biases since the researchers had to disclose their status as public health personnel or MOPH officers. Hence, it is possible that the interviewees might have tailored their answers in a more favorable light to meet the needs of the researchers.

Hence, to improve the Thai health system and provide high-quality services for international migrants and/or expatriates, we recommend that: (1) the Thai Government should implement compulsory health insurance for all foreigners living in the country to prevent any potential catastrophic health expenditures from afflicting households while also contributing to the achievement of UHC and the SDGs; (2) authorities who work in the field of public health should properly design and/or improve health services that correspond to expatriates' health needs such as the provision of friendly health services that reduce language barriers and improving language proficiency for public health personnel; and (3) local public health providers, particularly at the primary health care level, should play a proactive role in health promotion and prevention among male expatriates in order to reduce their health risk behaviors, NCDs, and mental health problems. Additionally,

in order to improve the health system, there should be future studies: (1) an annual population-based survey to monitor the health statuses of male expatriates in order to have more accurate and updated data; (2) a cost study of a health insurance package for this group; (3) a survey study on willingness to pay for health insurance premiums; and (4) a feasibility study to explore voluntary or compulsory health insurance and the feasibility of its implementation. Though we did not intend to highlight that a provision of insurance was the ultimate tool to address the problem regarding high out-of-pocket payment amongst them, a better comprehension on the insurance alternative for son-in-law Westerners is imperative. Moreover, information retrieved from the annual survey would be helpful for monitoring their health in the long-run, and the results of the cost study, the survey of willingness to pay, and the feasibility study would be useful for policy decisions in designing and implementing a comprehensive and holistic policy to protect the health of expatriates.

5. Conclusions

The results showed that most of the Western husbands in the northeast of Thailand were in their retirement age, and had NCDs, health risk behaviors, and mental health problems. Most of them did not purchase health insurance and were not proactive in planning for their long-term health as they believed that they were did not need any healthcare services. Furthermore, many of them had certain negative impressions toward the quality of care at Thai public hospitals and this was a major barrier to accessing health care services. Other barriers to accessing healthcare included the high cost of treatment commonly charged by private hospitals and language issues. While the improvement of the quality of healthcare as well as the provision of friendly health services are of utmost importance, public communication with international migrants and especially male expatriates is highly recommended to increase understanding and positive impression towards the Thai health care system. A regular population-based survey on the health and well-being of expatriates in Thailand, a cost study of a health insurance package for this group, a survey study on willingness to pay for health insurance premiums, and a feasibility survey to explore the opportunity of establishing, either voluntary or compulsory, health insurance among this group of people should also be conducted.

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Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: Ethical restrictions are imposed by the Institute for the Development of Human Research Protections, Thailand. The provision of complete interview transcripts is prohibited as these transcripts contain potentially identifiable and sensitive information of the participants.

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Article

Analysis of Policies to Protect the Health of Urban Refugees and Asylum Seekers in Thailand: A Qualitative Study and Delphi Survey

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Abstract: The health of urban refugees and asylum seekers (URAS) in Bangkok has been neglected and health policies for USAR have not materialized. This study aimed to explore the views of stakeholders on policies to protect URAS well-being in Thailand. This study conducted a mixed-methods approach comprising both in-depth interviews and Delphi survey. The interview findings revealed six main themes: (1) the government position on URAS; (2) opinions on Thailand becoming a party of the 1951 Refugee Convention; (3) NGOs on health promotion for URAS; (4) options on health insurance management for URAS; (5) working potential of URAS; and (6) uncertainty of future life plans for URAS. The Delphi survey showed that URAS should have the right to acquire a work permit and be enrolled in the public insurance scheme managed by the Ministry of Public Health. Moreover, the ideology of national security was more influential than the concept of human rights. The ambiguity of the central authorities' policy direction to take care of URAS creates haphazard legal interpretations. The Delphi survey findings suggested the need for a more inclusive policy for URAS, however actual policy implementation requires further research on policy feasibility and acceptance by the wider public.

Keywords: refugees; urban refugees; asylum seekers; health protection; health promotion; well-being

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1. Introduction

As of 2019, the estimated number of migrants internationally amounted to 272 million, equivalent to about 3.5% of the world's population [1]. In 2019, there were 79.5 million forcedly displaced people around the world. Among these, 26 million were refugees, and 3.5 million were asylum seekers [2]. The volume of refugees worldwide has greatly increased from 10 million to 26 million in the last decade. Approximately 68% of refugees globally originated from five countries, including Afghanistan, Myanmar, South Sudan, Syria, and Venezuela. The major refugee crises that contributed to massive displacement of people were the exodus of the Rohingya people from Myanmar to Bangladesh and the conflict in Arab countries that caused the unprecedented outflow of refugees from countries including Syria, Iraq, and Libya into Europe [2].

Refugees and asylum seekers usually face many health threats, including infectious diseases, non-communicable diseases, and mental health [3]. For infectious diseases, refugee and asylum seekers are likely to be more vulnerable to serious outbreak because of poor living conditions, poor sanitization, and lack of access to healthcare [4–7]. Kondilis et al. demonstrated that, during the coronavirus disease 2019 (COVID-19) pandemic, refugees and asylum seekers in Greece faced numerous events of outbreaks. The

overall 9-month incidence of COVID-19 amongst refugees and asylum seekers in Greece was relatively high (about 2000 cases per 100,000 population) [8].

Thailand is among the most common destination for cross-border migration in South-east Asia. The majority of migrants in Thailand came from its neighboring countries, namely, Cambodia, Lao PDR, Myanmar, and Vietnam (so-called CLMV nations). At present, there are more than 3 million migrants living in Thailand [9].

In addition, Thailand is also a residence for refugees and asylum seekers [10]. The country has hosted refugees along the Thai–Myanmar border for more than four decades. During the 1980s and 1990s, Thailand faced a huge influx of refugees from Myanmar because of the conflict between ethnic groups and the Myanmar government. To date, there are nine temporary shelters for almost 100,000 refugees [10]. Apart from sheltering refugees along the border, Thailand is a host country for urban refugees and asylum seekers (URAS). The majority of URAS live in the capital city, Bangkok, approximately 5000. The well-being of sheltered refugees shows tangible advancement as it is relatively straightforward to implement a policy in a well-defined geographical space. The United Nations High Commissioner for Refugees (UNHCR) and international non-governmental organizations (NGOs), such as Médecins Sans Frontières and the International Rescue Committee, provide additional humanitarian assistance in the shelters. In contrast, the health of URAS in Thailand has not been widely discussed in most policy dialogues [11]. In addition, almost all URAS live scattered across the city, creating difficulty in identifying a main responsible agency to take a pivotal role to protect the health of URAS at the utmost. A greater understanding about necessary health policies that support the health of URAS has important public health implications as URAS are necessarily involved with Thailand's quest to achieve universal health coverage (UHC). The Thai government has set a clear direction for UHC where 'all people' on Thai soil must have their health protected. This is stipulated in many policy documents such as the Border Health Plan of the Ministry of Public Health (MOPH) (2017-2521) [12] and Strategies for National Health Insurance Development of the National Health Security Office (2017-2521) [13].

Therefore, the main objective of this study was to explore views of stakeholders engaged with policies that are related to or have influenced the health and well-being of URAS in Thailand. We also investigated the views of URAS themselves to complement the stakeholders' perspectives.

2. Methods

2.1. Study Design and Setting

This study employed a mixed-methods approach, comprising both qualitative and quantitative data collection, and focusing on URAS in Greater Bangkok only (N~5000).

2.2. Data Collection Methods

For the qualitative strand, we used in-depth interviews. Prior to and right after the fieldwork, we arranged a meeting among the team members to finetune the understanding on the interview topics and data from the interviewees. Each interview took approximately 45–60 minutes per informant. For Thai interviewees, the interviews either took place face-to-face in the workplace of the informant, or, during a telephone interview, in a private room. For URAS informants, we used face to face interview at the office of Bangkok Refugee Center (BRC). BRC is the main NGO under the patronage of UNHCR. The main function of the BRC is to provide legal support and counselling for URAS. The BRC staff also assisted the research team to recruit URAS who could serve as the informant for the study. However, the BRC staff did not present themselves during the interview with URAS. Only the researchers and URAS informants presented during the interview in BRC private room. A purposive sampling was used to identify key informants and additional informants were identified by snowball selection. The sampling of Thai informants focused on those who had been involved in the policies for URAS or had ever dealt with the research on URAS.

The interviews were audio-recorded and transcribed verbatim, with consent from the interviewees. Key information from the interviews was used to guide the Delphi survey's questions. The total number of 37 interviewees consisted of nine representatives from NGOs with work experience on URAS, five representatives from the MOPH, five independent academics, four healthcare providers in public health facilities where URAS usually visited, four policymakers from the National Health Security Office (NHSO), Ministry of Labor (MOL), Ministry of Foreign Affairs (MFA), and Ministry of Interior (MOI), three representatives from international development agencies, and seven URAS from six nationalities (Afghani, Iraqi, Pakistani, Somali, Sri Lankan, and Vietnamese), Table 1.

Table 1. Characteristics of key informants' interviews.

Demographic	Key Informants (*N*)
Sex	
• Male	19
• Female	18
Role and responsibility	
• MOPH policy maker	5
• NSC, MOI, MOL, MFA policy maker	4
• International organization representers	3
• NGOs staff	9
• Academic	5
• Healthcare providers in public hospitals	4
• URAS from six nationalities	7

For the quantitative strand, a Delphi survey was exercised. We invited the informants from the prior in-depth interviews to take part in the Delphi survey. However, only thirteen informants agreed to participate (four NGO staff, three policymakers, two representatives from international development agencies, one academic, and one healthcare provider). The survey began by circulating the questionnaire via an electronic mail to these thirteen participants. We then collected their responses and sent the questionnaire back to them for another two rounds. In the later rounds, the participants were able to view the group's responses. Two participants dropped out in the later rounds. This meant, finally, eleven participants completed the three-round survey. Once the survey was completed, we then re-interviewed or had an informal discussion with some interviewees to triangulate the survey results against the survey responses (and vice versa) and to assess if any additional themes would emerge. The data were collected in the office computer with password protection. Only the principal investigator could access the interview data. The linkage between the interview and the Delphi survey is visualized in Figure 1.

2.3. Interview and Survey Topics

The interview and Delphi survey topics were based on the following framework, Figure 2.

We adapted the concept of the social determinants of health [14] to construct the above framework. In the field practice, the interviews started by building rapport with the informants. For the interviews with the non-URAS informants, researchers emphasized the following issues: overarching policy direction of the government towards the care for URAS (such as international relationships and politics, and international laws and regulations ratified by the Thai government); existing legal mechanisms and policy instruments for URAS (such as immigration law, nationality law, and the present health insurance scheme); and the views and attitudes of the informants towards the optimal approach the Thai government could take towards URAS's health. When we interviewed URAS, we focused mostly on their experiences in accessing health care in Thailand and factors that influenced their well-being.

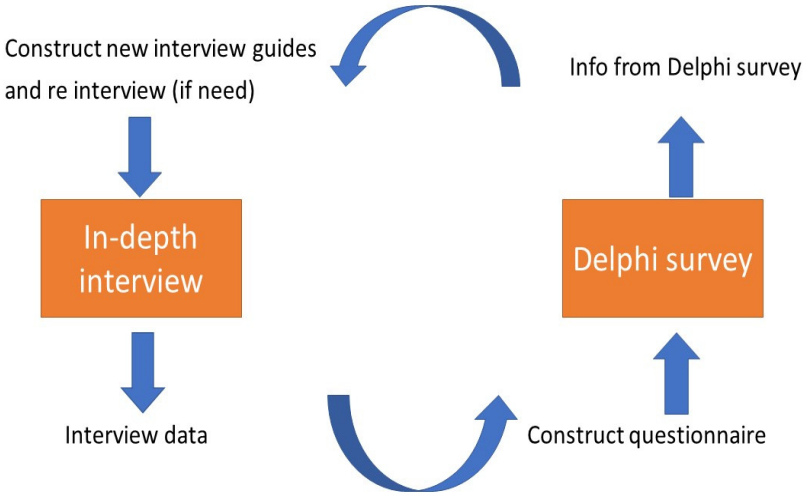

Figure 1. Linkage between in-depth interviews and Delphi survey.

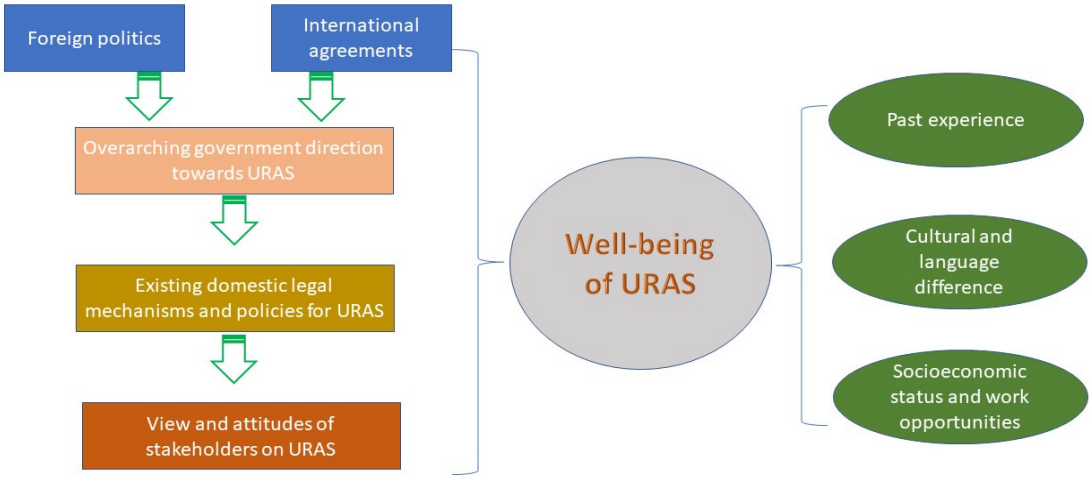

Figure 2. Conceptual framework serving as a basis for the interviews and the Delphi survey.

The Delphi survey questionnaire consisted of twenty statements in four domains, namely: (i) health financing; (ii) benefit package; (iii) health insurance; (iv) policies to support aspects of well-being (such as education and work rights); and (v) policy direction of the Thai government. A list of all twenty statements is presented in Supplementary File S1. The participants were asked to rate from one (least agree) to five (most agree), noting if and to what extent they agreed with each statement.

2.4. Data Analysis

For in-depth interviews, inductive thematic content analysis was exercised. The researchers began by familiarizing themselves with the interview data, reading through the transcriptions and fieldwork memos and listening to the interviewed audios. Keywords and sentences were highlighted and those with similar content were labeled with the same color. Then, several codes with relevant contents were grouped together and merged into theme. We were able to identify six main themes from the interviews. The coding was completed by SJ and RS. If there were any contradictory issues between the two coders, a consultation with a public health expert of the filed would be performed. The manual coding was performed. Microsoft Excel was used to store the quotes. We presented a coding tree in Supplementary File S2. The interview data were triangulated with the field note and policy documents if needed. Before the final report was published, the researchers arranged a stakeholder meeting on 17 August 2020 to ask for feedback or comment on the

findings. For the Delphi survey, descriptive statistics were used. The informants' response was shown in terms of median and percentile.

2.5. Ethical Consideration

This study obtained ethics approval from the Institute for Human Research Protection, Thailand (IHRP 595/2562). The data collection process of this study strictly followed the Declaration of Helsinki. The informed consent process in this study was firmly approved by IHRP. All informants were given the participant information sheet before the interview and the survey. Written consent was obtained from all Thai informants. For URAS informants, we accepted verbal consent instead of written consent to avoid any sense of coercion. We offered the Thai informants USD 32 each to compensate for their time dedicated to the interview. For URAS, we provided each interviewee a thank you gift of about USD 10 after the interview was completed.

3. Results

3.1. Themes Identified from the Interviews

We identified six main themes from the interviews: (i) the Thai Government position on URAS; (ii) opinions on Thailand becoming a party of the 1951 Refugee Convention; (iii) non-government organizations on health promotion for URAS; (iv) options on health insurance management for URAS; (v) working potential of URAS; and (vi) uncertainty of future life plans for URAS.

3.1.1. Thai Government Position on URAS

All stakeholders suggested that the Thai government's position in taking care of URAS was related not only to the healthcare and well-being policies, but also encompassed issues of wider national security and international relations. One of the interviewees pointed out that the Thai government had a clear position to be 'unclear'. If the government's position was too open and supported a human rights concept, there would be concerns that the country could attract more URAS to enter Thailand.

> 'This is a tricky policy of Thailand . . . . Let it all happen. This is a very interesting point when you talked about international relations. I thought the Thai government might know that the government will be in trouble if they are too stiff. So just ignore it, then there will be an excuse.' (C2)

Some key informants (A1, B2, and C4) identified that the ambiguity of the overarching policy direction towards URAS caused incoherent practices towards the care for URAS among frontline officers, and created a situation where there was no clear agency accountable for the care for URAS.

> 'In the other sectors, I don't know if they have main officers to take care of urban refugees and asylum seekers. But in the health sector, we don't have any main responsible agencies.' (C4)

Health sector stakeholders (B2, B3, and B5) commented that health services, such as health insurance for URAS, should be free from the limitations caused by national security concerns. However, interviewees who had work experience with the national security sector (C3 and E2) argued that an insurance policy for URAS should be launched but performed covertly.

> 'This topic is politically sensitive. If the MOPH thinks that health insurance is necessary for them (URAS), we can implement it but this must be done unofficially.' (B3)

3.1.2. Opinions on Becoming a Party of the 1951 Refugee Convention

There were diverse comments about Thailand becoming a party of the 1951 Refugee Convention. Some stakeholders (C3 and E1) commented that the 1951 Refugee Convention

committed Thailand to undertake more works for URAS, yet other agencies that supported URAS, such as UNHCR, were not committed to provide support for Thailand. Moreover, some stakeholders noted that UNHCR was not performing well in taking care of URAS. The UNHCR migrant-screening program was not effective enough to grant refugee status for those really in need.

> 'In the national security view, becoming a signatory of the Convention (1951 Refugee Convention) is not the best choice.' (E1)

Some interviewees (C1 and F2) commented that Thailand would obtain benefits if the country became a party of the convention. Those gaining substantial benefits from becoming a party were NGOs and academics who could use the convention as a tool to drive the healthcare policy agenda for URAS. For some, the 1951 Refugee Convention did not differ from other conventions that Thailand has signed which also promote human rights.

> 'In my opinion, the 1951 Refugee Convention is about the protection of refugee rights. This topic appears in international laws. The Thai government has already signed many other conventions that are related to human-rights protection. Therefore, I do not see any difference (if Thailand signs the 1951 Refugee Convention).' (F2)

One of the stakeholders (F3) mentioned that although the Thai government was not part of the 1951 Refugee Convention, the country performed quite well in the care for URAS. The signing of the convention would be an optional benefit, though not necessary.

> 'I think Thailand has always been a silent country, even though Thailand has not signed the Refugee Convention. But still the fact remains that there have been refugees in Thailand for many years. And I would say we have been handling the refugee situation quite positively.' (F3)

3.1.3. Non-Government Organizations on the Health Promotion for URAS

This theme is linked to the unclear policy direction of the Thai government towards URAS because when officials did not have a clear mandate to deal with URAS, a few NGOs and civic groups stepped in. BRC is amongst a few charitable organizations responsible for the care for URAS. It provided health consultancy services for URAS. Some other functions included home visits, provision of cash-based interventions (approximately USD 96–125 per month) and subsidizing basic medical expenses, especially for children and pregnant women.

> 'We support vaccination for children under five years and children with health complications and we also cover the medical expense . . . We may ask for support from the hospital if the health condition is severe and creates huge medical expenses.' (A3)

Other NGOs, in addition to the BRC, also intervened. The Buddhist Tzu Chi Foundation organized a clinic for URAS once a month and Asylum Access Thailand (AAT), Center for Asylum Protection (CAP), and Jesuit Refugee Service (JRS) provided legal advice for asylum seekers seeking refugee status. Good Shepherd Bangkok arranged a language school for URAS children, although the school was not authorized by the Ministry of Education. These organizations worked in cooperation with each other, although there was no formal agreement among them.

3.1.4. Options on Health Insurance Management for URAS

The MOPH has implemented a public insurance scheme, namely, the "Health Insurance Card Scheme" (HICS) for Cambodia, Lao PDR, and Myanmar (CLM) migrant workers for more than a decade. The scheme provides comprehensive medical benefits at registered public hospitals. The applicant needs to pay an annual premium, including the health check expense, for about USD 64 [15]. In contrast to the HICS for CLM migrant workers,

there has been no public health insurance for URAS so far. In the past there was an attempt to widen the legal interpretation of the HICS to allow URAS to buy the insurance but this failed.

Some interviewees (A2, A3, A4, C3, and E3) mentioned that the Cabinet Resolution on 15 January 2013, by document, did not specify eligible nationalities to the insurance buyer. Therefore, at that time, some hospitals allowed URAS to buy the insurance but then sales were later cancelled due to unclear direction from the Thai government. Some hospitals found that those who bought the insurance were mostly children and elderly people who were prone to sickness.

> 'We found that most urban refugees were uninsured. Some NGOs said that some URAS were able to purchase the health insurance in the past but this was cancelled because of unclear communication.' (A6)

Some stakeholders (for instance, B1 and G1) mentioned that if URAS were allowed to work, they could have the right to be enrolled in the insurance.

One of the participants (F3) highlighted that health insurance for URAS should not be separated from existing insurance schemes, according to the concept of an 'inclusive policy' and effective pooling of risk.

> 'First of all, when we talk about health insurance, it will not work when we divide it into different categories, right? The bigger the (beneficiary) pool is, the better the survival of the insurance scheme is, right?' (F3)

However, healthcare providers (D2 and D3) commented that health insurance for URAS should not be part of the UHC policy as it might consume healthcare resources that belonged to Thai citizens. Additionally, if any medical expenses incurred, these should be covered by UNHCR.

> 'UNHCR is larger than our hospital. Why should the financial support for refugees be our responsibility? UNHCR should support all of them. If your guest overstays in your home and they do not pay electronic bills, food expenses, and medical expenses, how do you think about this? Will you pay for them?' (D3)

3.1.5. Working Potential of URAS

All of the themes above viewed URAS as service users. However, a few interviewees (B1, D4, and E3) suggested that URAS had work potential because some URAS used to work as professionals. Granting URAS the right to work would benefit the country's economy and at the same time decrease public expense.

> 'If URAS reside in Thailand and do not cause any social problems, we must have information about them, about their residence and we should allow them to work and purchase health insurance.' (E3)

Some URAS interviewees informed us that they could speak many languages and used to work as translators in a range of organizations. Some URAS had tried to find a job online and some had graduated with a degree in their previous country of residence. However, the employment policy for non-Thais does not allow URAS to acquire a work permit.

> '(ASK: What's your job now?) I work at home. I find a movie and then translate I the movie. I translate it from English to my own language. I like keeping myself busy because when I'm free, my thoughts get worse. There is lots of negative thinking in my mind. Then I do not feel good.' (G3)

3.1.6. Uncertainty of Future Life Plans of URAS

All URAS interviewees informed that they did not have any clear long-life plans. They hoped for a resettlement in a third country, but if such a plan was not feasible, they wished to continue living in Thailand.

> 'I was hoping, you know, to get freedom, to start a really new life as Thai people do . . . Or that we can work to start our life. I have plan to start education if I can, but I know I cannot.' (G2)

Some of the interviewees (E2 and F2) commented that the process of resettlement was extremely long and arduous. At the same time, the process for settlement in Thailand was problematic. Some URAS entered the country as a tourist but lived here even after the visa expired.

3.2. Delphi Analysis Results

The Delphi survey among 13 experts found that the issues that the participants agreed upon most were that URAS should have the right to work, the right to buy MOPH health insurance or insurance provided by the private sector, the right to access basic education, the right to live outside the detention centers, and the right to receive medical benefits that cover treatment for public health threats and conditions (e.g., tuberculosis and influenza). All of these issues received the median score of five. Issues that most experts rated the least (median = two) were; 'Overall, the Thai government presents appropriate policy direction towards URAS', 'The medical benefit for URAS should focus on emergency illnesses and accidents only', and 'The medical charge of URAS should be mainly shouldered by NGOs', Figures 3–7.

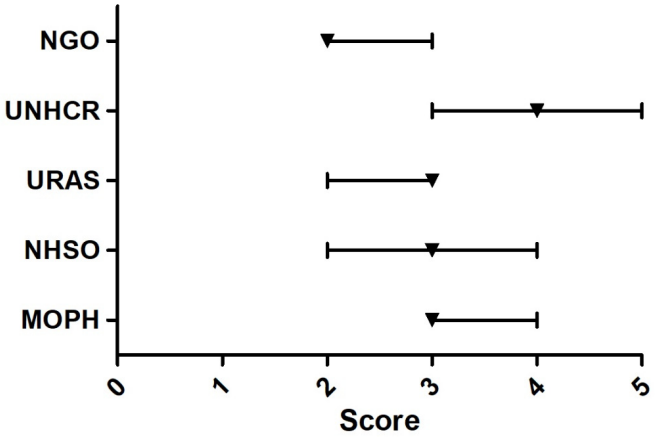

Figure 3. Delphi survey asking about the main responsible authority that should cover medical charges of URAS. Note: The square on the line denotes the median score. The left and right ends of the line denote the score at 25th and 75th percentile, respectively. MOPH = 3, NHSO = 3, URAS = 3, UNHCR = 4, NGO = 2.

Figure 4. Delphi survey asking about the benefit package that should cover for URAS. Note: The Scheme 25th and 75th percentile, respectively. Basic disease = 4, emergency and accident = 2, communicable disease = 5, similar to Thai citizens = 4, similar to migrant workers = 4, mental disease = 4.

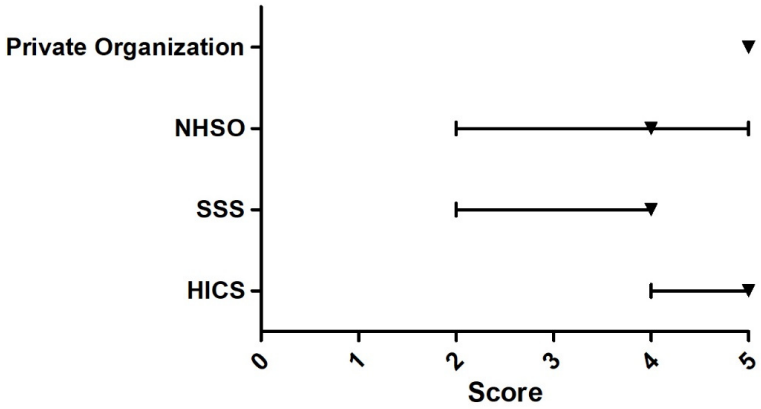

Figure 5. Delphi survey asking about the main health insurance provider that should cover for URAS. Note: The square on the line denotes the median score. The left and right ends of the line denote the score at 25th and 75th percentile, respectively. HICS = 5, SSS = 4, NHSO = 4, Private organization = 5.

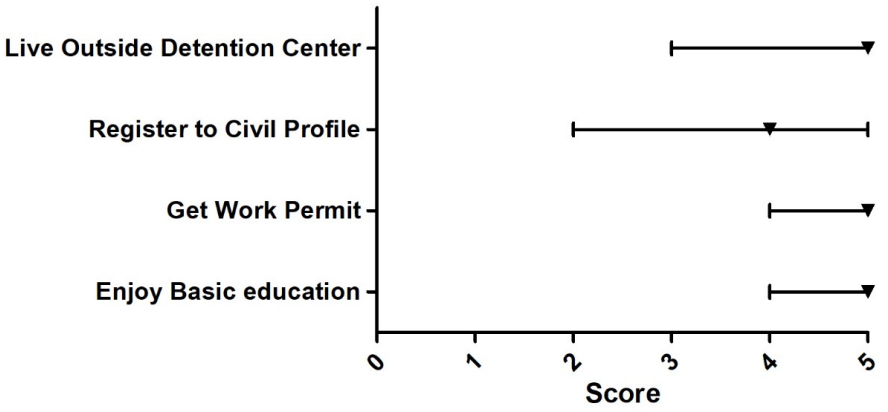

Figure 6. Delphi survey asking about the other aspects of well-being that should urban refugees should have rights. Note: The square on the line denotes the median score. The left and right ends of the line denote the score at 25th and 75th percentile, respectively. Enjoy basic education = 5, get work permit = 5, register to civil profile = 4, live outside detention center = 5.

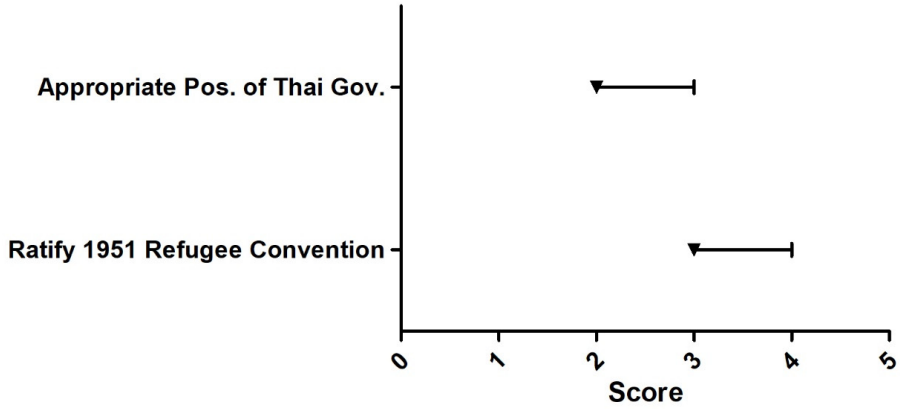

Figure 7. Delphi survey asking about position of Thai government towards URAS. Note: The square on the line denotes the median score. The left and right ends of the line denote the score at 25th and 75th percentile, respectively. Ratify to the 1951 Refugee Convention = 3, appropriate position of Thai government = 2.

4. Discussion

The study is among the very first studies in Thailand, which focus on the country policy and the attitudes of all relevant stakeholders towards the well-being of URAS.

The interviews and Delphi-survey suggested that the ideology of national security and international relations influenced the concept of human rights for URAS. The concept of URAS health has been tightly woven with foreign policy issues over many years. Health issues are still considered "low politics", while foreign policy is deemed to be "high politics" in decision making [16,17]. This situation has occurred not only in Thailand, but also in many other parts of the world. For example, according to a study by Klaus, the campaign for the restriction of rights for immigrants and refugees in Poland was used by the populist political parties to win the election in 2015 [18]. By late 2015, the Polish government launched the Antiterrorist Act stipulating that every foreign citizen would be put under surveillance without any court control with an ultimate aim to stop a refugee influx into the Polish territory.

With regard to URAS problem solving mechanism, the UN agencies usually puts emphasis on the "relief" of URAS' suffering rather than addressing the structural problems that compromise the well-being of migrants. The same situation often occurs with NGOs or charitable organizations that most of the time serve as humanitarian support for URAS. This problem reflects the limitation of UN agencies that do not have solid legal mechanisms to force or even encourage any particular nation to re-orientate its health system by making it more "inclusive" for all people on its soil. Therefore, a more practical approach for UN agencies and NGOs is to comply with the local government. However, this approach has a setback as most of the NGOs' (or even UNHCR's) activities usually end up with a humanitarian relief for URAS (or any activities that make URAS more "resilient" with the status quo health system) as it is less disputable compared with shaking the structural problems or recognizing URAS as part of the society on equitable grounds with the nationals [19].

Although Thailand is not a signatory to the 1951 Refugee Convention, the country has long been a key member of ASEAN [20], which has its own agreement among member states to guarantee human rights, including the right to health for everybody in the region. Therefore, Thailand cannot deny its responsibility to protect the health of URAS. However, it appears that current Thai laws are not developed to protect URAS from the outset. The majority of byelaws for non-Thais mostly concern migrant workers, but not URAS. The most relevant law relating to URAS is the 'Regulation of the Office of the Prime Minister: Screening process for aliens entering the Kingdom of Thailand and incapable of returning to their home country' B.E. 2562 (2019). It establishes a screening mechanism for groups of aliens in line with the nature of Thai society and international situations in order to reach sustainable solutions for Thailand's alien management problem [21].Yet, the regulation still lacks operational details. Whether Thailand will become a party of the 1951 Refugee Convention or not may not be so important, what may be more important is to have a clear stance on the Thai government's responsibility to take care of URAS.

As long as there is no clear direction from central authorities, there will always be variation in day-to-day operations of the treatment of URAS among street-level bureaucrats [22]. A clear example can be noticed in the recent COVID-19 pandemic in Thailand. Though the Thai government publicly announced to the wider public that all COVID-19 patients (regardless of the nationalities) are able to access free treatment of COVID-19. The hospitals are able to reimburse the healthcare cost from the MOPH and the National Health Security Office (NHSO). However, in practice, there are also administrative problems in reimbursing the healthcare cost for undocumented migrants, not to mention URAS [23,24].

If the Thai government steadfastly rejects the accession of the 1951 Refugee Convention, the domestic mechanisms to take care of URAS health should be strengthened. Moreover, the Thai government should learn from international experience, especially from countries that accepted a refugee influx while refraining from the 1951 Refugee Convention. Janmyr raised the case of Lebanon as an example of a country that is not a party of the 1951 Refugee Convention, but is hailed by the international community for its generosity towards refugees as probably hosting the highest number of refugees in the world in proportion to its population size [25]. Lebanon already has human rights obligations towards refugees on its territory by virtue of membership of the United Nations and its ratification

of a number of core human rights instruments [25]. Another interesting issue is the URAS right to work and eligibility to be enrolled in public health insurance in Thailand. For the right to work, Brown et al. suggested that the lack of legal instruments to allow URAS to work legitimately has caused URAS to face a greater risk of being arrested or detained [26].

Additionally, the provision of the right to work is likely to lead to better quality of life for URAS because they will be able to access the labor market and gain sustainable livelihood opportunities. The right to work will also allow URAS to gain increased self-reliance and dignity and improve mental health [27,28]. Fleay and Hartley cited a case study in Australia, suggesting that without the right to work, asylum seekers in Australian communities faced exacerbated feelings of anxiety, sadness, and fear [29]. Most of this study's interviewees, including those who participating in the Delphi survey, indicated that the right to work should be implemented as soon as possible with no critical disagreement from the wider public. The law to promulgate this policy—Royal Ordinance Concerning the Management of Employment of Foreign Workers, B.E.2560 (2017)—is in place [30] and only a Cabinet Resolution is required to implement the policy concretely.

Giving URAS the right to work also means that Thailand will benefit from an increased labor force (and some URAS are quite well educated). The opening of employment opportunities helps improve the registration data of URAS and positively affects the Thai economy. Additionally, to deal with the refugee crises, it has been recommended that, while poorer countries accede to host refugees, richer countries should help provide financial support to those host countries in order to protect refugees' health and well-being [31]. Since Thailand host numbers of refugees from various nations, this may benefit Thailand as well.

High healthcare costs and financial difficulties are also a key barrier faced by refugees and asylum-seekers [32]. According to Elsouhang et al. possessing health insurance was significantly associated with increased utilization of medical services among Iraqi refugees in the United States of America [33]. In the Thai context, the financial difficulties that URAS face are not just a matter concerning the work performance of an individual, but these also intertwine with the legal design of a system that does not allow URAS to work legitimately. Moreover, the inclusion of URAS in public health insurance schemes may benefit not only URAS, but the health system as a whole. A substantial volume of literature shows that the exclusion of non-national populations (such as migrants, refugees, and asylum seekers) from official primary health care might save costs early on, but this effect might be lost as costs are shifted to healthcare providers in secondary care or community settings [34]. Again, the promotion of the right to public health insurance for URAS is interlinked with the affordability of insurance, which is also linked to the right to work. It is also linked to the regulation of the state which needs to be clearly specified in laws or official state regulations in order to avoid haphazard interpretation by local healthcare providers [35].

Concerning methodological approaches, some limitations remain in this study. Firstly, this study did not encompass all types of refugees and asylum seekers. Those who were detained in detention centers and those living in the temporary shelter areas along the country border were excluded. A discussion on policies to take care of the health of these populations necessitates a more extensive review on the relevant laws and perhaps requires a wider range of interviewees (including police and state prosecutors). Secondly, the issue of healthcare for URAS is relatively sensitive. According to research ethics, in the fieldwork, the researchers needed to disclose their own work status as persons working with the MOPH, which may have created an unfavorable feeling among the URAS interviewees. For example, some URAS might feel uncomfortable disclosing their life stories or unpleasant experiences with state officials to the researchers. In contrast, state official interviewees may have tended to answer the interview questions in a way that tried to meet the researchers' expectation (social desirability bias). However, the researchers addressed these issues by using methodological triangulations (such as contrasting the interview findings with the review on policy documents). Lastly, suggestions from the interviews or Delphi survey (for instance, the provision of rights to employment and public health insurance enrollment)

does not mean final consensus from policy experts and of course does not mean that these suggestions can be implemented without societal disagreement. In reality, to implement such policies, there needs a much wider consultative process from all angles of the political sphere. Further studies that explore policy feasibility for URAS are of great value.

5. Conclusions

Policies to protect the health of URAS are mainly influenced by the ideology of national security and international relations and the concept of human rights is considered "low politics" in the power operations in all political spheres. The ambiguity of the policies relating to URAS coming from central authorities has caused varying legal interpretations and incoherence of practice among frontline officers regarding healthcare for URAS. The right to legitimate employment and public insurance enrollment are issues that should be implemented soon in order to improve URAS's livelihoods. Further studies that examine the feasibility of implementing these proposals and the extension of studies to cover refugees and asylum seekers from non-urban settings, such as detainment centers or sheltered areas, are recommended.

Supplementary Materials: The following are available online at https://www.mdpi.com/article/10.3390/ijerph182010566/s1, Supplementary File S1: questionnaires for Delphi survey, Supplementary File S2: coding tree.

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A Cross-Sectional Quantitative Study on Sexual and Reproductive Health Knowledge and Access to Services of Arab and Kurdish Syrian Refugee Young Women Living in an Urban Setting in Lebanon

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Abstract: Since data on the sexual and reproductive health (SRH) of young refugee women living in urban settings in Lebanon are particularly scarce, we aim through this exploratory study to assess the SRH knowledge and access to services of Arab and Kurdish Syrian refugee young women living in Bourj Hammoud. From January to March 2020, a cross-sectional survey was conducted among 297 Syrian Arab and Kurdish participants and aged 18–30 years old. It was found that participants coming from Syrian urban areas or who completed an education above secondary level have higher overall knowledge on SRH issues. Only a total of 148 out of the 297 participants (49.8%) knew a health facility in Bourj Hammoud that provides SRH services and among them 36.4% did not know which type of services are available there. The Syrian refugee young women's access to SRH services is inadequate due to different obstacles. The overall knowledge level on different SRH topics is limited. The context of multiple crises in Lebanon should be taken into consideration when delivering future SRH services.

Keywords: young women; refugee health; vulnerability; sexual and reproductive health; public health; urban setting; forced migration; Lebanon; Syria; cross-sectional survey

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1. Introduction

During the 21st century, the world experienced a considerable increase in the number of individuals who were forced to migrate due to conflicts, civil disorder, expulsion, and assault. The number of refugees and asylum seekers escalated from 17 to 34 million between 2000 and 2020, with half of it being composed of women and girls [1]. In 2021, 25% of the global refugees come from Syrian Arab Republic. Most of Syrian refugees are hosted by neighboring countries, where 19 out of 20 live in urban regions [2]. Lebanon is one of those countries, which hosts the worldwide highest number of refugees per capita [3]. The Lebanese Government did not allow the creation of camps as formal settings for Syrian refugees, who as a consequence became scattered across the country and inhabiting rented rooms, apartments, garages, and informal tented settlements (ITSs) [4–6]. Furthermore, 89% of Syrian refugee families in Lebanon live below the survival minimum expenditure basket (SMEB) defined in the country and experience distressing living conditions [7,8].

The armed conflict in Syria, which continues since 2011, did not only create a public health catastrophe within the country, but also critical public health challenges in the neighboring countries which received refugees [9]. The Lebanese healthcare system is inequitable, in large shares privatized, and is based on out-of-pocket payments [10,11].

With the arrival of Syrian refugees, the system became additionally strained with an excessive demand since its coverage had also to cope with disadvantaged Lebanese individuals, Lebanese citizens returning from Syria, Palestinian refugees that had to give up their settlements in Syria, and in general with an already pre-existing refugee population in the country consisting mainly of Palestinian refugees that arrived in the aftermath of the conflicts of 1948 and 1967 [12]. As a result, the refugees were left with restricted, insufficient, and hard to access services [10,13].

Previous research showed that young people and women experience additional hardships during conflicts and emergencies that lead to health deterioration [14,15]. Women and girls living in humanitarian settings tend to suffer from poor sexual and reproductive health (SRH) outcomes, which put them at increased risk of morbidity and mortality [16–19]. Furthermore, Syrian refugee women in Lebanon experience difficulties when seeking SRH services because of high service costs, absence of female healthcare providers, and discriminatory attitudes from providers [20,21]. A needs assessment has shown that only 32% of Syrian women within the reproductive age in Lebanon consider SRH services easily accessible, while 38% think that these services are practically unavailable and 17% are unaware that these services even exist [22]. Moreover, a situation analysis conducted in 2013 by the United Nations Population Fund (UNFPA) on youths in Lebanon, who are affected by the Syrian crisis, found that only 31% of refugee participants received health services, and 56% of those found the services satisfactory. The analysis also showed that Syrian youths had insufficient knowledge on SRH issues. For instance, only 45% of refugee youths self-declared knowledge of contraceptive methods, of whom one quarter indicated withdrawal as one of the methods [23].

Since data on the SRH of young refugee women living in urban settings in Lebanon are particularly scarce, the general aim of this exploratory study is to assess the SRH status of Arab and Kurdish Syrian refugee young women living in Bourj Hammoud. Its specific objective is to determine the knowledge of refugee young women on SRH issues such as sexually transmitted infections (STIs) and contraceptive methods on one hand and their access to SRH services such as ever visited health facility in Lebanon and healthcare provider characteristics on the other hand. The agenda of the International Conference on Population and Development (ICPD) and the *Inter-Agency Field Manual on Reproductive Health in Humanitarian Settings* (IAFM) by the Inter-Agency Working Group on Reproductive Health in Crises (IAWG) form the framework of the study [17,24]. Its objective and results are in line with the Sustainable Development Goal (SDG) Number Three—*ensure healthy lives and promote well-being for all at all ages*—which also encompasses the necessity to advance reproductive, maternal, and child health [25]. This study complements a qualitative research, conducted previously by our team, in which qualitative insights on knowledge and experiences around SRH of Syrian girls aged between 13 and 17 years also living in Bourj Hammoud were provided [26]. Our findings are aimed at improving and focusing health promotion activities on SRH in refugee populations.

2. Materials and Methods

2.1. Study Setting

According to the United Nations High Commissioner for Refugees (UNHCR), 8141 Syrian refugees registered the industrial area of Bourj Hammoud as their place of residence [27]. The area has a history of accommodating refugees since the 1920s, where Armenians arrived after surviving genocide and escaping expulsion by Ottomans [28]. In the present, individuals with lower socio-economic status—including Lebanese citizens, Syrian, Palestinian, and Iraqi refugees, and migrant workers—reside in Bourj Hammoud [29,30]. The suburb, which is one of the most heavily inhabited in the Middle East, suffers from inadequate living conditions such as unsatisfactory infrastructure, hygiene conditions, and supply of electricity and clean drinking water [28,31].

2.2. Study Design

We employed a cross-sectional survey to explore the SRH knowledge of refugee young women and their experiences in accessing services. The questionnaire consisted of five sections: demographic characteristics (e.g., age, ethnic group, level of education); displacement characteristics (e.g., year of fleeing, reason of fleeing, and duration of stay in Bourj Hammoud); individual agency in displacement (e.g., head of household, healthcare decision making power); SRH knowledge (e.g., sources of information, knowledge on contraceptive methods and STIs); experiences in accessing SRH services (e.g., ever visited health facility in Lebanon for SRH services, healthcare provider characteristics); and experiences of pregnancy (e.g., number of pregnancies and antenatal care visits in Lebanon). The questionnaire's different parts were developed based on two validated tools: Reproductive Health Assessment Toolkit for Conflict-Affected Women, CDC, 2007 [32] and Adolescent Sexual and Reproductive Health Toolkit for Humanitarian Settings, UNFPA and Save the Children, 2009 [33]. The questionnaire was designed in English, translated into Arabic, and piloted before the start of the data collection.

2.3. Sample Participants

We calculated a sample size of 297 and managed to enroll 305 Syrian refugee young women. The sample size was determined based on Cochran's (1963) formula for cross sectional studies with a precision of 5% and a confidence level of 95% [34]. The prevalence of self-claimed knowledge of contraceptive methods among Syrian refugee girls and young women from previous studies was adopted [23,35]. Snowball sampling was used to recruit participants. When conducting research that includes hidden groups such as vulnerable refugee communities, snowball sampling method is found to be the most suitable [36,37].

Five different snowball starting points were applied through five Syrian female community gatekeepers. In order to avoid a homogenous sample and to ameliorate representation, gatekeepers belonging to various age and ethnic groups, coming from different areas in Syria, and having distinct socio-economic characteristics (e.g., education level and monthly income) were chosen. Additionally, we allowed only a limited number of participants from each resulting chain [38,39]. The efficiency of engaging gatekeepers in the recruitment procedure for research on sensitive topics that involve refugee communities as participants has been previously reported [40,41]. The inclusion criteria of respondents were: bearing Syrian nationality, belonging to Arab or Kurdish ethnic groups, age between minimum 18 and maximum 30 years, and date of arrival to Lebanon only after the start of the armed conflict in Syria (set at 15 March 2011). Eight questionnaires were excluded from the study, since their corresponding participants moved to Lebanon before 15th of March 2011. Since snowball sampling was implemented, there is no means to estimate the number of individuals who refused to participate in the study.

2.4. Data Collection

Data collection was carried out from January to March 2020 by the first author—a Lebanese female doctoral researcher, who is an Arabic native speaker. Data collection was completed using a tablet computer, on which the questionnaire was programmed employing the Magpi® application. Data were collected one-on-one in a private environment, either in the participants' or in the gatekeepers' apartments.

2.5. Data Analysis

Data were analyzed using IBM SPSS Statistics version 27.0.(International Business Machines Corporation, New York, NY, USA) A descriptive presentation of the results of the questionnaire is given for continuous variables that are non-normally distributed through interquartile range (IQR) and medians. Since none of the variables were normally distributed, standard deviation (SD) and means were not calculated. Tests of associations were conducted for categorical variables using Fisher's exact test, since the study's sample size, and in consequence size of cells, is considered small [42,43]. The Chi-square test

was used to check for significant differences between proportions across categories (SRH service categories). A threshold of significance was set at 0.05. No data were missed.

In order to evaluate the overall knowledge of participants on SRH issues, an unweighted score was generated for every participant based on her knowledge on different SRH topics, as reported by Ivanova et al. [44] in a comparable study in Uganda: STIs, symptoms of STIs, methods of contraception, and danger signs of pregnancy. Each of these elements were assessed through a scale from zero to three. After combining the evaluation from the four elements and getting the final average score, the overall knowledge on SRH issues was described as following: low (average score ≤ 1), medium (average score between 1 and 2), and high (average score ≥ 2) [44].

2.6. Ethical Considerations

Before administering the structured questionnaire, the researcher explained the aim and relevance of this study to participants, who also learned about their right to participate on a voluntary basis and to withdraw their participation at any time. Written Arabic informed consent was received from participants. In case of illiterate participants, oral Arabic informed consent was received in the presence of a witness. The Institutional Review Boards of Rafik Hariri University Hospital in Lebanon and the Faculty of Medicine at Ludwig-Maximilians-Universität in Munich, Germany, provided the ethical approvals for this study (Project Nr. 19-552).

3. Results

3.1. Demographic and Displacement Characteristics of Participants

Two hundred and ninety-seven (297) young women participated in the survey. The median age of participants was 25 years (IQR: 21–29), with 72.7% of them being Syrian Arab and 27.3% being Syrian Kurdish. The young women arrived from 11 out of 14 Syrian governates (administrative districts in Syria), with the majority (n = 162; 54.5%) coming from Aleppo and only one participant coming from Latakia. The distribution of participants between the different governates is presented in Figure 1. The vast majority of participants were married (n = 268; 90.2%). A total of 51.2% (n = 128) of young women had acquired an education below secondary level and 48.8% (n = 145) of them completed an education above secondary level. A total of 89.9% (n = 267) of the participants had a monthly income, while the rest of the young women (n = 30) were not receiving any income for the last three to five months, since the beginning of the economic crisis in Lebanon. Most of the young women (n = 131; 44.1%) received a monthly income of USD 100-399. More than half of the participants (n = 159; 53.5%) lived in urban areas before arriving to Lebanon, while the rest lived in rural areas (n = 138; 46.5%). The largest proportion of participants indicated to be living as refugees between 5 and 10 years, be it in Lebanon (n = 174; 58.6%), or more precisely in Bourj Hammoud (n = 137; 46.1%). Fear and security concern was the most frequent given reason for fleeing (n = 217; 73.1%), followed by economic difficulties (n = 35; 11.8%), reunification with a husband (n = 31; 10.4%), and lack of daily necessities (n = 14; 4.7%). The median number of individuals sharing the same place of residence with the participants was 5 (IQR: 4–8), with 2 being the median number of adults ($\geq$18 years of age) and 3 the median number of children (<18 years of age) in residence. The detailed demographic and displacement characteristics of the participating Syrian refugee young women are presented in Table 1.

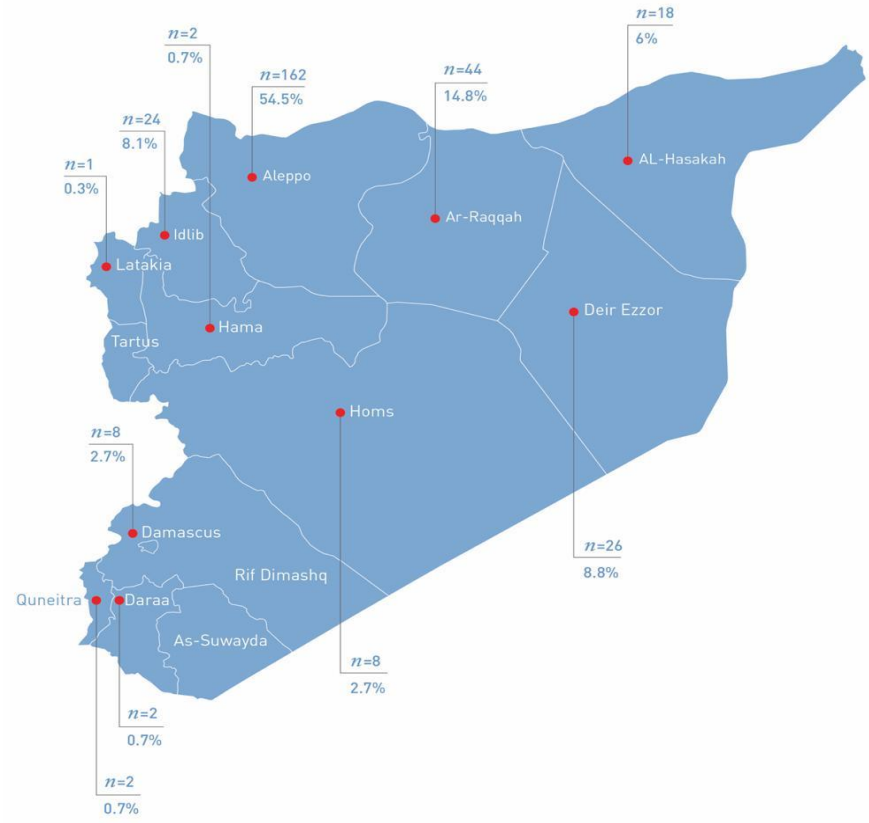

Figure 1. Distribution of participants (n = 297) by governates of origin in Syria.

Table 1. Demographic and Displacement Characteristics of Participants.

	Number (n = 297)	Percentage (%)
Individual Characteristics		
Age		
18–24 Years	145	48.8
25–30 Years	152	51.2
Ethnic Group		
Arabs	216	72.7
Kurds	81	27.3
Educational Level		
Never attended school	24	8.1
Primary	128	43.1
Secondary	90	30.3
Tertiary	36	12.1
University	13	4.4
Vocational training	6	2
Marital Status		
Single	17	5.7
Engaged	3	1
Married	268	90.2
Divorced	7	2.4
Widowed	2	0.7
Income		
No income	30	10.1
<USD 100	13	4.4
USD 100-399	131	44.1
USD 400-600	107	36
>USD 600	16	5.4

Table 1. *Cont.*

	Number (n = 297)	Percentage (%)
Displacement Characteristics		
Lived Before Fleeing Syria		
In a village	138	46.5
In a city	159	53.5
Reason of Fleeing		
Security concerns/fear	217	73.1
Lack of daily necessities	14	4.7
Economic difficulties	35	11.8
Reunification with husband	31	10.4
Live in Lebanon for		
Less than 1 year	14	4.7
1–4 years	109	36.7
5–10 years	174	58.6
Live in Bourj Hammoud for		
Less than 1 year	38	12.8
1–4 years	122	41.1
5–10 years	137	46.1
Head of Household		
Self	13	4.4
Husband	241	81.1
Parent	16	5.4
Other Relative	27	9.1

3.2. Individual Agency in Displacement

For most of the participants (n = 241; 81.1%), the husband was the head of the household. That was followed by a relative (n = 27; 9.1%) or a parent (n = 16; 5.4%). Only 13 out of the 297 young women were themselves the head of their household. Most of the participants were financially dependent on their husbands (n = 250; 84.2%), while some others depend on family members (n = 33; 11.1%). Only 14 out of the 297 young women were financially independent through a job they had in Bourj Hammoud. None of the participants depended on a direct support by UNHCR or a non-governmental organization (NGO). We asked the young women about the decision maker in their household when it comes to their healthcare, mobility, work and participation in workshops, and physical appearance. Most of participants had their own last say when it comes to decisions regarding their mobility (n = 115; 38.7%), ability to work or participate in workshops (n = 115; 38.7%), and physical appearance (n = 167; 56.2%). However, the biggest percentage of young women (n = 102; 34.3%) had to make a joint decision with their husband/partner for issues related to their own healthcare. In case the decisions were not made independently or jointly, the husband/partner or another relative (e.g., mother or mother-in-law) was the final decision maker. An overview of the results is presented in Table 2. We also asked the young women about the final decision maker regarding the household's daily purchases. Most participants (n = 99; 33.3%) were the decision makers on that regard, followed by the husband/partner (n = 86; 29%), a joint decision with the husband/partner (n = 66; 22.2%), and another relative (n = 46; 15.5%). When having a closer look only among married participants (n = 268), we also found that the majority of the young women made independent decisions regarding their mobility (n = 106/268; 39.5%), work and participation in workshops (n = 106/268; 56%), physical appearance (n = 150/268; 56.6%), and household's daily purchases (n = 91/268; 40%), but had to make a joint decision with their husband or partner regarding their own health (n = 102/268; 38%).

Table 2. Final decision maker in household on matters that concern the young women.

Matter / Decision Maker	Healthcare	Mobility	Work/Participation in Workshops	Physical Appearance
Self	85	115	115	167
Husband/partner	84	106	103	66
Joint decision with husband/partner	102	50	54	49
Other relative	26	26	25	15
Total	297	297	297	297

3.3. SRH Knowledge and Sources of Information

The participants approached multiple people when seeking information on SRH issues. The majority of them reached to female relatives other than their mother and sister (n = 92), followed by friends (n = 77), partner or husband (n = 65), mother (n = 64), sister (n = 53), doctor or nurse (n = 40), educational provider (n = 2), and male relative (n = 1). Only eight participants wished to reach to someone else. A total of 134 out of 297 (45.1%) participants also looked for similar information through different online channels, such as YouTube (n = 89/134; 66.5%), Google (n = 35/134; 26%), and social media (e.g., Facebook and Instagram; n = 10/134; 7.5%).

We evaluated the knowledge of participants on different SRH topics: STIs, symptoms of STIs, methods of contraception, and danger signs of pregnancy. A total of 161 out of the 297 participants (54.2%) were not able to identify any STI, while 61 out of the 297 participants (20.5%) were not able to name any symptom associated with STIs. Among participants who were knowledgeable about these two issues, HIV/AIDS (n = 136/136; 100%) and genital itching (n = 167/236; 70.7%) were the most STI and related symptom mentioned. The vast majority of Syrian refugee young women (284; 95.6%) knew at least one method of contraception. Birth control pills (n = 268/284; 94.3%), IUD (n = 266/284; 93.6%), and withdrawal (n = 257/284; 90.5%) were the three most identified methods by the knowledgeable young women. Most of the participants (n = 231; 77.7%) could name at least one danger symptom which is associated with pregnancy. Vaginal bleeding (n = 199/231), intense abdominal pain (n = 123/231), and fever (n = 116/231) were the three most known symptoms. An overview of the young women's SRH knowledge is presented in Table 3 and a detailed demonstration of that knowledge on the four topics is enclosed in supplementary (Tables S1–S4).

In bivariate analyses using Fisher's exact test, no association was found neither between the overall knowledge on SRH and age (p= 0.387) nor between the same overall knowledge and duration of stay in Lebanon (p= 0.90). However, the overall knowledge on SRH issues was found to be associated with the type of setting in which the Syrian refugee young women lived before being displaced to Lebanon ($p < 0.001$) in addition to their level of education ($p < 0.001$). Participants coming from Syrian urban areas were more likely to have a higher overall knowledge on SRH issues compared to participants who inhabited rural areas. Furthermore, Syrian refugee young women who acquired an education below secondary level tended to have a poorer knowledge on SRH topics compared to the ones who completed an education above secondary level.

Table 3. Sexual and Reproductive Health Knowledge of Participants.

	Number (n = 297)	Percentage (%)
Knowledge of STIs		
0	161	54.2
1	83	27.9
2	31	10.4
3 or more STIs	22	7.4
Knowledge of STIs Symptoms		
0	61	20.5
1	37	12.5
2	64	21.5
3 or more symptoms	135	45.5
Knowledge of Contraception		
0	13	4.4
1	11	3.7
2	14	4.7
3 or more methods	259	87.2
Knowledge of Pregnancy's Danger Signs		
0	66	22.2
1	53	17.8
2	68	22.9
3 or more signs	110	37

3.4. Access to SRH Services

We assessed the medical check-ups and procedures received by the participants during their stay in Lebanon. The majority of the young women had at least one general check-up by a gynaecologist (n = 233; 78.5%) and one blood test (n = 197; 66.3%). Only 27.6% (n = 82) of them had at least one check-up by a general practitioner and 15.5% (n = 46) of them received at least one vaccination. Very few participants (n = 26; 8.8%) reported that they had at least one pap smear during their stay in Lebanon. A total of 28 out of the 297 participants (9.4%) did not receive any medical check-up or procedure during their displacement to Lebanon. Most of the participants (n = 240; 80.8%) visited at least once a health facility in Lebanon to receive SRH services. They knew about it through a friend (n = 108/240; 45%), a relative (n = 106/240; 44.2%), a healthcare provider (n = 15/240; 6.2%), or an NGO worker (n = 9/240; 3.7%). Only two young women could not remember how they came to know about the facility and its offered services. The last visit for the majority of participants was for receiving pregnancy care and delivery (n = 156/240; 65%), followed by STIs treatment and counselling (n = 33/240; 13.75%), family planning services (n = 21/240; 8.75%), and education or counselling regarding different SRH topics (n = 11/240; 4.6%). In addition, 19 out of the 240 participants (7.9%) visited lately a health facility to receive other SRH services such as hormonal therapy and infertility treatment. All the young refugee women talked to a medical doctor, except one participant who talked to a midwife. A female healthcare provider delivered the needed SRH service for the majority of participants (n = 174/240; 72.5%). The young women described the healthcare provider as friendly and helpful (n = 195/240; 81.3%), unfriendly and disrespectful (n = 22/240; 9.2%), friendly but unhelpful (n = 19/240; 7.9%), and unexperienced (n = 4/240; 1.6%). The biggest percentage of young women (n = 177/240; 73.7%) would return again to the health facility. The reasons for not returning for the rest of them are presented in Figure 2.

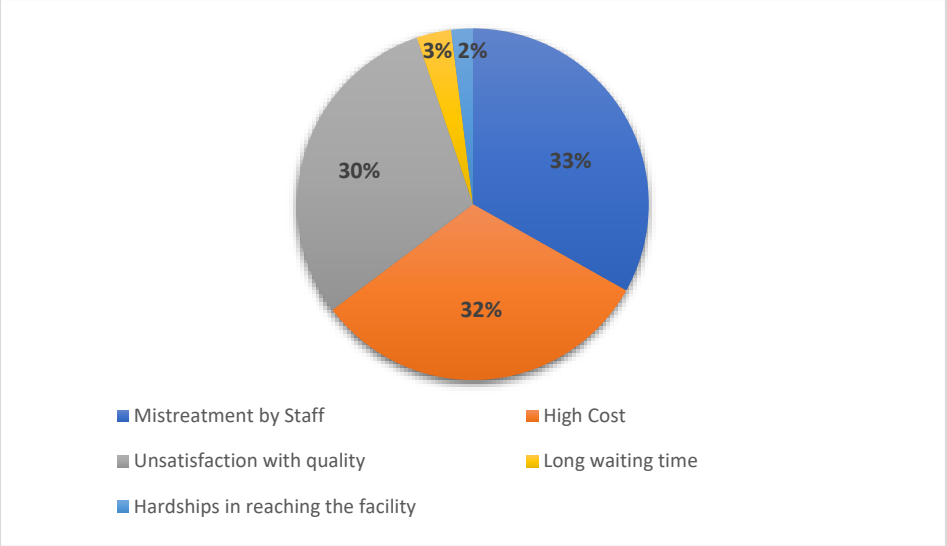

Figure 2. Reasons for not returning to the health facility.

When asked about their preferred sex of service provider, 52.2% (n = 155) of the total participants favoured females and 1.3% (n = 4) favoured males. A noticeable percentage of the young women (n = 138; 46.5%) did not have any preference.

Only half of the participants (n = 148; 49.8%) knew a health facility in Bourj Hammoud that provides SRH services. There was no significant association between familiarity with a SRH care provider on the one hand and number of years lived in Bourj Hammoud, bearing head of household position, income level or healthcare decision making power on the other hand. When being asked about the type of services available at the facility, 36.4% (n = 54/148) of the young women did not have any answer. We examined the awareness of the participants regarding the availability and accessibility of five different categories of SRH services in Bourj Hammoud and its neighbouring urban areas. More than half of the participating young women knew where to access health services that are related to general medical diagnosis, information on SRH issues, methods of contraception, STIs treatment, and antenatal care. The results are presented in Figure 3. We tested for significant differences in existing knowledge on service availability between the five SRH categories using the Chi-square test. That allowed us to check in case the difference is statistically significant. The participants indicated significantly higher knowledge on the service categories of general medical diagnosis (p = 0.006) and antenatal care ($p < 0.001$), in contrast to information on SRH issues (p = 0.270), methods of contraception (p = 0.685), or STIs treatment (p = 0.92).

3.5. Experiences of Pregnancy

A total of 236 out of the 297 young refugee women (79.5%) reported their experience of pregnancy during their stay in Lebanon. The median number of pregnancies was two (IQR: 1–3). Furthermore, 89 out of the 236 participants (37.7%) stated to have suffered a miscarriage, where 18 reported more than one miscarriage. Almost all participants who experienced pregnancy in Lebanon (n = 227/236; 96.2%) received antenatal care. The majority of them (n = 172/227; 75.8%) had three or more antenatal visits during their last pregnancy. For the same last pregnancy in Lebanon, 53.8% (n = 127/236) of the young women wanted to become pregnant then, 33.9% (n = 80/236) preferred to wait longer before becoming pregnant, 11.9% (n = 28/236) did not want to become pregnant anymore, and one participant had no response to the question.

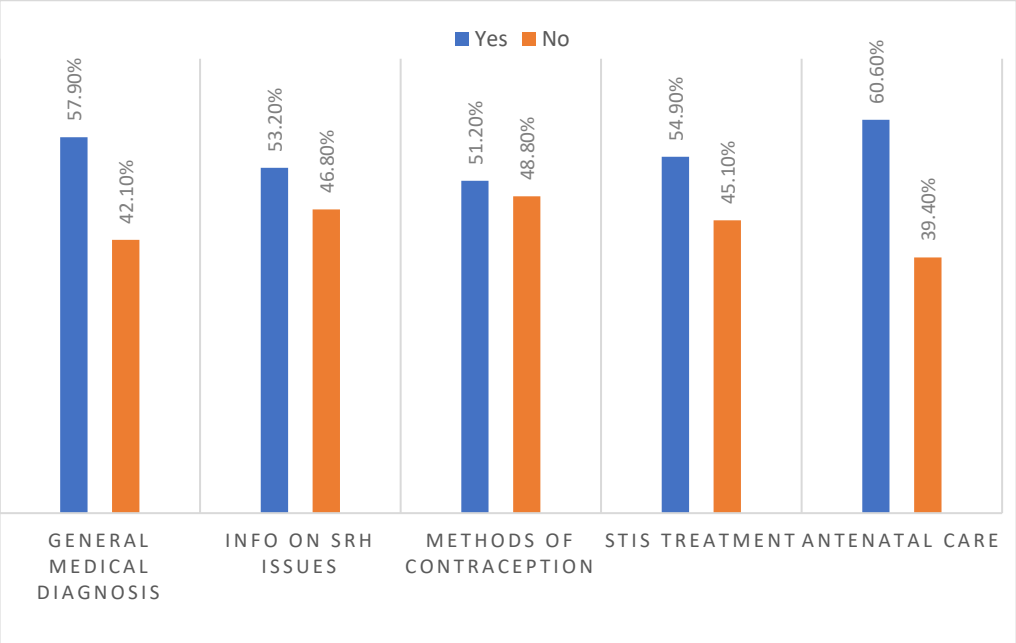

Figure 3. Awareness of the participants on available and accessible health services in Bourj Hammoud and its neighbouring urban areas.

4. Discussion

This cross-sectional quantitative study assessed the general SRH status of Arab and Kurdish Syrian refugee young women living in Bourj Hammoud, Lebanon, and determined their knowledge on SRH issues and access to SRH services. Its findings show the Syrian refugee young women limited overall SRH knowledge and insufficient access to needed services within their urban setting of residence specifically and in Lebanon as a host country generally.

In our study, a low number of participants (46 out of 297) received immunization. A similar finding was reported in 2013 among pregnant Syrian women living in different Lebanese urban areas, where only 8.0% of women were vaccinated against tetanus [45]. Immunization of mothers is key to prevent maternal, neonatal, and young children morbidity and mortality [46,47]. Additionally, vaccination of girls and young women against the human papillomavirus (HPV) prohibits cervical cancer. In 2018, almost 90% of the deaths caused by this disease took place in low- and middle-income countries [48]. A very limited number of participating young women (8.8%) had at least one pap smear during their displacement to Lebanon. According to the Centers for Disease Control and Prevention (CDC), women having the age between 21 and 29 years should receive one pap smear every three years in case of a normal test. This important screening tool, which detects malignant and premalignant lesions of the cervix, allows an early diagnosis of cervical cancer [49].

Among the participants who visited a healthcare facility in Lebanon, 65% accessed SRH services that are related to pregnancy care and delivery. This was also observed in an assessment conducted in Lebanon only a year after the start of the Syrian conflict, where 59.7% of the displaced women never visited a gynaecologist if not for pregnancy care or delivery [22]. The insignificant variance in the presented numbers throughout the prolonged Syrian crisis highlights the need to increase the awareness among refugees on all available SRH services at reduced prices on one hand and their locations of availability on the other hand. Additionally, it is necessary to extend the awareness through refugee's different networks, including social media [50]. Syrian refugee young women living in Bourj Hammoud reported different barriers that limit their access to available SRH services. Mistreatment by staff, high cost, poor quality of services, long waiting times, far distances, and unaffordable means of transport were the obstacles mentioned by participants. Comparable barriers are

observed in Syrian refugee populations in Jordan and Turkey [51,52], in addition to other displaced populations such as refugee adolescent girls in the Nakivale refugee settlement in Uganda [44]. Surprisingly, and in contrary to other studies on Syrian refugee women in Jordan and Turkey [35,53,54], the sex of the healthcare provider was not named as a barrier to SRH services access. Differently, a recognizable percentage of participants (46.5%) did not have any preference concerning the sex of service provider. Some of the participants described healthcare providers by disrespectful, unhelpful, and unexperienced, and expressed their unsatisfaction with the quality of received SRH services. These reports reflect the participants' major concerns regarding the skills of the healthcare provider on one hand and the sufficiency of SHR services on another hand, and not in respect to the sex of healthcare provider. It is true that more than half of the participants knew where to go to receive health services in Bourj Hammoud and its neighbouring urban areas, however the percentage of Syrian young women who do not know where to have this access is still considered elevated (ranged between 39.4 and 48.8%). This emphasizes once more time the necessity to expand the awareness among refugees on available SRH services-such as receiving information on SRH issues, methods of contraception, STIs treatment, and antenatal care. Although there was no significant association between familiarity with a SRH care facility and the healthcare decision making power, it is essential to further examine the effect of the women's dependent decisions on their own SRH status, especially that the majority of participants (34.3%) had to make a joint decision with their husband or partner.

The participants had limited overall knowledge on four SRH topics: STIs, symptoms of STIs, methods of contraception, and danger signs of pregnancy. Their knowledge on at least one contraception method was the highest (95.6%), followed by at least one symptom of STIs (79.5%), at least one danger sign of pregnancy (77.7%), and at least one STI (45.8%). Although neither age nor duration of stay in Lebanon were found to affect the participants' overall level of knowledge, this knowledge seems to depend on Syrian refugee young women's education level and type of setting in which they lived before being displaced to Lebanon. According to McKay, women cannot have a SRH care decision making power if they are not provided with precise and comprehensive information in the first place [55]. Women from lower social class receive less information because of the healthcare providers' assumption that they are not able to comprehend scientific knowledge [55]. In this study, HIV was found to be the most known type of STI. A similar finding was reported among Syrian refugee mothers in Jordan [56]. The considerable national and international awareness campaigns on HIV, which is not the case for other STIs, could be the cause behind that [56]. Interestingly, participants had acceptable knowledge on STIs symptoms but could not identify most of the STIs. This could be due to the tightly connected social networks of refugees, through which Syrian women exchange information that focus on sharing personal experiences, specially that friends, relatives, and partners or husbands were the main sources of information for the vast majority of participants.

Although almost all participants were knowledgeable of at least one method of contraception, 45.8% of women who experienced pregnancy in Lebanon had low or no desire for their last pregnancy. Thus, there is a gap between the level of knowledge on contraceptive methods on one hand and the actual use of these methods on another hand. Some studies reported a restricted level of contraceptive use within the population of Syrian refugee women in Lebanon, which ranged from 42.3 to 65.5% [22,45]. A qualitative study on Syrian refuge women in Turkey found that participants had sufficient knowledge on modern contraceptive methods but could not identify their efficiency [57]. Therefore, the very high level of knowledge on contraception methods among the participants of this study can be a result of an over-reporting, where women are only aware of the methods' names but not of their functions and effectiveness.

SRH started to be incorporated in the humanitarian responses and programs that tackle different types of crises since the 1990s [58,59]. These programs, and regardless of their application level, should be designed based on the particular context of each country

in which they will be implemented [60]. In case of extended crises, such as the Syrian armed conflict that has been lasting for the past 10 years, healthcare systems become fragile which negatively affect the health status of women [13,61,62]. It is essential to describe and recognize the present complex and multi-layered Lebanese context, in order to better understand its impact on the well-being of Syrian refugees in general and the SRH of Syrian refugee women in specific. Lebanon is experiencing several complex crises since October 2019: economic breakdown, political unsteadiness, the COVID-19 pandemic, and the explosion at the Port of Beirut on the 4th of August 2020 [63]. These crises were added to the vulnerable conditions of refugees as a result of the conflict in Syria [63,64].

The economic crisis, which started in October 2019 and its effects were slightly witnessed during the data collection of our study, is considered one of the three worst economic crises worldwide since the mid-19th century [63]. A drastic increase in the unemployment rate, one of the crisis' consequences, was reflected in the findings of the study, where 30 participants have not received any income since October 2019. The protracted financial and political crisis hinders the providing of crucial public services, including health services, and thus impairs the well-being of individuals [63]. According to Médecins Sans Frontières (MSF), the increase in the inflation rate to 133% by November 2020 distressed Lebanese citizens as well as refugees and obstructed their capability to access satisfactory healthcare services [64]. Furthermore, the economic crisis pushed at least half of the Lebanese population under the national poverty line [63]. In an already inequitable, stretched, and remarkably privatized healthcare system, the crisis generates additional obstacles to access healthcare services and cause the health deterioration of already vulnerable groups [64]. These populations will have to put first their family's life saving needs such as food and shelter before their own SRH needs [65]. In a phone survey conducted by the World Food Program (WFP), 36% of households reported barriers in accessing health care between November and December 2020, a percentage that increased from 25% between July and August 2020 [63].

The Lebanese public healthcare system was also stressed due to the increasing number of COVID-19 patients starting of spring 2019. An assessment conducted by the Interagency Sexual and Gender-based Violence (SGBV) before the 4th of August 2020 to study the pandemic's effect on the level of SGBV throughout the country, found that 51% of the participating women and girls, including Syrian refugees, feel less safe and only 30% of them are still accessing health services [66]. Finally, the blast at the Port of Beirut impaired six main hospitals in addition to 23 primary health care centers and caused the loss of medical supplies in different types of healthcare settings: primary, secondary, and tertiary [67]. Since this study's data collection phase took place between January and March 2020, its results do not show the serious effects of the Lebanese multiple crises. All these events might contribute to further worsening the SRH of Syrian refugee women and are expected to continue in doing so.

The combined effect of the several crises on Syrian refugee young women's SRH status, knowledge, and access to available services should be investigated in depth in order to complement the new needs of women who are experiencing an increased vulnerability. The evaluation of the existing services and programs should also be performed to determine their level of suitability and sufficiency vis-à-vis to the necessary requirements to avert poor SRH outcomes, specially that no clear plan is being drafted on the governmental level to resolve the different crises.

We recognize the different limitations of this study. First of all, the researcher was not able to always assert the reported age of participants based on available official documents. Second, the self-reporting conducted by participants might have caused over- or under-reporting, especially with the effect of social desirability bias. Moreover, the study's sample is non-representative, since no random sampling method was applied. However, and since the aim of our exploratory study is to have insights into the SRH of refugee young women living in an urban setting, which is overlooked in research, representation was not the preference [68,69]. The study on a sensitive topic such as SRH, participants' anxiety about

the research intentions, and restrictions when building connections and trust within the Syrian refugee community living in Bourj Hammoud presented challenges when recruiting participants and thus limited women's participation and representation. Finally, the cross-sectional type of the study did not allow an investigation of the changes in the participants' SRH knowledge and access to services at different points in time during their displacement to Lebanon.

5. Conclusions

Syrian refugee young women residing in Bourj Hammoud have restricted access to SRH services and unsatisfactory overall knowledge on different SRH topics. Thus, it is necessary to expand the awareness among refugee women on all affordable and available SRH services in urban settings and not to only focus on refugees' maternal health. Provision of information on variety of different SRH issues and treatment of STIs are some of those services that are still inadequate. Furthermore, an effective intervention targeting these challenges should always be designed according to the context of the setting in which it will be implemented. Such a design will assure constructive outputs, where refugee women's SRH status is enhanced.

This study provides valuable primary data on the SRH knowledge and access to services among young refugee women living in an urban setting, which makes them a hard-to-reach group. The findings could guide future research on specific SRH components of Syrian refugee women in Lebanon in specific and of other young refugee populations in the extended Middle East and North Africa (EMENA) countries in general. Such research is highly needed in Lebanon in order to shape the work of national, international, governmental, and non-governmental institutions that support this target group through SRH services, especially within a context of multiple crises that are expected to further deteriorate the SRH status of Syrian refugee women and lead to urgent poor SRH outcomes.

Supplementary Materials: The following are available online at https://www.mdpi.com/article/10.3390/ijerph18189586/s1, Table S1. Identified STIs among Knowledgeable Participants (n = 136); Table S2. Identified STIs Symptoms among Knowledgeable Participants (n = 236); Table S3. Identified Methods of Contraception among Knowledgeable Participants (n = 284); Table S4. Identified Danger Signs of Pregnancy among Knowledgeable Participants (n = 231).

Author Contributions: R.K., O.I. and G.F. conceptualized and designed the overall study. R.K. was responsible for the data collection and analysis. O.I. and G.F. provided supervision during the processes of data collection and reviewing of results. R.K. drafted the original and following versions of the manuscript, with contributions from O.I. and G.F. All authors have read and agreed to the published version of the manuscript.

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Institutional Review Board Statement: The study was conducted according to the guidelines of the Declaration of Helsinki and approved by the Institutional Review Boards of Rafik Hariri University Hospital in Lebanon—as per advice of the Lebanese Ministry of Public health—and the Faculty of Medicine at Ludwig-Maximilians-Universität in Munich, Germany (Project Nr. 19-552-27.02.2020).

Informed Consent Statement: Informed Arabic written consent was obtained from all participants prior to data collection.

Data Availability Statement: The dataset and materials used in this study are available from the first author on reasonable request.

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Acculturation, Health Behaviors, and Social Relations among Chinese Immigrants Living in Spain

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Abstract: This study aims to identify acculturation experiences about social relations and health behaviors of first-generation Chinese immigrants in the South of Spain, including food patterns, physical exercise, and tobacco and alcohol use. A phenomenological qualitative study was conducted using semi-structured interviews, informal conversations, and field notes. All data were analyzed under the Berry's Model of Acculturation. A total of 133 Chinese immigrants were included. Our findings show that separation was the dominant acculturation strategy, followed by integration and assimilation, while marginalization was not present in this immigrant population. Most of the immigrant population maintains a link to the customs of their home country, favoring the process of identity and collective self-esteem. These results can help health managers and the government to further understand Chinese immigrants in Europe and to establish appropriate health interventions to this group.

Keywords: acculturation; emigration and immigration; health behaviors; qualitative method; Spain

1. Introduction

According to the Migration Data Portal, the number of international migrants in 2019 reached 271.6 million worldwide as compared to 258 million in 2017. In the European Union, Spain ranked fourth (7%) in the reception of immigrants [1]. The immigration process can be associated with two different conditions. The first one is based on the forced immigration (i.e., asylum seekers or refugees), which may result in mental health problems and infectious diseases to immigrants [2]. The second one is the non-forced immigration (i.e., those living and working in the host country), which tends to promote better life conditions, resulting in challenges towards the degree of integration into the host communities and other social aspects such as work activity or territorial concentration. The latter is considered the case of the Chinese immigrant community in Spain [3,4].

In fact, the entry of Spain into the European Economic Community in 1986 made this country a good destination for the expansion of businesses by the Chinese population [5]. Spain has now occupied the fourth place in the European ranking in terms of immigrants from China [6]. From 2005 to the present date, Chinese individuals represent the most

common immigrants from Asia [7], constituting the fifth largest nationality of immigrants in Spain (4.46%) [8].

Since their arrival in Spain, this population has established several Chinese restaurants, which promoted the migration of this population to the most important cities of the country and the coastal area. In an attempt to guarantee a strategic location, minimize the competition, and search for new market opportunities, first-generation Chinese immigrants began the so-called "first inward expansion" in the 1990s. Therefore, they migrated to other large cities, which explains the presence of Chinese population in Madrid, Catalonia, and the Canary Islands in the 1980s, followed by the Valencian Community and Andalusia five years later [9,10].

In 2019, the Chinese population living in Andalusia constituted 9% of the total Chinese immigrants in Spain, being the third largest foreign nationality (22,280 inhabitants), behind Moroccan (145,076 inhabitants) and Romanian (79,264 inhabitants) immigrants. Likewise, although Spain is experiencing a decline in the immigrant population of other nationalities due to the economic crisis that Spain suffered since 2008 [6], the Chinese presence in Spain has maintained a steady growth.

According to the "Melting Pot" adaptive theory [11], upon arrival in the host country, immigrants gradually take on cultural aspects and build a new "cultural form", which may have an important influence on their individual, social, and contextual factors. Immigrants usually change the way they dress, what they eat, their greeting habits, and even their values by reducing (i.e., suppressing, forgetting) their way of living. The pace and extent of individual change is related to the degree of cultural maintenance in one's own group, which in turn is linked to the relative demographic, economic, and political situation of the host community [12].

This difficult process called acculturation is influenced by the culture of origin (i.e., religion, language, education), the policies of the hosting country's government [13], age, socioeconomic status, and even by offspring [14]. Although it involves at least two groups, with consequences for both, there is a greater impact for the nondominant group [12].

Social relationships, including the use of language, as well as the acquisition of certain lifestyles, have been used to measure acculturation in Asiatic populations [15], and considering the role of acculturation on immigrant social relations [15] and health behaviors [16,17] is capital for the healthcare of the immigrant population.

Acculturation has been extensively addressed by previous studies. In an Australian study, male immigrants from North Africa/Middle East and Oceania regions were susceptible to weight gain, with higher levels of acculturation being negatively associated with being overweight [18]. In another study, Schotte et al. investigated the association of cultural identity with several indicators of academic achievement and psychological adaptation among immigrant adolescents in Germany, showing that the identification with both the mainstream context and the ethnic context were important factors related to a positive development and adaptation of immigrant adolescents [19].

Concerning the Asiatic immigrant population, the relationship between the acculturation effect and the health lifestyles has been already investigated in the U.S.A, showing that the health risks to this group of immigrants increased due to the North American lifestyle, which, in other words, reflects the negative effect of acculturation. Nevertheless, the mechanisms underlying this relationship are still understudied [20]. In a study with Chinese international students in the Midwest of the U.S.A, the authors found that the stress due to acculturation is a risk factor for substance use. However, on the other hand, bicultural affiliation reduces the likelihood of smoking, drinking, and getting drunk [21].

Despite the previous evidence, there are few studies that address the phenomenon of acculturation related to health. In a recent systematic review, acculturation was associated with mental health aspects such as anxiety, disruptive behaviors, psychological adaptation, satisfaction with life, and emotional exhaustion [22]. Nevertheless, other health variables are seldom investigated in this field of research.

In this context, a recent European concern is the high number of Asian immigrants settled in Spain, particularly Chinese immigrants [23]. However, there are still few studies that have assessed how the migration phenomenon itself may affect the health of these individuals and, to our knowledge, this is the first study that addresses this aspect among first-generation Chinese immigrants in Spain.

This study provides further knowledge on the acculturation strategies that are beneficial or detrimental to the health of immigrants. This will allow health managers and healthcare professionals to design and promote healthcare interventions and to prevent unhealthy lifestyle behaviors among immigrants. In addition, healthcare services should be configured taking into account the essential cultural variables of the Chinese immigrants, since these variables could be determinants for the success or failure of healthcare in this population.

Theoretical Framework

Several theories have studied the immigrant integration into host societies using theories and concepts such as immigrant acculturation and adaptation [24]. This study considers acculturation as "a process of group and individual changes in culture and behavior that result from intercultural contact" [25].

The acculturation model used by this study was first proposed by Berry [24] and is considered a bidimensional model, which is based on the fact that the acculturation entails two independent dimensions: maintenance of the culture of origin and adherence to the dominant or host culture. This theoretical perspective proposes that immigrants can adopt up to four possible adaptation strategies: (a) assimilation, when the immigrant abandons his identity of origin and acquires that of the majority group; (b) integration or biculturalism, when there is a strong identification with both societies or cultures, so that the immigrant preserves the characteristics of their culture, but also participates or shares the culture of the majority group; (c) separation, when the immigrant does not try to establish relationships with the majority group and seeks to reinforce their ethnic identity and; (d) marginalization, in which the immigrant loses his native cultural identity, and also does not want or does not have the right to participate in the culture of the dominant group [12,26]. These aforementioned strategies are based on the idea that immigrant groups and their individual members have the freedom to choose how they want to engage in intercultural relations [12].

Therefore, this study aims to identify unique acculturation experiences and describe their influences on social relations and health behaviors among first-generation Chinese immigrants (foreign-born population who emigrated to Spain when they were children, adolescents, or adults) in the South of Spain, including food patterns, physical exercise, and tobacco and alcohol use.

2. Materials and Methods

2.1. Design

A qualitative, exploratory, and descriptive design using a phenomenological approach [27] was conducted in the southern region of Spain. This design allowed us to explore a particular topic of interest in a specific context, and to perform an analysis focusing on subcultural groups rather than involving entire societies.

In the present study, we opted to use the Berry's Model of Acculturation as described above [26]. Despite several theories and models of acculturation used for research, bidimensional approaches such as Berry's model may better conceptualize acculturation and explain in more detail the health habits as compared to other unidimensional approaches [28].

Data collection consisted of semi-structured interviews with Chinese immigrants, informal conversations, and field notes, and all were carried out by the main researcher (B.B) over six months in 2016/2017.

2.2. Data Collection

Our study took place in Andalusia, the southernmost region of Spain and Europe. The focus was on participants' shared behaviors and experiences; thus, we worked under the assumption that they share cultural perspectives, even if they do not know each other. Participants were recruited through Chinese businesses (e.g., bazaars, restaurants, grocery stores, fashion stores, technology stores, and wholesale businesses) and community institutions (e.g., educational institutions, Asian cultural centers, and health services). In order to increase the number of participants, a "snowball sampling" procedure was also used. This is a valid method to conduct face-to-face interviews while investigating an ethnic minority population [29]. Participants were included in the study if they were adult immigrants of Chinese origin, emigrated to Spain, and were able to communicate in Mandarin Chinese, Spanish, or English.

Semi-structured interviews were carried out face-to-face and lasted between 30 to 60 min. Statements of informed consent for all participants were obtained. The goal of the semi-structured interviews was to create the framework for the participants in which they were comfortable to talk about sensitive issues, while also giving the researcher the opportunity to ask for elaborations about specific topics, explanations of observed events, and clarification of ambiguities. All the interviews were audiotaped and transcribed verbatim by the main researcher (B.B) and data collection continued until criteria saturation.

Information from field notes and informal conversations were also included concerning witnessed events, verbatim verbal exchanges, and the researcher's personal interpretations of events. Informal conversations and the interviews allowed the researcher to examine whether interpretations of meanings behind observed behavior coincided with participants' own understandings. All interviews were conducted using the following starting open questions: "What were the reasons for the migration? What has been your experience during migration and upon arrival in the host country? And over the years? What kind of relationships do you have with the Spanish population and your ethnic group? Since you are in Spain, what eating habits do you have? And what about physical activity? Have you started or changed alcohol or tobacco use?" All the questions were agreed upon and discussed among the authors, taking into account the theoretical aspects that explain acculturation and acculturative strategies (Table 1). A consensus among researchers was reached on these open questions. After this first stage and before interviewing the participants, two native Chinese professors who speak Spanish provided feedback on the interview script. Grammatical errors were detected and corrected, and this version was considered appropriate and understandable for the Chinese population. When the first two interviews were transcribed, they also verified the adequacy of the answers to the questions, determining the reliability of the script.

2.3. Data Analysis

The qualitative analysis was carried out following the steps proposed by Braun et al. [30]: (1) familiarization with the data; (2) generation of categories; (3–5) search, review, and definition of themes; and (6) the final report. The data obtained were captured through audio recording and with the use of a field diary. Since some statements were recorded in Chinese, the following translation process was carried out: a Chinese-English translation by a Chinese native (n = 2) and an English-Chinese back-translation by a translation company.

Transcription, literal reading, and theoretical categorization were performed, and the NUDIST Nvivo (version 12) software (QSR internacional, Melbourne, Australia) was used. Data analysis started with individual readings in order to get an overview of respondents' experiences. Two researchers read all field notes and interview transcriptions several times, to gain an overall understanding of the content. The other authors read samples of the field notes and interviews to obtain understanding. The analysis continued by organizing descriptive labels, focusing on emerging or persistent concepts and similarities/differences in participants' behaviors and statements. The coded data from each participant were

examined and compared with the data from all the other participants in order to develop categories of meanings.

Table 1. Development of the interview script.

Theoretical Framework	Authors Discussion	Themes	Questions
Reason for immigration, expectations for life in the new culture, role in the immigration decision, route and danger of migration, or time in the new culture are included in the framework of contextual factors influencing acculturation (Table S1).	There are different routes of entry for the immigrant population in Spain. There are groups of forced immigrants who come to Spain alone, while Chinese families are sometimes observed in their businesses. The migratory motive can generate different acculturation strategies according to the needs of each group (if they have more ethnic support or not).	Migratory process	What were the reasons for the migration? What has been your experience during migration and upon arrival in the host country? And over the years?
The acculturation model of Berry (1997) analyzes the results of contact between two cultures. In addition, separation from social support networks and loss of significant others are factors influencing acculturation (Table S1).	Social relation as a part of the contact between two culturally different groups. The presence of an ethnic support network can interfere with the way both cultures contact to each other. People are social beings, but do they need to feel part of the other culture or is ethnic support enough? Spanish people have prejudices towards the immigrant population, and those related to Chinese immigrants are of a legal or economic nature.	Social relations	What kind of relationships do you have with the Spanish population and your ethnic group?
According to the "Melting Pot" upon arrival in the host country, immigrants gradually take on cultural aspects and build a new "cultural form". Immigrants usually change the way they dress, what they eat, their greeting procedures, and even their values by reducing their way of daily living, while taking on replacements.	What lifestyles are of concern in the world? And in Spain? We consider diet, physical activity, and substance use as the aspects that are the most explored and associated with chronic health problems and that represent a great expense for the national public health system.	Lifestyles	Since you are in Spain, what eating habits do you have? And what about physical activity? Have you started or changed alcohol or tobacco use?

When a basically clear pattern emerged with respect to the ideal types of acculturation strategies [26], it was used to critically reflect the data and theoretically frame the results. Furthermore, numerous contextual factors influence the trajectory of their adaptation to a new society. To overcome this limitation, social patterns and contextual factors were carefully considered in the measurement process [31] (see Supplementary Materials—Table S1). Two main themes (*"Social Relations"* and *"Health Lifestyles"*) reflected all of the assessed domains. A final report was prepared with the statements of the Chinese immigrants displayed in the following format: "C-questionnaire number, sex, age".

This research followed the criteria of The Consolidated Criteria for Reporting Qualitative Studies (COREQ) (Supplementary Materials—Table S2). The methods used in order to guarantee quality were data triangulation, including participants with different sociodemographic characteristics, and triangulation of data analysis via different researchers.

2.4. Ethical Considerations

The study was approved by the Andalusian Research Ethics Committee, Spain (Code: 0873-N-16). All participants received written and oral information about the study, including the right to withdraw and the guarantee of anonymity. Data were anonymized by

removing names/locations and by changing details. Interview transcripts and audiotapes were kept in locked files.

3. Results

Based on the migratory experiences of the participants, the results present a contextual, detailed, and graphic description of the general characteristics of the migratory process to Spain experienced by the Chinese immigrant population. In this section, we first present a sociodemographic analysis of the participants, and second we present the perspective of Berry's Model of Acculturation and its interface with health, including two themes and five domains retrieved by the qualitative analysis.

3.1. "We Want to Earn Money to Improve the Living Conditions of Our Family": The Migratory Adventure

A total of 252 businesses and institutions were visited and 133 Chinese immigrants agreed to participate. The sample included only Chinese immigrants and consisted of 61.7% women and 38.3% men, with a mean age of 30.7 years (ranging from 18 years to 55 years old), and an average length of residence in Spain of 11.3 years. More details about the participants are shown in Table 2.

Table 2. Sample characteristics.

Variables	Male	Female	Total	Statistics
	M (SD)	**M (SD)**	**M (SD)**	***p*-Value**
Age (years)	33.1 (7.2)	29.2 (7.4)	30.7 (7.6)	U = 1457.5 p =0.003
Years residing in Spain	12.7 (5.7)	10.4 (5.5)	11.3 (5.7)	U = 4774.5 p = 0.017
	n (%)	n (%)	n (%)	
Sex	51 (38.3)	82 (61.7)	133 (100)	-
Marital status				
Single	11 (21.5)	34 (41.5)	45 (33.8)	χ^2 = 7.35
Married	36 (70.6)	46 (56.1)	82 (61.7)	p = 0.062
Living with a partner (not married)	3 (5.9)	2 (2.4)	5 (3.8)	
Divorced	1 (2.0)	0 (0.0)	1 (0.8)	
Level of education				
Secondary or lower	41 (80.4)	62 (75.6)	103 (77.4)	χ^2 = 0.41
Vocational or university	10 (19.6)	20 (24.4)	30 (22.6)	p = 0.521
Employment status				
Employed	50 (98.0)	78 (95.1)	128 (96.2)	χ^2 = 0.74
Unemployed	1 (2.0)	4 (4.9)	5 (3.8)	p = 0.649

The sociodemographic characteristics of the participants reveal that most of them come from the Zhejiang province. Zhejiang is a rural geographical area, with few job and economic opportunities for its inhabitants, especially for those with a lower educational level. This is the main reason why Chinese families with low qualifications among their members decide to emigrate. Given that migration for economic reasons is unanimous, immigrants tend to share this decision with other family members. The immigration usually works in the following way: one of the marriage partners emigrates alone and provides economic support to their family in China, waiting until the whole family (including children) is able to emigrate to Spain. Most immigrants use airport transportation to travel to Spain, which does not initially imply risks to their health.

The migration experience of their peers allows Chinese immigrants to search within their community for a support network that makes migration and adaptation to the destination a more comfortable and easier process. Social relations between Chinese people

allows for offering work within the same ethnic niche, the maintenance of the original language, and sharing the same culinary customs, among others.

From the statements of the participants, the most important milestones associated with the migratory process are shown in Figure 1.

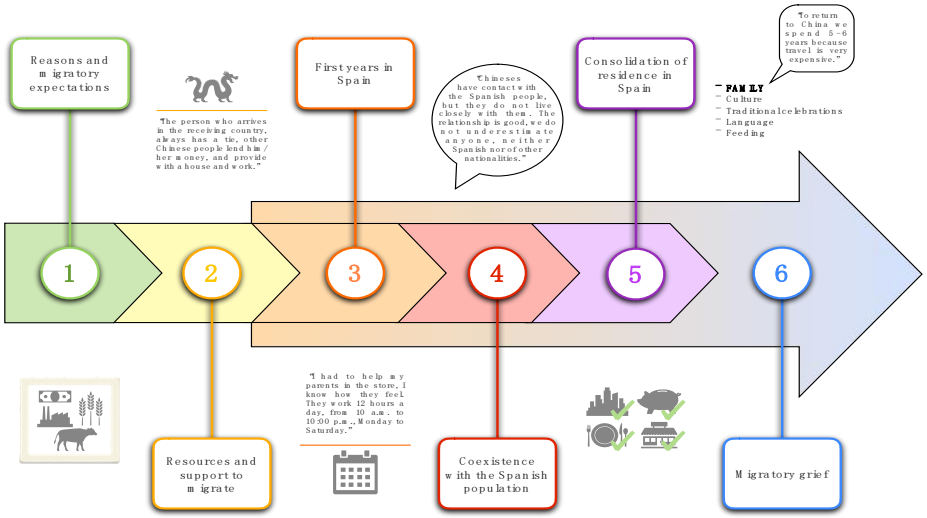

Figure 1. Milestones associated with the Chinese migratory process.

3.2. Berry's Model of Acculturation and Health

As a result of the acculturation process, social and health behaviors were analyzed under the perspective of Berry's Model. In the present study, two main themes ("*Social Relations*" and "*Health Lifestyles*") and five domains ("*Values and need: Social relations among Chinese*", "*Experiences within Spanish society*", "*Food pattern*", *Physical Activity*", and "*Tobacco and alcohol*") were retrieved and are described below.

3.2.1. Theme: Social Relations

1. Domain: Values and need: Social relations among Chinese

In our analysis, cultural separation is the most used strategy for social relationships among Chinese immigrant community members, since they respond affirmatively to maintaining strong ties with the group of origin, while contact with people of the new culture is still scarce. This seems to be partially explained by one of the fundamental pillars of the Confucian Chinese philosophy, which is the value given to the family. To these participants, Chinese society is understood as a "large family", with hierarchical standards of respect and courtesy towards important family members.

> *"There is the concept of guānxi, so reputation is very important (...). A Chinese who only knows another Chinese twice and invites him to the wedding . . . he is almost obliged to go, because if he refuses, the community will judge this act inappropriate and consequences may arise"* (C-48 man, 40 years).

In addition to these values, the degree and quantity of social relations among Chinese individuals is not an option, but rather an imperative aiming to guarantee support and resources within the community and, for this reason, assimilation or marginalization strategies seem to have no place:

> *"The range of social relations that a Chinese has is very large (. . .) the more friends you have at all levels of society, the better, because Chinese society works like this"* (C-78 woman, 22 years).

Likewise, Chinese immigrants usually need support from other Chinese immigrants in order to be able to settle in the destination cities upon arrival in Spain:

"They offer housing, food and they help other Chinese to find a job (...). It is not enough when you want to start your own business, so your cousins, your brothers, everyone helps you" (C-21 man, 30 years); *"The support is fundamentally financial and it comes from the family, friends and acquaintances, they do not usually request external financing. Furthermore, this is done without any claim to profit (...). It is a society in which commitment and loyalty are highly taken into account and everyone knows that favors will be returned"* (C-94 woman, 41 years).

Having secured financing is very important for them in the decision to emigrate and also to work for others and then open their own business, which is their ultimate goal. This reflects that relations with the ethnic group are not temporary, but are maintained over time, since those who one day received help will help others in the future.

2. Domain: Experiences within Spanish society

Chinese immigrants perceive prejudices from Spanish population:

"People [Spanish people] say that we are invading, we are stealing their jobs, we do not pay taxes; that's a lie!" (C-120 man, 19 years).

The lack of cultural integration with the Spanish population seems to have deleterious effects to the Chinese community, which has difficulties in understanding the host culture and tends to reject contact with those who judge them in this negative way.

It seems that community support alleviates the psychological discomfort of being exposed to constant prejudice. In this respect, most participants reported that they were satisfied with their current life in Spain, and highlighted positive aspects such as the emotional support received by their peers, having people who care about them, receiving love and affection, being able to talk about their problems, receiving useful advice, and receiving invitations to go out.

Anther barrier for social relations with the Spanish population is the language, as noted below:

"If you do not know the language, you are secluded (...), and if you are working in an environment in which you use the language minimally, you do not learn it" (C-35 woman, 19 years); *"They have a hard time learning Spanish. I have been Spanish teacher for adult Chinese for more than 10 years, but there is no way they can learn it well"* (C-127 woman, 44 years).

"I always tell parents that they should bring their children before, when they are little. It is very difficult to learn a new and so different language when the child is 12 years old (. . .). I think that when they are small, they are abandoned in China, and when they grow up, they are abandoned by society" (C-72 woman, 43 years).

Finally, work seems to be a key factor in initiating ties with the Spanish population, since relationships are "forced" because Chinese immigrants need to attend to customers in their businesses. In the case of younger Chinese individuals, this relationships tend to be stronger due to their school friends.

"I believe that Chinese immigrants make relationships, especially among the Chinese members, united by the labor issue and with their family. Although, they can also make any relationship with a Spanish person through work, or a family member, there are people who do not have good experience and feel indifferent and protect themselves in their own community. But then, there are other people and there are more and more young Chinese who have been born here, who go to schools. In short, in 15–20 years this will change a lot" (C-40 man, 53 years).

3.2.2. Theme: Health Lifestyles

1. Domain: Food patterns

There is a clear barrier concerning Chinese immigrants to abandon their culinary habits of origin or to incorporate at least in part the Spanish cuisine.

"The food is totally Chinese from the beginning of the day. We usually have boiled rice or noodle soup for breakfast" (C-88 man, 35 years).

Their basic diet is characterized by the use of many dishes with varied products, the daily consumption of rice or noodles as the main source of carbohydrates, the consumption of vegetables, as well as the frequent consumption of meat, fish, and eggs, with different ways of cooking (wok or dehydration) as compared to the Western tradition. All these products are available in Spanish supermarkets and in other specialized markets owned by the Chinese community.

Food cultural separation is clearly supported when healthier characteristics are attributed to the Chinese diet compared to the Western one, such as the regulatory capacity of foods to ensure the balance between cold and heat and the "yin and yang" associated with Traditional Chinese Medicine (TCM). Another factor related to the maintenance of these customs is the presence of many typical dishes associated with festivals of Chinese culture and the attribution of properties such as luck.

Something observed during the study was that as the time living in Spain increases, Chinese immigrants tend to further integrate Western foods (mainly toast, cereals, or coffee with milk) into their meals such as breakfast. There are a greater number of Chinese younger individuals eating the Western breakfast, since this is more practical and fast in their view:

"I usually have Spanish breakfast, milk with cereals, since I work very early and I don't have time to prepare an authentic Chinese breakfast. To do this it would need at least an hour [to cook the rice soup and eat it]" (C-63 woman, 22 years).

Western fast food and fat consumption is also more prevalent among young people and is even provided to young children by their parents in business. These signs of cultural integration are also manifested in the adherence to the Western body worship and beauty, which affects diets carried out by women and young people, the former restricting certain foods to lose weight, and the latter incorporating hyperprotein diets that support the physical activity performed in gyms.

Despite the fact that Chinese immigrants are incorporating some Western foods, all participants reported that they still prefer their original Chinese food:

"We can go to a Spanish restaurant one day and eat tapas, but not daily" (C-36 man, 37 years).

2. Domain: Physical activity

Although the practice of regular exercise in parks and squares in China is common, this is not maintained by Chinese immigrants living in Spain. Likewise, the choice of exercise by participants is minimally influenced by the traditional Chinese culture and, for this reason, the group practice of GuangBo TiCao (group exercise characterized by collectivity, discipline and conformity), tai chi, Yuanji dance, and kung fu are not very common in Spain. The scarce physical activity carried out by this group also does not maintain many similarities with the practice of the Spanish population, and is mainly related to the lack of time due to the intensity of their working day:

"Sometimes I ran 3 or 4 times a week at night, but now between the store and the girl, I can't do it much" (C-43 woman, 36 years).

The Chinese immigrants' concerns on their job and the work overload decrease the importance of physical activity as a source of physical well-being. In addition, Chinese consider themselves to be physically active during their working day, reporting that they practice a lot of exercise during the tasks they perform in their jobs.

"Intense physical activity is what I do for 3 h, once a week when I unload the truck with the merchandise. In addition, all week I have moderate activity when I have to go shopping at the stores to replenish the daily basic merchandise" (C-5 man, 43 years).

As a result of acculturation, young people are again those who show a greater integration of habits related to physical activity and sport. It is common for young people to use the gyms and perform more intense physical activities such as weight-lifting.

> *"I think most of the young people go to gyms and play sports, but most adults do not practice any physical activity (...). If they leave in the morning and return at night and also have family responsibilities ... no"* (C-44 man, 26 years).

3. Domain: Tobacco and alcohol

Chinese immigrants consider smoking as a social behavior, particularly for men: (KI-5) "*The idea of them is that to do business you have to smoke and drink*", and they believe Chinese individuals have a greater consumption compared to the Western population. Although most smokers maintain a consumption of more than one pack of cigarettes a day, they are forced to obey certain Spanish legal regulations, such as the prohibition of smoking inside establishments. Nevertheless, some establishments such as karaoke bars or Chinese restaurants tend to ignore such regulations. While having dinner or lunch, in moments of relaxation, they smoke a packet or more of tobacco. In their stores, Chinese individuals usually go outside to smoke since there are stricter regulations in these places.

In the case of youth and women, cultural integration is more objective:

> *"There is no difference in the tobacco and alcohol consumption among students and the new generation, but there is a difference in families between 30–40 years old"* (C-30, man, 41 years).

Awareness campaigns and health education in Spain, as well as the legal regulation of the sale of tobacco in specialized establishments and only to those over 18 years of age, have made access difficult for minors who have not become current smokers. However, smoking is considered not appropriate to women by the Chinese culture:

> *"Women do not usually smoke because it is frowned upon"* (C-52, woman, 42 years);
> *"The woman smoker is like . . . what it's usually said here . . . a wh***"* (C-43, woman, 36 years).

As it happens with tobacco, alcohol consumption has also a social acceptance within this community.

> *"They drink a lot, it is essential in parties and celebrations (...). Chinese entrepreneurs eat at restaurants with other colleagues and order many expensive wines; they want the best to impress and treat business"* (C-10 man, 32 years).

There is a clear trend towards cultural integration when Chinese immigrants combine typical alcoholic beverages from both cultures and countries, such as beer and high-strength Chinese spirits.

> *"Beer is becoming more popular and red wine is very common because this is the drink that best combines with Chinese food, but in family gatherings, more Chinese liquors are taken"* (C-131, woman, 27 years).
>
> "*Chinese men drink a liquor called "bai jiu" (...). It's a distilled 60-degree liquor. It is a national drink, like a brandy, which is taken with meals, to reach business agreements,* etc. *It's a drink for Chinese [laughs]. We say „gānbēi" [cheers] and drink it in one shot"* (C-73 man, 34 years).

4. Discussion

Our results further advance the understanding of acculturation strategies among Chinese immigrants in Europe, particularly in Spain. According to our theoretical framework (Berry's Model of Acculturation), our findings reveal that "separation" was still the predominant strategy, followed by "integration" and "assimilation", while "marginalization" was not present in this Chinese immigrant population. In other words, most Chinese immigrants maintain a strong link to the customs of their home country, integrating few aspects

of the host culture, which, in other words, favors the process of identity and collective self-esteem among this group.

This predominance of "separation" found in our sample has already been identified in a previous study, which included older Chinese immigrants in the United States. Considering that acculturation may influence eating patterns/diet, exercise, chronic disease, and mental health management, they found a strong identification of their participants with the Chinese culture (identificational acculturation), a high dependence on Chinese behavioral patterns and intraethnic networks, limited intergroup interactions (behavioral acculturation), and a strong maintenance of Chinese cultural values, while incorporating some American cultural learning (cognitive acculturation) [32]. The same patterns of "separation" were also observed in the Spanish context, in which Chinese immigrants tend to live in neighborhoods with a high density of Chinese individuals [33].

For Chinese immigrants, this cultural "separation" may be justified by the fact that, in the Chinese society, Confucianism posits the family as the fundamental unit of society, incorporating economic and social functions. Confucian values can be observed both in intergenerational relationships within the family and other social interpersonal relationships, which allow them to maintain the positive effect of family and community cohesion [34]. Current studies in Spain show that even younger Chinese immigrants of the second generation have a positive and strong sense of belonging towards their ethnic group. Nevertheless, they also believe that respect for the customs and traditions of both countries is important ("integration"), as well as good behaviors to be accepted by the new society [3]. In our case, since we investigated first-generation Chinese immigrants, this integration is less obvious and participants tended to maintain strong ties with their native culture. Nevertheless, it is important to note that younger Chinese immigrants tended to have a more open relationship with the host culture, as identified in the relationship with school friends and physical activity.

Even in older immigrants, the "integration" strategy can take place, as was revealed by the consumption of Western foods and the "forced" relationship with Spanish clients and co-workers. Health managers and health professionals should be aware of this aspect of the Chinese immigration in an attempt to value the Chinese culture, improving the adherence to treatment and interventions and also recognizing possible ways to integrate first-generation Chinese immigrants into the host culture. This integration is important since studies have demonstrated that biculturalism is strongly associated with better psychological and sociocultural adjustment, resulting in better health outcomes [35].

Despite the aforementioned strategies, our findings also revealed that prejudice exists among Spanish persons towards Chinese immigrants. According to Julián, high levels of prejudice on the part of the host population are linked to the preference for the attitude of assimilation, while low levels of prejudice are related to attitudes of integration [22]. According to previous studies in Europe, acquisition of nationality is an indicator of integration. This nationalization is usually motivated by an identity-related choice, but also as a utilitarian decision to deal with the economic crisis [36]. Different from other immigrants, Chinese individuals mostly choose to maintain their nationality, since they work in their own businesses and, for this reason, usually do not suffer unemployment or other economic problems that need nationalization [37]. This evident "separation" is noted by participants who reported avoiding prejudice in the relationship with Spanish individuals by using the tight support of the Chinese community and avoiding informal contact.

Regarding health lifestyles, the acculturation process can be shown in different ways. On the one hand, if "separation" is common among older immigrants, than "integration" is more common among younger individuals. Corroborating our results, a Spanish study on eating habits of the Chinese immigrant population in Catalonia showed that the Chinese immigrants tried to maintain their diet of origin. On the other hand, the preference of the local diet by the children, work schedules, and lack of time were important barriers to keep this behavior [38]. A cross-sectional survey measured obesity risk reduction behavior and degree of acculturation among Chinese Americans. Asian-identified participants were

most likely to follow traditional healthful Chinese food patterns, and Western-identified individuals were more apt to engage in leisure physical activity. Individuals categorized as bicultural were prone to use limited amounts of fats or oils when preparing foods [4]. These results reveal the positive effect on health derived from preserving at least part of the minority ethnic identity. Nevertheless, not all "integration" behaviors are harmful and the incorporation of sports for young immigrants proved to be beneficial to their health [39].

According to other authors, when the behavior is similar to those from the country of origin, it is possible that the behavior will be maintained by the migrant person and will be difficult to modified. For example, this situation can be better observed concerning the use of alcohol and tobacco [40], which was more prevalent in Chinese men in our study. On the other hand, immigrants could incorporate new behaviors to achieve integration, such as the increase in tobacco consumption in Chinese women [41].

Although some studies have concluded that Chinese migrants suffer a double marginalization and live in a constant balance between "out of place" and "in place" [42], marginalization (i.e., not identifying with any culture or having no interest in your own) was not a main issue for our participants.

In any case, ethnic minorities cannot always choose their preferred acculturation strategy, as the success of their acculturation strategy also depends on the larger society's strategies (i.e., multiculturalism, melting pot, segregation, and exclusion) [12] and this should be considered while interpreting our findings.

These results have several clinical implications, revealing that Chinese immigrants still use "separation" as the predominant strategy, maintaining their cultural values and usually not incorporating aspects of the host's culture. On the one hand, this approach helps them keep their values; on the other hand, it allows them to avoid integration with the host's culture, which could in some occasions stigmatize them. Understanding the barriers to "integration" and valuing the native culture is essential to provide a more comprehensive and integrative treatment to these immigrants, improving their quality of life and health outcomes. Since acculturation is very distinct between younger and older individuals, as revealed in our study, intergenerational activities could be an important strategy to help in the "integration" process, since younger individuals tend to have a better relationship with the host community and can help decrease the "separation" and the fear of "assimilation" of their older counterparts.

Limitations and future directions for research are as follows: Owing to the lack of a standard methodology for measuring acculturation, acculturation orientations were used as a theoretical template to analyze ethnic minority' discourses [32,43]. Although future studies could utilize bi/multidimensional scales and take into account the dynamic/transitory aspect of the acculturation process when studying health behaviors and still find discordant findings [31,44], the authors assume that the dynamic nature of the acculturation process can be lost when this theory is translated into a measurement instrument. In addition, new research should deepen investigations into the mixed vision of both an ethnic minority and an ethnic majority, since it allows for a better understating of acculturation outcomes [45]. Finally, this study was carried out before the COVID-19 pandemic. For this reason, different factors (e.g., migrants' residency status, mobility, access to information, and healthcare) could have been modified int the immigrant population. Therefore, it is probable that health behaviors could have changed as well, modifying the patterns of acculturation previously studied [46,47].

5. Conclusions

The present study included the Chinese Migration Process using the Berry's Model of Acculturation. The Chinese immigrant population shows a clear "cultural loyalty", since the immigrants generally remain united with his/her compatriots, have little contact with the native population, and are interested in preserving the distinctive features of his culture of origin, resulting in the "separation" strategy. Although younger immigrants prefer to

maintain their cultural heritage, they also seek contact with Spanish culture through the "integration" strategy.

According to our results, the most beneficial strategies for health are those where customs are maintained from the homeland, so "separation" and then "integration" are the most beneficial. Chinese cohesion offers social and economic support and protects them from perceived external threats. On the contrary, the strategy for assimilating Western Spanish customs can be a risk for their health status, highlighting the increased consumption of tobacco in Chinese women or the approach to a fatty nutritional pattern that could favor cardiovascular diseases. In this context, younger individuals seem to be more exposed to the "integration" strategy and could be important figures to reduce this "separation".

Understanding of acculturation concept and its influence on health behaviors is helpful in identifying risk factors that underlie increased prevalence of chronic diseases and in designing intervention programs to reduce the burden of such diseases and to increase the quality of life in such populations. In addition, health interventions should be designed taking into account the dynamic nature of these acculturative responses and the differences that exist within the same ethnic group.

Supplementary Materials: The following are available online at https://www.mdpi.com/article/10.3390/ijerph18147639/s1, Table S1: Framework of contextual factors influencing acculturation; Table S2: Consolidated criteria for reporting qualitative studies (COREQ): 32-item checklist.

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Article

Crossing Countries and Crossing Ages: The Difficult Transition to Adulthood of Unaccompanied Migrant Care Leavers

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Abstract: The social changes experienced in many countries have prolonged the transition to adult life for young people. That being said, those who leave child care cannot afford this privilege, in that they do not benefit from the same support and resources, having to confront an accelerated transition which exposes them to increased risk of negative outcomes and social exclusion. Moreover, this transition might be even riskier for unaccompanied migrant care leavers, who are four times as vulnerable, given their status as young people in care, as adolescents, as migrants and being unaccompanied. This paper seeks to explore the profiles, needs, and experiences of unaccompanied young migrants in comparison with other care leavers. Data were collected by means of a semi-structured interview to explore their pre-care, in-care, and aftercare experiences. A highly specific profile of unaccompanied young migrants has been revealed that differs from the other care leavers in terms of worse educational, occupational, and economic outcomes, limited support networks, and more obstacles to accessing aftercare supports. Conversely, they also exhibited some strengths, such as having less pre-care, in care, and aftercare traumatic experiences, less psychological distress and fewer risky behaviors compared with other care leavers.

Keywords: unaccompanied migrant young people; transition to adulthood; leaving care; child welfare; aftercare support; migration; special migrants' populations

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1. Introduction

During the past century, economic and social changes have brought about a global delay in young people's process of emancipation, making their entry into adult roles more gradual and non-linear [1]. Arnett [2] described the late teens and early twenties as a developmental period of emerging adulthood, characterized by changes and explorations in education, work, and love, and restricted to cultures of highly industrialized societies that postpone the acquisition of responsibilities until the late twenties. Nevertheless, he recognized that the increasing globalization of the world economy opened the possibility that emerging adulthood could become a normative period for young people worldwide, allowing the prolongation of exploration and freedom even in developing countries [2]. Indeed, within the last century, economic, social and cultural globalization has transformed the experiences and conceptions of transition to adulthood also among young people from non-Western cultures [3]. Mitchell [4] referred to the period during the twenties and into the thirties as the boomerang age, an anteroom of full adulthood in which people alternated periods of leaving and returning to the family home. In Europe, it has been estimated that around 50% of young people aged 18 to 34 live with their parents and 29.5 has been calculated to be the average age at which Spanish youth "fly the nest" (EUROSTAT, 2019). This emancipation process is even more challenging for young people who have lived under child care intervention until the majority of age, a time when guardianship concludes and they are suddenly forced to embark on a path towards independence. Transition to adulthood has been traditionally defined as the assumption of new roles and

tasks related to the acquisition of autonomy and social integration, that culminates in the achievement of education, training, work, mature relationships, financial and housing independence [5]. Care leavers find themselves having to face this process many years earlier than their non-care experienced peers in Spain. The accelerated and compressed transition to adult life, with fewer resources and support, exposes them to high risk of social exclusion [6] and poorer outcomes, in terms of limited education, unemployment or worse working conditions, housing instability, poverty, mental health issues, substance abuse, problems with the law, early parenting, limited social support, and dependence on social assistance [5,7–10]. In fact, care leavers have been identified as one of the most vulnerable and disadvantaged groups in society [11]. This situation can be even worse for specific subpopulations of this group, such as unaccompanied young migrants who arrived in a foreign country as minors, without the protection of a family member or an adult responsible for them (Council of Europe, 1977). In Spain, the term used to refer to this group is "unaccompanied foreign minors" instead of "unaccompanied asylum-seeking children", since they have not needed to seek asylum to be protected. Their guardianship is assumed by the regional authority, which, in accordance with national law, has the same obligation to protect them as if they were native minor. Consequently, we will use the term "unaccompanied young migrants" (UYM) to refer to this group of care leavers.

The arrival of these young people has increased progressively in the last two decades in many countries and Spain has typically been one of the main gateways to Europe for them. Those who arrive do not usually flee from countries in conflict where their security is in danger, but rather from countries with a worse socioeconomic situation, mostly Morocco [12]. They arrive with an economic migratory objective, wanting to get a job and achieve a better life [12], also influenced by the European myth, and the consequent belief of being able to achieve their dreams quickly and successfully [13]. The magnitude of this phenomenon cannot be precisely quantified, due to the different methods and criteria used to collect data, inconsistencies in the data provided by different sources, and the fact that some young migrants have yet to enter into childcare, but have remained on the streets or have been recruited by criminal and mafia networks [14,15]. In Spain, the migratory phenomenon has grown since the late 1990s, directly impacting the child services and putting enormous pressure on existing resources [12]. Residential care has been the most frequently used intervention (99% in 2019) for UYM in our country [16]. According to the latest data, in 2019 there were 11.380 UYMs referred to residential child care, which represent 49% of young people in this out-of-home measure, with a 19% increase compared to 2018 [16]. Moreover, addressing their special needs has been challenging for child care services, as they are typically adolescents close to majority age, requiring swift preparation for transition to adulthood, if they are to be socially and occupationally integrated [17]. Such transitions have been especially complicated for unaccompanied migrant care leavers who have found themselves in a foreign country whose language and customs they do not know [17]. They enter this process with even scarcer resources than other care leavers, in terms of home, job, training, money, support [18], often with no protection and in an irregular situation overnight [19], carrying out the care-leaving process in a transnational space [20] in which both "there and here" have relevance [21]. Their particular condition entails increased vulnerability, inasmuch as they suffered four elements of vulnerability: they were in care, adolescents, unaccompanied, and migrants and they found themselves in an ambiguous legal situation, since their stay in the country depends on different laws. They should enjoy the rights recognized by the United Nations Convention on the Rights of the Child (UNCRC, 1991), the Spanish constitution, and the national laws for the protection of minors, but as migrants, they are also subject to immigration law, which implies constant instability and uncertainty. Until legal age, their condition as being underaged prevails. However, when they reach the majority age, they can lose the protection of the authorities and be considered adult migrants, with all the incumbent consequences if they have not managed to legalize their immigrant status before then [13]. In this case, the transition into adulthood is accompanied by the transition into illegality [22]. To aggravate the situation

further, local authorities answer very differently to the needs of this vulnerable group, affecting their preparation for independent life [23] and future integration into the host society [24], and the scarcity of leaving care support services complicates their possibilities of accessing such services, leaving them alone in this process [25].

In the last several decades, there has been growing interest in international research dedicated to care leavers, but the transition into adulthood of a subgroup as unique as UYM has remained largely unexplored, particularly at a national level. Some studies have focused on specific aspects of UYMs' adaptation to their new life situation, such as their mental health or well-being [13], educational level [26] or employability [27], but there has been a paucity of holistic approaches. Furthermore, studies regarding UYMs in child care have increased [28], but studies that examine their transition to adulthood are rare [23].

Therefore, the first purpose of this paper was to study the characteristics of UYM care leavers with respect to several aspects having to do with their pre-care and in-care experiences. The second purpose was to explore their after-care situations and needs in relevant areas of social integration, such as education and training, jobs, accommodations, income, health, and support networks. Finally, in every analysis carried out, the differences between UYMs and the rest of care leavers were taken into account, with the hypothesis that outcomes would be worse for the former in many of the areas assessed. Findings will provide evidence about the specific characteristics of UYMs compared to their care-experienced peers without a migration background, highlighting their different profiles, strengths and weaknesses.

2. Materials and Methods

2.1. Sample

Participants were care leavers from different Spanish regions (Catalonia, Basque Country, Cantabria, Madrid, Castile-Leon, Castile-La Mancha, and Galicia) who remained connected to aftercare services for transition into adulthood. The sample was composed of 141 males aged 18–25 (M = 19.17, SD = 1.45) and divided into two groups: 68 unaccompanied young migrant (UYM) and a comparison group (CG) consisting of other care leavers from Spanish families or with a family history of immigration (n = 73). Most of the UYMs were 18 (54%) or 19 (29%) years old, with only 16% aged 20 years or older, while in the CG, they were better distributed among the different ages (30%, 32%, and 38%, respectively). Nevertheless, the UYMs average age (18.97, SD = 1.61) was not significantly different from that of the CG (19.36, SD = 1.26; [t (139) = 1.59, p = 0.115]). The reason for having only male participants was due to the lack of female UYMs in care. According to the latest data, they represent a mere 6.8% of UYMs in our child care services [14], making it difficult to find female UYM participants.

The UYMs were mostly from North Africa (72%) (notably Morocco and a few from Algeria), Sub-Saharan Africa (25%) (from countries like Senegal, Gambia, Guinea, and Nigeria), and 3% from Asia. In contrast, the young people from immigrant families in the CG group were mostly from Latin America (57%) or Africa (38%, especially Sub-Saharan), and 5% from Eastern Europe.

2.2. Instruments

Data collection was performed using a qualitative, semi-structured interview created specifically for this research to gather relevant information about the participants' profile and their current and past situations. In addition to sociodemographic characteristics, such as age and country of origin, the following areas were explored: (a) previous experiences in child care, including time spent in care, placement changes, and victimization; (b) health and risk behaviors, such as health problems, intellectual disability, mental health treatment, substance use, suicidal behavior, delinquency, and unexpected pregnancy by a partner; (c) current education, work, economic, and accommodation status; (d) social support network, especially from family, friends, partners, and reference adults, and (e) aftercare services received in different areas.

2.3. Procedure

In order to have a global vision of the services available in the national territory, data were collected in different regions which have been chosen for having transition services that work with a considerable number of young people and that are among the best developed and with the longest experience in the country. Prior authorization for the study was obtained from the child care authorities in each region. Then, the respective aftercare support agencies were informed about the study objectives and methods. A convenience sampling method was used to select participants; the teams that work with care leavers in each Autonomous Community contacted the participants to propose that they participate in this research. After having explained what their participation would consist of, the objectives of the study, voluntary nature, and confidentiality of the interview, participants signed an informed consent document to formally agree to participate and to be interviewed. The team of researchers with expertise in interviewing professionals, children, and young people, traveled to the different regions to conduct a face-to-face interview lasting between 40 and 60 min wherever it was most convenient for care leavers. The interviews were audio-recorded with the express consent of the participants.

The study has been performed in accordance with the ethical criteria of the Helsinki Declaration and the national legislation regarding personal data protection and was approved by the Research Ethical Committee of the University of Oviedo.

2.4. Data Analysis

Descriptive statistics for sociodemographic characteristics and bivariate analyses for differences between the UYM and CG were carried out using Chi-square for categorical variables and Student's *t*-test for continuous variables. Cramer's V and Cohen's d were used to calculate effect size and the level of significance was established as $p \leq 0.05$. The Statistical Package for Social Science IBM SPSS Statistics [29] was used to analyze data.

3. Results

3.1. Victimization and Child Care Background

According to the interview, the UYM group had significantly lower percentages in all types of maltreatment, with physical neglect the most common (28%), while emotional neglect and abuse, and physical abuse were the most common types for the CG. Significant differences were also detected for suffering multiple forms of maltreatment (UYM: 16.7%; CG: 74.2%) (Table 1).

Table 1. Victimization and Child Care Background. Differences between groups.

Variables	Total n (%)	CG n (%)	UYM n (%)	χ^2	*p*	Effect Size Cramer's *V*
Maltreatment experienced [a]						
Emotional neglect	64 (49.2)	54 (76.1)	10 (16.9)	45.04	<0.001	0.59
Emotional abuse	57 (43.8)	49 (72.1)	8 (12.9)	46.09	<0.001	0.60
Physical abuse	54 (42.2)	46 (69.7)	8 (12.9)	42.28	<0.001	0.58
Physical neglect	50 (41.0)	33 (53.2)	17 (28.3)	7.81	0.001	0.25
Exposure to gender violence	43 (36.1)	36 (57.1)	7 (12.5)	25.60	<0.001	0.46
Sexual abuse	19 (16.4)	16 (26.7)	3 (5.4)	9.60	0.002	0.29
Multiple forms	59 (46.8)	49 (74.2)	10 (16.7)	41.84	<0.001	0.58
Age at entry				54.59	<0.001	0.67
0–5 years	20 (14.4)	20 (27.8)	0 (0.0)			
6–10 years	13 (9.4)	11 (15.3)	2 (3.0)			
11–15 years	39 (28.1)	27 (37.5)	12 (17.9)			
16–17 years	67 (48.2)	14 (19.4)	53 (79.1)			
Time in out-of-home placement				58.08	<0.001	0.65
1–3 years	81 (58.3)	20 (27.8)	61 (91.0)			
4–6 years	22 (15.8)	18 (25.0)	4 (6.0)			
7–9 years	11 (7.9	10 (13.9)	1 (1.5)			
>9 years	25 (18.0)	24 (33.3)	1 (1.5)			
Placement changes				2.89	0.236	0.15
0	50 (36.5)	31 (42.5)	19 (29.7)			
1–2	53 (38.7)	24 (32.9)	29 (45.3)			
3 or more	34 (24.8)	18 (24.7)	16 (25.0)			

Note. CG = Comparison Group; UYM = Unaccompanied Young Migrants; χ^2 = Chi-Square values; *p* = exact *p* values. [a] More than one category is possible.

As for their experiences in child care, the reason for admission was different for each group. In the case of the UYMs, admission was due exclusively to the fact that they were unaccompanied minors, while the causes were more diverse for young people in the CG, most of whom entered care due to neglect and/or abuse (81%), abandonment (8%), lack of parental control (8%), and filio-parental violence (3%). Significant differences were also revealed with respect to the time spent in out-of-home placement. UYMs entered child care at an older age (M = 15.90, SD = 1.65) than the CG (M = 10.17, SD = 5.29) [t (85.68) = −8.74., $p \leq 0.001$]. In particular, 79% of UYMs entered at the ages of 16 or 17, while most of the CG (43%) were between zero and ten years and 38% were between 11 and 15 years of age. Another significant difference has to do with the duration of stay. Almost all the UYMs (91%) left child care within three years, after an average stay of 2 years (M = 2.10, SD = 1.65), whereas the CG had significantly longer stays (M = 7.83, SD = 5.29) [t (85.68) = 8.74., $p \leq 0.001$].

3.2. Health and Risk Behaviors

Differences were significant in terms of participants' current physical health status, as only one UYM had a serious health problem versus 22% of CG (Table 2). Chronic, physical illnesses, such as asthma, were the most common. Similarly, there were significant intergroup differences concerning intellectual disability as it was only present in the CG (8%). Very few UYMs had received any mental health treatment in the past (6%) and even fewer continued to receive it (4%). The CG were significantly more referred to treatment, both in the past (74%) and at the time of interview (33%). Suicide attempts emerged as an extremely serious problem and was reported by 7.7% in the CG and by 1.5% of the UYMs (statistically non-significant due to the relatively low frequencies), as well as suicidal ideation, that reached significant intergroup differences, with UYMs exhibiting a lower incidence (UYM: 3%; CG: 17%). Significant differences were likewise detected with respect to other risk behaviors: UYM reported less substance use (9%), with cannabis the most common, and they had fewer problems with the law (8%) than the CG (66%) for delinquent activity consisting of robberies or fights. Finally, the prevalence of unplanned pregnancy by a partner was fairly similar in both groups, without significant differences.

Table 2. Health and Risk Behavior. Differences between groups.

Variables	Total n (%)	CG n (%)	UYM n (%)	χ^2	p	Effect Size Cramer's V
Physical health problems	17 (12.1)	16 (21.9)	1 (1.5)	13.89	<0.001	0.31
Intellectual disability	6 (4.3)	6 (8.2)	0 (0.0)	5.67	0.017	0.20
Current mental health treatment	27 (19.1)	24 (32.9)	3 (4.4)	18.43	<0.001	0.36
Past mental health treatment	58 (41.7)	54 (74.0)	4 (6.1)	65.75	<0.001	0.69
Suicidal ideation	13 (9.8)	11 (16.9)	2 (3.0)	7.22	0.007	0.23
Suicide attempt	6 (4.5)	5 (7.7)	1 (1.5)	2.92	0.112	0.15
Substance use	30 (21.3)	24 (32.9)	6 (8.8)	12.16	<0.001	0.29
Delinquent activity	29 (20.7)	24 (32.9)	5 (7.5)	13.74	<0.001	0.31
Unplanned pregnancy	8 (5.7)	5 (6.8)	3 (4.5)	0.37	0.546	0.05

Note. CG = Comparison Group; UYM = Unaccompanied Young Migrants; χ^2 = Chi-Square values; p = exact p values.

3.3. Situation of Young People in Their Transition to Adulthood

The current educational and occupational situation was similar across groups (Table 3), with continuing studies and training being the most frequent (UYM: 62%; CG: 45%). Approximately 16% of both groups were only working, and some were combining both studies and work (UYM: 9%; CG: 25%). Despite failing to reach statistical significance, it seems that UYM have more problems combining both activities. Finally, some 13% in both groups were neither studying nor working.

Table 3. Situation of Care Leavers. Differences between groups.

Variables	Total n (%)	CG n (%)	UYM n (%)	χ^2	*p*	Effect Size Cramer's *V*
Current situation				7.01	0.072	0.22
Only studying	75 (53.2)	33 (45.2)	42 (61.8)			
Only working	23 (16.3)	12 (16.4)	11 (16.2)			
Working and studying	24 (17.0)	18 (24.7)	6 (8.8)			
Neither studying nor working	19 (13.5)	10 (13.7)	9 (13.2)			
Studies and training						
Current studies				21.75	<0.001	0.47
High School	11 (11.1)	5 (9.8)	6 (12.2)			
Intermediate/advanced vocational training	27 (27.3)	21 (41.2)	6 (12.5)			
Basic vocational training	49 (49.5)	17 (33.3)	32 (65.3)			
University	7 (7.1)	7 (13.7)	0 (0.0)			
Language	5 (5.1)	1 (2.0)	4 (8.3)			
Field				11.36	<0.001	0.52
Technical	33 (38.4)	9 (20.9)	24 (57.1)			
Hospitality	22 (25.9)	9 (20.9)	13 (31.0)			
Health and socio-psychological	10 (11.6)	10 (23.3)	0 (0.0)			
Others (sports, art, computers, etc.)	20 (23.3)	15 (34.9)	5 (11.9)			
Work						
Contract				2.656	0.265	0.24
Temporary	29 (64.4)	18 (62.1)	11 (68.8)			
Permanent	8 (17.8)	4 (13.8)	4 (25.0)			
Off-the-books	8 (17.8)	7 (24.1)	1 (6.3)			
Time				3.53	0.060	0.29
Part time	29 (67.4)	21 (77.8)	8 (50.0)			
Full-time	14 (32.6)	6 (22.2)	8 (50.0)			
Income (aside from salary)						
Typology						
Financial assistance	42 (30.0)	34 (46.6)	8 (11.9)	19.96	<0.001	0.38
Pocket money	50 (35.7)	10 (13.7)	40 (59.7)	32.20	<0.001	0.48
Other	9 (6.4)	6 (8.2)	3 (4.4)		0.355	
Amount				20.84	<0.001	0.45
Less than 300€	67 (65.7)	20 (42.6)	47 (85.5)			
From 300 to 700€	32 (31.4)	25 (53.2)	7 (12.7)			
More than 700€	3 (2.9)	2 (4.3)	1 (1.8)			
Savings	92 (65.2)	54 (74.0)	38 (55.9)	5.08	0.024	0.19
Housing						
Typology				5.50	0.139	0.19
Housing support	66 (46.8)	28 (38.4)	38 (55.9)			
Rent apartment	28 (19.9)	19 (26.0)	9 (13.2)			
Extended care	42 (29.8)	23 (31.5)	19 (27.9)			
Other	5 (3.5)	3 (4.1)	2 (2.9)			

Note. CG = Comparison Group; UYM = Unaccompanied Young Migrants; χ^2 = Chi-Square values; *p* = exact *p* values.

If we break the numbers down by type of studies or training, most UYMs attended some basic vocational training (65%), focused on gaining rapid employment either in the technical (mechanic, gardening, etc.) or hospitality field (restaurants, bars, etc.) and few had any form of intermediate vocational training or were finishing high school (25%). In contrast, the young people in the CG had more intermediate and advanced vocational training in several areas and 14% of them were studying at the university, which did not happen with any of the UYMs. Moreover, most of the CG (82.4%) wanted to continue studying, a percentage that was almost halved among UYMs (54%), with significant differences between groups ($\chi^2 = 9.377$, $p = 0.002$). However, more than one third (38.2%) thought that they would have serious obstacles to continue studies, given that they needed to work and earn money.

On the other hand, among those who stopped studying, basic vocational training was the most commonly achieved level among UYMs (47%; CG: 15%), while intermediate vocational training was the most common among young people in the CG (35%; UYM: 12%) and many of the young people in both groups had only obligatory or secondary studies (CG: 50%; UYM: 41%), with no significant differences between them. Furthermore, most of both groups, especially the CG (86%; UYM: 75%) wanted to resume their studies in the future, although the differences were not statistically significant. In any case, more than half of both groups thought it would be difficult, given their need to work and earn money.

With respect to work, significant differences were detected ($\chi^2 = 4.104$, $p = 0.043$) in the sense that employment rates were higher for the CG (41%) versus UYM (25%), regardless of whether they were only working or combining work and study. Employment in both groups was predominantly in the technical and hospitality fields, often with part-time (67%) or temporary contracts (64%), with a salary that did not reach EUR 500 for 40% of the participants, revealing no significant intergroup differences in these aspects. However, significant differences did emerge with respect to the jobs they aspired to attain in the future ($\chi^2 = 17.414$, $p = 0.002$). Both were oriented especially toward jobs in hospitality (UYM: 39%; CG: 32%) albeit there were also more UYMs who were pursuing technical employment (UYM: 28%; CG: 14%) or who stated that they had no preference (UYM: 23%; CG: 14%). Meanwhile, young people in the CG were more focused on jobs in health and socio-psychological fields (CG: 22%; UYM: 5%) or other categories (CG: 19%; UYM: 6%) such as security or computing.

Differences were also significant with respect to both the type and amount of income. UYMs more frequently received pocket money from their residential facility (60%; CG: 14%), while youth in the CG received aftercare financial assistance to a greater extent (47%; UYM: 12%). This was reflected in their income level in that the UYMs had less income each month. Consequently, significant differences were likewise detected in their ability to save money, with UYMs having less savings.

With respect to housing, the difference failed to reach statistical significance: both groups largely lived in apartments offered by aftercare agencies for care leavers, more so in the case of UYMs (56%; CG: 38%) or in extended care. Moreover, young people in the CG more often started living on their own in a rented apartment (26%; UYM 13%).

Regardless of these differences, most young people enjoyed stable placement after leaving care, as reflected by no changes (66%) or between one and two (23%) placement changes, while 11% had three or more changes, without significant differences between the two groups.

3.4. Social Support Network

Significant differences were found in many aspects related to the participants' social support networks (Table 4). Concerning family, nearly all the UYMs had contact with their parents (95%) versus 69% of the CG, similar to their responses when asked about their siblings. Furthermore, most of the participants rated their relationship with their family as being positive, especially the UYMs. Nevertheless, little more than half considered their family to be a source of support, with no significant differences between groups. Regarding other sources of support, many care leavers (85%) mentioned friends, but a significantly larger proportion of youth in the CG stated that they could count on this kind of support. As for having an adult of reference to rely on in cases of need, the differences between groups were significant. UYMs primarily referred to social educators (aftercare or child care staff) as a reference figure (83%), while young people in the CG mentioned educators (45%), but also other figures, such as relatives (22%), acquaintances (21%), and in last place, their parents (12%). UYMs never mentioned their parents in this regard.

Table 4. Support Network. Differences between groups.

Variables	Total n (%)	CG n (%)	UYM n (%)	χ^2	*p*	Effect Size Cramer's *V*
Contact with parents	110 (81.5)	50 (69.4)	60 (95.2)	14.82	<0.001	0.33
Contact with siblings	105 (78.4)	44 (62.0)	61 (96.8)	23.91	<0.001	0.42
Quality of relationship				12.59	<0.001	0.30
Positive	112 (83.0)	52 (72.2)	60 (95.2)			
Negative	23 (17.0)	20 (27.8)	3 (4.8)			
Support from family	76 (56.3)	44 (61.1)	32 (50.8)	1.45	0.228	0.10
Support from friends	116 (84.7)	68 (93.2)	48 (75.90)	8.66	0.003	0.25
Support from partner	38 (27.5)	20 (27.4)	18 (27.7)	0.002	0.969	0.00
Reference adult				17.78	<0.001	0.41
Educators	65 (61.9)	26 (44.8)	39 (83.0)			
Parents	7 (6.7)	7 (12.1)	0 (0.0)			
Other relatives	16 (15.2)	13 (22.4)	3 (6.4)			
Acquaintances	17 (16.2)	12 (20.7)	5 (10.6)			

Note. CG = Comparison Group; UYM = Unaccompanied Young Migrants; χ^2 = Chi-Square values; *p* = exact *p* values.

3.5. Aftercare Support

In our sample, care leavers spent a mean of 1.4 years (*SD* = 1.24) benefiting from the aftercare support. The percentage of young people who received such support for a prolonged period was low, especially among UYM (Table 5). Only 14% of UYM received some kind of aftercare benefit for two or more years, compared to 37% in the CG, with statistically significant differences. Participants benefited from one or multiple benefits offered by regional agencies, according to their demands and needs. Education and training guidance was the most common service used by care leavers in the sample, followed by support for integration into the labor market, the provision of accommodation, and legal assistance. Differences regarding legal and financial support were significant, highlighting the fact that UYMs received more legal assistance, while the young people in the CG accessed economic benefits more often. Moreover, those in the CG also received more psychological support, although the difference was not statistically significant.

Table 5. Aftercare Support. Differences between groups.

Variables	Total n (%)	CG n (%)	UYM n (%)	χ^2	*p*	Effect Size Cramer's *V*
Aftercare support				13.61	0.001	0.312
0–1 year	104 (74.3)	46 (63.0)	58 (86.6)			
2–3 years	26 (18.6)	22 (30.1)	4 (6.0)			
4 or more years	10 (7.1)	5 (6.8)	5 (7.5)			
Social education support	115 (84.6)	60 (83.3)	55 (85.9)	0.18	0.675	0.04
Labor integration	83 (61.5)	44 (62.0)	39 (60.9)	0.02	0.902	0.01
Accommodation	81 (57.4)	38 (52.1)	43 (63.2)	1.80	0.180	0.11
Legal assistance	71 (52.2)	17 (23.3)	54 (85.7)	52.82	<0.001	0.62
Financial help	49 (34.8)	37 (50.7)	12 (17.6)	16.95	<0.001	0.35
Psychological support	13 (9.2)	10 (13.7)	3 (4.4)	3.63	0.057	0.16

Note. CG = Comparison Group; UYM = Unaccompanied Young Migrants; χ^2 = Chi-Square values; *p* = exact *p* values.

4. Discussion

The UYM in our sample are males who arrived in our country, often close to majority age, predominantly from the Maghreb (especially Morocco) and Sub-Saharan countries, with demographic profiles similar to those found in other national studies [12,30]. As UYMs, they do not need to apply for asylum nor are they considered refugees, as in other countries, given that they are under the guardianship of the regional authorities and afforded the consideration and protection as any other unprotected child, in accordance with the national law of child protection. However, as soon as they come of age, they

are no longer considered looked-after minors but adult migrants, and in order to stay and access the same resources as other young people they have to request the renewal or concession of the residence permit. In order to get this permit, they must meet different criteria depending on their condition (article 197, 198), such as having a positive report from the childcare agencies to certify their engagement and integration, having sufficient financial resources to support themselves during the validity of the permit, or having received an offer of employment contract during this time, etc. (Organic Law 4/2000). This implies that, as care leavers, their labor integration and access to aftercare services should be favored, but conversely, migration policies hinder their social insertion.

As for their personal history, the UYMs suffer fewer experiences of abuse and neglect than the CG, which, in contrast, display high rates of all the types of victimization experiences. A young boy from CG, for example, said, "*first I was living with my mother, who maltreated me, so they gave guardianship to my father, who neglected me. None of them have done well*", similarly another said, "*I entered a center because my parents abused me, they had financial problems, my mother also had mental health problems after my father's death, and they both had alcohol problems*". This is consistent with the findings of Fernández-Artamendi et al. [31] regarding the high rates of victimization and polyvictimization of adolescents in residential child care. Therefore, although both UYMs and young people in CG are looked after, two completely different profiles can be observed, as also evidenced by Söderqvist [20]. The UYMs came into child care due to a migratory project to look for a job and future opportunities in a new country, with relatively few experiences of abuse and neglect, unlike the CG, who had to endure severe abuse and neglect in order to be in out-of-home care. The nature of UYMs' immigration project and objectives is also reflected in their later admission and shorter stay in child care compared with other care leavers in our sample, as also shown by González-García et al. [26]. Residential care was practically the only resource for this specific group [12,20], due to the shortage of family foster placements in Spain, particularly for adolescents.

The UYMs in our sample also had a better health status, both physically and psychologically, as reflected in their lower rates of psychological treatment and lower incidence of suicidal behaviors with respect to their peers. Moreover, they presented lower rates of substance use and delinquency, confirming other authors' conclusions that substance abuse and criminality are not substantial problems within this group [32]. These results are in line with those of Keles et al. [33] that point to the great resilience of UYMs, which enables them to do well despite the additional stressors that could expose them to mental health problems. However, other authors have detected high rates of psychological distress in unaccompanied adolescents [12]. Such differences in results may be due to several factors, such as having suffered fewer traumatic experiences [23] or the possibility that their mental health problems have abated after their arrival [34] and the participants' different ages. Moreover, the UYMs with a good family functioning and relationship usually are better able to endure adversity [35]. It could also explain our results, since most of those who come to our country had a previous stable family situation, although with economic difficulties [36]. In this regard, an UYM said, "*We have a good relationship, my mother is very brave, she always wants to help us, I feel that she is suffering to help us and I want to help her*". Be that as it may, the journey itself and the adaptation to the host country can cause sequelae [12], therefore, a careful exploration of their needs and psychological distress is needed, always keeping in mind the barriers that could hinder their understanding and how each culture handles emotions and psychological problems.

Concerning their integration, the UYMs in our sample have lower educational levels than their peers and are usually in a rush to start working, which is in keeping with the results of other studies about their preference for vocational training which facilitates a swift entry into the labor [26,37]. Nonetheless, there are fewer employed UYMs in our sample compared to their peers, which is reflected in their lower income levels. Along the same line as our results, other authors have found that migrant care leavers have worse results in these key areas compared to the rest of care leavers [38,39]. This is understandable

considering their cultural background [20], the different opportunities for education in their country of origin [37], and the impact their administrative status has on their opportunities to access employment in the host country [40]. Their lower educational level left them ill-prepared for the competitive job market [41], which translates into lower employment rates and earnings [39,42–44], with the incumbent increased risk for negative outcomes [45], as for others care leavers. Moreover, their difficulties are compounded, since they need a residence and work permit in order to get a job, however in Spain, obtaining one does not necessarily imply obtaining the other. Hence, they may leave care without a work permit, but cannot get one without having a one-year, full-time contract, which is a challenge in and of itself considering the economic crisis and the care leavers personal barriers [37]. Some UYMs have mentioned that "*the complicated thing is the documentation, which takes a long time*", or "*I can't work because I don't have the permit, and I don't know if I will have it*", or "*I don't work, I'm looking for it but I need the one-year contract and it's hard to find it*". In the worst-case scenario, they leave care with an irregular legal situation, unable to work, having no place to live, and running the risk of being repatriated [19], all of which increases their vulnerability. These young people's education and language skills must necessarily be improved to make a difference for their future insertion in the labor market and society in general. However, it should be noted that the UYMs in our sample tend to be younger than those in the CG, therefore some poor results could also be due to this age difference, since the older care leavers are, the more independent they become [46].

As for social support, the UYMs in our sample had more contact with their family and better relationships with them than their CG counterparts. These findings are consistent with what is known from the literature, as national care leavers usually have a complex relationship with their parents and receive limited or no support from them [47], while immigrant youth families continue to be an emotional reference for UYMs, despite the distance [18]. In this regard, for example, a young man from the CG said, "*there were many problems and uncomfortable situations, for which I have taken distance from my mother*", while an UYM said, "*what gives me the strength to fight is my family, not with money or physically, but mentally*". It is interesting to observe the clear difference between emotional support, which is maintained despite the distance for UYMs, and the lack of instrumental support due to the distance and their preference not to talk to the family about their problems, so as not to worry them. In this respect, we report the words of one care leaver who said, *"the truth is that I do not usually count on them, because it is useless to tell them [about] my things if I do not live with them, because they would feel bad too".* On the other hand, UYMs' social support network is based on educators and professionals, while young people in the CG have a more varied and peer-based support network. This limited social network of the UYMs in our sample may be the result of their short stay in the country, language barriers, or their reluctance to talk about their problems. Knowing the crucial role and protective function of social support for care leavers [48,49], improving informal support through mentoring relationships can be a beneficial option to assist both groups, but particularly UYMs, in coping with the multiple challenges they face in different life domains and expand their network [50].

As for the aftercare support received from care leavers in our sample, UYMs spent less time receiving such support. This can possibly be accounted for by their younger age than the CG in our study, although having found few UYMs older than 20 years benefiting from aftercare support can have a double explanation: first, that they become independent sooner or, conversely, that they disengage sooner from aftercare service because they are tired of having to obey rules. For example, one care leaver commented in this regard: *"I live on my own, since I left the center, I have lived where I could, with friends. They offered me to live in the apartment for care leavers, but I declined because I did not want any more rules".*

Financial support was the support the UYMs in our sample benefited from the least, whereas legal advice was the most common, given their specific need for help obtaining a residence and work permits. The lower rate of financial support probably reflects the special requirements they must access for this type of help. Oftentimes, they do not meet certain

criteria, for instance, having been in care for three years or more, being legal residents in the territory, and having a work plan, usually related to higher education and training, all elements that are often lacking in this group because of their immigrant status. It may be also due to differences between regions in the endowment of these programs, as found by another national study [12] or, in the worst case, there could be some degree of inequality in the support provided to these young people. Other studies similarly suggested that UYMs may have fewer chances to receive some form of aftercare support [25,40].

According to Spanish law, all care leavers must be supported during the transition process, both before and after leaving care. They must receive training and support for leaving care from 16 years old, and be supported after coming of age by means of different programs aimed to meet their needs in core domains. Based on these directives, the Autonomous Communities implemented programs to support care leavers in education, accommodation, social and labor insertion, economic income and psychological support. Nevertheless, local legal frameworks to regulate these measures were sometimes lacking. This translates into a disparity of criteria and available benefits between territories, which make it possible for young people to receive substantially or significantly lower support (e.g., financial) depending on the region in which they are located. Therefore, there is an awareness that preparation for independent living is crucial for their success in life [51], although in fact, they are not always properly supported [52]. Given the profile and well-defined objectives of this group, it is important to bolster the aftercare support services of each region and unify protocols in order to offer them a better and equal opportunity.

Although the findings presented in this paper are in line with what we expected in our hypothesis and with previous literature, some limitations must be acknowledged. Firstly, our results must be taken with caution because of the non-probabilistic sampling. Moreover, it must be remembered that young people who, like our participants, have access to aftercare services tend to be those who have the best chance of taking advantage of such opportunities and that they voluntarily agreed to participate in this study. These factors suggest that they may be among care leavers with a better profile and that a different picture could have been found by interviewing care leavers who suddenly disengaged after turning 18 and refused any help or follow-up support. The invisibility of this extremely vulnerable group is a common difficulty in research in this field. Furthermore, gender has not been taken into account, since not enough migrant females were found among regions, which reflects their scarce presence in child care, due to the masculinization of the migratory phenomenon.

5. Conclusions

Transition to adulthood from care is an issue that in recent decades has gained ground in international investigations. Nonetheless, there is still much to explore, especially when it comes to young unaccompanied migrants, which have not yet received the attention they deserve.

This paper contributes to awareness of the profiles, needs, and differences of unaccompanied migrant care leavers compared to Spanish natives or accompanied migrants. UYMs arriving in Spain have been found to come mostly from African countries (particularly Morocco), undertaking the migratory journey close to the majority age, aiming to improve their living conditions and achieve a more prosperous future than they could have in their native country. They have typically not had particularly traumatic experiences in their countries, or at the hands of their family, which is reflected in their exhibiting less psychological distress and treatments compared with the CG, who have suffered high rates of abuse and neglect and suffer more psychological distress. Their clear objective of obtaining permits and finding a job to take care of themselves and their families is reflected in a trajectory often free from risky behaviors, as well as in a shorter stay in care and aftercare compared to other care leavers. Nevertheless, UYMs had worse results than their peers in terms of education, which exposes them to lower employment rates and less income. They also appear to have a more limited support network in the host country, but a better relationship with their families. Findings with respect to the aftercare support

received suggest that they may have more difficulties than their peers in accessing such support, especially certain types, probably because of their immigrant status. Currently, there is still a tension between protection and migration control policies [12]. On the one hand, the response to UYMs is framed in the UNCRC, pursuing without discrimination their best interests (article 2,3), and the enjoyment of all the rights included in the convention (article 22), however, such protection expires at the age of 18, at which immigration policies begin to prevail. Hence, this particularly vulnerable subgroup of care leavers can find themselves in a vicious circle of worse outcomes, having additional difficulties and stressors compared to their peers. Nevertheless, they also exhibit some strengths and high resilience, which may lead to think that, despite the difficulties, many of them may have a positive transition experience and fare quite well compared to other care leavers [23].

The results suggest the need to improve formal and informal supports to assist care leavers, and in particular, UYMs, in addressing the multiple challenges of transition. Improving and balancing the aftercare support services of different regions, to offer them better and equal opportunities, and adopt strategies to expand their support network should be priorities. Moreover, to promote their integration into the labor market, their educational level should be improved, instilling in them the importance of education and better qualification, as well as supporting them when they want to continue further studies and higher education. Furthermore, as UYMs are a dominant profile in the protection system, their special needs, difficulties, and cultures should be taken into account in the implementation of transition programs. Finally, to reap the fruits of previous work, it would be desirable to speed up and simplify the obtaining of permits in order to pursue their real best interest, facilitate their real integration in foster society, and avoid the risk of social exclusion.

Concerning further research, it might be interesting to carry out more studies focused on the process of transition and results obtained by those groups that are more invisible in care and aftercare, such as unaccompanied migrant girls and young people with a more complex profile, both nationals and migrants. It would also be interesting to use other types of instruments to assess constructs such as the well-being, psychosocial adjustment and life skills of this populations.

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Article

Mentoring for Improving the Self-Esteem, Resilience, and Hope of Unaccompanied Migrant Youth in the Barcelona Metropolitan Area

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Abstract: In the last few years, the number of unaccompanied youths arriving in Europe has increased steadily. During their settlement in host countries, they are exposed to a great variety of vulnerabilities, which have an impact on their mental health. This research examines the effects of participation in a mentoring programme on the psychological and educational outcomes among unaccompanied migrant youths who live in the Barcelona metropolitan area. Data in this mixed-methods study were obtained from 44 surveys with mentored (treatment group) and non-mentored (control group) male youths who had recently turned 18, as well as through thirty semi-structured interviews with mentored youths, their adult mentors, and non-mentored youths. Our findings indicated that participation in the mentoring programme improved the mentored youths' self-esteem, resilience, and hope, as well as their desired or expected educational outcomes in this new context. We conclude that well-targeted and problem-specific mentoring programmes have positive and marked effects on unaccompanied migrant youths' mental health. The social and political implications of these outcomes are also discussed, providing information on how interventions can offer effective networks of support for the settlement and social inclusion of unaccompanied migrant youths.

Keywords: unaccompanied; migrant youth; mental health; mentoring; resilience; mixed methods

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1. Introduction

1.1. Settlement and Social Inclusion of Migrant Youths in Spain

In recent years, data show that the official number of unaccompanied minors reaching Spain in small boats rose from 588 in 2016 to 7026 in 2018 [1]. This trend is not only present in Spain but also in other countries around the world. Since 2010, the number of unaccompanied minors has increased fivefold in more than eighty countries [2]. In the case of the Barcelona metropolitan area, the Catalan ombudsman reported the deficits in the current system for ensuring the settlement of unaccompanied immigrant minors and to positively favour a smooth transition to adulthood once they have turned 18 [3]. One of the main challenges young immigrants face is getting their legal residence permits processed by the relevant administration in time in order to not become undocumented, bearing in mind that turning 18 involves being left outside of the protective system that they benefitted from as minors (which includes a temporary residence permit, staying in a residential centre, and the socio-legal support of social workers and youth workers) [4]. This situation has severe consequences for their mental health and settlement process as they become invisible, homeless, and excluded from participating in the formal economy [5,6]. For those who have their permits when they are 18, the government applies a strong selection process enrolment in the transition to adulthood programme, where housing and the assistance of youth workers (mentioned by the young people of this study) is provided until they turn

21. For those who arrive as minors, the protection system helps them to reach adulthood with a residence permit that can be renewed if they have a report that positively values their integration, continue studying, or have joined the labour market [7]. Therefore, an issue in the renewal or in the processing of their documentation while they are minors, as well as the fact of them being declared of legal age by the appropriate Spanish authority upon arrival (based on forensic age estimation), makes them completely excluded from the resources that are available to the group.

Youth workers are present in the lives of young people from the moment they access the transition to adulthood programme (and the government-run flats provided) until they leave. The role of these professionals is to foster the youths' autonomy by helping them to achieve their personal, educational, and socio-labour insertion goals. Specifically, they are asked to carry out a work plan with the young person, so that they can accomplish the goals set, and to carry out tutoring sessions in which the young person is monitored [8]. Their role is also to ensure peaceful co-existence in flats where several young people live, and also with the neighbours. However, there seems to be no explicit mention of attending to the emotional distress that their previous experiences and life in this new context might cause during settlement, a lack of intervention with these young people that has already been highlighted in the Spanish context [9].

Settlement was traditionally understood as the final stage of a migration journey, regarded as a stable social and political environment to which migrants need to adapt [10]. However, it has been emphasised that the settlement process is actually in constant flux, becoming unpredictable for migrants and capable of affecting different areas of their lives in different ways (e.g., providing stability in terms of housing and instability in their legal status) [11]. As previous research has clearly shown, the settlement of migrants is conditioned by the inclusion policies and strategies of the host country, the causes of migration, the individual characteristics of the migrant (language skills, education, employment, among others), and also the presence or absence of social support networks [12]. In this study, we have focused on seeing how this latter element can influence the settlement of young migrants, understanding that the experiences of social inclusion lived during this process, such as feeling included in a broader social environment, positively reinforce the sense of feeling socially valued, as well as of belonging and being able to participate in and contribute to the society in which they are settling [13]. This social inclusion, therefore, will also be conditioned by the ability of the young people to build bridges that connect them with the host community, which will make it easier for them feel at home in this new country [14]. Assuming that mentoring can help in the social inclusion of unaccompanied young migrants, we focus throughout this study on assessing the capacity of this intervention methodology to produce short-term effects on the psychological well-being of the youths and on how having mentors can condition their educational aspirations and expectations.

Multiple studies have indicated that the risk of suffering from mental health problems may sharpen or decrease in the new context depending on the existing public health and social policies [13,15]. In this regard, and following the principle of "in the best interest of the child", scholars have highlighted the need to promote political measures that ensure the favourable reception and protection of unaccompanied minors and facilitate a safe transition to adulthood taking into consideration the youth's needs [16,17]. The present study aims to demonstrate how mentoring programmes can condition unaccompanied youths' well-being; future expectations; and, generally, their transition to adulthood in the receiving society.

1.2. Psychological Wellbeing and Educational Futures

In this study we focus on self-esteem, resilience, hope, and psychological distress in order to evaluate the psychological well-being of unaccompanied youths, since they are elements that can have a positive or negative impact on their mental health. Research has highlighted that a high level of well-being is a valuable resource for negotiating the settlement challenges ahead [13]. In fact, it has been recommended to nurture mentoring

relationships through a programme with potential mentors to improve the adaptability of children and young people in the face of adversity [18].

Rosenberg [19] reported that self-esteem is the positive or negative reflection people have of themselves. Therefore, it involves the self-perception that people have about their failures and successes, as well as the emotional management of the negative feelings that arise. The self-esteem of young migrants has been studied because it has been shown that it correlates positively with mental health, since it buffers the negative effects of stress on depression [20,21]. Furthermore, it has been demonstrated that social support and strong self-esteem are elements that can reduce the perception of discrimination [22]. In the case of young migrants, it has also been shown that the perceived support of peers from the same age or of responsible adults (such as a teacher or mentor, in the case of our study) has a positive effect on self-esteem [23]. Additionally, it has been suggested that greater participation in a community promotes the development of self-esteem [24]. For these reasons, we consider that the participation of young migrants in a community project with responsible adults who provide them with social support will increase their self-esteem, which will have a positive effect on their settlement and social inclusion.

Resilience is defined as the capacity to access resources that nurture individual, relational, and community assets, as well as the ability to interact with others to improve this capacity through meaningful resources [25]. Therefore, these resources (provided by friends, family, or mentors) make it possible to avoid potential threats in complex situations during development. Research has highlighted the need for actions that encourage young people to be more resilient when facing stressful events that they have to deal with at this stage of their lives (i.e., the transition to adulthood) and help them to establish positive relationships with responsible adults or prosocial organisations in the new environment [26–28]. Masten's resilience model [29] suggests that in order to foster resilience among migrant youths in their new context, they need to be exposed to significant risks and adapt successfully despite stressful life experiences. In this regard, some of the actions that can facilitate resilience are those that foster the quality of parent–child and mentor or teacher–child relationships in order to promote access to resources and social and human capital. However, unaccompanied migrant youths lack most of these supporting relationships once in Europe, and tend to live greater stressful experiences than other migrant youths [30] because of the lower levels of individual resources and family and social support they have. Studies that have focused on resilience have highlighted the importance of the environment in protecting against individual vulnerabilities and environmental adversity, highlighting that fostering resilience facilitates better development and psychological well-being [31]. In addition, resilience in young people has been related to better or worse adaptability to adversity [32]. Assuming that mentoring can promote the acquisition of resources to face adversity, we have considered this variable in the study, bearing in mind that greater resilience would promote better settlement and social inclusion.

Snyder et al. [33] defined hope as a cognitive set that involves the self-perceived capabilities for constructing viable paths to goals and beliefs about beginning and maintaining the route to these goals. It has been conceptualised as a positive emotional state derived from the interaction between agency aimed at achieving goals and the planning of pathways to attain them [34]. Hopeful people are seen as possessing positive thinking that reflects an optimistic and realistic perception [35], together with the belief that they can develop paths towards the desired goals [36]. Studies that have focused on hope have highlighted that it is positively correlated with life satisfaction, serving as a buffer against stressful and negative events [37]. Hopeful people perceive obstacles as a challenge to overcome and tend to show better athletic, academic, occupational, and health outcomes [36]. Additionally, high levels of hope in unaccompanied young migrants are seen to favour greater civic engagement, which is an indicator of successful social inclusion, as well as strengthening school performance and having a feeling of greater stability in their lives [38]. This favours a swift inclusion in the new community, which entails less suffering for the

young person. It is due to these elements and their capacity to protect against stressful life events that multiple youth intervention projects take into account the increase in youth hope as one of the components of their action [39]. In the same vein, we consider that if mentors are able to foster hope in young people, this will translate into a more favourable process of settlement and social inclusion.

Psychological distress is a common mental health problem defined as a state of emotional suffering typically characterised by symptoms of depression and anxiety [40]. Studies that have focused on psychological distress in migrants have highlighted that it can be determined by external stressors, such as traumatic life events or the resettlement process itself [41]. It has been shown that the availability of care and the quality of support in the resettlement country can reduce the psychological distress caused by adversity [42]. However, in the case of unaccompanied youths, post-traumatic stress symptoms have been identified as being associated with reaching the age of 18, due to the revision of their legal status, which makes them more aware of the uncertainty about their right to remain in the country they are resettling in [43]. The type of residence has also been highlighted as affecting the mental health of young migrants, who report more psychological distress when they move to more independent living arrangements [44]. Taking these elements into account, we explore whether participation in the mentoring project can affect the psychological distress of these unaccompanied youths who are also in a moment of transition towards a more independent life.

Another element that is of interest for the analysis of the social inclusion of migrant youths is how they can be enrolled in education and develop educational trajectories as a process of their settlement. Previous studies approaching the incorporation of the children of immigrants in Spain and in the United States have emphasised that educational aspirations and expectations are a key determinant for future achievements in the new context [45,46]. While the educational ambitions of migrant children have been widely studied in many contexts, more research is needed for understanding the views of unaccompanied minors and youths. In this regard, we understand futures in education as "how young people see themselves in regard to the future and why futures are so valuable for them" [47]. Thus, how educational aspirations and expectations change over time and the view and vision of the young people is relevant for fostering paths for inclusion. Bearing in mind that mentoring can affect the academic achievements of young people at risk [48], we have studied whether this mentoring relationship can have any impact on the educational future of unaccompanied youths.

1.3. Mentoring Programmes for Unaccompanied Youths

In order to address the needs of immigrant youth, the number of mentoring programmes targeting this group have increased, especially in Europe, in the last five years after the so-called "refugee crisis" [49]. Nevertheless, there is still scarce information about the effects that the programmes specifically targeting migrant adolescents and youths have [50,51]. The meta-analyses, mostly with evidence from US programmes for general youth populations, highlight that youth mentoring interventions have a modest but significant effect on improving diverse outcomes across the behavioural, emotional, social, and academic domains [52,53]. These studies have also shown that mentoring programmes are more effective among mentored youth who have significant levels of environmental risk and among samples with greater proportions of male youths [54]. Besides, in recent years, a growing number of scholars have highlighted that mentoring, as a specific approach, can be more effective when young people are provided with the skills to recruit adults from their own networks instead of assigning participant youths to an unknown caring adult by the mentoring organisation [55–57]. This body of research has shown that some approaches to mentoring (such as youth-initiated mentoring, network engaged mentoring, or intentional mentoring) provide more enduring and emotionally supportive relationships than traditional approaches, because these programmes tend to empower the youths in deepening their existing ties and creating new ones [58]. However, as far as we know, there

is no research showing the effects of mentoring on the mental health of unaccompanied migrant youths. What we know is that mentoring programmes can widen their social networks [59] and improve a sense of belonging and hope in the receiving society among migrant children living with their families in their new context [60].

2. Current Research

This study examined the effectiveness of the mentoring programme *Referents*, initiated by the *Punt de Referència* Association in 1998 [61]. The main goal of this programme is to support young people, mainly those leaving care, who, without family networks of support, start the transition to adulthood when they turn 18 after having been under the tutelage of the Generalitat de Catalunya (the Catalan government). From 2015 on, almost all participants of the programme are former unaccompanied minors who had been in the minor protection system before turning 18 and volunteer adult mentors.

The mentoring programme looks for adult volunteers who are established in Barcelona and have already completed their transition to adulthood (while also looking for young people interested in participating). After a selection process of adult volunteers and young people, training is carried out with the mentors, where the socio-legal situation of migrant youths leaving care is explained, as well as what their task as mentors involves. Each mentoring relationship (consisting of one adult and one youth) is instructed to meet once a week during a period of six months to carry out an activity. The mentoring programme practitioners suggest starting with leisure activities such as going to museums, activities in local public services, or doing sport activities. The aim of the programme is to create a bond between the mentor and mentee that facilitates significant conversations for the young person (concerns about administrative procedures, emotional discomfort, or doubts that affect their educational and occupational path), or, in other words, the provision of different types of social support.

However, despite monitoring the development of a strong and lasting bond between mentor and mentee, the *Referents* programme differs from models that provide non-specific care to their participants, in which the mentors are encouraged to provide friendship and support in general terms. These models that are less focused on solving the specific problems of the young people consider that a close relationship with the mentor is, by itself, a corrective experience that leads to a wide range of improvements in the young person's development [62]. In the *Referents* programme, however, specific objectives for each relationship are established, thanks to exhaustive training with the mentors on the obstacles the youths need to be accompanied with through their transition to adulthood, and a strong monitoring of the relationship (with regular meetings with the mentor; the mentee; and, on some occasions, with both). It is also characterised as a well-targeted programme and is focused on solving specific problems, since the group to which it provides support is clearly defined and due to the constant coordination with the other agents that intervene in the young person's development in order to specify what the focus of the intervention is.

The specific problems that these young people try to deal with during mentoring are usually related to learning the language, getting to know new places in Barcelona, and/or meeting new people. Here are a few of the responses of young people when we asked them why they signed up for the project:

> *My first idea was that I was going to meet with someone who would be older than me, and I thought that was a great idea for me. I was going to ask lots of things about Barcelona, things about Spain, to practise Spanish . . . This is what I was thinking* (Amadou, mentee)

> *I like that they help me from many sides. Mirela (mentor) has helped me know many places in Barcelona. [. . .] Besides that, I have practised Spanish with her many times, and I have improved.* (Abás, mentee)

As I said before, I felt alone in the centre and didn't know anybody from here, from Barcelona or from Spain. I wanted to meet some kind of friend, I wanted to get to know places, practise Spanish more and everything went well. (Hassan, mentee)

3. Methods

This research followed a *sequential explanatory mixed method design* which is characterised by gathering quantitative data and analysis before carrying out the qualitative fieldwork [63]. Mixed methods designs tend to provide a more complete and holistic view of the impact an intervention has rather than solely quantitative or qualitative designs. In this sense, we assessed the effects of participation in the programme on the lives of unaccompanied migrant youths in providing them with informal support in their coming of age and improving their psychological adjustment and expected or desired educational outcomes. More precisely, we were interested in how the unaccompanied youth see themselves (i.e., self-esteem), the psychological distress they experience, their future prospects (youth hope), the resilience skills they develop, how they perceive their educational near futures, and the role that social support they received has on these outcomes. In the survey data, we assessed these psychological and educational outcomes before (Time 1) and after (Time 2) participation in the programme among mentored and non-mentored (control group) youths. After the analysis of the quantitative data, we elaborated the guidelines for the interviews and carried out the qualitative fieldwork with mentored and non-mentored youths, as well as mentors.

3.1. Quantitative Data

3.1.1. Participants

Survey data were gathered from October 2018 to October 2019, coinciding with the start date of the mentoring matches of the *Referents* programme. In this period of time, the programme began three mentoring groups, with each consisting of between 10 and 15 mentoring pairs (a mentor and mentee), since this is the number set by the programme itself to ensure correct follow-up by the mentoring expert that monitors the development of the group's relationships. Therefore, the initial objective was to survey the maximum number of young migrant mentees, which, in this case, could have been 45. However, the programme did not reach the maximum number of recruits expected in each group and, in addition, were not all migrants (there were also Spanish youths who had left government tutelage without a family support network). Therefore, we aimed to recruit all mentees (N = 39); however, those surveyed in Time 1 were 32 youths (seven were discarded because mentoring matches had already started or because the youths refused to participate), and those in the control group (N = 26) were interviewed within one to two weeks later. From all these cases, we ended up with 21 youths in the mentoring group and 23 in the control group at Time 2, because we could not trace 12 of the pre-tested youths seven months later, and because the sample had a strong gender imbalance and thus two female participants were dropped from the analyses (initially, 91% of the mentored and 92.3% of the non-mentored youths were male). Our data confirm official statistics showing that 81.2% of unaccompanied minors in 2018 were from Morocco (see descriptive data below), and 97.7% were male [64]. The results, which include the two female participants, were consistent with the results obtained from the exclusively male sample (see Section 4).

Participants' ages ranged from 17 to 23 years (M = 18.52, SD = 1.50) for the mentoring group and from 17 to 19 (M = 18.04, SD = 0.37) in the control group. This difference in the age ranges was because the young people in the control group were accessible, since they were in the housing resource mentioned above, which limits their stay until the age of 21, while the mentoring programme does not set an age limit in order for young people transitioning to adulthood to access it. Most of the youths had been residing in Spain for two years at the time of the study (M = 2.10, SD = 1.00 and M = 2.52, SD = 2.19 in the mentoring and control groups, respectively). The majority came from Morocco (61.9% and 82.6%, respectively), while some others came from Algeria or Sub-Saharan countries and a

few from Latin America. When asked about their arrival to Spain, 47.6% of the mentored youths and 43.5% of the control group crossed the Mediterranean in a small boat, and 28.7% and 30.3%, respectively, were hidden in trucks. Most of the mentees lived in Barcelona city and a few in the Barcelona metropolitan area in shelter flats (71.4%), flats shared with other young people (14.3%), and some in a residence or in a rented shared apartment (14.3%). Most of participants in the mentoring (85.7%) and the control group (91.3%) had to move in the last year.

3.1.2. Procedure

One of the main challenges of the fieldwork was to adequately select and follow, for more than six months, former unaccompanied minors between 18 and 23 years old. With this aim in mind, we counted on the active support and collaboration of Punt de Referència and the Catalan Federation of Residence Care Organizations (FEPA). Their technical staff contacted the participants, informed them about the purpose of the study, and scheduled appointments for data collection. Informed consent was gathered from all youths. In a few cases—those who were 17 at the moment of pre-assessment (Time 1)—we also asked for consent from their legal tutors (Catalan Government Agency).

All the surveys and interviews were conducted in Spanish. Language was not a barrier with most of the interviewees because the majority had a good knowledge of this language. With regard to their Spanish speaking level, at the beginning of the programme, 48% indicated that it was good, 30% very good, and 14% excellent (four participants mentioned that it was sufficient). Similarly, 41% reported that their understanding of Spanish was good, 32% very good, and 23% excellent (only two participants said that it was sufficient). Participants also reported having good overall reading and writing skills: 34% and 27% reported good, 36% and 34% very good, and 21% and 14% excellent skills, respectively. Only three had sufficient reading skills, five had sufficient writing skills, and one participant mentioned that he had some difficulties in reading and writing in Spanish We have tested a regression model where participation in the programme (yes vs. no), language ability in Spanish (i.e., the average score with the four aspects of language ability), and the interaction between the two variables were introduced as predictors and each outcome variable at T2 as a criterion variable in a separate model. We additionally controlled for the T1 scores in each model. We did not observe statistically significant interactions and thus moderation by language ability.

3.1.3. Measures and Materials

We assessed diverse psychological outcomes, including psychological distress, self-esteem, resilience, and youth hope, at two time points. In addition, we evaluated the mentees' perceptions of their educational aspirations and expectations.

- **Self-esteem.** We implemented the Rosenberg scale [19] to measure self-esteem. Participants indicated their agreement on a 4-point (completely disagree, agree, disagree, completely agree) Likert-type scale with ten statements referring to their self-image (e.g., 'On the whole, I am satisfied with myself'; T1: $\alpha = 0.54$; T2: $\alpha = 0.59$).
- **Resilience.** We used a short 12-item version of the children and youth resilience measure [25]. Mentored youths were asked to respond to a series of questions about themselves, their community, and their relationships with others. They indicated the frequency with regard to these questions (e.g., 'Do you have people around you who show interest in you?') on a 3-point scale (yes, no, sometimes). All items were dichotomised, with 'yes' and 'sometimes' coded as 1, and 'no' coded as 0. We created a composite score by adding up all positive answers (T1: $\alpha = 0.66$; T2: $\alpha = 0.61$).
- **Youth hope.** We adapted the children and youth hope scale [33] for the migrant youths, who were asked to indicate on a 6-point scale (always, most of the time, frequently, sometimes, rarely, never) the frequency concerning six statements regarding their lives (e.g., 'When I have a problem, I can find many ways of solving it'). This measure demonstrated satisfactory reliability (T1: $\alpha = 0.57$; T2: $\alpha = 0.62$).

- **Psychological distress**. We adapted the Kessler psychological distress scale [65] to our participants' situation. Mentees indicated frequency with regard to ten questions about their psychological functioning (e.g., 'Feel lonely') on a 3-point scale (yes, no, sometimes). All items were dichotomised ('yes' and 'sometimes' were coded as 1, and 'no' coded as 0). We created a composite score for this scale by adding up the scores for the ten dichotomised items. Thus, the scale could range from 0 (when all responses were 0) to 10 (when all responses were 1, that is either 'yes' or 'sometimes'). This scale showed good reliability (T1: $\alpha = 0.73$; T2: $\alpha = 0.72$).
- **Educational aspirations.** Participants were also asked about their educational aspirations ('Which of the following levels of education would you like to achieve one day?'). They could choose one of eight categories, which were then dichotomised into low versus high educational aspirations. The small sample size does not allow for creating more than two categories. At Time 1, across the two groups, there were only three participants who aspired to finish a Master's degree or a Ph.D., and only four who mentioned compulsory secondary education. In contrast, most participants (16) at Time 1 chose to finish an insertion and training programme, which is a less formal type of education (similar to the category of other courses for adults). We thus considered it logical to compare aspirations to finish courses oriented at a quick job placement with more formal forms of education, from the secondary education (which still opens up the possibility of further education) to a university degree. Three options (i.e., 'Finish an Insertion and Training Programme (PFI)', 'I don't know', and 'Finish some adult training course (Catalan, Spanish, others)') were categorised as low educational aspirations, while the remaining five options ('Finish an Intermediate vocational training diploma', 'Finish an Advanced vocational training diploma', 'Finish a university degree', 'Finish a Master's degree or a Ph.D.', and 'Finish compulsory secondary education (ESO)'), were coded as high educational aspirations (Please note that we have decided to include the "I don't know" option in the category of low educational aspirations in order not to lose participants who fell under this response. However, we also analysed the data excluding this category and obtained a similar result. Please see more details in the notes of Tables 3 and 4 in the Results section).
- **Educational expectations.** Participants were also asked about the level of education they think they could achieve ('Realistically, what studies do you think you can finally achieve?'). As in the case of educational aspirations, they could choose one of eight categories, which were then dichotomised into low versus high educational expectations. Again, three options (i.e., 'Finish an Insertion and Training Programme (PFI)', 'I don't know', and 'Finish some adult training course (Catalan, Spanish, others)') were categorised as low educational expectations, and the remaining five options ('Finish an Intermediate vocational training diploma', 'Finish an Advanced vocational training diploma', 'Finish a university degree', 'Finish a Master's degree or a Ph.D.', and 'Finish compulsory secondary education (ESO)'), as high educational expectations.

3.1.4. Analytical Strategy

Quantitative data from surveys were introduced using tablets and *Qualtrics* for importing the data of the online questionnaire to SPSS format. The quantitative analysis was carried out with the SPSS Statistical Package. We used repeated measures factorial ANOVAs with participation in the programme (mentoring vs. control group) introduced as a between-subject factor, the measurement time (Time 1 vs. Time 2) introduced as a within-subject factor, and the interaction term between participation in the programme and the measurement time. A significant interaction effect would mean that the change over time is stronger/weaker in one group compared to the other, and thus that the significant change in the mentoring group is due to participation in the programme and not due to other external factors (such as simply longer time of residence in the host country). We additionally ran paired *t* tests to examine the effectiveness of the programme in the

mentoring group and the control group separately in increasing/reducing (i.e., from Time 1 to Time 2) participants' psychological distress, self-esteem, resilience, and hope.

We also applied the McNemar test to examine changes in educational aspirations and expectations. The McNemar test is used to determine if a statistically significant change in proportions has occurred on a dichotomous variable at two time points in the same population. Thus, in the present study, this test allowed us to determine the proportion of participants who had low levels of educational aspirations/expectations (a binary variable) before participation in the programme (Time 1), and who changed them to high levels of educational aspirations/expectations after the mentoring intervention (Time 2), and whether this change was statistically significant. In parallel, we tested what proportion of participants in the control group who had low levels of educational aspirations/expectations at Time 1 changed them to high levels of educational aspirations/expectations at Time 2, expecting that there would be no statistically significant change in this group. We required $p < 0.05$ as a minimal level of statistical significance.

3.2. Qualitative Data

3.2.1. Participants

From all the surveyed youth, we selected 10 mentees, their 10 mentors, and 10 non-mentored youths using a *typical case purposive sampling* [66], and carried out thirty semi-structured interviews right after completing the T2 surveys. For the selection, we took into account youth who were not outliers in the quantitative outcomes, their ability to express more adequately their feelings and thoughts in Spanish, and their level of engagement with the mentoring experiences. In this sense, we avoided choosing those most and least engaged. For the non-mentored youth (control group), we selected those that expressed some ability to seek some assistance. We also considered similarities between the interviewees of the control group and the mentoring group, for example, their country of origin, age, place of residence, or year of arrival.

3.2.2. Interview Guidelines

For the elaboration of the interview guidelines, we conducted a discussion group with four former unaccompanied minors who had participated in previous editions of the mentoring programme. They helped us to adjust the main topics of the interview to their needs and youth perspective. Mentors and mentees were interviewed individually at different times and spaces by the researchers to provide a space to freely talk about their experiences. The youths were asked about their migration journey, how they reached Barcelona, the types of support they received upon arrival and now, their stressful experiences, how they coped with them, what their aspirations and needs are, and how their mentors or other types of support had helped them in their coming-of-age process.

3.2.3. Analysis

All the interviews were recorded and transcribed. We coded the materials using ATLAST.ti (Scientific Software Development GmbH, Berlin, Germany) following a flexible coding strategy [67], paying attention inductively to the information provided by the interviewees, but also taking into consideration the main categories used in the quantitative fieldwork, such as resilience, youth hope, self-esteem, and educational expectations and needs. The subthemes and codes used are presented in Table 1, as well as quote examples of every code. Other categories were also created based on what young people mentioned, which is why, in the results section, we use some quotes that do not correspond directly with the variables used in the quantitative analysis. However, all of them are related to the study's subthemes (psychological well-being and educational futures). These categories were: *Perceived Support*, *Access to new resources*, *Loneliness/Isolation*, and *Planning of pathways*.

Table 1. Subthemes, codes, and quote examples.

Subthemes	Codes	Quotes
Psychological Wellbeing	Self-Esteem	I was angry for a few days because I didn't understand. There were some things that for me were difficult to understand and she said to me: "Let's see, you've been here for a year and you understand Spanish. If I went to Morocco and I stayed there 2 or 3 years, I wouldn't learn it like you", then I relax and I think I'm speaking well. (mentored)
	Resilience	I found some things difficult and I felt a bit embarrassed and a bit sad, but in the end I understand it a little and I have seen that I have to force myself to speak, because if I don't speak I won't learn anything. From that moment [to] now, I always have the courage to study things. Even Spanish and Catalan, but not only that, I want to study in my life until the end. Because life is a study class. (mentored)
	Youth Hope	Yes, sometimes it worries me. Because if they take away your NIE (tax identification number for foreign residents) you have no papers or anything. What are you going to do? Nothing, you'd be better going back to Morocco. [. . .] I would feel a bit like I hadn't finished what I wanted to do. I would feel a bit like something is lacking. I won't have reached the future, that's what I mean. (non-mentored)
Educational Futures	Expectations	I want to get an Advanced vocational training diploma, the problem is that I don't have a work permit. [. . .] I am in a foundation that pays for the rent and everything, but you can't be with a foundation for more than 4 years and it will take more than 4 years to get an Advanced vocational training diploma [. . .] So, I only have 2 years left in this foundation. In 2 years I'll get the Intermediate vocational training diploma. (mentored)
	Aspirations	Well, continue, because I already have the PFI (Insertion and Training Programme) and I have the letter of recommendation from a shop. I also have the language and everything. I want to continue with these hotel and catering courses . . . (non-mentored)

4. Results

4.1. Findings from Quantitative Survey Data

All results, including descriptive statistics, are presented in Table 2.

Table 2. Participation in the mentoring program and well-being outcomes: descriptive statistics, repeated measures ANOVA with between-subject (group) effect, and paired *t*-tests per group.

Variable	Group	Time 1 *M* (*SD*)		Time 2 *M* (*SD*)		*CI*	*t*	*p*	*d*	Comparison			
										Test [1]	$F_{(1, 42)}$	*p*	η^2
Self-esteem	Mentoring	2.87	0.23	3.01	0.30	[−0.27; −0.02]	−2.41	0.026	0.55	1	1.03	0.316	0.02
										2	3.16	0.083	0.07
	Control	2.86	0.33	2.86	0.30	[−0.12; 0.12]	−0.08	0.941	0	3	2.80	0.102	0.06
Resilience	Mentoring	9.95	1.40	10.76	0.44	[−1.40; −0.22]	−2.88	0.009	0.74	1	1.24	0.273	0.03
										2	4.94	0.032	0.11
	Control	9.96	1.52	10.04	1.33	[−0.68; 0.51]	−0.30	0.765	0.05	3	3.21	0.081	0.07
Youth hope	Mentoring	5.10	0.73	5.52	0.60	[−0.81; −0.04]	−2.33	0.031	0.58	1	0.04	0.846	0.001
										2	0.94	0.339	0.02
	Control	5.45	0.83	5.25	0.82	[−0.10;0.51]	1.39	0.179	−0.22	3	7.33	0.010	0.15
Psychological distress	Mentoring	4.95	2.64	4.76	2.84	[−0.61; 0.99]	0.50	0.623	−0.09	1	0.08	0.779	0.002
										2	0.01	0.964	0
	Control	4.96	2.69	5.17	2.37	[−1.14; 0.70]	−0.49	0.630	0.11	3	0.48	0.494	0.01

Note. Mentoring group: $n = 21$, control group: $n = 23$. *M* and *SD* represent means and standard deviations, respectively. [1] ANOVA contrasts in the following order: 1 = group's effects; 2 = time' effects; and 3 = interaction effects (group * time). To calculate Cohen's *d*, we used a procedure described in Morris and De Shon (2002, p. 111), who suggest estimating the effect size for single-group pre-test–post-test designs by taking the correlation between the pre- and post-test into account. Statistically significant effects are in bold and marginally significant ones are in italics.

- **Self-esteem.** GLM repeated measures did not show any significant effects of intervention or time on self-esteem. The intervention × time interaction effect did not reach statistical significance, but the paired samples *t* tests showed that self-esteem significantly increased in the mentoring group. In contrast, there was no statistically significant effect in the control group.
- **Resilience**. We did not find any significant effects of intervention on resilience, but there was a statistically significant overall increase in resilience from T1 to T2. The paired samples *t* tests showed that resilience increased significantly in the mentoring group, but not in the control group. Yet, again, the intervention × time interaction effect did not reach statistical significance, which suggests that we cannot conclude that the effect in the mentoring group was significantly stronger than in the control group.
- **Youth hope**. No significant effects of intervention on youth hope or change from T1 to T2 were detected. There was a statistically significant intervention × time interaction effect, which confirms that the change in youth hope was significantly stronger in the mentoring group compared to the control group (and can thus be interpreted as exclusively due to participation in the mentoring programme). In line with this interaction, the paired samples *t* tests revealed that mentees showed higher levels of youth hope after the programme, whereas that was not the case for the control group.
- **Psychological distress**. We did not find statistically significant intervention, time, or interaction effects for psychological distress, and no statistically significant change in distress from T1 to T2 was detected across the two groups in the paired samples *t* tests. That is, participating in the mentoring programme did not affect the level of psychological distress of the participating youths.
- **Educational aspirations**. We were also interested in whether participation in the *Referents* programme changed the educational aims of the mentored youths. As can be seen in Table 3, the McNemar test revealed a statistically significant change in educational aims from Time 1 to Time 2 in the mentoring group. Specifically, whereas only 14.30% of the mentees maintained their lower educational aims across time, 47.60% of them changed their motivations from less (i.e., low) to more formal (i.e., high) educational outcomes, ranging from secondary to higher education degrees. Finally, 38.10% of the mentees started and maintained their formal educational outcomes, and none of the participants changed their educational aims from formal to informal. In the control group, the McNemar test was not statistically significant, indicating that educational ambitions did not change from T1 to T2. In this case, 60.8% of the participants did not change their educational aspirations, and 13.00% actually lowered them. Only 26.1% improved their aspirations.
- **Educational expectations**. In parallel, we were interested in whether being part of the *Referents* mentoring programme changed the expectations of the mentored youth with regard to the educational level they would realistically achieve in the future. As shown in Table 4, the McNemar test revealed a statistically significant effect in the mentoring group, indicating that perceived educational prospects of the mentees changed from pre-assessment (T1) to post-assessment (T2). Almost half of the mentees (47.60%) initially believed that it was only feasible for them to achieve a lower level of education, but they were more optimistic about their future education after participation. In contrast, 14.30% of the mentees maintained their lower educational expectations and 38.10% their higher educational expectations. None of the *Referents* participants lowered their educational projections. No statistically significant change in educational expectations was detected in the control group, where 65.2% of the participants maintained their educational expectations over time, and 13.00% anticipated lower educational outcome at T2 as compared to T1. Only 21.70% changed their expectations from low to high.

Table 3. Participation in the mentoring program and educational aspirations: the McNemar test.

Variable	Group		Low Educational Aspirations (Time 2)		High Educational Aspirations (Time 2)		*p*
			f	%	*f*	%	
Educational aspirations	Mentoring	Low educational aspirations (Time 1)	3	14.30%	10	47.60%	0.002
		High educational aspirations (Time 1)	0	0.00%	8	38.10%	
	Control	Low educational aspirations (Time 1)	7	30.4%	6	26.1%	0.508
		High educational aspirations (Time 1)	3	13.00%	7	30.4%	

Note. We repeated these analyses excluding participants who responded "I don't know" to the question about educational aspirations. In this case, the McNemar test was also statistically significant in the mentoring group ($p = 0.016$), whereas it was non-significant in the control group ($p = 0.453$), with 18 participants in each group.

Table 4. Participation in the mentoring program and educational expectations: McNemar test.

Variable	Group		Low Educational Expectations (Time 2)		High Educational Expectations (Time 2)		*p*
			f	%	*f*	%	
Educational expectations	Mentoring	Low educational expectations (Time 1)	3	14.30%	10	47.60%	0.002
		High educational expectations (Time 1)	0	0.00%	8	38.10%	
	Control	Low educational expectations (Time 1)	11	47.80%	5	21.70%	0.727
		High educational expectations (Time 1)	3	13.00%	4	17.40%	

Note. We repeated these analyses excluding participants who responded "I don't know" to the question about educational expectations. In this case, the McNemar test was also statistically significant in the mentoring group ($p = 0.016$), whereas it was non-significant in the control group ($p = 0.453$), with 18 participants in each group.

4.2. Findings from Interview Data

The qualitative results concerning the main topics of the research (psychological well-being and educational futures) are shown below. Through the analysis of the interviews carried out, we highlighted different types of social support that the youths perceived from their mentors (and that the mentors mentioned that they offered), which have had a certain impact in terms of well-being and on the decisions taken regarding what educational path to follow. In addition, we discuss the absence of certain types of support in the control group, which enabled us to understand the differences between the groups (mentored and non-mentored).

In order to suggest how the mentoring programmes can promote the acquisition of an effective support network, we highlight, in the final section of the results, how the programme guides the task of the mentors. Specifically, we focus on how the support provided by the mentors is focused on the needs of the young people due to training and the programme's exhaustive monitoring of each relationship.

4.2.1. The Role of Mentoring in Providing Emotional and Social Support

Psychological and emotional well-being is a concept that refers to aspects of psychological and behavioural functioning that involve a person's interpersonal relationships and mental health [68]. Social support is seen as a central element of well-being in young people, being strongly associated with mental health [69] due to the perception of being cared for promoting health in a person [70]. The young mentees of this study frequently

mentioned having received support in general terms from mentors and, more specifically, emotional support, which, in mentoring, is usually related to the capacity of the mentor to empathise with and listen to the mentee [71]. The case of Nordin illustrates how young people can feel better emotionally thanks to the support of these mentors. This young man, born in Morocco, explained that when he had negative feelings, he talked to his mentor, and that this mere act of talking to or meeting with the mentor had a positive effect on his emotions:

> *If I don't feel good—I'm feeling bad one day, or I'm angry—I ask him if he can meet to talk and he says yes. If I have something important, he asks me if I want to stay, no problem. He's a really nice guy [. . .] Because I always feel good when I am with him. He's a good person, he treats me well.* (Nordin, mentee)

As we will see, the conversations with the mentors about aspects that worry or generate some kind of distress in the young people were recurrent. However, the mentors, thanks to a greater ability to express themselves in Spanish, were able to explain in greater depth the nature of these conversations with the young people. Below is a quote related to the social support provided by Mar (one of the mentors), who talked about one of the conversations she had with her mentee about managing negative emotions generated by adversity:

> *We were talking about patience, about how difficult it is sometimes to get these things, to trust the people who are around helping him, that nobody wants him not to get them and that he knew there were a lot of people working on this, and that if he had any doubts or something was not being done properly or he wasn't being told about, that he should ask or speak to the director of the centre . . . And well, I think that was important because he let it all out and I saw he was very affected by it.* (Mar, Aliou's mentor)

Studies that have focused on young migrants have identified that perceived support, provided by adults, can improve a person's psychological well-being and, in particular, have emphasised the positive effects it had on the self-esteem of young migrants [23]. Perceived social support was evaluated from the recipient's perception of the availability of and satisfaction with the support provided [72]. The support from the mentors to deal with problems and overcome difficulties was mentioned as a very positive aspect of the mentoring relationship. The availability of social support by the mentors and the satisfaction of the mentees with this support were aspects that were identified in several interviews with the mentees. Below, Aliou and Dawda commented on the support they perceived from their mentors and their satisfaction with it. Dawda, furthermore, mentioned that, before his participation in the mentoring programme, such support was not available:

> *If I have problems, at any time I can call her and explain my problem and, if she can, she helps me. [. . .] This helps me because I explained this about my papers and she gave me advice.* (Aliou, mentee)

> *You may have a problem and this person (the mentor) can help you fix the problem you have, and as I am not from here, the people from here know much more than I do about here, and they can tell me things that in the future can help me. [. . .] Actually, I didn't have an older person who I could talk about my things with in Spain, by now I have the mentor and I talk about my things with her.* (Dawda, mentee)

4.2.2. Access to Social Capital

Another element that the academic literature has highlighted as favourable for the development and psychological well-being of young people is an increase in resilience [31]. Specifically, actions that favour the relationship with parents, teachers, or mentors that can increase access to resources and social capital have been recommended to facilitate resilience [18,29]. Linking relationships that connect young people with social or economic resources and that can foster greater opportunities in education, training, and work have been highlighted as important for promoting active participation in social and civic

life [73,74]. These relationships result in the structures of the host society becoming more open and socially inclusive, so they are seen as key strategies to promote psychological well-being and a good settlement of the young migrants [13]. Access to new resources was mentioned by the participants in the mentoring programme. Hakim, for example, spoke to us about the different resources he accessed together with his mentor during his participation in the programme. This young mentee responded as follows when he was asked what the benefits of participating in the mentoring programme were:

> *Many things . . . for example to be patient and to know very many things . . . many places. For example, a design place in Glorias, the Sagrada Familia library, Barcelona Activa (a public employment service) . . . To know more places, or courses, for example [. . .] talk about things that worry me . . . she can also help me with these things.* (Hakim, mentee)

The mentors also talked about certain activities carried out with the mentees that could facilitate access to new resources. For example, Ariadna, Dawda's mentor, also told us how she helped her mentee to find resources that could be important for him:

> *This civic centre also has a job bank, well, an employment centre where a couple of people help you find work or make a CV . . . And one day I passed by and we wanted to see what they had for young people. A girl attended us and immediately . . . "look, here there are people who can help you make a CV, we do concerts, activities, football and many things for young people". And yes, I took him to a place where they can really offer him the chance of broadening his social environment.* (Ariadna, Dawda's mentor)

These resources can also help young people to better plan the pathways designed to achieve their goals in their new social environment. The creation of these connections with the mentors and with other resources of the environment can help to create feelings of hope in young people [75–77]. It can make them feel like they have the capacity and possibility to accomplish their future goals, since they have the agency and can create pathways to achieve them. The planning of alternative pathways that enable the creation of routes towards one's goals is a significant component of hope [34]. In this regard, not only can the knowledge of resources be favourable, but also the conversations with the mentors that enabled the young people to reflect on their pathways were important during the mentoring. Amadou explained that, for him, it was important to be in contact with other people, because, in that way, he could share ideas related to his own career. Moreover, participating in these types of projects helped him to feel more relaxed, which allowed him to plan his future under less pressure. After being asked why he decided to participate in this mentoring programme, he responded as follows:

> *Because I like having relationships with a lot of people. Because a memory is a memory, but your memory and my memory, if we work together, there will be two ideas that are worked on. If it's only my idea, I can't do anything. [. . .] Well, since I came here with many projects, collaborating with them, I began to forget my stuff, I began to relax with my stuff . . .* (Amadou, mentee)

4.2.3. Promoting the Mentees' Interest in Formal Educational Paths

The social support that mentoring can provide in terms of advice can have an effect not only on the level of hope and psychological well-being of the youths, but could also have an effect in terms of their educational futures. Previous studies with young migrants have highlighted that educational aspirations and expectations are fundamental for accomplishing futures goals in their new context [45,46]. Self-defined paths for young people are usually based on the need to find a job in order to be independent in the new setting and not dependent on the support of philanthropic or care organisations. In addition, the added pressure of wanting to help their family drives them to choose educational paths with quick access to the labour market. The case of Hassan illustrates that, if conditions are optimal to be able to continue studying, it is easier for the youths to make this decision, since, in this way, they can acquire a professional path that allows them to access better paid jobs:

It depends. I want to work and help my family a little and myself. If I am fine here, I would like to continue studying. [. . .] I want to get an 8.7 to do vocational education and training [...]. Cooking, hairdressing . . . Then the higher education as well, if I can. And continue studying. (Hassan, mentee)

Once these conditions are met, the difficulty is in the choice of career path that fits their interests, or understanding the differences between different educational levels, among others. This is where the mentor can provide assistance, promoting the young person's interest in educational paths that enable them to achieve higher levels of education. Hakim explained that, thanks to his mentor, he understood what path he could follow after completing the PFI, instead of entering the job market, as well as explaining the disorientation he felt regarding his educational future:

Because when I wanted to do the first course, I did a course in waitering and didn't know what courses there were . . . you know? I did a course for work as a waiter and as a cook because everybody does that [. . .] She (the mentor) explained to me that, for example, if you don't not have ESO, you can study a PFI to do an Intermediate vocational training diploma, and when you pass the Intermediate vocational training you can do the Advanced vocational training diploma and then, if you want, you can go to university. (Hakim, mentee)

We observed that the more informal conversations with mentors could help consolidate a more prolonged educational path within formal education. In this regard, Antonia (Hassan's mentor) and Elisabeth (Hakim's mentor), explained what these conversations were like:

Poor thing . . . I think he is very lost . . . and the fact that he told me "I want to work, I want to work" and that I told him to take advantage of the time now and study . . . it could be that saying to him "don't worry now about money, you could be some time without work . . . ", but of course, I suppose that also behind this he feels the pressure of "I have to comply". (Antonia, Hassan's mentor)

Sure, he did the waitering course . . . the practical training . . . this and that, but then he was going to do a cooking course, but in the end he was going to do one in maintenance . . . but he wants to do English . . . he is very disoriented. [. . .] We went to a place with technological stuff because he really likes everything related to computers and they give free courses on all things related to technology and you can sign up . . . (Elisabeth, Hakim's mentor)

4.2.4. Lack of Social and Emotional Support in Non-Mentored Youths

Previous studies that have focused on young people in care and leaving care have emphasised that the professionals that work alongside them are usually seen by the youths as representatives of a formal and instrumentalised world. Specifically, they see them as people who do their job, focusing on the solution of specific problems [78]. Furthermore, in the Spanish context, it has been highlighted that there are few resources or services that accompany the young migrants in attending to the emotional distress that settlement may cause [9]. In this regard, the non-mentored youths in this study emphasised being able to talk about some of their emotional discomfort with the youth worker of their flat. However, these conversations were limited to formal spaces and specific tutoring sessions in which the youths were summoned at a specific time of the week to talk about various aspects of their work plan during their stay in the flat of the transition to adulthood programme. Arturo explained the following to us when we asked him about his concerns and whether he talked about them with somebody close to him:

I don't usually talk about my problems, but one person like that . . . is Neus (youth worker). I sometimes have tutoring and we talk about how we are and stuff, and some discomfort comes out and we talk about it. (Arturo, non-mentored youth)

This contrasts with the role that a mentor can play in the life of a young person, since the former takes time to be present in the life of the latter without being restricted to a specific time and space during the week, being seen as a result as someone from a more informal world [79]. The academic literature has highlighted that the informal nature of the mentoring relationships facilitates the appearance of emotional support or advice support because it allows them to arise in the context of a normal everyday conversation [71]. That is probably why it was difficult to identify the perceived social support of the non-mentored youths, who were explicit and even mentioned that sometimes it was difficult to find the support they needed:

> *Sometimes, if I have a serious problem, I don't know what to do. [. . .] Well, I don't know, that nobody helps you here; well, difficult.* (Mourad, non-mentored youth)

The availability and quality of the forms of support in the country in which a person is settling has been shown to have an impact on psychological distress [42]. Furthermore, support networks are important for reducing the feelings of isolation and loneliness in migrants who are settling in a new country [50,60]. Loneliness in unaccompanied young migrants appears in the absence of people who care about them, and it has been demonstrated that new social contacts have a positive effect in combatting it [80]. However, in this study, we have found that young migrants who did not participate in the mentoring programme lacked strong networks of support and new social contacts. In fact, feelings of loneliness and the lack of forms of support were aspects that the non-mentored youths mentioned in the interviews. In this regard, Mustafá, perhaps because he was not able to connect with anyone who could help him to solve his problems, expressed the following:

> *Everything that you have to do, there is nobody that's going to help you. You always have to do things on your own, with the language or without the language. Nobody cares about your stuff; you have to do it alone. Before, in the centre, they always said "come on, I'll go with you to the doctor", "come on, we'll go with you to such and such . . . ", "we'll go with you to look for courses." Always, everything that you're going to do, "we'll go with you." Here they don't go with you, they say: "Ok, go alone, you're an adult", but this is normal, it doesn't matter. [. . .] When you are in Morocco, you always share things with your family, your parents . . . and now you live here alone. You'll always be alone.* (Mustafá, non-mentored)

It has been identified that turning 18 generates a degree of psychological distress in unaccompanied youths [43]. In fact, this distress was identified in the two groups that were studied (mentored and non-mentored youths). However, independent life after leaving the residential centre they had stayed in as minors seemed to affect the non-mentored youths more. Just as the mentored youths were able to identify people around them (mostly the mentors) who gave them support, the non-mentored youths highlighted this feeling of loneliness after moving to the flat of the transition to adulthood programme. This more independent life has been shown to generate greater psychological distress in their lives [46]. Rashid explicitly mentioned this greater difficulty in finding support after turning 18 and moving to the transition to adulthood flat:

> *Now since I am over 18, I have some difficulties. You have to get by on your own. You have to make a living by yourself. Nobody helps you. [. . .] It's not like being a minor. When you are older you have to do everything alone, nobody helps you. If you want to do something, manage papers or go to an office, you have to learn to speak, learn how to do it. The difference when you are younger is that in the care centre they do everything for you.* (Rashid, 19)

4.2.5. Absence of Alternative Educational Pathways in Non-Mentored Youths

The lack of social support also seems to have had an effect on the creation of pathways designed to continue studying at higher levels of formal education. As we mentioned, these young people have doubts about whether to continue studying in formal education or whether to seek courses that guarantee rapid access to the labour market. Ahmed,

another young man from the control group, also expressed many doubts about what to study. These doubts have made him undertake a training and insertion programme to be a sales assistant, a course in the hotel sector, as well as various adult training courses. As he commented, the youth worker told him that he had to study before working, and he promised to do so, in part, to be able to access the housing benefit. However, his explanation lacked any positive mention of continuing studying at higher educational levels, such as in the case of most of the young people in the control group:

> *I live in a government-run flat, and when we had to enter it we had to sign some rules. These rules say that you have to study. Moreover, when we have to change the papers, we need studies, if not, they can take them away from us. So we are now studying and obtaining diplomas so that when we have the papers, they authorise us to work and we can work in many places. [. . .] I have 4 or 5 professional diplomas: in sales, I am also studying in the hotel sector and I also want to have a diploma for hairdressing. Because if one day there is no work in sales, it won't matter, we can go to the hotel sector. If there is no work in the hotel sector, then we'll try hairdressing*. (Ahmed, 18)

This strong wish to enter the labour market drove Ahmed to follow an educational path that was more focused on gaining quick labour insertion. Generally speaking, the possibility of studying higher education courses within formal education was not mentioned, nor did they mention having received messages that promoted doing higher educational studies or having had meaningful conversations with adults in their social environment that encouraged reflection on their future education. Other young people of the control group mentioned the possibility of continuing to study some courses in the afternoons, after finding a job. In this regard, another of the non-mentored youths, Youssef, made a similar reflection to that of Ahmed with regard to the aim of gaining quick labour insertion. He explained why he preferred to continue with the training course that he was doing, instead of seeking a more prolonged path in formal education:

> *I am doing a PFI (training course) in cooking, waitering and catering in general, in which I work as a waiter and cook. [. . .] Next year, you choose only the thing you like most, I mean, if you want to be a waiter or a cook. I have considered it, but I don't know if I'm going to continue with one of cooking or waitering. Also, [the study centre] hires you if you do well. If you look for work, they help you get it, and they also hire you. So in this way I'm not going spend two years for nothing.* (Youssef, 18)

Thus, taking these qualitative analysis findings into account, we suggest that in order for young people to develop this motivation to continue within formal education, it is important that they receive messages that help them reflect on this option of continuing to study at higher levels of formal education.

4.2.6. Targeted and Problem-Specific Mentoring Programs for Unaccompanied Youths

A programme is considered to have a targeted approach when mentoring is directed specifically at a young population and when it is designed specifically to address the challenges of this population [64]. Studies that have focused on examining the different approaches to mentoring have highlighted that programmes that focus on the challenges of a specific population have a greater effect in terms of academic [81], psychological [82], and social [83] outcomes. One important element here is that mentors are trained so they can directly address the problems related to the group of young people they are trying to support [83]. The mentors of the *Referents* programme highlighted this training as very important in helping them feel equipped and able to better understand the difficulties of the young people. Here are some comments from the mentors during the interviews. They mainly highlight as positive elements of the training regarding the possible difficult situations that may arise during mentoring and learning the legal context of the young people:

> *In the course, at the beginning, they told us (mentors) everything that might happen to them (mentees) [. . .] It of course puts you in a difficult situation and I think that is very*

good because it's a way to make you understand that not everything is beautiful. Perhaps the boy comes to you one day and asks you something . . . and you don't know how to respond . . . (Mirela, mentor)

When you start training you don't quite understand why you have to do a training . . . But then you find yourself in so many situations . . . And you think: "they told me that this would happen and that the other thing would happen too . . . ". (Antonia, mentor)

They gave us the context of the current legal framework of the youths that arrive, whether they have asked for political asylum or with regards to unaccompanied minors . . . they tell you all about this. (Inés, mentor)

The mentors also emphasised that the support of the mentoring programme was constant throughout the established mentoring period. Therefore, any doubts that arose regarding how to act were also addressed by the programme's supervising team. This made it easier for the mentors to know what to do and how to handle doubts practically the moment they arose:

I think the feedback of Helena (mentoring programme practitioner) was . . . We were able to speak on many occasions; I left her a lot of audios (via instant messaging), especially at the beginning about how the session (the meeting with the young person) had gone . . . The answers help you a little to resolve concerns and doubts that the sessions brought up and other more specific things. (Miquel, mentor)

Especially on the issue of persevering more or less with their education. For me, education is the way out of marginality, to the extent that this is possible for each person . . . Anything that is education is the best that a person can do . . . And someone of this age (talking about the mentored youths) I am very sure about this: education, education, education. The thing is that for them a work permit is important. So, of course, I asked him (the mentoring programme practitioner) if I should insist [. . .] How far should I press here . . . things like that . . . A few guidelines to avoid putting my foot in it. (Ariadna, mentor)

5. Discussion

This research aimed to identify whether the absence or presence of adult mentors providing social support can condition unaccompanied youths' well-being and their future prospects in their new context, especially taking into account implications for their transition to adulthood. The findings of this study showed the existing connections between the social support unaccompanied youth have in the receiving society, their mental health, and the possibilities for constructing new educational futures. Those who have less caring relationships (such as those from the control group) counted on the support of youth workers who helped them to comply with the formalities of their transition to adulthood, but most of them felt left emotionally on their own. Thus, coming of age for these young people became an odyssey that altered their mental health and well-being due to the pressure they felt when coping with housing and legal status once they turned 18 and left the minor protection system. However, we have observed that those youths who had broader social support because of their participation in a mentoring programme saw improvements in their psychological well-being outcomes (such as self-esteem, resilience and youth hope), and that such support provided them with the emotional stability to seek a higher educational path and achieve a safer transition to adulthood.

These results obtained with unaccompanied migrant youths corroborate prior research showing the significant effects of mentoring programmes on various youth outcomes, such as resilience, self-esteem, or youth hope, for youths either in care or transitioning out of the foster care system [84,85]. While some meta-analyses have shown that these effects may be modest for youth mentoring programmes in general (for example Hedges' $g = 0.21$; both in Raposa et al. [52] and DuBois et al. [54]), the effect sizes of programmes which have a clear targeted population and are more problem-specific (such as the one we studied) tend to be higher, and double those of programmes with non-specific approaches [62,86]. The

evidence from this study supports this argument because the effect sizes for the values studied are well above 0.50.

More specifically, with unaccompanied migrant minors, other inquiries have stressed that mentoring encourages young migrants' hope and feeling of belonging [60], as well as perceptions of the social support they have in the host culture [59]. This study further contributes to this field by shedding some light on the effects on unaccompanied youth once they turn 18, considering that our quantitative discoveries showed large effect sizes ('d' around 0.8) for the mentoring group on resilience (0.7), educational aspirations (0.86), and educational expectations (0.86), or medium effect sizes ('d' around 0.5) for self-esteem (0.54) and youth hope (0.45). However, we could not identify significant differences in psychological distress, probably because this variable needs a more professionalised intervention to show significant changes.

Our qualitative findings showed that the mentor's availability to be present in complex situations in which youths are involved during the transition to adulthood and becoming settled explains the differences in the quantitative results between the treatment and control groups. The mentoring relationship makes it easier for the young people to share feelings that undermine their self-esteem, which can help them to create a more positive impression of themselves thanks to the conversations with the mentors.

Furthermore, mentoring relationships help youths to assess their needs by becoming an important ecological resource for their resilience and strength [87]. Mentoring is an opportunity for them to share ideas about their own trajectory with people who can guide them in making decisions or even to improve individual and relational resources to deal with stressful and complex events. In the same way, mentors promote a more positive vision in young people about their plans, since the messages of being patient and encouraging help the mentees to be more hopeful about their future. Therefore, all of this social support also promotes higher educational expectations and aspirations, since this psychological well-being makes it easier for them to have a positive impression about what they can achieve in their lives. Furthermore, mentors establish conversations about how to continue with their educational path, being guided by a person who knows how the formal educational system works and who can help to specify their self-defined educational plans.

We can therefore see how mentors are able to provide a wide range of types of support, thanks to an appropriate orientation by the programme in the goals to be addressed with the young person. The mentoring practitioners that monitor each relationship knew how to work individually with the young person and with the mentor regarding the goals that were proposed in the relationship, which bore fruit in the different realities of each one. Those young people who needed to be introduced into new environments or to solve certain procedures were provided with instrumental support, such as concrete or companionship support. The young people who needed certain recommendations to continue on their educational path or who needed to hear suggestions from somebody with more experience than them received advice support. Additionally, those who needed someone to understand or value them in difficult moments were provided with emotional or esteem support. In addition, it is important to emphasise that this emotional support was fairly common in all the mentoring relationships.

We also highlight how the mentoring programme supervises the mentors while the mentoring relationship lasts. An important element for the mentors was the training and the issues addressed therein. They emphasised that it was useful for their work as mentors to receive information about the socio-legal situation of the youths, as well as the ability of the programme to make them aware of the difficulties they may encounter during the relationship. They also highlighted as very positive the accessibility they had to the mentoring programme practitioners throughout the relationship, since they could resolve doubts and concerns in a very direct and simple way. This made it easier for the mentors to better assess the type of support they were giving the mentees and to better understand where this support should be focused. We believe that this is a relevant finding for determining how and why mentoring interventions with unaccompanied youths can

be effective in providing new support networks. We therefore suggest that the results in terms of psychological well-being and educational futures need to be contextualised within these elements highlighted by the programme mentors (a well-established training and a supervision or monitoring that guides the mentors with their doubts).

In contrast, the interviews with the non-mentored youths showed an absence of adults responding to their emotional needs. Youth workers are present to provide types of support that are very focused on specific problems, but they are not present in some circumstances in which youths need emotional support. This is something that we can observe in the quotes of the young people of the control group when they explain that they have to deal with many of their problems alone because they do not have anybody to count on, or when they explain that they sometimes do not know very well who to talk to about their problems. Youth workers can solve some of the young people's difficulties, but rather are mostly focused on specific needs related to their residence or work permits and on the search for courses that guarantee them a quick job placement. This lack of support promotes the feelings of isolation and loneliness that were evident during the interviews, which makes it difficult for youths to develop positive self-esteem for use in their daily lives, to be more resilient with complex situations, or to have hope in a promising future. Moreover, they also show the existing and absent dialogues unaccompanied youth have with their caregivers, and how the existing social categorisation and expectations of them may be challenged with a more holistic assessment connected to their hopes and perspective.

6. Limitations and Future Research

This research is not devoid of limitations. It is relevant to highlight that those who participated in the fieldwork are youth enrolled in the Catalan residential programme for former youth in care. They do not represent all unaccompanied youth because a relatively high number of unaccompanied youths are not enrolled in that programme due to the few available places. Unfortunately, a significant number of them also become irregular when they turn 18 because their residence permits were either not applied for or not renewed by the relevant entity. Nor could we access as many female participants as we would have liked because of the lack of girls in the *Catalan Federation of Residence Care Organisations*. Furthermore, there are fewer unaccompanied girls that migrate, and those that accomplished their migration journey suffer other aggregated vulnerabilities that complicate access to them. For these reasons, we cannot have an accurate vision of youth needs and difficulties disaggregated by gender.

Another limitation of this longitudinal research is the number of study participants and the difficulty in carrying out a follow-up of such a vulnerable population. The small size of our sample also limited the power of quantitative statistical analyses. Sample size may have limited the possibility of reaching significance in some of the findings obtained in this study, especially with repeated measures ANOVAs. Specifically, although we observed a statistically significant increase in self-esteem and resilience in the mentoring group and no such change in the control group, we did not find significant interaction effects with these variables. This suggests that this change could be still due to some external factors such as length of residence or housing. The legal situation of the young people can be very varied. There are young people who quickly receive a job offer and process a work permit, others can spend months waiting for the resolution of their residence permit, others have received the residency permit shortly before entering the transition to adulthood programme, and there are those whose permit has expired and have to renew it. All of these situations probably have a different impact on the psychological well-being of the youths, and it is very difficult to control them. Similarly, the length of time spent in the flats of the transition to adulthood programme can be an external factor that is difficult to control. There can be young people that are starting their stay in the flat, others who are ending it, and also within this latter group there will be differences between those who have found another housing resource for when they turn 21, those that have obtained a job

offer and will now be able to live independently, and those faced with the possibility of being left without housing and cannot afford to rent a room for themselves.

Nevertheless, one needs to consider the reality of mentoring programmes for unaccompanied migrant youths: they usually involve a smaller number of youths, and thus, it is difficult to count on more robust samples. It is also important to highlight that we did observe statistically significant effects even with a limited sample with simpler statistical procedures (paired samples *t* tests) in all except for one outcome (psychological distress), and thus, it is reasonable to assume that these effects would have held with a larger sample. Our study should also be replicated with more reliable measures. Several instruments in our study showed a relatively low reliability, which might have been due to language difficulties among some participants. Thus, future research should ensure participants the possibility to respond to measures in their native language. Finally, our aim was not to provide outcomes to generalise over other contexts. Rather, we aimed to show how social mentoring interventions have relevant implications for the social inclusion and well-being of unaccompanied migrant youths.

Finally, we would like to highlight some recommendations for future research aiming to improve the well-being and health of unaccompanied youths in their coming of age. First, longitudinal studies with follow-up measurements need to be conducted in order to test the long-term effects of these mentoring programmes. In this work, we have identified significant effects of involvement in the programme on these young men's mental health and educational outcomes. However, future research is needed to determine whether these effects would continue, increase, or decrease over time, and whether mentoring relationships can last beyond the time stipulated by the programme. Secondly, future studies should aim to replicate the results obtained in this research in a larger sample of unaccompanied migrant youths, and to further disentangle the complexities of their support networks and the implications they have for their well-being and the construction of these young individuals' life trajectories. Finally, given that gender differences could not be explored in this research due to the absence of a necessary number of unaccompanied girls among the participants, there is also a pressing need to delve into the possible differential effects of social mentoring programmes among boys and girls.

We also consider that the findings from this research have relevant political and social implications for the social inclusion of unaccompanied youths. Our results speak to the lives of thousands of migrant youths who face the challenge of migrating to Europe on their own and lacking social support in this new context. Our findings suggest the benefits of mentoring programmes for their settlement, resilience, and well-being, and there is a pressing need to invest more public funding into fostering their social inclusion and a safer transition to adulthood. It is worth noticing that new approaches to youth mentoring (such as youth-initiated mentoring, mentioned earlier) are difficult to implement with unaccompanied youths due to the lack of pre-existing networks of support, family ties, or informal mentors in this new context. Thus, this research stresses that some approaches to mentoring, such as the one analysed, which also aims to increase the availability of caring adults for migrant youth, are critical and favour factors that promote well-being among unaccompanied migrant youths.

Moreover, it is also important to highlight that mentoring interventions also need to go hand in hand with structural changes on immigration policy in order to favour access to citizenship and avoid transitions to "illegality" when the youths officially become adults [5]. Further, interventions need to go beyond the provision of basic assistance and protection. It is necessary, as Chase [88] suggests, to offer these young people supportive relationships so that they can build their most immediate future based on fulfilling their capabilities and well-being.

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Article

A Qualitative Evaluation of a Mother and Child Center Providing Psychosocial Support to Newly Arrived Female Refugees in a Registration and Reception Center in Germany

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Abstract: Female refugees are frequently exposed to sexualized, gender-based violence and harassment before, during, and after their flight. Yet female refugee-specific care and protection needs are rarely addressed in host countries. This study aimed to evaluate a mother and child center (MUKI) for female refugees in a reception and registration center in Germany. In 2017, we conducted semi-structured qualitative interviews with 16 female refugees attending the MUKI and with its five main staff members. We asked the participants about the MUKI's relevance, encountered difficulties, and suggestions for improvement. The interviewees appreciated the MUKI's sheltered environment, care services, and socializing opportunities, as well as its women-only concept. Overall, the participants saw overexertion, social engagement-related difficulties, and the MUKI's noisy environment as key attendance barriers. Interviewed staff primarily reported problems regarding the working conditions, including the high staff and attendee turnover and low general service awareness. The participants advocated an expansion of the MUKI program. The MUKI project underlines that providing newly arrived, vulnerable female refugees with sheltered surroundings and psychosocial services is an essential step toward addressing female refugees' specific care needs.

Keywords: psychosocial health care; refugees; female; asylum seekers; protective shelter

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1. Introduction

1.1. Refugee Women

Some 70.8 million people worldwide were seeking safety and stability because of war, human rights violations, persecution, and economic hardship in late 2018 [1]. Estimates suggest that at least 48% are forcibly displaced women and girls [1]. This highly vulnerable refugee group is significantly affected by pre-, peri-, and post-migratory trauma and stress factors, leading to severe psychological burden [2]. Sexualized and gender-based violence are among the main reasons women and girls flee their home countries [3]. Forced marriage, family honor-related violence, genital mutilation, rape, and resistance to and or transgression of gender-discriminatory religious practices, cultural traditions, or legislation are just some examples of what females experience before and after armed conflicts [4–6]. During their flight, women and children are particularly vulnerable to sexual and other exploitation forms, including labor exploitation, trafficking, discrimination, and extortion [3,6–8]. A representative survey of 639 female refugees living in German shelters revealed that a significantly higher number of women from African countries had traveled to Germany alone than women fleeing from Syria, Afghanistan, and Iraq. Of these, 81% were accompanied by minors, 2.6% of whom had been born during flight [4].

In 2019, women accounted for 43% of all asylum applications in Germany, while 22% of all asylum applications were for young children under one year of age [9]. The European Union Directive (2013/33/EU; Chapter IV, Article 21) states that (unaccompanied) minors, pregnant women, and single parents with minors are the most vulnerable individuals among displaced populations. Many female refugees still experience discrimination and abuse, including sexual harassment and psychological or physical violence, in their host or destination countries [4,10]. Studies have shown that female refugees are more likely to experience psychological stress and have a higher risk of developing mental illness than male refugees [11–14]. Pregnant and postpartum refugees are also more likely to have high-risk pregnancies, abnormal neonatal birth parameters, and show more postpartum depression [15–17]. Female refugees often have limited health and psychosocial care access due to structural factors, stigmatization fears, low self-esteem, and shame [4,14]. Deacon and Sullivan [18] found that 42% of the refugee women preferred a female doctor in their sample. Although the need for gender-sensitive services and gender-specific access to health care is recognized, offers are still sparse [4,6].

1.2. Programs Addressing Specific Needs of Refugee Women

Internationally, some programs address refugee women's specific needs in their home or host countries. In 2019, Hammer et al. [19] released a review about nineteen programs worldwide addressing the needs of internally displaced and refugee women and girls: for example, The Citizen Charter Afghanistan Project is aimed at developing better infrastructures (clean water, electricity, roads, and irrigation), health care, and education to communities across Afghanistan as well as sensitizing communities to the challenges faced by women (e.g., gender-based violence). The Development Response to Displacement Impacts Project (DRDIP, Horn of Africa, and Kenya) and the Jordan Emergency Health Project were primarily concerned with psychoeducation and prevention of sexual abuse and gender-based violence. The Piloting Delivery of Justice Sector Services to Poor Jordanians and Refugees in Host Communities project developed and implemented training and awareness campaigns on women and children's needs. The IDP Living Standards and Livelihoods Project in Azerbaijan established women-only meetings to ensure their representation in community investment decisions [19]. The Hacettepe University Women's Research and Implementation Center has been operating a women's health counseling center in Turkey since 2015. It provides sexual and reproductive health care and family planning services, gender-based violence prevention offers, counseling, and leisure activities, such as yoga and language courses [20]. Khamphakdy-Brown et al. [21] introduced an empowerment program to prevent domestic violence, offering psychoeducation, workshops, home visits, counseling, and female shelters. Recently, Sabri et al. [22] published an article introducing a web-based application called 'weWomen', including risk assessments and safety planning for immigrant and refugee women facing intimate partner violence. Furthermore, the Utah Refugee Service Office offers refugee women workshops to increase their self-efficacy and management of their and their families' health [23]. In the Netherlands, refugee women can attend special bicycle workshops to improve their mobility, access, and skills and increase their social engagement [24].

Regarding refugee camp settings, the humanitarian aid organization Médecins Sans Frontières has established a mental health clinic for female survivors of sexual violence in a Ugandan refugee camp [25]. The provision of better living conditions, such as access to energy and security teams, has been identified as a critical factor in addressing sexual and gender-based violence in refugee camps in developing countries [26]. For example, the Kenyan refugee camp of Kakuma has implemented a gender program: security units monitor women's safety, and there are safe spaces for injured or vulnerable women [27]. They have also established educational programs, including scholarships and grants, and an all-girls boarding school. Empowerment assistance programs, human rights and gender issue workshops, sewing, cooking, knitting, nursing, and computer or electrical repair training courses are also offered [27]. In Cox's Bazar refugee camps, primarily

sheltering Rohingya refugees in Bangladesh, 52 safe access points and prevention programs, including engagement and empowerment interventions, have been set up for females [28]. Stark et al.'s review [29] of safe spaces programs for women and girls in the Democratic Republic of the Congo, Ethiopia, Uganda, Tanzania, Kenya, Bangladesh, and Pakistan found improvements in psychosocial well-being, social support, and attitudes toward rites of passage. Krause [30] highlights that flight can empower women by giving them more agency and choice. The women's sense of empowerment is fostered by confidence-building activities, which are often offered by humanitarian relief organizations.

1.3. Study Concept

While there are special programs and initiatives geared toward improving refugee women's safety and empowerment worldwide, the literature often describes shortfalls in addressing safety and gender needs in shelters or refugee camps leading to refugee women's disempowerment [30]. In Germany, separate housing units and sanitary facilities, or simply lockable rooms and showers, are virtually non-existent [31]. Schouler-Ocak and Kurmeyer [4] point out that female refugee accommodation conditions in the destination or host country facilitate discrimination and sexualized assaults and discourage female refugees from articulating their needs and difficulties. Shelters in centers for newly arrived refugees specifically designed to safeguard female refugees are an exception in Germany [31]. The German Red Cross, Rhine-Neckar/Heidelberg division, has operated a low-threshold, psychosocial care service for newly arrived pregnant refugees and female refugees with children in the Heidelberg-Kirchheim reception and registration center in Germany since 2016 to address this issue. The operated mother–child center (MUKI) is a female-only space offering women and their children a sheltered and friendly environment to socialize, find mutual support, and receive childcare offers. It aims to strengthen psychosocial resources and offers German language, knitting, and cooking classes as well as monthly community cooking evenings focusing on traditional dishes from different cultures. In addition, the MUKI has weekly consultations regarding asylum procedures and midwifery care. Opening Monday through Friday between ten and one p.m., the MUKI's services are open to all refugee women and their children.

This study aimed to evaluate the female refugees' and staff's experiences of the MUKI psychosocial care services for female refugees and their children. The interviews with the female refugees focused on (1) their motives for attending the MUKI, (2) factors impeding their attendance, and (3) their suggestions for improvement. Regarding the main staff members, we were particularly interested in (1) their views on the MUKI's relevance for the female refugees, (2) encountered difficulties, and (3) their suggestions for improvement.

2. Materials and Methods

2.1. Data Collection and Procedure

The cross-sectional study using semi-structured qualitative interviews took place in the reception and registration center Patrick-Henry-Village (PHV) in Heidelberg-Kirchheim, Baden-Württemberg, Germany. The PHV is a former US barracks converted into a reception and registration center for newly arrived refugees in 2015 [32] (for further information, see [32–35]). Between February and July 2017, we visited the MUKI and conducted semi-structured qualitative interviews with (1) the female refugees attending the MUKI and (2) the MUKI's main staff members. Our inclusion criteria were the age of 18 or older and the ability to give informed consent. We did not specify the total number of interviews in advance.

We recruited our interview partners by directly approaching refugee women attending MUKI onsite and asking them whether they were interested in our study. We made several visits to the MUKI during its opening hours to reach as many refugee women as possible within the study period. As for staff members, we focused on the MUKI's key staff members responsible for and best informed about the MUKI's services. True to the MUKI's women-only concept, all staff members were female. Interested refugee women and staff members

were informed about the study verbally and in writing. We told them that participation in our study was voluntary and, in the case of refugee women, would have no impact on their asylum procedure. We also informed them about anonymity and pseudonymization procedures, digital recording of the interview data, length of data storage, withdrawal from the study, and data security. Additionally, we told all participants that they did not have to answer a question if they did not wish to.

We contacted a PHV staff interpreter or a telephone interpreter through an interpreter service if the refugee could not converse in German or English. Interviewees were familiar with the PHV interpreter from previous translation occasions. However, the refugee women were still explicitly asked if they felt comfortable with her translating for them. Interpreters working in PHV must sign a confidentiality agreement before starting work at the center. If we used a telephone interpreter, we requested a female interpreter from an interpreter service we have been working with since 2016. The telephone interpreter also first introduced herself, and we then asked the interviewee if she felt comfortable working with her for the interview. Before the interviews, we sent the interview guidelines to the interpreters, and they also signed a confidentiality statement.

As the MUKI is an open plan space, we conducted the interviews in a quiet room located in a building nearby to ensure privacy. First, we collected data on sociodemographic details (age, religion, country of origin, social support, pre-, peri-, and post-migratory distress factors). The sociodemographic questions were available in German and English writing. The interpreter translated the questions for each additional language during the interviews. The interviewer and the interviewee recorded the answers together. Then, the interview was conducted. We approached the key MUKI staff members about our study during their shift. If they were willing to participate, we interviewed them after work. Again, we collected sociodemographic data (area of work, educational level, age, country of origin, history of flight) and then interviewed them. Two female scientific researchers employed at the Heidelberg University Hospital (IT, CDG) carried out recruitment and data collection. One of the scientific researchers has a medical background, and the other has psychological experience. Both were specially trained to conduct the interviews and were supervised by an experienced researcher familiar with qualitative research methods (CN). The interviewee's name was not mentioned throughout the interview to ensure anonymity.

2.2. Semi-Structured Interviews

We conducted semi-structured interviews with (1) the female refugees attending the MUKI and (2) the MUKI's main staff members. Our research team developed the semi-structured interview guidelines based on the idea of evaluating the MUKI as a low-threshold support offer for newly arrived refugee women and their children, with a particular focus on the attending refugee women's and staff members' perspectives. Methodological aspects of Helfferich [36] were followed. The semi-structured interviews, split into target groups (1) and (2), comprised key guiding questions followed by more detailed questions. Appendix A shows the two interview guidelines.

2.3. Quantitative and Qualitative Data Analysis

Demographic variables were calculated using descriptive statistics (frequencies, means, and standard deviations) using the SPSS statistics program [37]. The face-to-face interviews were digitally recorded and transcribed verbatim by research assistants using predefined transcription rules. Then, the transcripts were evaluated using the program MAXQDA [38] and analyzed thematically following Mayring's qualitative content analysis principles [39]. Before examining the textual material, we defined the content-analytical unit of analysis as every statement (single or multiple sentences) referring to one of our key questions. We removed double statements, and double coding was not possible. Then, we went through the transcribed interviews' textual material and identified a single or few sentences as codes, representing the most elemental unit of meaning [40]. These codes were labeled with a short term or sentence (coding) and summarized into a relevant category. Then, we

checked if other codes matched an already defined category or opened a new category. After analyzing 40% of the textual material (after six refugee women interviews/two staff member interviews), we revised the categories and the whole coding system concerning the previously defined categories' logic. After that, we completed the remaining textual material analysis and grouped the categories into main themes. Finally, the categories and main themes were discussed in detail in the research team and adjusted if necessary [39]. We analyzed the MUKI female refugees and staff interviews separately.

3. Results

3.1. Sample Description

We conducted semi-structured interviews with 16 female refugees and all five MUKI employees during the study period. Table 1 shows the sample description of female refugees who attended the MUKI and consented to be interviewed (Appendix B provides further sociodemographic details). The interviewed female refugees were between 18 and 64 years old (M = 31.1, SD = 13.32). Of the 16 women, 12 (75.0%) had children and 3 (18.8%) were pregnant. Two females (12.5%) did not complete the basic sociodemographic questionnaire. We interviewed in English with seven (43.75%) women. One woman (6.25%) was able to speak German, while female interpreters (n = 2 (12.5%) with a PHV staff interpreter, n = 6 (37.5%) with a telephone interpreter) helped us interview eight women (50%). At the time of the interview, the majority of the female refugees had attended the MUKI on more than four occasions (n = 9; 56.25%); five women (31.25%) had come to the MUKI between two and four times, and two women (12.50%) had visited the MUKI for the first time. Most of the female refugees had first heard of the MUKI's services from other refugees in the PHV (n = 9; 56.25%). Four women (25%) stated that the "German Caritas Association" (a registered charity) had referred them, while one woman (6.25%) had heard about the service by chance. Two women (12.50%) did not provide information on how they had heard about the MUKI's service.

Table 1. Sample description of interviewed female refugees attending the MUKI (N = 16).

Female Refugees Attending the MUKI (N = 16)		
Region of Origin [a]	***n***	**%**
Sub-Saharan Africa	3	28.8%
Middle East	6	37.6%
South Asia	3	28.8%
South-Eastern Europe	2	12.5%
Not specified	2	12.5%
Religion		
Christian	6	37.5%
Islamic	4	25.0%
Not specified	6	37.5%
Social support [b]		
None	5	31.3%
Partner/husband	6	37.5%
Children	8	50.0%
Parents/siblings	4	25.0%
Friends	2	12.5%

[a] = Sub-Saharan Africa includes interviewed refugees from Cameroon and Eritrea; the category Middle East includes interviewed women from Syria, Iran, and Palestine; the category South Asia includes interviewed women from Sir Lanka and Pakistan; the category South-East Europe includes interviewed women from Albania and Macedonia. [b] = Multiple answers were possible.

Additionally, we interviewed all five MUKI main staff members who were between 18 and 41 years old (M = 31.7, SD = 11.30) and all women. Table 2 shows their sociodemographic characteristics. Four (80%) were German Red Cross employees; one woman specialized in asylum and procedural counseling. One woman (20%) was a qualified

midwife volunteering at the MUKI. The employees described providing counselling (n = 5; 100%), teaching German (n = 1, 20%), language assistance (n = 1, 20%), and generally supporting the female refugees (n = 4, 80%) as part of their MUKI work.

Table 2. Sociodemographic sample description of the MUKI staff (N = 5).

MUKI Main Staff Members (N = 5)	n	%
Home country		
Germany	4	80.0%
Iran	1	20.0%
History of flight		
No	5	100%
Yes	0	0.0%
Educational level		
Abitur [a]	1	20.0%
University degree	4	80.0%

[a] = In Germany, the Abitur is a valid school certificate for admission to any university-level study or vocational training program.

3.2. Results of the Qualitative Interviews with Female Refugees Attending the MUKI

Two hundred forty individual statements were coded; then, they were grouped into ten categories and summarized into four main themes. In the following paragraphs, we will describe the main themes and categories, showing the respective number of codes in parentheses and exemplarily quotations from the interviews. We have marked text passages with * where an interpreter assisted in the interviews.

3.2.1. MUKI Attendance Motives (172)

This central theme included the interviewees' statements about their respective motives for attending MUKI.

The MUKI's Services (83)

The interviewees greatly appreciated all the MUKI's services but saw the German language classes as the most important offer. One interviewee stated: T*hey teach you anything; you can learn anything. You can learn even to, to knit. I cannot, I have not learned it before, but I see some other women doing it. And they teach you always how to behave to people, how to talk. And this is better. And we come here to learn the German language, that's why we are here. And I especially, I love the language. I love to learn the language* (2302AB/23). Many interviewees told us that learning German and getting to know German culture and customs in general was very important to them. One woman told us: *Our culture is taken into account. For example, we had had a celebration, and they brought halal food. And I think that's good because they also take us into consideration. So as a Muslim and as an Arab** (3001FF/12). The interviews also highlighted that the offered childcare was a great relief. They also appreciated that their children could play outside their usual cramped sleeping and living areas and had access to clean toys and a friendly, welcoming environment. One interviewee highlighted: *The atmosphere is good and it is a good idea for the children. All day long, they stay in the rooms, little rooms. And they don't have so many things there. They don't have a TV or a cuddly toy. That is why, I think it is good. Here, they can play together because they don't go to school. They don't go to school, I think so. And they don't know how to get in contact with other children** (2303BB/21). The interviewed women also cherished being able to reach out to the MUKI staff and felt the MUKI provided them with a stable point of contact.

Socializing with Other Female Refugees (58)

Contact with peers was cited as a significant motive for attending MUKI. They felt that they were able to exchange experiences, reduce prejudices, and create mutual distractions there. One woman pointed out: *That there are so many people from different countries, this made me stronger; if I met different cultures or different nationalities, I would have said, in the beginning,*

*that I don't know how they think or behave. So, outside, I now can start talking; that is not a problem for me anymore because I made the experience in here that all are nice** (3002FF/14). Furthermore, interviewees described feeling a sense of community. An interviewee answered: *It is calming and relaxing to get outside and let the kids play with each other. You have somebody who listens to you in an atmosphere without pressure. For sure, topics like asylum application arise, and we give each other help** (2304CC/37). Above all, they underlined that the MUKI facilitated cultural exchange, acceptance of different religions, and cultural backgrounds and fostered respectful interactions. One refugee woman said: *All, yes, all, with all nationality. There is something amazing to meet people from other countries. To see sometimes talking about traditions, sometimes talking about what they are thinking about. It's beautiful. I like them all* (1954AA/26).

Friendly Sheltered Atmosphere (31)

Interviewees valued the MUKI as a friendly environment and felt that the MUKI's welcoming atmosphere contrasted strongly to their sparsely furnished accommodations. One woman described: *Everything is just relaxed. Everybody is looking happy. So, another world, I think. [..] For, for a moment, I forgot totally I'm in the camp* (1711FN/57). They said that they felt more relaxed and calmer when they attended the MUKI and that the sheltered space fostered a sense of security. One interviewed woman noted that she was able to find "inner peace" there. Another woman explained: *I am so, so happy about the MUKI. There, I can relax my soul. If it did not exist, I would have gotten crazy** (3002FF/18).

3.2.2. Factors Impeding Attendance (12)

The interviewed female refugees named intrapersonal and interpersonal difficulties in attending the MUKI.

Intrapersonal Factors (5)

A few interviewed women said they felt overwhelmed during their first visit because no one had introduced them to the MUKI services and premises. *I did not know where to start. Yes, I think that's one thing; I don't know how they can fix. [..]. So, I was just lost* (1711FN/29). Other women reported that the MUKI's services could only provide short-lived distraction and comfort from their troubles. One interviewee stated: *During the time I attend the MUKI, I forget about my problems. But as soon as I leave, all the problems come back, for instance, about my sick son and that she is threatened by deportation to another country** (2304LL/21). Some pointed out that they sometimes had difficulties finding the energy to come after not sleeping because their children had cried all night.

Interpersonal Factors (7)

Some women reported that new female refugees were sometimes deterred by the noise and presence of so many women in the MUKI's limited space. One female said: *I would put the children in here or another room, separated room because I want to and I like to concentrate on the teacher without hearing noise* (1954AA/55). Furthermore, one woman stated that she had not felt included by the other women during her first visit and found it challenging to engage with them. She said: *The first time I came, it was not very easy because I was alone, nobody to talk to. Everybody really is talking* (1711FN/25). In addition, she added that children of all age groups played together in the same room due to the limited available space, which could sometimes feel too crowded and noisy for some women looking for a retreat.

3.2.3. Suggestions for Improvement (25)

In the interview, the female refugees made several suggestions on how the MUKI's services could be improved, including offering more services and fostering the women's sense of community.

Expansion of the MUKI's Services (18)

Most of the interviewed female refugees would like to see an expansion of the MUKI's services. They especially asked for more, ideally daily, German classes. One refugee woman explained: *If they learn us if they would give us another two hours of learning, I would be really happy. They give a learning from 10 to 12. Very intensive information, very useful. Another two hours. I like learning* (1954AA//75). They also hoped for additional German lessons for children, more experienced German teachers, and more interactive lessons. They also expressed their desire for more leisure and education materials, particularly CDs, films, books, and musical instruments. *I don't know if they have, maybe, books. Because someone like me, I like poetry. As maybe some books to read. Maybe in English* (1711FN/87). One woman specifically hoped for longer MUKI opening hours. Some of the women desired a separate children's playroom and more support offers for their children. One interviewee pointed out: *There are some children who are aggressive. They come from war regions, and what did they see? Only war and blood. I think it would be better if a woman could help them** (2303BB/34).

Strengthening the Sense of Community (7)

The women made specific statements concerning possible ways to improve the MUKI women's sense of community. They suggested that their cohesion might increase through regular joint activities, games, or simply tidying up together at the end of the day. One woman said: *Maybe they organize some games, people play. Not just toys. We can organize small competitions, small presentations. What do you think? Because I check somewhere at another office and so I saw the right conferences and stuff. We can make our little presentations here* (1711FN/92). She further stated that women might enjoy holding short, informative presentations on various topics, such as their cultural or culinary background, for each other.

3.2.4. MUKI as a Women-Only Space (31)

Most female refugees welcomed the MUKI's male-free concept, but it also led to some concerns.

Facilitating Open Engagement (16)

Most women supported the MUKI's women-only concept and reported being able to engage more freely and open-mindedly with each other in a safe, male-free environment. An interviewee answered: *We can do everything that we want. If we were men here, we cannot do it, I think. To speak about everything, to talk, to do something. Because I am, for myself, I am afraid about other people. I am a closed woman. It is better that it's only women* (2401AA/55). One woman said she felt it was sheltered enough for her to take off her headscarf, while another noted that she could breastfeed openly at the MUKI without being censored or sexualized. One interviewee stated: *I think it is a very good atmosphere because you come together and for a short time, you can leave your problems behind. I personally do not have any problem with men. But I think it is easier if there are no men because women with each other can have fun, can laugh, and can share their problems. If men would be around, the females would be shier than now** (2304LL/19).

Feeling Safe (8)

Many women reported feeling sheltered and secure in the MUKI's male-free environment. One woman said that she feared men in general, while two other women stated that they felt nervous and insecure in the presence of men. One commented: *I think that's good because then I can move around here easily. And also sit down in a very relaxed way** (2307EE/14). Furthermore, the women remarked to experience interpersonal difficulties with men generally. One interviewee mentioned that during the German class: *If men are there, I don't ask anything because I am nervous. This house is free. All are women, no nervousness, and free talk* (1801AM/47).

Concerns (7)

The MUKI women-only concept also led to some concerns. The women said that male-female segregation was not common in Germany and felt that it might help them interact with men in a mixed environment. A refugee woman pointed out: *For me, the most important is the German class. Therefore, for me, it does not matter if men are around who want to learn the language as well because, without language, you don't have a future. It would be mixed, as in school or university, that's why I would not mind if men were present** (2305DD/51). Some women also felt that a similar program for men would benefit male refugees to experience community and support. On statement was: *Men should have the same like this, only for men. And they must have been told, for instance, that their wives have to have contact with men while going to school, studying something. They have to understand that in Germany it is different. Yes, it is so important that men understand this** (2303BB/27).

3.3. Results of the Qualitative Interviews with MUKI Staff

We coded one hundred sixty-seven individual statements and then grouped them into seven categories and subsequently summarized these into three main themes. We again describe the main themes and categories in the following paragraphs illustrated with quotations translated from German to English. The respective number of codes is shown in parentheses.

3.3.1. The MUKI's Relevant Features (93)

The staff identified key MUKI features that they believed made attending the MUKI project particularly attractive to the refugee women.

The MUKI's Atmosphere (30)

The MUKI staff explained that the MUKI exerted a calming and relaxing effect on the women. One staff member pointed out: 'I think the atmosphere is important. Everybody is welcome. Everybody can talk to each other. Sometimes there is a German language course. But even if there is no German language course, there is still a lot going on here. They feel very comfortable here. It's a change from staying in their room, a change of scenery' (2002CR/53). They highlighted how they could see that the women benefited from the MUKI's friendly atmosphere in which they experienced a sense of acceptance and inclusion. Furthermore, one staff member stated: 'I had trauma training. And there, we were told that it is essential for individuals with forced migration experiences to maintain their independence and feel that they have something under their control. I think that this can be encouraged here with the German classes and crafting. The women feel less passive but can be active. I think this also helps them with their integration process if they can learn some German and engage with others' (0506CS/51). Interviewed staff members emphasized that the MUKI's women-only policy helped the refugee women feel comfortable and more at home there. One staff member said that she felt that the women were invigorated after attending the MUKI: 'Here, the atmosphere is open and relaxed. The women can be themselves, can contribute. They don't have to ask or come as petitioner; we do everything together here' (0506CS/59).

The MUKI's Services (36)

The staff felt that the MUKI's services provided the women with somewhere to go and something to do. One interviewee stated: 'Every Friday, there is an offer where a lady brings many very nice craft supplies and crafts and paints with the refugee women. This keeps them busy and takes their mind off things. We always have sheets and pens here which the women and children can use. And books and booklets they can read. Especially, children's books need to be on the bookshelf. Once, a woman asked me if she can read to me to practice her German' (0407ZW/33). The staff members felt that the MUKI provided the refugee women with distraction from their everyday worries, problems, and burdening thoughts, while the services also improved their sense of self-efficacy and control despite

their difficult situation. One interviewee stated: 'Yesterday, there was a celebration and the place was packed. I think there were more than 35 women here. This was a real highlight because they can enjoy eating something else, too. And it is something special; you can forget everything. They danced to the music; there was this feeling that no problems existed here—it was as if they were back home, in their country' (0506CS/38). The staff felt that the MUKI enabled the women to practice their "soft" skills, including openness and sociability, after experiencing much hostility during their flight. Additionally, the staff pointed out that the MUKI's fixed opening hours helped maintain a daily routine. The provided childcare services also enabled the women to recuperate and engage: 'The women don't have to leave their children somewhere. They can take them along. I think that this is very important for the women' (2002CR/63).

Socializing with Other Female Refugees (27)

The staff felt that the interaction and sense of community between the refugee women across all cultural and religious backgrounds was an essential experience for the women: *I think they are more confident in engaging with other women. And that they have friends to meet with—it is an important development that they understand that they can approach others and talk to others. That they can approach us and create the first contact with Germans and with other women. That is so nourishing* (0407ZW/51). They described how if the refugees did not speak the same language, they would exchange the information nonverbally. They also mentioned women supporting each other in learning German or showing each other different headscarf tying techniques. One statement was: *They teach each other German. This is impressive to see. It does not matter from which country they are; if one is better than the other, she teaches the other. That is amazing. And it really goes across cultural barriers* (0407ZW/33).

3.3.2. Factors Impeding Work at the MUKI (52)

This central theme summarizes staff statements regarding experienced difficulties while working at MUKI.

Individual Difficulties (13)

The staff described their work at MUKI as stressful and exhausting. Many felt very responsible for the refugee women and found it challenging to keep their professional distance, sometimes feeling too emotionally entangled with their stories. One staff interviewee mentioned: *It is tough hearing the stories. For instance, if you hear that they have not seen their families for five months and that they are very sad about that, it really hurts me. You have to watch out for yourself. And that's the attitude I come here with because, I know, that it is very close to my heart and I have to be careful* (0407ZW/61). *I have been working with refugees for a year now. In the beginning, it was tough for me to keep some professional distance. But now, I think, I have to take care of myself because if I don't, then I won't be able to do a good job anymore* (2002CR/155). The MUKI's counseling services, which include asylum and procedural counseling, were so popular that the staff reported often working nonstop to ensure that all women received the help they needed. One interviewee stated: *It would be so nice to create more projects for the women. [. . .] But you just can't manage it when you are working here and have to take care of everything: little activities, little pleasures. I would really like to include more, but it is hard. We are already overburdened as it is* (0407ZW). Staff also reported that it was difficult for them to keep track of so many refugee women attending MUKI.

Interactional Difficulties with the Refugee Women (12)

The MUKI staff described having trouble engaging with some attendees, especially when they perceived the women as very demanding and impatient toward them. One statement was: *I have the feeling that since the expedite asylum procedure started, the individuals are more demanding, impatient, and sometimes more aggressive* (2002CR/125). One staff member said: *In the beginning, I was always very cautious with touching the refugee women. And I always asked—I still do this. And then, there was this one lady who really shouted at me: You are the*

doctor. Just do your job and don't ask me all the time (2709BTr/65). They also reported that they had to deal with territorial behavior among the women. On one occasion, a group of refugee women had attempted to take over the MUKI, preventing other potential MUKI attendees from coming in. For instance, one staff member told us: *Once, there was a strong group of women. They were a quite dominant unit. [. . .]. I defended another woman who the women wanted to send away because she had been too loud with their children. The group of women wanted to create a calm place and place to sleep. And the woman with her children was attacked. [. . .] And of course, I stood by this one woman, and then it really escalated* (2002CR/99).

General Conditions (27)

The staff remarked that available information regarding the PHV's psychosocial services was not disseminated enough and thought it was unfortunate that not all women were informed about the MUKI's services. Furthermore, they critically noted that turnover was high in both refugee women and MUKI staff. One staff member stated: *When the women leave, they leave with positive experiences. Others may not yet know exactly what MUKI is. To advertise the MUKI, we offer group meals or parties. Some women have been transferred again. So, we have lost a few experienced women again. Sometimes that's a bit of a shame, but that's the way it is* (0506CS/67). In addition, they pointed out that the children made the MUKI a noisy environment to work and be in. One staff member added the following regarding the female-only environment: *I am conflicted somehow. There are great facilities for women, but I also see different offers for refugee females and unaccompanied refugee minors, and the men are always forgotten. [. . .]. I think that the slogan 'this is only for women' sends out the wrong message—as if all refugee men were criminals* (2002CR/171).

3.3.3. Suggestions for Improvement (22)

The employees made several suggestions for improvement, which were mainly related to conceptual aspects. All staff members advocated extending the MUKI's opening hours, holding more German lessons, and expanding the MUKI's services in general. One woman pointed out: *We hope we will get a few more co-workers soon so we can open again in the afternoon. We could then have activities in the mornings and offer quiet recreational times in the afternoons* (0506CS/65). To address the MUKI's noise level, the employees suggested introducing rest periods during the opening hours. Generally, the staff said they would like to see a broader range of offers for women and men outside MUKI. One woman stated: *Of course, the optimum would be more German classes. But then, quiet days would be unthinkable inside the MUKI. I think that the women would also appreciate it if they could do something else here, too. And of course, extend the opening hours, but that is not possible right now because of low staff resources. I also think it would be good if we had a kind of terrace where you could sit outside together in summer* (2002CR/67).

4. Discussion

This study aimed to evaluate a mother–child center (MUKI) providing psychosocial support to newly arrived female refugees in a registration and reception center from the attending female refugees' and MUKI staff members' perspectives. Our results suggest that the MUKI has the potential to establish itself as an important women's hub in the reception and registration center. The interviewed female refugees appreciated the MUKI's psychosocial services and sheltered environment. The interviewees generally reported few attendance barriers, which were primarily related to intra- and inter-individual issues. The staff mainly reported difficulties regarding the MUKI's general working conditions, including insufficient awareness of the provided services and a high turnover of staff and attendees. Interviewees and staff alike were in favor of expanding the MUKI's program.

The refugee women's statements showed that the MUKI's diverse offer, the exchange with others and the welcoming atmosphere motivated them to attend. The interviewees particularly valued the German classes. Deacon and Sullivan [18] highlight that host country language skills can facilitate refugees' successful adjustment. However, as refugee

women often have less formal education and weaker foreign language skills, they tend to have more adjustment difficulties. In their study, refugee women stated that inadequate language skills hindered them from forming social networks, reaching out for help, and accessing essential resources [18]. Teaching refugee women language skills and providing low-threshold services can promote their community participation and help them develop agency and empowerment. The interviewees' comments show that MUKI fostered the women's self-efficacy on an inter- and intra-individual level: the women frequently voiced feelings of social acceptance and mutual respect and a sense of security safety in connection with their experiences of the MUKI. Considering the women's harrowing gender-specific reasons for and experiences during flight [3–6], creating a setting such as this is a first step in providing women with the necessary foundation for stabilization and emotional distancing from an experienced trauma. Women's programs are critical. They offer at-risk groups a safe starting point for healing without coercion to self-disclose or shame. The experience of positive emotions and community are protective and stabilizing factors for refugee women [41,42]. Moreover, positive social interaction and acceptance are crucial mental health resources and are known coping strategies for dealing with challenges and acculturation difficulties [43,44]. Across cultures and populations, a sense of community has been identified as an essential resource promoting a collective sense of coherence that supports mental well-being and life adjustment [45].

Although the interviewed female refugees experienced the MUKI as a low-threshold support offer, overexertion, social engagement-related difficulties or fears, and its generally high noise level were seen as key attendance barriers. Intrapersonal factors, particularly anxiety, impede care access [46], and newly arrived refugees are often unfamiliar with the host country's support services. Some of our interviewees stated that they felt overwhelmed when they first attend the MUKI. A peer or staff mentoring program could help take down this barrier. Designating an experienced staff member or long-time attendee as a point of contact may make it easier for women during their first visits to the MUKI. Mentors could make new attendees feel more welcome by showing them around and explaining the available offers. A welcoming ritual (e.g., a weekly greeting session) might also help women get to know each other and socialize more quickly despite the high turnover.

All the interviewees felt that the MUKI's noisy environment was a deterring factor. They suggested the introduction of daily rest times to address this issue. Unfortunately, the MUKI's high noise level is difficult to control because its large, open-plan layout is used by many people for different purposes simultaneously. In light of the interviewees' appreciation and need for the service, it would be great to expand the MUKI's premises and offers with sufficient funding. However, the PHV is located in former military barracks, which were not built to accommodate refugees. The refugees' difficult living situations are well documented: the accommodation's general condition is poor, the noise level is high, and privacy is hard to find in the shared rooms and showers [47,48]. Furthermore, the structural barriers to medical and psychosocial services are also known [49].

While the women appreciated the MUKI as a safe space, they highlighted that it could not help them with their severe long-term concerns. Post-migratory stressors and their effects on refugees' psychological stability, especially refugee women, have been demonstrated in previous studies [14,50]. The MUKI is a low-dose, low-threshold support offer providing refugee women with a safe space to socialize, advance their skills, and maintain a daily routine (e.g., German language or knitting classes). It also offers midwifery assistance and asylum counseling to address some post-migratory needs. At the very least, it gives the refugee women some distraction from their otherwise very monotonous days at the PHV and long-term worries. However, it cannot change post-migratory stressors, such as residency, family reunification, or provide trauma therapy.

The interviewed women emphasized that they had benefited from the MUKI women-only space. It had enabled them to interact more openly and experience feelings of freedom, ease, and safety. The women saw the MUKI as a space for personal growth and healing after their traumatic flight and personal history. Our results corroborate previous calls

for more gender-sensitive services and gender-specific access to care [4,6]. Nevertheless, Kraus [30] warns against women's stigmatization as victims and assigning them a per se vulnerable position and inferior social status. She pointed out that refugee women's empowerment in social contexts requires both men and women to renegotiate and redefine their roles, identities, and relations [30].

Interestingly, some of the interviewed female refugees expressed reservations about the MUKI's male-free concept. While safe spaces are necessary and valuable to increasing well-being and addressing gender-specific needs, the idea systematically excludes men. Some interviewed women noted that a male-free space was unfair toward refugee men, potentially stigmatizing, and unrepresentative German culture. This may be true; however, refugee women are still at risk for gender-specific violence despite resettlement. Bartolomei et al. [51] showed that resettled refugee females in Australia faced discrimination for being single or having an illegitimate child, forced marriage, domestic violence, and engagement in survival sex. The need for gender-sensitive shelters and psychosocial services for newly arrived pregnant and refugee women, such as the MUKI, is great. Despite limited funding, it would be good to have a similar program for men in the PHV addressing gender issues and promoting equality between female and male refugees. Organized cross-gender and nationality community meetings could improve morale and well-being as well as relieve tensions.

The refugee women had specific ideas about what they wanted to change concerning the MUKI concept. They wanted to see an increase in the number of courses, the provision of more materials, and, more specifically, more joint activities to strengthen their sense of community. The women's ideas reflect their high regard for the MUKI. Olivius [52] stated that the refugees' participation in refugee camps could improve protection and assistance and foster self-reliance. For the refugee women, giving us feedback as quasi-representatives of their host country could also have a participatory aspect in the sense of "being heard" or "having a voice". Kreitzer [53] asked refugee women about their perceived barriers in engaging in program planning in refugee camps. The assessed women frequently gave the lack of childcare as their main reason for non-engagement. In our study, the women asked for more courses and materials specifically for children and, above all, for more support for children in need. Although children are have been recognized as highly vulnerable group among refugees and child-oriented services are extremely sought after, current literature has documented a great lack of offers to date [54]. Bronstein et al. [55] summarize that refugee children experience high psychological distress, with prevalence rates for PTSD ranged from 19 to 54% and depression ranging from 3 to 30% in their review. Internalizing and externalizing problems were frequently found [55]. In refugee camps, adequate toys or other child resources are often sparse. Refugee children must often shoulder responsibility early on, are very closely attached to their parents, and often have limited peer contact. From a psycho-developmental perspective, providing refugee minors with a safe, clean, and pleasant environment to be and play as the children is an essential step on their long road to healing [55].

Regarding the relevant factors motivating MUKI attendance, interviewed MUKI staff members' statements were consistent with the refugee women's descriptions. This suggests that the staff members could convey the MUKI's gender-sensitive and culturally adapted offers and conceptual relevance and that the refugees could appreciate this. Therefore, the staff members need to have a culturally sensitive attitude and communication skills. According to Brooks et al. [56], cultural sensitivity 'requires an awareness of cultural diversity, including how culture may influence patients' values, beliefs, and attitudes, and involves acknowledging and respecting individual differences' (page 384). Recently, different health researchers have focused much attention on evaluating and improving cultural sensitivity in communication, including healthcare in general [56], outpatient psychotherapy [57,58], and nursing care [59].

The staff members mentioned few concerns regarding the women-only concept. Yet, the MUKI's safe space for women can also be seen as disadvantageous: Women and men

forfeit the chance to socialize in a sheltered, supervised environment preparing them for German culture. However, male-free areas, such as women-only sports, educational programs, and (international) women's cafés, are also common in Germany. The MUKI's concept aims to strengthen refugee women's resources shortly after they arrive in the host country. Nesterko and Glaesmer [60] note that it is almost impossible for newly arrived refugees and refugees waiting for a decision on their asylum procedure to fully structurally and internally 'arrive' in their host country in light of the many uncertainties. They also point out the refugees' rupture in their relationship with their home country and thus identity. A successful acculturation process always includes participation in both the country of origin and the host country's culture [60]. Understandably, the greater the cultural distance between the host and home country, the more significant the perceived migratory burden [58]. In this respect, you could say that the MUKI provided the interviewees with a feeling of familiarity and offered them an interim cultural 'home'. The MUKI's protected environment allows women from more restrictive, gender-segregated countries in particular to enjoy more freedom and open interaction.

Concerning work-related difficulties, the MUKI's staff members described their work as strenuous and stressful. They emphasized their high workload, the high turnover of staff and attendees, and the female refuges' great need for support. Many employees reported a strong sense of responsibility for the refugee women. At times, they felt emotionality enmeshed and had difficulties in keeping their professional distance. The concept of secondary traumatic stress and burn-out has gained importance in literature and clinical care in recent years. The Diagnostic and Statistical Manual of Mental Disorders Fifth Edition (DSM-5 [61]) has recognized secondary traumatic stress's impact. Depending on the profession, the prevalence rates for secondary traumatic stress and burn-out are heterogeneous: While PTSD (17.1%) and burn-out (57%) symptoms were high in Greek rescue workers [62], nurses working in a regional trauma center in South Korea showed levels of secondary stress symptoms around 84.4% [63]. In the United States, up to 30% of refugee caregivers exhibited high secondary traumatic stress levels [64]. In contrast, medical students volunteering in a reception center for refugees (3.2%) [65] and humanitarian aid workers in Jordan report low secondary traumatic stress levels (4% burn-out, 7% secondary traumatic stress) [66]. Similarly, Akinsulure-Smith et al. [67] pointed out that passive coping strategies, including general distraction, venting, substance use, behavioral disengagement, or self-blame, were associated to higher secondary traumatic stress and burn-out risk. In contrast, self-efficacy [68], personal commitment, organizational support [69], emotional intelligence, use of active coping, emotional coping, and positive reframing [67] are established protective factors. Wirth et al. [70] uncovered the high workload and caseload of social workers working with refugees and homeless people and recommended increasing the number of professionals and decreasing their caseloads. The authors point out that frustration increased when the employee felt unable to care for clients adequately [70]. As most interview statements referred to difficulties related to the general working conditions, more efforts are needed to improve the MUKI's employees' working conditions. The employees' suggestions, such as extending opening hours, employing more staff, and introducing set rest periods, may help address the noise level and high workload. Isawi and Post [68] highlighted the need for supervision, training, and self-care practice, such as meditation, mindfulness, physical exercise, and social support in taxing working environments.

5. Implications and Future Directions

Our results suggest several implications and future directions: The MUKI offers a low-threshold, low-dose, women-only environment in which female refugees' gender-specific needs can be addressed. It has great potential in further establishing itself as an information hub and psychoeducation center facilitating cultural exchange and increasing self-empowerment. Women-specific offers have been shown to improve access to care structures and increase women refugees' integration and participation. Policymakers and relief orga-

nizations responsible for registration and reception centers should consider implementing nationwide MUKI programs for refugee women and children. As discussed above, there are projects worldwide addressing refugee women's needs. Nevertheless, more (shelter) programs are needed for refugee women who have faced/are facing trafficking, gender-based violence, and harassment. In cooperation with the German Interior Ministry, programs are currently being developed to identify trafficked women via screening tools and promote referral to counseling services and therapist, social worker, and lawyer networks.

Moving forward, refugee women attending the MUKI should be more involved in planning and implementing activities: First, the MUKI's opening hours should be extended. This would allow the women to creatively organize their time and ideas, such as talking about cultural issues and showcasing skills. Second, additional group offers or competitive games should be introduced. This could strengthen the overall sense of community, encourage self-empowerment, and foster intercultural exchange. Third, more experienced MUKI attendees (frequent attenders) should have the opportunity to take on more responsibilities in the MUKI and develop their sense of self-efficacy. Attendees should be encouraged to raise awareness for the MUKI's services and to mentor new attendees. Resident refugees can apply for work placements in the PHV, which include working in the gym, serving food, or keeping the premises clean. Consideration should be given to whether such a position could also be created for the MUKI. Fourth, more psychoeducational offers (e.g., lectures, workshops) covering German culture, (mental) health literacy, contraception, communication skills, women's and girls' rights, and equality should be introduced. This could lead to a better understanding of life in Germany and help prevent gender-based violence and provide early access to (mental) health care if needed. In addition to psychoeducational sessions, weekly focus groups could strengthen the sense of community among the attending refugee women. It would be interesting to follow-up if the focus groups could also continue online after redistribution to different shelters to build more lasting relationships between the women.

The interviewed staff members also advocated expanding the MUKI offers and opening hours, and introducing rest periods. Given the heavy workload of MUKI staff, serious consideration should be given to including or employing refugee women as staff in a supporting role. That said, the MUKI still requires qualified and long-term employees to shoulder the workload and opening hours. More funding is needed for MUKI to improve working conditions and implement new conceptual ideas.

On an organizational level, it may help if staff members and interested refugee women received workshops to reinforce culturally sensitive communication and self-care workshops, such as mindfulness and meditation training. In addition, psychoeducation on secondary traumatic stress, burn-out, and compassion fatigue should be addressed. To our knowledge, MUKI staff members already receive regular supervision. However, considering their work with highly traumatized individuals, further staff support offers should be established. Challenges, such as language barriers and rapid transferal to other locations, must not be overlooked.

Future qualitative and quantitative research should examine self-empowerment, sense of (community) coherence, and effects of psychoeducation among refugee women attending MUKI more closely. It would also be interesting to investigate secondary traumatic stress, culturally sensitive communication skills, work-related self-efficacy, and MUKI staff profiles.

6. Limitations

This qualitative study has limitations that need to be addressed: Firstly, we cannot rule out social desirability-related response biases during the interviews. Secondly, we only assessed the perspective of refugee women who had attended the MUKI. Women who might have considered attending but did not were not interviewed. Unfortunately, we did not record how many refugee women declined participation and why. We estimate that approximately 70% of the women we approached participated in our study, but we cannot

specify a drop-out rate. In the case of MUKI staff, we focused on the key employees. We felt that their intimate experience of the service would provide comprehensive insight. We did not include temporary MUKI workers in the study. Third, the number of interviewees in our study is small (16 refugee women and five staff members). We did not pre-set the number of MUKI interviews for the following reasons: (a) this was the first study we conducted there; accordingly, we did not know how many refugee women would be willing to participate in our survey at the outset; (b) the MUKI is a drop-in center open to all refugee women and their children. Rapid reassignments to other shelters leads to fluctuating attendance and poor predictability are characteristic of all PHV-based services. That said, qualitative research aims to capture the participants' perspectives by systematically analyzing the collected narratives. Often, the concept of data saturation, referring to the point when no new information is discovered in data analysis in the research process, is used to provide insight into the quality of the categories and major themes identified during the analysis. While different recommendations regarding the sample size of interviews exist (range from six to 50 interviews), Hagaman and Wutich [71] note that saturation of the most common themes should be reached within 16 interviews. In relatively homogeneous groups on focused topics, 13–31 interviews might be required to identify significant themes. Following these recommendations, our study's sample size of refugee women attending the MUKI was sufficient to achieve data saturation. Furthermore, we conducted five interviews with the key MUKI staff members. Although the total number of staff member interviews is small, we interviewed all primary employees. Nevertheless, the interviews' validity may be limited by the small sample sizes in both groups. We cannot rule out a biased representation of the MUKI's acceptance. Fourth, the interviews were conducted in 2017. However, the MUKI concept described in this study is still up to date. Before the COVID pandemic, no fundamental changes were made to the services provided by MUKI. Since the onset of COVID in early 2020, MUKI services have had to be significantly reduced, and participation has been curtailed in line with severe public and private life restrictions implemented nationwide. The confined living conditions are highly conducive to coronavirus infection in the shelter. Although urgently needed, all projects operating within the center can only be carried out with restraint, under great caution, and in compliance with the regulations and hygiene standards in force. However, especially in times of COVID, safe spaces for refugee women and their children remain crucial. Fifth, due to the setting inherent high turnover of refugee women in the PHV reception and registration center, no attention was paid to heterogeneous distributions of age, education level, and country of origin when selecting interview partners. While we focused on the experience of the MUKI as a low-threshold psychosocial service for pregnant refugees and refugees with children, we did not assess possible cultural differences, which might have affected the responses of the refugee interviewees. However, we did not know which refugee women would attend the MUKI and participate in the study and did not select the interviewees according to their cultural background

7. Conclusions

Female refugees are frequently exposed to gender-specific dangers before, during, and after their flight while often carrying the sole responsibility for their accompanying children. Their specific care needs are rarely addressed in their destination or host country shelters. Our data suggests that the MUKI has established itself as an important hub for newly arrived female refugees and their children by providing psychosocial care and a sheltered environment. Our findings show that refugee women appreciated the MUKI's offers, including German classes, childcare, leisure activities, and socializing in a welcoming atmosphere. The majority of the refugee women valued the MUKI's women-only concept enabling them to feel free and safe. The interviewed refugee women were also eager to participate in the planning and implementation of future MUKI offers. Data have shown that addressing gender-specific needs can help refugee women in their empowerment, self-efficacy, and personal growth.

In the future, the MUKI needs to address attendance barriers and take the attendees' ideas into account. Establishing a mentoring or buddy system (refugee to refugee) and expanding MUKI opening hours could be critical next steps. Policy efforts to introduce the MUKI concept as a gender-specific care program for vulnerable refugee groups in registration and reception centers at a national level are ongoing in Germany. Future services should include psychoeducation and information on culture, (mental) health literacy, contraception, and women's rights to promote gender equality and improve future integration. The refugee women need to be actively involved in the program development and implementation.

Furthermore, long-term screening and protection programs for refugee women affected by trafficking, gender-based violence, and harassment are desperately needed. A multidisciplinary approach involving therapists, social workers, and advocates should be adopted and evaluated for feasibility and effectiveness. Furthermore, more attention needs to be paid to refugee aid workers working conditions. More studies assessing work-related mental health problems, such as secondary traumatization, are required. Refugee aid workers' coping strategies and intercultural skills should also be examined. Future research must improve the identification of female refugees affected by gender-based violence and trafficking and develop interventions to improve literacy, psychoeducation, and overall empowerment of refugee women. These efforts must not end in registration and reception centers but should also extend to subsequent shelters and municipal housing.

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Appendix A

Table A1. Semi-structured interview guidelines for the interviews with female refugees who attended MUKI (N = 16) and with the MUKI's main staff members (*N* = 5).

Interview Guide for the Interviews with Female Refugees Attending the MUKI
• Why do you attend the MUKI?
• How do you like the MUKI?
• How do you like the atmosphere?
• What positive effects does it have on you?
• What suggestions do you have for improving the MUKI?
Interview guide for the interviews with the MUKI staff
• What do you think is important for the refugee women attending the MUKI?
• What difficulties do you experience in your work at the MUKI?
• How could the MUKI be improved?

Note. MUKI = The mother–child center is located in the state registration and reception center for refugees 'Patrick-Henry-Village' in Heidelberg-Kirchheim, Germany.

Appendix B

Table A2. Further sociodemographic data of interviewed female refugees attending the MUKI (N = 16).

Female Refugees Attending the MUKI (N = 16)		
Reasons for flight		
Loss or threat to the family	6	37.6%
Domestic violence, abuse, rape	4	25.0%
Witnessing a homicide	2	12.5%
War	2	12.5%
Lack of medical care	2	12.5%
Lack of economic prospects	2	12.5%
Family reunion	2	12.5%
Discrimination	2	12.5%
Political persecution	2	12.5%
Not specified	2	12.5%
Flight-related burdens		
Lack of food, hunger	2	12.5%
Duration of flight	3	18.8%
Threat to their lives	6	37.5%
Death of family members/relatives	1	6.3%
Abuse, rape, experience of violence	3	18.8%
Illegality	2	12.5%
Separation from the family	1	6.3%
Accommodation-related burdens		
Refusal of the asylum application	2	12.5%
Noise, agitation, lack of privacy	10	62.5%
Hygienic deficiencies	4	25.0%
Discrimination	2	12.5%
Fear of violence	1	6.3%
Physical assaults	2	12.5%

MUKI = Mother–child center within the reception and registration center "Patrick-Henry Village" in Heidelberg-Kirchheim, Germany. Multiple answers were possible.

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Telling Our Stories: Resilience during Resettlement for African Skilled Migrants in Australia

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Abstract: Background: Emigration to Australia by people from Africa has grown steadily in the past two decades, with skilled migration an increasingly significant component of migration streams. Challenges to resettlement in Australia by African migrants have been identified, including difficulties securing employment, experiences of racism, discrimination and social isolation. These challenges can negatively impact resettlement outcomes, including health and wellbeing. There has been limited research that has examined protective and resilience factors that help highly skilled African migrants mitigate the aforementioned challenges in Australia. This paper discusses how individual and community resilience factors supported successful resettlement Africans in Australia. The paper is contextualised within a larger study which sought to investigate how belonging and identity inform Afrodiasporic experiences of Africans in Australia. Methods: A qualitative inquiry was conducted with twenty-seven (n = 27) skilled African migrants based in South Australia, using face-to-face semi-structured interviews. Participants were not directly questioned about 'resilience,' but were encouraged to reflect critically on how they navigated the transition to living in Australia, and to identify factors that facilitated a successful resettlement. Results: The study findings revealed a mixture of settlement experiences for participants. Resettlement challenges were observed as barriers to fully meeting expectations of emigration. However, there were significant protective factors reported that supported resilience, including participants' capacities for excellence and willingness to work hard; the social capital vested in community and family support networks; and African religious and cultural values and traditions. Many participants emphasised their pride in their contributions to Australian society as well as their desire to contribute to changing narratives of what it means to be African in Australia. Conclusions: The findings demonstrate that despite challenges, skilled African migrants' resilience, ambition and determination were significant enablers to a healthy resettlement in Australia, contributing effectively to social, economic and cultural expectations, and subsequently meeting most of their own migration intentions. These findings suggest that resilience factors identified in the study are key elements of integration.

Keywords: African migrants; resilience; race; Australia

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1. Introduction

As an economically prosperous nation, Australia has a long history of migration, and continues to be an attractive destination country for migrants. Technological developments and increased ease of communication and mobility have enabled a wider variety and number of people, including those from African nations, to relocate and settle in Australia. The increases in ease of movement and global migration have led to changes in sociodemographic dynamics and the makeup of societies and communities across many nations [1–3]. Through much of its history, Australia has invited migrants from across the world to resettle and build the nation [3–5], and today, nearly 30% of the resident population were

born overseas [6]. The migration of Africans to Australia diversifies the groups of migrants who come to resettle and seek opportunities in this country. Understanding how migrants adapt and acculturate within destination countries post-migration is an emerging field of research with significant implications for policy and healthy resettlement [7,8].

Although population migration creates opportunities, it is also known to pose a variety of challenges for both the migrating and host communities [1,9], making it necessary to conduct research studies to inform policies and practices for regularly evolving situations. Prior research on migration in relation to African diasporic experiences has been associated with deficit-focussed approaches that portray African migrants as a threat and a liability [10]. International research in this field has suggested that 'migration research could benefit from using a strengths-based approach, such as resilience, in understanding the experiences of migrants' [11].

Migration to Australia among Africans has increased in recent years due, in part, to Australian Government humanitarian migration policies towards Africa [5,12], and in part due to policies designed to attract skilled migrants with experience in areas where there is a shortage of skills through its general skilled migration program. The skilled migration program recorded the highest numbers of skilled migrants to Australian during the year 2004–2005, with skilled migrants granted visa accounting for approximately 60 per cent of the entire Australian migration program in that year [13]. Despite the increasing migration to Australia of African people, particularly African skilled migrants, there is little research depicting their resilience. Resilience can be broadly 'conceptualised as the ability to overcome life challenges and transform such challenges into positive growth' [11]. Resilience is an important aspect of life and necessary for human existence and survival. Understanding more about skilled African migrants' resilience provides evidence and a significant resource to inform policies and practices that can support the health and wellbeing of these populations and their Australian host community's prosperity. As part of a larger study aimed at exploring the complexities of belonging, and the dynamics of change that skilled African migrants face after relocating to Australia [14], the current paper describes the mechanisms of coping and resilience factors demonstrated among this cohort, which are enablers to their effective and healthy resettlement.

Social Resilience and Afrocentrism as Theoretical Frameworks

As a framework, social resilience [15] is understood as the ability of community groups or communities to withstand external shocks and stressors without significant disruption of their social fabric. Social resilience comprises community dynamics and processes of positive adaptation when facing significant adversity [15,16]. There are varying perspectives on what community *is*, but in the context of this paper, 'community' is defined as a group of people who share common value systems, have major common needs, share interests and have similar or shared experiences and identities [17,18]. Community is known to provide a space within which members develop a sense of attachment while engaging in networks that function to cushion and support them to 'bounce back' from adverse experiences [17]. Characteristics of community structures and interactions have been identified as complex, but overall, members of shared communities share common traits that build resilience through ideas, experiences, skills and knowledge [18]. These characteristics have been reported to assist individuals, families and communities to overcome shocks and stresses, including changes in government policy, civil strife, or environmental hazards and resources [19]. For skilled African migrants in Australia, social communities and communities of attachment, where a sense 'feeling at home' is inculcated, can provide the foundation for a successful new life in Australia. The importance of using a strength-based approach such as social resilience in understanding the experiences of migrants has been recommended to improve the knowledge about how communities deal with adversities [19], or major life changing challenges, which migration to and resettlement in new countries constitute.

In addition to the everyday challenges of resettlement which would be anticipated for any migrant to a new socio-cultural setting, Black African migrants face additional obstacles to resettlement in an environment where race has particular salience. Within the Australian context, Black Africans are 'marked' as different from the white, Anglo-Saxon heritage majority through a combination of 'visibilities' including race, dress, and accent [20]. Black Africans in Australia are therefore 'hypervisible' and are constructed as perpetually outside the boundaries of mainstream normative conceptions of Australian identity. These factors can therefore contribute to overscrutinisation and marginalisation of members of Black African communities [20].

Resilience frameworks in migration discourses, particularly those that theorise experiences of Black migrants, need to employ strength-based and non-deficit approaches, while also acknowledging the additional challenges that resettlement in predominantly white contexts present. We also assert that there is a corresponding need for culturally affirming theoretical frameworks and research methodologies that recognise the cultural strengths of migrating communities. We contend that this need can be addressed through the utilisation of Afrocentricity to investigate Afrodiasporic experiences. Afrocentric epistemologies, applied appropriately, can offer a powerful alternative to and critique of Eurocentric perspectives and discourses on resilience [21]. Utilising paradigms that privilege African ways of knowing, being and doing to solve human and social problems is a valid form of interpreting social and psychological issues affecting Africans in order 'to create relevant approaches of personal, family, and community healing and societal change' [22]. Afrocentric-informed research offers an innovative approach to exploring challenges for Afrodiasporic communities in Australia in that it identifies and utilises the community's knowledge, resilience, and expertise to inform knowledge and design its own solutions.

Sancofa and *Ubuntu* are the principle Afrocentric philosophies that inform our analysis. *Sancofa* as a framework represents the embodiment of a mythological bird that flies forward but with its head turned backward, symbolising the Ghanaian Akan proverb that, *'it is not wrong to go back for that which you have forgotten*' [14]. This Afrocentric philosophy acknowledges the importance of *returning to* and renewing African knowledge and experiences that have been marginalised and/or forgotten. Invoking it in our analysis helps to highlight how the process of *returning to self* can facilitate resilience and successful resettlement. *Ubuntu* on the other hand is centred on the premise that, *'I am because we are, and since we are, therefore I am'. Ubuntu* is a philosophical framework that argues that we are *made human* through the process of humanising others [23,24], such that the willingness to *see, feel and enter* the depth of other people's experiences through a humane process produces interconnectedness and change. Supplementing the use of a social resilience framework, we also apply the philosophies of *Sancofa* and *Ubuntu* in framing and interpreting the responses of participants in this research, as this enables us to prioritise collectivist and group identity values that significantly advance the research aim and help ensure that conclusions emerging from the study are informed by culturally appropriate knowledge.

2. Methodology

The study methods and reporting were guided by consolidated criteria for reporting a qualitative study (COREQ) checklist [25]. This checklist comprises 32 items within three domains including: (i) Research team and reflexivity, (ii) Study design, and (iii) Data, collection analysis and findings.

2.1. Research Team and Reflexivity

The authors are senior academics from two universities, skilled and experienced in qualitative research methodologies. Two of the authors (LM and KG) are African Migrants and have extensive networks within the African communities across Australia. While our involvement could impact the participants' responses, care was undertaken to minimise conscious bias. However, we also acknowledge that our knowledge and insight as 'insiders'

would be beneficial and enriching an understanding of migration and the experiences of re-settling in Australia [26].

2.2. Study Design and Data Collection

The study design employed a qualitative method of inquiry, which presents a unique opportunity for exploring participants' lived experiences of resettlement. This approach focuses on the meaning and interpretation of the respondents' subjective experiences and how these meanings are connected to their broader experiences of inclusion and belonging.

The study was conducted in Adelaide, South Australia. According to the 2016 Australian Census, Adelaide had a population of approximately 1.3 million residents. Similar to most urban settings in Australia, most residents of Adelaide have Anglo-Australian heritage indicating that Black Africans are part of a culturally and linguistically diverse minority population group [5].

The researchers recruited participants through existing connections, community networks and snowball sampling. In total, twenty-seven (n = 27) participants including 15 men and 12 women from sub-Saharan African countries who had migrated to Australia as skilled migrants were interviewed. Participants number and countries of origin included: Fifteen from Kenya, three from Nigeria, two each, respectively from Zambia, Tanzania and Ghana and one each, respectively from Zimbabwe, South Africa and Rwanda. Most participants were middle class working professionals. Participants' occupations included senior roles in the fields of banking and finance, business, medicine and health, social work, engineering, mining and academia. Participants' length of stay in Australia varied and ranged between two and twenty-five years.

Interviews were conducted by two members of the research team (KG and LM), academics from within the African community in Australia. Interviews were conducted in the participants' place of choice which included homes, offices or other mutually agreed places and lasted approximately between 45–90 min.

2.3. Data Analysis and Ethical Consideration

Individual interviews were recorded digitally, transcribed and analysed deductively and inductively using a thematic framework analysis [26,27]. Prior to the interviews, each participant was informed about the purpose of the study, the voluntary nature of participation, and their right to withdraw their participation at any time, without consequence. Before commencing interviews, the researchers ensured that informed consent was obtained. Participants were assured that the data or information that they provided during the interview was confidential and unidentifiable. This study was approved by the Southern Cross University Ethics Committee (project number ECN-18-002).

3. Findings

Despite a mixture of resettlement and environmental barriers, including limitations in employment opportunities, experiences of discrimination and subtle racism, participants demonstrated strong resilience and the ability to cope with challenges that they encountered during their journey to re-establish themselves in the new host nation. The resilience factors identified included: (1) capacities for excellence, that included willingness to take any available opportunities to achieve their goals; (2) social capital through community and family support networks; (3) strongly held African and religious values (4); pride in contributing to Australian society; and (5) desire to change the narratives about Africans in Australia. These themes are presented and discussed further below.

3.1. Willingness to Work Outside of Existing Expertise

A significant theme referred to by several participants was the exceptional work ethic and capacity for professional excellence among African migrants. Despite the challenges in securing matching (skills, education, ability, and expectations) job opportunities, this was partially mitigated by their willingness and readiness to work hard and take any available

opportunities. One participant, Jimmy, stated, '*Africans will do anything, they will figure out anything that they can do–and do it, and they will work as hard as possible, they will pick fruit from the trees if they have to*'. Mukisa also noted that despite being based in a specialist urban medical centre, '*I still go back and cover doctors who are on leave in the rural clinics and I work hard'*. African migrants were keen to show how hard they were willing to work to obtain a better life for themselves and their families. Strong work ethics, hard work, determination and perseverance were described as important in obtaining and sustaining job opportunities. For example, Amani noted how she was the only candidate from her workplace who received an ongoing role after a round of interviews. The feedback she received from the hiring managers was that she demonstrated an excellent work ethic through her extensive preparation for the interview, and this was the reason she got the permanent role. She also noted that her 'persistence' in taking the steps toward promotion led to more senior roles, even though many of her 'Caucasian' colleagues 'gave up along the way', because they felt the process was 'too strenuous'. She added, '*I had talked to* [African] *friends . . . who have been in even more senior positions* [in Australia] *than they had been, in their own countries, and going into skills or jobs that they have never done before*''.

Participants emphasised that Africans in Australia 'just wanted a chance', and if given the opportunities they deserved, they could make even more significant and positive contributions to Australia society. Wanjiru exemplifies this by stating:

> *You know, we have hard working people. We just want what everyone else wants, what most people want. Just give us a chance. We want what everyone else want, best for our kids, to better our lives . . . I want when someone sees me, they [see a] hard working woman who has travelled far away to come and work hard for her family and make a better life for herself and for her family members*. (Wanjiru)

A theme that was less explicitly emphasised was the observation that because non-migrant Australians already had existing social capital and networks, and African migrants often did not have this benefit, they could not rely on what Awinja described as waiting for '*someone else to come and . . . fish you out'* for opportunities. Instead, she emphasised that for African skilled migrants, *'it is really for us to position ourselves really well and advocate and become our own self advocates*'.

3.2. Social Capital Through Community and Family Support Networks

Family and community support networks were strongly highlighted by participants as one of the factors in building resilience and perseverance while managing the challenges of migration and resettlement in Australia. The earlier arrived African families who were not related or previously known to each other, acted as extended families to form a supportive network for newer arrivals. John and Julia valued how the community facilitated their resettlement and noted, '*right the day we came in'*, when the African families who had already settled in Australia welcomed them at dinner and social events. This network of African families, not previously known to the participants, provided extensive support for this family over the first critical three months of arriving in Australia. They reflected:

> *That support saw us through and I think that is a very important point to put across. The family literally took us by [our] hands and they were in our house literally every day for the next three months. If there was an activity in Adelaide, they came and picked us. If we were going shopping, they came and picked us. If there was visiting anyone, they came and picked us. So in three months, we had met so many people [Africans] and that kind of things made it very easy and comfortable for us*. (John and Julia)

Kissa also reflected on a similar experience:

> *There was a small African community in [town in South Australia], they came around, they supported. I would say so far I had an amazing journey, basically because I met amazing people, people that have extended warmth, love, and support and understanding*. (Kissa)

Some participants provided examples of how family members from their country of origin travelled to Australia to provide essential support at critical times. Wanjiru, for example, discussed how necessary such support was when she was a new mother and studying full time:

> *Our family gave us much support during that time when we were going to nursing school. My sister came from* [country name] *and she lived with us for a whole year while we were going through school. Our babies were so young then, so she helped with babysitting, and without that kind of help, oh my goodness, I don't know how we would have pulled through the nursing school! So we cannot forget the family support*. (Wanjiru)

Within family units that had migrated together, new levels of cooperation and support were also required to achieve a successful migration experience. Banji, for example, noted that '*I have a very supportive spouse and so we tend, you know, to help one another'*. Wanjiru and Paul similarly emphasised the value of support within their family unit. They described how as '*a family we really, really, really had to learn how to work together. We form*[ed] *our own identity–so to speak–as a family, to help us cope with the challenges that we thought of or felt'*.

In addition to family support, formal organisations were also identified as a significant source of support, as most participants were members of one or more community organisations. Some participants particularly singled out the role of such associations in building resilience and experiencing belonging in the new country. This included regional or country-specific associations, faith-based organisations and church congregations and to a lesser extent, government-initiated settlement programs. For some, work colleagues, especially those who were introduced immediately upon arrival or who eventually became friends, provided a supportive structure for their resettlement and enabled the building of resilience and a sense of community. Kissa, for example, mentioned that at her first workplace immediately after arriving in Australia, '*there were some amazing people there that made me welcome, I went to their home to eat, they would invite me, others will invite me over with my little son, almost every weekend to come and spend time with them*'.

Some participants described how at the time of migrating, the South Australian Government's settlement program for skilled migrants was highly supportive. Initial, formal government support was critical in building participants' resilience and providing a springboard for their new life in Australia to take off:

> *The South Australian Government program back then really looked after new skilled migrants and helped them settle. They organised a house at subsidised rent for us for the first three months. We had a two-bedroom house, which was good for us. The house was next to the school where our kids were going, so we did not have to walk far. It was next to a tramline, so we did not have to bother about having a car initially, so the entire program was a really good one . . . I think our great experience is one that is highly supported by the program. Without the program, I think we will be talking about totally different things altogether*. (John and Julia)

Although they did not go into further detail, the emphasis on helpful government support for skilled migrants being provided 'back then', suggests an assumption that this type of assistance was not necessarily available to contemporary migrants. This could then lead to more resettlement challenges.

3.3. Religion and Faith as Protective Factors

Spirituality and faith were important determinants that provided mechanisms to cope with challenges for many of the participants. Religion is a well recognised factor that functions both as an intrinsic and extrinsic marker of individual and population resilience [28–31]. One participant concurred with these assertions stating that, '*my family gets support–and a lot of it–from our church*'. Other participants reported that going to church was an important ritual for them as it enabled them to set one day off work each week to attend community service, providing them with an opportunity to connect and build

friendships with others with similar values. For Banji, religious faith acted as a cushion for his family during their resettlement years:

> *Having good support at church are a crucial factor that have helped in terms of settling down. So we were very strong in terms of being involved in an active church . . . This really helped in the way we have settled down in Australia . . . I guess you know those three factors–work network, church network and also network of friends–have really helped in settling down.* (Banji)

Jimmy also supported religion as protective element in these communities when he stated, '*most Africans have a Christian or another form of faith–and that's where they find support'*, implying, like Amani and Banji, that religion plays a significant role as a coping tool, and is utilised as a strong resilience mechanism in overcoming adversities.

3.4. Pride in Contributions to Australia as Africans

Participants emphasised pride in their contributions to Australian society. This pride was linked to their contributions in professional excellence, expertise and economic contributions through dutiful payment of taxes. Other participants nominated specific aspects of their area of work expertise as advancing Australian society, which they were justifiably proud of. Sally, for example, nominated her studies and the specific scientific research she had conducted in Australia as having made a significant scientific contribution. Mukisa, a GP with a special interest in skin cancer and family medicine, noted that '*I worked hard . . . providing my skill to Australians and making sure that whatever I do, I do it at a high-level of skill and I think that has been the biggest contribution'*.

Other participants spoke with pride of their success in advocating for more diverse and culturally aware perspectives and policies:

> *I can claim that I have done [a lot] to advocate for cultural issues being prioritised. I have managed to move the government away from sideling some communities, who have dealt with issues that needed certain support to be able to move up. Groups which have less resources, less networks, more disadvantage compared to the main stream, can now have more support and the government is ready to accept that, and we have seen so many resources coming and I am grateful for that.* (Maurice)

Paul similarly highlighted that African migrants add significant cultural value in Australia;

> *when we come here, we bring cultural diversity . . . we educate the people of this country on who we are, we expose them to other cultures because I think it is unfair when all their knowledge about us comes from National Geographic'.* (Paul)

Most participants singled out how their financial and career success also benefitted Australians, especially through the payment of taxes and bolstering of the Australian economy. For example, Jimmy noted, '*I have been working for the last 15 years and earning good money and paying taxes* [and] *investing* [in] *property*'. Kissa, Maurice and Awinja all discussed their various economic contributions to Australia as illustrated below:

> *Me and my husband* [both senior medical consultants] *generate a lot income, but we also support the government by paying taxes, which helps to actually do a lot of the other projects . . .* [so] *many Australians would benefit from our tax.* (Kissa)

> *We have contributed financially and economically, being in real estate. We have investments in not 1, 2, 3, or 4 places. Our properties are scattered around, and we employ the real estate managers to manage the properties. In that way, they get money for managing our properties. We pay high taxes and we have helped the South Australian economy–we can say yes, we have done that.* (Maurice)

Jenny and Patrick also explicitly linked the payment of taxes to the value they added to Australia, in terms of what that sum would mean in their country of origin: '*Let me tell you the tax we pay between us, is enough to feed my whole village for a year. We have a right to be here*'.

Nkandu made similar emphasis in this direct connection stating, *'the majority of Africans or migrants are working hard, they are paying their taxes and not being a burden to society'*, yet this was at odds with the dominant Australian public discourse constructing migrants primarily as welfare recipients:

> *I hear Australians say all these things about migrants and think, 'who do you think pays for all these stuff (Medicare, Centerlink)?' It is the working people, and the big chunk of that working people are migrants. So, I think if there is a story to be told [it] is the contribution that migrants [make] to this country. It is just everyday people, waking up every day in the morning, go to work, obey the laws, they are peaceful with everybody, I think that is the greatest story to be told.* (Nkandu)

He further believed that '*Australians would be shocked that there are a lot of white Australians on welfare benefiting from* [African] *migrants going to work*. Participants also described how they managed to put aside the disadvantages that they faced so as to focus on their main intention for migrating–that is, '*to work hard, and find effective opportunities for themselves, their children, and communities'*. They were also able to demonstrate considerable flexibility, that supported the development of resilience and aided successful resettlement:

> *I think it is important for us to be open to be willing to integrate and embrace the new culture that we find ourselves while not losing our own. We can learn what to take and what to reject from this culture and we can still embrace it and bring the positives from our own culture and the positives from this culture and make it better.* (Kissa)

Despite the challenges encountered in re-settling in Australia, participants reflected on their commitment to *remember* where they came from and *who* they were as Africans. Although they exemplified a deep commitment to integrate and abide by Australia's culture, they also agreed on the importance of upholding their own culture and retaining their Africanness. The commitment to retain their Africanness in a society that covertly promotes ideologies of assimilation, aligns with the broader messaging of *Sancofa.* Sally narrates:

> *I will not change being an African or anything. It comes with its challenges, but you know what, I love it. I love being an African and I hold no apologies for being an African. So, if I am here as an African, I can equally contribute to the society as anyone, so I believe in myself. I am very aware and I set my identity fully. That is the starting point. You need to believe yourself and accept your identity fully, with the accent, with the colour, with whatever, fully. It should not matter and you need to believe that you are in this for the long haul.* (Sally)

3.5. Reframing the Narrative of Africans in Australia

Pursuing excellence and acknowledging the challenges of migration and adapting were identified as subthemes and are further described below.

3.5.1. Pursuing Excellence

Many participants indicated a desire to contribute to changing negative narratives of what it means to be an African in Australia. Further suggestions included a need for advocacy and more accurate and positive representation of African migrants and communities that challenged dominant mainstream narratives about 'Africanness' in Australia. As Jimmy stated:

> *I would like to see the image of Africa change a bit more, I would like to see people* [not see] *Africa as a place where there is needy people, I would like the people see Africa as a potential partner, as a power house, as a place of great ideas have come from.* (Jimmy)

Much as participants called for more inclusion and a broader narrative shift in the Australian public discourse on Africans, many emphasised that African diaspora communities were required to 'step up' and actively work to change that narrative by 'pursuing excellence'. Kissa reflected:

> *Australia is a beautiful country. We are absolutely proud to be a part of it, but as people of colour, we should look for opportunities to add value. We should be people of excellence. We should stand for excellence and also in particular we need to start thinking aggressively about the next generation. As the first generation of African immigrants, we need to make sacrifices for the next generation and we must not miss that point, it would not be all about us. We got to think about 10, 20, and 30 years from now, where would we like to be in the Australian society.* (Kissa)

This emphasis on acting as advocates and positive role models for African communities echoes the responses from participants above who observed that African migrants come to Australia lacking networks and pre-existing social capital. As such there is a greater need for migrants to create their own opportunities, rather than waiting for their excellence to be recognised and rewarded by others.

Other participants presented similar ideas about how Africans in Australia can help change and reframe negative narratives predominantly through bolstering their own self-confidence and by not internalising any negative assumptions about Africans. Jimmy advised Africans in Australia to '*come here with something to offer'*. He adds, 'if you are here as a skilled professional who is going to make a contribution to this country, see yourself as of that, do not see yourself as a poor African when you go to meetings'. Others cautioned Africans not to adopt a victim mentality, as this reduces the capacity for resilience and excellence. Amani advised:

> *Let's not pity ourselves, let's not feel sorry for ourselves . . . what helps is for us to go out and explore, so it is up to us really to position ourselves. It's not up to anybody else to do that for us . . . I am a senior social worker, and it doesn't come easy . . . I would encourage everyone to work hard, but not pathologise ourselves and don't, don't join people in pathologising us.* (Amani)

Whilst supporting this position broadly, Sally observed that this does not always come easily. Although she proudly described herself, as an African migrants more generally, as being part of 'a group of people with great tenacity, great intelligence', she also reflected that '*we need to start believing in ourselves more and come together in a unified way to say that we are here to stay and we are not going anywhere, and we are a force to be reckoned with*'. She added:

> *If all of us are working together . . . celebrating one another and helping and lending a hand to one another and just be ourselves and be proud of who we are and also just give the best of ourselves to this country because really, this is home even if it doesn't feel like so for a long time, but in this moment, right here, right now, this is home.* (Sally)

Sally's reflection can be understood as both a recognition of how challenging resettlement is, as well as a subtle questioning of whether individuals can foster this change on their own without an *Ubuntu* mentality. Her emphasis instead is on the need for *collective* action to achieve these goals, an observation that underscores the value of community and collectivist values.

3.5.2. Acknowledging the Challenges of Migration and Adapting

Despite the challenges many had encountered, participants refused to see themselves as victims. They seemed to have chosen to look for the positive opportunities that Australia offers and opted to focus on what was necessary to achieve their goals of having a successful life in Australia. Many described the initial challenges, and how they overcame them with a focus on their family betterment:

> *I felt my status become really low. My status* [in original country], *came with a lot of respect. So here, I just felt like I lost my status. But I do not know whether you call it resilience or what it is, I thought, you know what, this is a new beginning and I said, 'This is a new beginning, because this is a new world', and I focussed on the children.* (Awinja)

> *It has been an interesting journey, it has had its ups, but it also has its downs. What I can say is the opportunities for the children here are much better. So if someone wanted to come, just have your goals set out. Just be clear on what you really want because if*

> *you are coming because you want to make a lot of money very quickly, you might be very disappointed. You have got to learn to look at those positives around. If you want your children to have a better life, then you need to clearly know that you would have to sacrifice a lot, on your part as a parent . . . I think that was the main reason why we decided to come, because at a certain time in your life, it stops being about you as a parent and it is about your children and if you can focus on that, then you would save yourself a lot of heartache*. (Julia)

Participants were very aware of the need to integrate within Australian society. While they seemed adamant that they did not need to fundamentally change who they were, they also argued that they *should* adapt to social norms in the new host nation:

> *I think you need to integrate when you move to a country, you need to integrate with citizens of that country . . . Friends for me come from any group, so I integrate with everybody and I think integrating makes a big difference. Because then, you do not feel isolated. You will find if you keep to your [country of origin] community, you talk about [country name] social issues rather than connecting on the issues that are happening here . . . you will become homesick, you will always think about [country name]*. (Jabali)

Jabali added that in the resettlement process, '*what worked for us is to integrate with the local community, that made a big difference*', thus emphasising the need to build connections with Australians from diverse backgrounds as an essential part of successful resettlement".

An additional aspect to this theme was participants' belief that that integration should be a two-way process, and not a unidirectional or assimilatory process [32]. This would require the host community to also adapt, by developing an understanding of some African cultural values and way of life. A two-way process, they argued, would have bi-directional benefits for both African migrants and mainstream Australian. Several participants also considered that since Australian is a settler state built on migration, they deserved to resettle as migrants because they were determined to contribute to building their new country. Sally reflects

> *Africans are equally deserving to be here, we have equal rights to be here. But I think Africans need to be internally strong ... because the challenges will come. It is not about if they will come, but when they will come, and when they do come, what are you going to do with it. Will you let those challenges pull you down? Or, you are going to let those challenges even make you stronger, and more determined that you are here, and you are going to benefit from being here and also contribute*. (Sally)

The determination and optimism expressed by Sally was also mirrored by other participants who added that their excellence and deservedness to be in Australia contributed to their successful resettlement.

4. Discussion

People choose to migrate for various reasons including to access new employment or education and better opportunities [33,34], and to escape civic unrest or conflict [8,35]. Although there is now a significant emerging body of knowledge on African migrants in Australia, most of these studies have focused on refugees, so the focus of this study on skilled migrants addresses a significant gap in the extant literature [9,35]. Despite the significant challenges including racism [9,32], difficulty accessing employment [2], discrimination [9] intergenerational issues [8,36] and micro-aggressions [37] that seem to dominate experiences of African migrants during their resettlement, most draw positivity and optimism from religion, faith, hope, and community-oriented attitudes which appear to nurture resilience and social connections. Positivity and optimism have been identified in the literature as factors that build resilience among migrant groups [29,38].

For participants in the current study, the intention to migrate to Australia seemed to have been made mostly for the purpose of bettering the future opportunities of their children and families. As noted in their narratives described elsewhere in this paper, the emphasis on the positive contribution made to Australian society emerged as a strong

theme. It is reasonable to hypothesise that these attributes are informed by collectivist value systems—as embodied in the philosophy of *Ubuntu*—but also partially as a response to dominant and harmful narratives about African migrants in Australia, which are frequently deficit focused and connected to negative racialised stereotypes [20,39]. Consistent with previous study findings and the journeys of this study's participants, migration promotes a different ecological environment that fosters the diversity of culture, with an interweaving of different ways of life that includes changes to views, systems, values and aspirations [40,41], which are well demonstrated perspectives in this paper.

The social resilience frameworks [16,42] provide a robust understanding of the mechanisms that foster resilience through multi-layered factors. Resilience has been described not only as an individual psychological trait, but as a social phenomenon that is mediated by individuals' cultures and social ecology [16]. The current study findings demonstrate that participants displayed significant resilience that enabled them to cope effectively with the challenges of migration in Australia, and positively contribute to the Australian socioeconomical and ecological systems. Individual resilience (personal qualities/traits, education background, skills, ambition, etc.), the availability and accessibility of resources such as community, and government support, all contributed to reducing resettlement challenges.

Supporting the observations of our participants in relation to religion, a multitude of research studies have identified religion, faith and prayer as protective factors that mitigate the adversities of migration and build resilience [42–44]. Whilst resilience is a psychological process, it is an outcome of social processes that exist in relationships between people, systems, institutions (such as churches), organisations and networks [45]. For our participants, the social aspects of church attendance, participation in faith-based organisations and related activities, and activities within their own and other families, provided a positive source of resilience-building through interpersonal connections. Similar observations have been made in the literature, identifying these components to be among protective factors that enable positive adjustment to migration [40,41,45].

Supplementary forms of social support provided by other families, African communities, organisations and other social networks were acknowledged as a significant source of cultural safety, fulfilment and belonging, which is consistent with African cultural norms in regard to collectivism and *Ubuntu* philosophies. [22,24]. The thematic display of social support and social networks in participants' narratives underscored the value of *community* that was that was not necessarily based on close familial ties, but which exemplified the value of Afrocentric philosophical frameworks of *Ubuntu.* This African philosophy relies on a prioritisation of collectivist and group identity values in comparison to individualistic values within Western societies [24,46]. *Ubuntu* philosophical perspectives bolsters our understanding of the importance of supportive communities in the development of resilience, health and wellbeing in Afrodiasporic communities. The role of social support derived from families [47], communities [8], and community organisations [7], is well recognised in research as crucial in facilitating a healthy resettlement among migrants [7,9,10]. Collectivist and family-oriented values were also demonstrated through the reasons for migration, which was motivated not by personal gain, but to create a better future for their children, their communities and future generations.

It is also worth noting that, participants were both ready to integrate and align with the host community's norms, as well as continue to maintain their African identity and cultural perspectives. These dichotomous perspectives correspond with the *Sancofa* principles where, whilst these participants looked forward to a bright future in Australia, they also needed to nurture their African heritage in Australia, thus exemplifying the notion that *'it is not wrong to go back for that which you have forgotten'* [14]. Through these noted attributes of collectivism, flexibility and positivity, it is plausible to acknowledge that many skilled African migrants were able to develop a thoughtful appreciation of the positive aspects of both African *and* Australia cultures, and selectively and intentionally drew upon these resources in order to support their aspirations for a successful resettlement in Australia.

There was also significant trust placed by many participants into Australian colleagues and friends and the belief that in general, Australian people were 'good'. This comfort was drawn from seeing people's intrinsic goodness and trusting this collective 'goodness' would cushion them from any extreme negative experiences. For some participants, work colleagues extended positive relationships. This familiarity, trust and synergy in the workplace encouraged a sense of belonging and helped minimise the complexities of social issues of isolation [45]. Additionally, connections both within specific ethnic communities and within the broader Australian community offered practical and emotional support in building a new life. This supports the consensus in the literature on the importance of strong social ties and social capital in supporting quality health and wellbeing outcomes [48–51].

Importantly, it is necessary to re-emphasise participants' pride in their decision to resettle in Australia, their strong professional identity and their admirable qualities. Some participants described in detail their achievements at work, their contributions to the Australian economy, their investment successes and their creation of employment and other opportunities for the wider Australian community. International literature on skilled migration has in the past focused on macro contextual issues such as brain drain, and migrants' remittances [52], but this has left a knowledge gap about skilled migrants' self-initiated and self-identified contributions to the *host* environment. We argue that there are benefits (socioeconomic, cultural and ecological) of successful resettlement for both new arrivals and receiving communities as demonstrated in the current study. As such, supporting migrant communities, including highly skilled new migrants, to resettle successfully is important for Australia to implement. This support is the most effective and empowering tool when it is embedded in social and political practices to help new migrants mitigate migration resettlement obstacles [51,52], including challenges in employment, [2] and inclusion [40], so as to improve their health and wellbeing [7], in their new country.

Strengths and Limitations

The study involved highly skilled migrant participants who lived in South Australia but originated from different countries in Africa. The selection of this specific group of migrants enabled the researchers to explore the lived experience of this specific population from a resilience stance. The sampling approach and the use of qualitative method meant that research participants included those who were highly skilled (from particular different professional backgrounds providing snapshot of experiences from different workplaces), had self-initiated migration to Australia, could speak proficient English and were actively engaged in community groups or found via a snowball approach. This resulted in data that was rich and enabled deep understanding of individual resettlement stories. As such, the paper contributes to the body of knowledge regarding significant protective factors that mitigate the adversities of migration as it focused on identified mechanisms and sources of resilience for skilled African migrants in Australia.

However, interviewing people who are already connected to groups and the snowballing approach (which relies on social networks and is therefore not a random sampling approach) may have resulted in missing the perspectives of less connected people. Likewise, the scope of our research did not extend to views of the broader South Australian community, which would have given further insight into alternative perspectives of settlement and resilience.

5. Conclusions

The findings demonstrate that despite challenges experienced in resettling in Australia, skilled African migrants' resilience, ambition and determination were significant enablers to a healthy resettlement, contributing effectively to socio-ecological, economic and cultural expectations, and subsequently meeting most of their own migration intentions. These findings suggest that resilience factors identified in the study are key elements of resettlement. These include personal qualities, education and skills, positive attitudes, family ties, religious and cultural values, communities of attachment, and social connectedness.

This study highlights the ways in which resilience is enacted among African migrants and brings to light their capability in facing migration challenges and effectively contributing to the Australian economy, and to social and cultural structures. The importance of African migrants' resilience and Afrocentricity to the subsequent welfare and healthy resettlement of their families into a new culture, and indeed the benefits to the new communities [53,54], cannot be overemphasised. The study provides significant information that can be used to inform knowledge about a healthy resettlement of groups of new migrants, applicable to Australia or in similar settings, and validates the supplementation of research approaches and methodologies with Afrocentric frameworks.

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Article

A Walk-In Clinic for Newly Arrived Mentally Burdened Refugees: The Patient Perspective

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Abstract: Providing refugees with psychosocial support is particularly important considering the high level of mental health problems prevalent in this population. A psychosocial walk-in clinic operating within a state reception and registration center in Germany has been supporting mentally burdened refugees since 2016. This study focused on patients' perspectives on their mental health burden, the psychosocial walk-in clinic, and future help seeking. We conducted interviews with n = 22 refugees attending the walk-in clinic from March to May 2019. Qualitative analysis focused on the following four topics: (1) mental burden from the patients' perspective, (2) access to the psychosocial walk-in clinic, (3) perception of counseling sessions, and (4) perception of follow-up treatment. The results show that the majority of interviewees were burdened by psychological and somatic complaints, mostly attributed to past experiences and post-migratory stress. Therapeutic counseling and psychiatric medication were found to be particularly helpful. Most of the participants felt motivated to seek further psychosocial support. Key barriers to seeking psychosocial help included shame, fear of stigma, and lack of information. Overall, the psychosocial walk-in clinic is a highly valued support service for newly arrived refugees with mental health issues.

Keywords: refugees; mental burden; psychosocial support; mental health service; qualitative analyses

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1. Introduction

Around 37,000 people a day are forced to flee their homes according to the United Nations High Commissioner for Refugees (UNHCR) [1]. The majority of refugees are internally displaced persons or refugees seeking relief close to home in neighboring countries. About one-third of global refugees flee to neighboring, less developed, or least developed countries. In 2019, about 200,000 refugees sought safety in Europe by crossing the Mediterranean Sea [2]. Refugees are a high-risk population for mental health problems as a result of stressful and traumatizing events and circumstances in their country of origin as well as during and after their flight. Prevalence rates of up to 40% for any mental health problems are described in relevant literature [3,4]. Post-traumatic stress disorder (PTSD), depression, anxiety disorder, somatoform disorders, and substance abuse are the most commonly reported mental health issues [3,5]. These facts result in a high need for psychosocial support services among refugees and asylum seekers which are, however, often insufficient and associated with many barriers [6–9].

Newly arrived refugees and refugees living in refugee camps are especially vulnerable to mental health problems [10,11]. Cross-sectional studies in different state registration

and reception centers in Germany have found PTSD prevalence rates between 23.6% and 40% [5,8,12–14]. Still, psychosocial support offers in state registration and reception centers across Germany are sparse, although evidently urgently needed [15,16]. In Germany, clinical care is provided by inpatient and outpatient services. Currently, 26 psychiatric and psychosomatic clinics offer outpatient and inpatient support for migrants and refugees [17]. However, rehabilitation centers for refugees and survivors of torture as well as relief organizations play an important role in mental healthcare for mentally burdened refugees [17]. These rehabilitation centers' primary services for refugees and torture survivors include psychosocial and psychological counseling, psychotherapeutic sessions, crisis intervention, stabilization work, diagnostics and clearing, and social counseling. According to the annual report of the Federal Association of Rehabilitation Centers for Refugees and Survivors of Torture (Bundesweite Arbeitsgemeinschaft Psychosozialer Zentren für Flüchtlinge und Folteropfer e.V, BAfF), 22,746 refugees and torture survivors received psychosocial care in 2018, of which approximately 41% had psychotherapeutic treatments [18]. Furthermore, various clinical care models exist in the literature. Brakemeier et al. [19] described an interpersonal integrative pilot project for refugees with mental disorders with promising effects in reducing symptoms of PTSD, depression, and anxiety disorder. Other models of care, such as the STEP-by-STEP approach in a German registration and reception center [20], or the Baden-Württemberg humanitarian reception program for Yezidi women and children who have fled captivity of the so-called Islamic State [21], have been reported, but data on their effectiveness have not yet been published. According to Bauhoff and Göpffarth [22], asylum seekers in Germany are twice as likely to report psychiatric hospitalization than regularly insured persons. However, this group also has over three times less access to psychotherapists than regularly insured patients. Satinsky et al. [7] examined the utilization of mental health and psychosocial support services in European countries in their systematic review. They concluded that refugees and asylum seekers are more likely to use medical/somatic health services and to be hospitalized for mental health problems [7]. Providing appropriate care shortly after the refugees' arrival in the host country can lead to initial stabilization of symptom burden and, thus, prevent further exacerbation and chronification of mental health problems.

Since 2016, a psychosocial walk-in clinic has supported psychologically burdened refugees within the state reception and registration center "Patrick Henry Village" in Heidelberg, Germany. For this center, a mental health inventory has shown that a sample of 228 patients attending the psychosocial walk-in clinic was burdened by PTSD (41.2%), adjustment disorder (22.4%), depression (25.0%), anxiety disorder (6.1%), substance abuse (10.5%), and somatoform disorders (5.3%) [14]. Next to supportive and stabilizing counseling offers, including group psychotherapy [23,24] as well as a program facilitating the self-practice of stabilizing techniques via audio-files [25], half of the patients received psychopharmacological treatment. Outpatient psychotherapy treatment was recommended to 66% of patients after reallocation to municipal housing [14]. Together, these data underscore the necessity of needs-based psychosocial support services shortly after the refugees' arrival in the host country. So far, the patients' perspective regarding their experiences with the psychosocial walk-in clinic in a German state registration and reception center has received little attention. Considering the perspective of refugee patients, however, can improve the quality of psychiatric care and provide important implications for future treatment. Carey [26] noted that focusing on patient preferences, needs, and values (as is intended by patient-centered approaches) can help reduce time spent in hospital, readmissions, and emergency room visits, as well as improve compliance and engagement. Considering the patient perspective via qualitative research methods allows us to systematically illustrate and animate individual narratives and, thus, helps us avoid reducing patients to mere diagnoses, numbers, or test subjects [27].

Therefore, this study aimed to gain a deeper understanding of the barriers that refugees face in their mental healthcare efforts to develop strategies in addressing them. To this end, we assessed the perspectives of refugees attending the psychosocial walk-in clinic

in the state registration and reception center in Heidelberg, with a focus on the following research questions: (1) How do patients experience their mental health burden and how do they deal with it? (2) What are facilitating and impeding factors when seeking help in the psychosocial walk-in clinic? (3) How do the patients experience the consultations in the psychosocial walk-in clinic? (4) What are the patients' future attitudes towards further help-seeking behavior?

2. Materials and Methods

2.1. Data Collection

From March to May 2019, we conducted a descriptive study using qualitative semi-structured interviews in the refugee state registration and reception center 'Patrick Henry Village' (PHV), Heidelberg-Kirchheim, Germany. The PHV are former US military barracks currently accommodating around 1,200 newly arrived refugees and asylum seekers. During their PHV stay, newly arriving refugees and asylum seekers' personal data are registered, their identity is verified, and a medical examination for communicable diseases is carried out as part of the asylum procedure. As a rule, refugees and asylum seekers are redistributed to other accommodations within a short period of time. Since 2016, the Heidelberg University Hospital has been operating a medical and psychosocial walk-in clinic at the PHV in cooperation with physicians in private practice [28,29].

Our target group were refugees who sought help in the psychosocial walk-in clinic [28] and fulfilled our inclusion criteria. Inclusion criteria were an age of 18 or older and the ability to understand one of the following languages: German, English, French, Farsi, Arabic, Turkish, Kurmanji, Urdu, Hausa, Russia, Serbian, Albania, Macedonian, Georgian, Mandinka, or Tigrinya. We asked the refugees to participate in our study while they were waiting for their psychosocial counseling appointment. If a refugee was unable to converse in German or English, a PHV-based interpreter was called or a telephone interpreter was contacted via an interpreter service. If the individual was willing to participate in the study, they were interviewed after their counseling appointment. First, sociodemographic data questions, such as age, nationality, religion, and education level, were answered and then the interview was conducted. The clinical diagnosis information was collected from the participants' medical files after the consultation appointment. The interviews were conducted by one of the two first authors (V.Z.) who has a medical background.

2.2. Participants

In total, $n = 49$ patients waiting for their counseling appointment at the psychosocial outpatient clinic were asked to take part in the study. We interviewed $n = 22$ of 49 patients (44.9%). $n = 11$ (22.4%) patients did not meet our inclusion criteria. Other reasons for non-participation were cognitive impairment ($n = 3$, 6.1%), unwillingness ($n = 9$, 18.3%), or parallel appointments ($n = 4$, 8.2%). Table 1 shows the sample characteristics of the $n = 22$ study participants. $n = 2$ interviews were held in English, $n = 1$ interview was done with a face-to-face interpreter, and $n = 19$ interviews were conducted using a telephone interpreter.

2.3. Setting—Psychosocial Walk-In Clinic in the PHV

The psychosocial walk-in clinic is a psychosocial support offer for mentally burdened refugees. Its team consists of six professionals with psychiatric, psychosomatic, and psychotherapeutic expertise working in the Heidelberg University Hospital's Department of General Psychiatry, Department of Internal Medicine and Psychosomatics, and the Institute of Medical Psychology [28]. Since June 2019, the psychosocial walk-in clinic offers consultation hours three times a week; previously, the service was offered twice a week. Each week, the clinic can provide counseling sessions to fifteen to twenty refugees. Each consultation session is staffed with two members of the psychosocial walk-in clinic and includes clinical diagnostics, documentation, supportive and stabilizing counseling, psychopharmacological medication, and further treatment recommendations [28,29].

Table 1. Sociodemographic sample characteristics.

Sample Characteristics (*n* = 22)	
	n (%)
Gender	
Female	10 (45.5%)
Male	12 (54.5%)
Years of education	
<10 years	13 (59.1%)
>10 years	5 (22.7%)
University degree	4 (18.2%)
Education	
No education	7 (31.8%)
Professional training	9 (40.9%)
Academic education	4 (18.2%)
No data	2 (9.1%)
Country of origin	
Eastern Europe	5 (22.7%)
Asia	12 (54.5%)
Africa	5 (22.7%)
Religion	
Christianity	6 (27.3%)
Islam	13 (59.1%)
Judaism	2 (9.1%)
Atheism	1 (4.5%)
Relationship status	
Single	9 (40.9%)
Married	10 (45.5%)
Divorced	1 (4.5%)
Partnership	1 (4.5%)
No data	1 (4.5%)
Access routes to the psychosocial walk-in clinic [a]	
Self-initiated	6 (27.3%)
Other refugees	3 (13.5%)
Court order	1 (4.5%)
Physician referral	7 (31.8%)
Counseling center	4 (18.2%)
Not specified	1 (4.5%)
Satisfaction with counseling session [a]	
Satisfied	13 (59.1%)
Not satisfied	3 (13.5%)
Not specified	2 (9.1%)
Diagnoses	
PTSD	14 (64.0%)
Depression/adaptation disorder	17 (77.0%)
Both diagnoses	9 (41.0%)
	M (SD); Range
Age (Years)	32.95 (12.06); 18–57
Number of psychiatric diagnosis	1.47 (0.70); 1–3
Number of children	1.55 (2.06); 0–9

Note: [a] information provided by the semi-structured interviews. PTSD: post-traumatic stress disorder. M: mean, SD: standard deviation.

2.4. Semi-Structured Qualitative Interviews

We used semi-structured, qualitative interviews to collect data on the interviewees' experiences of their mental health problems and the counseling services provided at the PHV psychosocial walk-in clinic. The respective interviews were designed based on the methodological approach by Helfferich [30]. The semi-structured interviews comprised key questions which were followed by probing and more detailed clarifying questions. Table A1 shows the interview guideline used for this study.

2.5. Quantitative and Qualitative Data Analysis

Demographic variables and baseline characteristics were analyzed using descriptive statistics (frequencies, means, and standard deviations (SD)) and managed with the Statistical Package for the Social Sciences (SPSS) program version 24 [31]. Statements regarding the access routes to the psychosocial walk-in clinic and satisfaction with counseling session were analyzed descriptively (see Table 1).

The qualitative interviews were digitally recorded and transcribed verbatim by one of the first authors (V.Z.) using predefined transcription rules. The qualitative data were analyzed with the software MAXQDA [32] following the principles of qualitative content analysis, as described by Mayring [33]. To do this, we first defined each statement (single or multiple sentences) related to our key questions as a content analytic unit of analysis. Double statements were eradicated, and one statement referred to only one category, so no double coding was possible. We went through each transcribed interview and identified single or multiple content-bearing sentences as quotes, representing the most elemental unit of meaning [34]. Accordingly, these quotes were coded and hereby paraphrased with a term or a short sentence (coding) to summarize them into a relevant category. Thereafter, the categories were grouped into main themes until we could define a number of relevant main themes for all participants. Finally, we discussed the categories and main themes to reach consensus and adjusted them, if necessary [33]. Statements which did not refer to any of our key questions were not analyzed.

3. Results of the Qualitative Interviews

We identified 315 statements that were coded and summarized into categories. Finally, eleven categories and four main themes were derived. In the following paragraphs, we will present the main themes and categories. Table A2 shows examples of statements for each individual category within the main themes.

3.1. Mental Burden from the Patients' Perspective

The interviewees described their mental health problems symptomatically, with regard to their illness attributions, and in terms of their perceived future mental well-being.

- **Symptom level (49 quotes):** Interviewees reported psychological and psychosomatic difficulties. The majority of interviewees reported sleep problems, fears, and worries related to family members, being separated from their family, being forced to leave Germany, and the police. They also experienced rumination, decreased well-being, derealization, intrusions, fatigue, and stress symptoms. Interviewees described despairing over severe affective states including agitation, aggression, hopelessness, and loneliness. Less frequently, they also reported other psychosomatic complaints, such as loss of appetite, headaches, and kidney, nose, throat, or heart pain.
- **Disease attribution (43 quotes):** Most of the interviewees attributed their mental burden to past traumatic experiences during flight and/or in their home country. Some specified that they had experienced highly traumatic and stressful events including discrimination, physical abuse, sexual assault, war, torture, loss of family members, as well as the loss of their homes and previous communities. In addition to past events, the psychological burden was considered to be linked to their current situation, including uncertainty about the asylum process, anxiety and apprehension regarding deportation, the future, and the well-being of family members. Most

notably, interviewees often highlighted their current living conditions as a major exacerbating contributor to their psychological burden. For example, one participant stated that he no longer felt like a normal human being and that the accommodations were demeaning.

- **Coping strategies for mental burden (35 quotes):** The majority of interviewees felt that social support from their family and/or friends helped them cope with their psychological symptoms. One participant said that being around friends or acquaintances helped him forget about his mental burden, while another participant felt that talking to somebody and receiving advice helped him. Other interviewees specifically named emotional coping strategies, such as allowing themselves to feel emotions, letting go of existing fears, and finding hope or a sense of security. Several interviewees mentioned activities or behavioral strategies that (may) help them cope with their mental burden, such as attending a language class, participating in the stabilization group offered at PHV, or engaging in physical activity. Some of the interviewees reported considering professional support, like medical or therapeutic care, as an important part of their coping strategy. One interviewee said that practicing his religion helped him to cope with his symptoms. Interviewees were also asked how they would deal with symptoms in their home country. About half of the interviewees reported that they would have reached out for medical or therapeutic support. In contrast, others indicated that they would not have had the possibility of getting help back home. Several interviewees said that their social network and community had been their main coping strategy. One participant said that he thought he would have become suicidal if he had remained in his country.
- **Expected future course of mental health (24 quotes):** The majority of the interviewees felt optimistic about their future mental health. One participant said that she felt optimistic about getting better because her family (husband, children) were now in safety. However, the interviewees also emphasized several necessary prerequisites before they felt their mental health could improve, including feeling safe, being less exposed to noise in the center, receiving medical and psychological support, and being granted asylum in Germany. One person stated that she thought she would feel better if she could find a goal for her future. Others thought that they would get better if they were able to receive regular medical and therapeutic help in the future. Some interviewees said that they hoped that they would feel better next year, while others said they were unable tell. One patient expected his mental health to deteriorate further in the future.

3.2. Access to the Psychosocial Walk-in Clinic in the PHV

Regarding the contact to the psychosocial walk-in clinic, the interviewees described the following impeding and facilitating factors:

- **Barriers (25 quotes):** Most interviewees did not mention any impeding factors. One interviewee stated that if he started something he finished it. Some interviewees reported structural barriers to treatment, and insufficient counseling appointments to meet existing needs and the resulting long waiting times were mentioned most frequently. One participant said that he had been unable to get an appointment the preceding week. Personal barriers were rarely mentioned, but often included stigmatization fears and feelings of shame about seeking psychotherapeutic support. One interviewee stated that he had been quite nervous about the upcoming appointment.
- **Facilitating factors (12 quotes):** Interviewees reported that most often, medical staff, social legal process counseling staff, PHV interpreters, and other interviewees at the psychosocial outpatient clinic had encouraged them to use the therapeutic services. Others said their faith in the effectiveness of therapy had motivated them to seek help at the clinic. One participant stated that he had prior therapy experience. The interviewees highlighted the clinics' walk-in approach and relatively short waiting times as key facilitating structural aspects.

3.3. Perception of Counseling Sessions

The interviewees named helpful and difficult aspects during counseling interactions.

- **Helpful (37 quotes):** Most interviewees experienced the counseling sessions as helpful. Specifically, the interviewees said that they gave them confidence, encouragement, hope, and orientation. Other interviewees said that the conversations with the therapists soothed them or made them feel better. Several interviewees mentioned that they felt that the therapists' attentive, respectful, and caring attitude particularly helped them. One participant stated that she appreciated that the therapist had not asked her about her failed suicide attempt in too much detail. Other interviewees reported experiencing feelings of safety and trust because of the counseling interactions. For example, one participant stated that he felt the therapist trusted and cared about him. Interviewees frequently named building a trustful relationship with the therapist as well as receiving psychiatric medication as the most helpful supporting factors in their experience of the walk-in clinic. In addition, interviewees appreciated learning stabilization techniques in the PHV's group therapy services and receiving medical reports.
- **Difficulties (42 quotes):** Most interviewees stated that they had not experienced anything difficult or strange during the counseling sessions. One participant stated that nothing had been able to help him yet. A few interviewees mentioned structural difficulties, such as crowded waiting areas, hearing other patients during counseling sessions, and interpreter-mediated communication. Personal difficulties included finding it stressful or upsetting to talk about certain experiences or, conversely, not being able to specifically address certain topics. One interviewee felt that the different cultural backgrounds also impeded the patient–therapist alignment and mutual understanding.

3.4. Perception of Follow-Up Treatment

The interviewees also described their motivation as well as facilitating and impeding factors regarding further therapeutic help outside the state registration and reception center following their move to municipal housing.

- **Motivation (30 quotes):** Most interviewees stated that they would like to continue receiving therapeutic support in the future. Other patients answered that they would do so depending on how their psychological complaints would develop or whether the social environment was in favor of further treatment. Three interviewees indicated that they were unlikely to seek further treatment because they believed that a secure residence status in Germany would necessarily lead to an improvement of their mental state.
- **Barriers (11 quotes):** Interviewees mainly listed internal barriers preventing them from seeking mental health services in the future, including feelings of shame about seeking therapeutic support or having mental health problems, fear of stigmatization, as well as memory- and concentration-related difficulties. For example, one participant said that she was worried that peers might ridicule her, if she went to school and they found out she was seeing a therapist and taking medication. They also mentioned structural problems, which included lack of time, insufficient language skills, difficulties in obtaining information about therapeutic services, and a negative asylum decision.
- **Facilitating factors (7 quotes):** Interviewees felt that the widespread availability of mental healthcare services in Germany along with ample opportunities to find out about them would make it easier for them to find follow-up psychosocial treatment offers. One participant stated that there were laws in Germany to this regard. Additionally, interviewees stated that they felt they could access follow-up treatment with the support of family or friends.

4. Discussion

This study aimed to shed light on refugee patients' perspectives on their psychological burden, use of low-threshold healthcare, as provided by the psychosocial walk-in clinic in a state registration and reception center in Germany, and their future help-seeking attempts regarding follow-up treatments. Our qualitative results show that psychological stress was mainly described on an emotional and cognitive level and less frequently voiced via psychosomatic symptoms. Additionally, participants emphasized the impact of post-migratory stressors as exacerbating contributors to their mental health problems. The majority of interviewees were satisfied with the counseling provided by the psychosocial walk-in clinic. Participants particularly appreciated the supportive, resource-focused, and trust-building conversations with the therapists, pharmacological treatment, as well as access to ancillary services, such as a stabilization group, and the receipt of medical reports. Prior recommendation and encouragement by others as well as the belief in the effectiveness of therapeutic support were named as factors facilitating psychosocial walk-in clinic attendance. Perceived difficulties were mainly seen in structural barriers, such as the clinic's confined waiting area and the generally high noise level, as well as long waiting periods. However, interviewees also named internal factors, like feelings of shame and fear of stigmatization. Most interviewees felt motivated to seek further therapeutic support in the future. Regarding barriers to future therapeutic support, participants named internal difficulties, such as feelings of shame, fear of stigmatization, as well as language barrier-related concerns and lack of information about respective support offers.

Regarding their mental health, the interviewees most frequently stated psychological problems on an emotional and cognitive level and only named a few somatic symptoms. While several previous studies have suggested that refugees tend to express their psychological distress through somatization [35–37], statements regarding somatic complaints were less frequent than one might have expected in this study's sample. The symptoms described by the respondents can be seen as part of their mental illnesses, such as PTSD, depression, and adjustment disorder. Especially somatic symptoms, like heart pain or heart excitement (see Reference [36]), can often be somatic manifestations of the patient's world of affective experience. Our data suggests that our interviewees had a high awareness of mental illness as well as good symbolization abilities and did not seem impeded by the various reasons previously named to explain high somatization rates in refugee populations, which include social and cultural acceptability, fear of stigma, somatic rather than psychological symptom expression, somatization as a cultural sign of distress, and alexithymia [38]. However, our interviewees' good symbolization abilities, as in their ability of expressing emotions and understanding their somatic manifestations, might be explained by the fact that they were patients attending the psychosocial walk-in clinic for mentally burdened refugees and asylum seekers and, thus, are a rather more select group.

The burdening symptoms were attributed to past events and to post-migratory distress factors. This is in line with previous findings in which refugees have named past and flight-related experiences as well as stressful aspects of the current life situation as causes for their poor mental health [35,39–42]. For instance, in Zbidat et al.'s study [36], symptoms of insomnia or fatigue were linked to events like loss of one's family, possessions, and home. Further, post-migratory distress factors were associated with enhanced vulnerability for mental health problems [43–45]. Interestingly, previous studies have also identified supernatural and religious beliefs as important factors in their participants' theory of illness regarding their mental illness [46,47]. Spiritual or traditional belief systems regarding the causes of psychological symptoms may be associated with help-seeking behavior outside the healthcare system [48]. However, none of the interviewees mentioned any religious or supernatural factors in our study sample. This may be explained by the fact that mental health literacy increases with the use of mental health services [49–51].

In addition to psychological burden, interviewees reported various coping strategies, including social support or emotional and behavioral strategies. Religious practice was only specifically mentioned once. Social support and religion have been named as key

and preferred coping resources in previous studies, while seeking professional help was rare [39,40]. Interestingly, consulting a therapist/medical professional was a frequently cited coping strategy in our study. This could be explained by the fact that the psychosocial walk-in clinic is an established and well-accepted service in the registration and reception center. This may not only facilitate low-threshold healthcare access but also promote mental healthcare awareness as well as acceptance. Furthermore, the interviewees in our sample seemed to be rather open-minded towards professional medical and therapeutic help. This is reflected by the fact that 50% of the interviewees said they would have reached out for a professional in their home country. The fact that professional help was seen as so important may also be related to the fact that the other coping strategies alone were no longer experienced as sufficient to manage the increasing psychological symptoms. Especially, the early post-migratory phase holds multiple challenges, such as uncertainty about the asylum procedure, frequent reallocation to other accommodations, and having to start adjusting to a new country and a new environment. This can cause trusted coping skills to become inadequate.

Interviewees were hopeful about the prospective course of their mental state. Indeed, the majority expected to see improvement in the future. This is particularly interesting considering that negative cognitions and emotions, such as hopelessness, helplessness, and resignation, are frequently associated with the diagnoses of post-traumatic stress disorder, depression, and adjustment disorders [52]. Keeping in mind that optimism can impact mental well-being, this optimistic attitude is a valuable resource [45]. However, different longitudinal studies underline that mental healthcare needs are extremely high among refugees and asylum seekers [10,53–55]. For instance, Nikendei et al. [14] conducted a three-month follow-up study to assess patients' further course of mental health after attending the psychosocial walk-in clinic in the PHV. While they were able to show improvement in depression, panic, and psychosocial well-being, the levels were still clinically relevant. No changes were found for PTSD or generalized anxiety disorder. They further examined access to healthcare and concluded that while most patients had access to general practitioners and local psychiatrists, none of the assessed refugees had access to outpatient psychotherapy. Regarding the access to the psychosocial walk-in clinic, facilitating factors, such as recommendation and encouragement by medical or social staff members working in the PHV as well as other refugees, helped them reach out to the psychosocial walk-in clinic. Only a few interviewees came on their own accord. According to Asgary and Segar [56], stigmatization, shame, mistrust, low trust in mental health services, lack of information, and low health literacy are key internal impeding factors in mental healthcare access. Personal and professional referrals appear to raise awareness, motivate, and encourage affected individuals and reduce initial fears of stigmatization, not least by providing necessary information. Our findings suggest that the interplay of different mental health and medical organizations is of great importance to facilitate refugees' access to mental health services, especially with regards to overcoming barriers. Unfortunately, difficulties in recognizing and dealing with clinical and social problems, low between-healthcare provider inter-collaboration, as well as diagnostic insecurities often impede professional help [6,7]. In the present study, interviewees mentioned few barriers preventing them from attending the walk-in clinic. This may be explained by the clinic's low-threshold service structure characterized by easy accessibility, walk-in policy (no prior appointment needed), free treatment, and on-site interpreters.

Most interviewees were highly appreciative of the counseling sessions and felt that the conversations there helped them. In the literature, conveying hope and confidence, feelings of safety, trust, confidentiality, as well as respectful, appreciative encounters, form the foundations of positive therapeutic interactions [57–59]. Several authors argue that the importance of these relational aspects becomes even more significant due to the backdrop of the adverse and dehumanizing experiences refugees have suffered [58,60]. Accordingly, psychosocial work with refugees should be directed toward a therapeutic relationship that is conducive to trauma management. This is, in fact, very appreciative of

the professionals working in the psychosocial walk-in clinic. Particularly, since counseling sessions in the clinic are often the refugees' first experience of therapy, and expectations differ due to difficulties in distinguishing between the professional focus of psychologists, psychotherapists, psychiatrists, and general practitioners.

While the positive perception of psychopharmacological treatment found in our study is consistent with previous findings [61], biological components of mental health disorders were not explicitly represented in their theories of their mental illness. Frequently, inadequate mediation intake or low compliance can be a problem [62]. According to Nikendei et al.'s [14] follow-up study, 51.9% of patients had continued taking their prescribed medication three months after they had last visited the psychosocial walk-in clinic. Interestingly, medication was one of the refugees' least preferred coping strategies in Markova et al.'s [40] study. Here, older participants in particular were more skeptical towards psychopharmacotherapy. However, in our study, the respondents were around thirty years old. Consequently, one could speculate that they might have been more receptive of medication and more open-minded in their help-seeking behaviors. Nevertheless, the interviewees also valued the stabilization-focused group psychotherapy as an adjacent offer. Stabilization group psychotherapy [23,24] and the self-practice of stabilizing techniques via audio-files [25] have been shown to increase mentally burdened refugees' emotional stability in the early post-migratory phase. In general, guided-imagery techniques can be a valuable resource in cross-cultural work and treating PTSD [63,64].

Difficulties in the context of therapeutic encounters can include the use of interpreters [65,66], fear of verbalizing (emotional) problems [67], and differences due to cultural differences [68]. Furthermore, doubts about the usefulness or effectiveness of psychosocial treatment have also been addressed in previous studies [58,67]. Although perceived problems matched the inhibiting factors described above, they seemed to be low in our study, where feelings of gratitude for receiving therapeutic support clearly outweighed perceptions of difficulties. Unfortunately, interculturally trained, foreign language, and specialist language qualified therapists are rare and mental health services often have to rely on interpreter services. Still, the patient's and the interpreter's cultural background as well as their fit should always be taken into account. Professional knowledge about cultures and culturally sensitive communication are key in efforts toward bridging cultural barriers in healthcare. Hence, culturally sensitive communication training programs should be established. Regarding the high levels of noise in the waiting area, a respondent advised putting up "Please be quiet" signs, which could prove to be a simple solution to a big problem. However, as the clinic location is in former military barracks, which were by no means originally built for medical and psychosocial care, these structural barriers will be difficult to solve and reflect the difficult accommodation situation that refugees face in the PHV. In addition, it must be noted that questions about critical aspects or suggestions for improvement often remained unanswered or received evasive answers.

With regard to the pursuit of follow-up treatment outside of the PHV, most patients felt motivated to reach out to psychosocial services after municipal accommodation. Nonetheless, some patients hoped that their mental health would improve as post-migratory stressors subsided and felt they would not need further help. In line with previous findings [56,59,60,69], our sample cited shame, fear of stigmatization, lack of time, symptom-related difficulties, and lack of information as barriers. Overall, patients were optimistic about their post-reception center treatment access possibilities to therapeutic care. However, despite the refugees' belief in the availability of psychosocial care structures, there is still a great shortage of psychosocial care services in reality [16,17]. While the psychosocial walk-in clinic within the center is undoubtedly an important service, such offers are regrettably rare. Rehabilitation centers for refugees and survivors of torture as well as relief organizations play an important role in later mental healthcare for mentally burdened refugees in Germany [17]. Still, the attendees' positive experiences during therapeutic consultations in the walk-in clinic may help refugees later when seeking further psychosocial support. Strengthening the interconnections between the diverse actors involved in the psychosocial

care of refugees is essential to ensuring that transitions to further direly needed treatment are successful. Patients attending the psychosocial walk-in clinic receive a medical report which includes information about their reason for attendance, symptoms assessed during the counseling session, clinical diagnoses, medication prescriptions, and further healthcare referrals. This can provide future healthcare professionals with an impression and guidance as to how to proceed. Unfortunately, interconnections between the psychosocial walk-in clinic and local professionals are still limited. Furthermore, as refugees are often relocated all over the country after leaving the intimal reception center, a nationwide network needs to be established.

5. Limitations

This qualitative study has several limitations. First, it relies on self-reports as is common in qualitative research. Hence, we cannot rule out compliant or socially desirable responses. We conducted the interviews shortly after a counseling session. Hence, the interviewees may have responded in favor of the psychosocial walk-in clinic. Second, we did not examine possible culture-specific influences which may have affected our results. Cultures differ regarding gender roles [70]; therefore, it has been suggested that the professional's ethnic background and/or gender should match the patient in professional mental health settings [71]. In our study, the interviewer was female which might have affected the interviewees' responses. Further, most interviews were conducted using a telephone interpreter with whom we had no prior contact. Colucci et al. [71] pointed out that gender, age, as well as cultural and ethnic dynamics should be considered when using an interpreter. Hence, the interviewees' responses may also have been influenced by the interpreter as we were unable to match their cultural backgrounds. Third, our analysis followed Mayring's principles of the qualitative content analysis [33]. Accordingly, content-analytical analysis units were defined before the qualitative analysis. In our study, units were defined as any statement (single or multiple sentences) referring to our key questions. This procedure may have led us to overlook other emerging themes in the interviews which were not part of the key questions. Fourth, limiting our results' generalizability, the psychosocial walk-in clinic's patients are a specific and selected group of refugees seeking help. Furthermore, we did not assess their mental health history in their country of origin or specifically record if the symptoms had occurred due to pre- and/or peri-migratory distress factors. Refugees and asylum seekers fleeing their country of origin because of limited access to mental health services are likely to be more open to mental health services in the host country.

6. Conclusions

The psychosocial walk-in clinic within the registration and reception center is perceived as an important psychosocial support offer for mentally burdened refugees in their early post-migratory distress phase. Current living conditions and post-migratory distress factors were stated as particularly burdening. The interviewees saw the therapists' attitude as a very important factor. Further training focusing on cultural differences and cultural-sensitive communication could be installed to improve the offer. The refugees' positive experience of the psychosocial walk-in clinic may help them overcome internal barriers when seeking mental health treatment in the future. Nevertheless, mental healthcare literacy programs and nationwide interconnections between professionals are crucial in providing refugees with adequate access to mental healthcare offers.

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Conflicts of Interest: The authors declare no conflict of interest.

Appendix A

Table A1. The Interview Guide Used for the Current Study.

Interview Guide
• How did you hear about the Psychosocial Walk-In Clinic in the PHV?
• What made it difficult to use this offer?
• What were your reasons for using the offer?
• What was helpful?
• What was not helpful/difficult for you during the consultation?
• What was strange/difficult before? Was something different than you expected?
• What else would you have needed during your consultation?
• Did you get the support you hoped for during the consultation?
• Which complaints are currently bothering you?
• Where do you think your current complaints come from?
• How do you deal with your complaints?
• How would you deal with such complaints in your home country?
• How will your symptoms change next year?
• What is your opinion on psychological support as a medical treatment method in general?
• Would you like to receive psychosocial support after your stay in PHV?
• Do you think you will seek further psychotherapeutic help after the PHV?

Table A2. Examples of Statements for Each Individual Category within the Main Themes.

Main Themes and Categories	Example Codes
(A) Mental burden from the patients' perspective	
• Symptom level	*I want to rest, I want to be better, I used to be a coach, I want to be very well. It was different before I was doing very well. Now, I am exhausted. I don't sleep, I don't eat, I started smoking again.*
	So doctor . . . , I also usually have heart pains when . . . I remember earlier or all the memories come up, then, I also usually have heart pains and then I feel very bad.
• Disease attribution	*This whole thing with what he, what he's been through, that makes him mad. . . . the things, the stories, what's happened so far, and the past makes me sad.*
	So, I am stressed because of that, quite simply, on the escape route, on our escape route in Greece, there (. . .) there was a knife attack on the husband of my girlfriend who was traveling with us and from that moment on I was afraid
	Ninety percent of my fears . . . so those are my return to Italy
	Now, he is here, and he has expanded his life again more or less. He has found friends; he has found rituals in his life . . . The, he's definitely tried to make his environment as familiar to him and as he feels comfortable. Now, when he thinks that he would have to leave that again and start somewhere else, something new again, that gets him down.
• Coping strategies for mental burden	*When I am with the friends, acquaintances, . . . then I forget my, . . . problems. Then I feel a little . . . better*
	If I cried now . . . so that I would somehow be more relieved then maybe it would get better
	It would help me a lot if I could go to school. Because I was such a good student. And I love going to school (laughs). Many, many here don't like it. But I really do.
	It helps him . . . that he is with the doctor. (. . .) And he also knows that everything takes time.

Table A2. *Cont.*

Main Themes and Categories	Example Codes
• Expected future course of mental health	*I hope so and I think so, right or not.* *It all depends. I think when I find a way and have a goal of what I'm going to do next, I feel better. But without the goal and the plan what will become of me then I feel bad. This uncertainty of what's going to happen to you. It will be better for me here in Germany, I think. Things will be a little bit better. Yeah. Even not with money or anything but with my life. Yeah. I think it will be better here*
	(B) Access to the psychosocial walk-in clinic in PHV
• Barriers	*Only the difficult thing is, to meet him, because it is from Monday in the morning and Wednesday in the afternoon. And sometimes, if you come in the afternoon late, you could not meet him because many people are there.* *Yes, . . . I was kind of afraid that people would find out and then laugh at me because I'm here with a psychologist now (yes). Yes.*
• Facilitating factors	*Yes, I, I thought I (..) I will be helped. I will be able to sleep better, feel better.* *So he got that from his interpreter.* *Without making . . . an appointment that is a relief for us to just come by and get treated. That is a great relief for us.*
	(C) Perception of counseling sessions
• Helpful	*Yeah, she encouraged me and listened to me. I have everything is going to be okay* *They have motivated me. You have made me brave.* *I also liked the way they . . . which medications I need, . . . I also liked that.* *And the exercises that in some situations where I have so quite stress that I calm down a bit.* *They have applied to the social welfare office and the court that I am allowed to go to my family.*
• Difficulties	*No, nothing seemed strange to us, completely normal, just like us.* *He has difficulties just talking about it, so he wants to say it but he realizes (. . .) it's hard for him. So he finds it hard to talk about it in general.* *. . . he says since we have cultural differences, it would be much better that he goes to a doctor, for example, that he has Persian background. And he can understand him better. So now with the translator and the language and then the different questions, which for him sometimes also has no sense, because it just does not fit to his culture* *The noise that she actually hears while she's sort of in this consultation, that sort of messes her up sometimes.*
	(D) Perception of follow-up treatment
• Motivation	*I would like to, because I think it is very important and it affects many African people. They don't know this.* *Yeah. I never been to a psychiatric doctor before in my life. So this is important. And I will be going all the time.* *If I would continue to have my problems, then I will . . . . see a psychologist* *No. I hope God is the one who gives health.*
• Barriers	*Only that others find out and then laugh at me. . . . Because I've been bullied so often, I'm really so afraid of it (laughs).* *He just doesn't know because he can neither speak German nor English how he will get to it later.*
• Facilitating factors	*If we were allowed to stay in Germany or were not deported, we could make use of all (.) help. There are enough human rights in Germany in this regard.*

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Article

African Refugee Youth's Experiences of Navigating Different Cultures in Canada: A "Push and Pull" Experience

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Abstract: Refugee youth face challenges in navigating different cultures in destination countries and require better support. However, we know little about the adaptation experiences of African refugee youth in Canada. Accordingly, this paper presents the adaptation experiences of African refugee youth and makes recommendations for ways to support youth. Twenty-eight youth took part in semi-structured interviews. Using a thematic analysis approach, qualitative data revealed four themes of: (1) *'disruption in the family,'* where youth talked about being separated from their parent(s) and the effect on their adaptation; (2) *'our cultures are different,'* where youth shared differences between African and mainstream Canadian culture; (3) *'searching for identity: a cultural struggle,'* where youth narrated their struggles in finding identity; and (4) *'learning the new culture,'* where youth narrated how they navigate African and Canadian culture. Overall, the youth presented with challenges in adapting to cultures in Canada and highlighted how these struggles were influenced by their migration journey. To promote better settlement and adaptation, youth could benefit from supports and activities that promote cultural awareness with attention to their migration experiences. Service providers could benefit from newcomer-friendly and culturally sensitive training on salient ways of how experiences of multiple cultures affect integration outcomes.

Keywords: youth; refugee; qualitative research; adaptation

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1. Introduction

Refugee youth form a considerable proportion of the migrant population and their adaptation to the Canadian society is crucial. In 2016, 1.2 million new migrants had settled in Canada in the preceding five years and refugee youth made up 12.4% (approx. 150,300) of them [1]. Migration and the resultant acculturation can be stressful and result in poor psychological and socio-cultural adaptation [2].

Refugee youth arrive in Canada with their own cultural norms and beliefs and often struggle to blend in with the culture in Canada [2–4]. The youth experience challenges with education [5], careers [6], legal, and employment system [7]. They must work at finding a balance between the culture from their country of origin and the mainstream culture of Canada. To navigate different cultures, refugees may utilize acculturation processes of integration, assimilation, marginalization, and separation [8]. With integration, certain facets from the heritage and mainstream culture are adopted [2]. Assimilation involves immigrants and refugees seeking distance from their heritage, while placing effort into blending into the mainstream culture. Marginalization involves situations where immigrants and refugees may not want to associate with either the mainstream, or their heritage culture. Separation on the other hand, refers to circumstances where newcomers seek to stay with people from their culture while avoiding the mainstream culture [2].

Studies of migrants at their final destination countries report that the type of parental support and practices, language proficiency, cultural distance, and experiences with dis-

crimination can shape youth's adaptation experiences [2–4,9–14]. For instance, harsh parenting and a lack of parental support for unaccompanied refugee youth leads to adaptation difficulties such as lack of positive supportive relationships [9,10,12]. A notable cultural distance between youth's home country and country of resettlement is associated with an increased likelihood of experiencing poverty, discrimination, and poor mental health [3,15–17]. However, having a strong foundation in one's original culture and identity can help to navigate the challenges related to cultural distance [10,16,18].

To overcome acculturative stress and struggles, research reveals that refugee youth in general can benefit from reshaping their identities and engaging in meaningful activities, as well as having social support, positive emotions, and friends [19–22]. Research specific to African refugee youth in final destination countries found that they manage acculturative stress by a number of strategies including relying on religion [23,24], maintaining a sense of collectivity and communal support, relying on their families, heavy alcohol use, making sense of the challenges, cultural orientation and focusing on positive thoughts [16,24–27]. Other African newcomer youth manage acculturation stress by maintaining their heritage such as eating food from their African countries of origin and speaking dialects from their African countries of origin [28]. In addition, African newcomer youth have been found to adapt by learning about new cultures, changing their habits, suppressing their thoughts and memories of past struggles, and becoming self-reliant even when support is available [27–29].

In a meta-ethnography by Kennedy and MacNeela [21] that examined the acculturation experiences of youth who immigrated from Asia, Middle East, Africa, and the Americas, most of the reviewed studies involved youth who moved to United States. Findings from this work revealed that youth made sense of acculturation based on their life worlds, pre-immigration experiences, cultural identities, and aspirations as shaped by the life domains of family, school, and peers. Youth experienced changes in the role and relationships within their families. When it came to school environments, youth had mixed experiences of receiving support and felt excluded because of language, religion, and skin complexion. Youth adapted to acculturation by keeping ties with peers from their ethnic communities but also found distance between their groups because of divergent beliefs and lacking financial resources.

Refugee youth usually come with a history of living in refugee camps or within informal settlements that can affect how they adapt to their acculturation in their final destination countries [30]. Influencing their acculturation and adaptation experiences are socioeconomic factors, poor access to education, insecurity, policies, and gender divisions that can lead to discrimination, poor health and settlement challenges. While research exists about refugee youth's adaptation experiences including the way they navigate different cultures in their final destination countries, it mainly involves quantitative methods and non-African youth with a focus on second-generation migrant or refugee youth [21]. Research that examines the adaptation experiences of newly arrived African refugee youth in Canada is critically needed. Such research is crucial in understanding youth adaptation experiences in their destination country. Gaining an understanding of these youth's experiences can help to inform and improve adaptation and settlement support programs specific to youth. Accordingly, the purpose of this paper is to present research findings that depict the adaptation experiences of African refugee youth in Canada.

2. Materials and Methods

2.1. Design

In order to arrive at an understanding of youth's adaptation experiences, a qualitative research study approach was used [31]. A qualitative approach that was cross-sectional in nature helped to ensure a richness of data by affording youth the opportunity to express their migration experiences in ways that are meaningful to them and present their authentic accounts of navigating and adapting to different cultures.

2.2. Ethical Considerations

Prior to collecting data, we took steps to ensure ethical considerations were maintained. First, we obtained ethical approval to conduct this study from the Education and Nursing Research Ethics Board at the University of Manitoba. Second, we obtained consent from youth who were at least 18 years old while we obtained assent from youth who were 17 years old and younger in addition to consent from their parents.

2.3. Data Collection

This study was conducted in Winnipeg (population: over 828,000), Manitoba (population: 1.336 million), in mid-Western Canada [32]. Refugee youth (between ages 15 and 29) who migrated to Canada in the preceding six years were recruited through purposive and snowballing sampling [31]. Purposive sampling was used to allow for selection of information rich participants to take part in the study. Snowballing sampling was used to allow youth to refer other African refugee youth who met the recruitment criteria to take part in the study. Similar to Statistics Canada, we describe youth in our study as people between the ages of 15 and 29 [33]. Youth were recruited using posters, information sessions at immigrant and refugee centres and through word of mouth (participating youth referring their peers to the study). Youth took part in semi-structured interviews which created them the space to share what was important to them as well as helping us to arrive at a deeper understanding of their experiences. The interviews which were between an hour to an hour and a half long, were digitally recorded. The interviews were conducted by three research assistants trained and supervised by the first author. Youth were interviewed in English, French, or Kiswahili. In those situations where youth chose to communicate in French or Kiswahili, a certified translator was present to provide translation and back interpretation. At the end of every interview, the research assistants completed field notes about the interview settings, non-verbal communication, and their reflections. In the interviews, we asked youth questions such as "Can you please tell me about yourself?" "What was life like for you and your family before coming to Canada?" "Could you please tell me what it was like for you and your family to come to Canada?" and "What did it feel like when you first got here?" These questions led to youth talking about their life in their countries of origin, their cultural backgrounds, identity, and comparisons between their backgrounds and Canadian culture. Further probing took place to gather more understanding on their adaptation experiences.

2.4. Data analysis

Interviews and field notes data from youth informed data analysis. Digitally recorded interviews were transcribed verbatim. The interview scripts and field notes were read multiple times to get a sense of the data. Then, using careful line-by-line coding, chucks of sentences on the transcripts were assigned codes. The codes were compared, contrasted, and combined to form categories. Continuing with the process of comparing and contrasting, categories were clustered together to form themes [31].

Several measures were taken to ensure that the study was rigorous. We spent a prolonged period of time with the data and utilized reflexivity whereby our reflections and preconceptions were documented on field notes. During data analysis, we revisited our reflections and compared them with study findings. The researchers came from different backgrounds (Caucasian and African descent with expertise in nursing, political studies, and community health) which provided room for approaching the study phenomena from different perspectives [34,35].

3. Results

3.1. Participant Characteristics

We recruited 28 youth who had recently moved to Canada. The sample was arrived at upon realizing that we were coming across redundant information in our interviews which was an indication of data saturation [36]. There were 9 (32.1%) females and 19 (67.9%)

males between ages 13 and 25 (Mean = 19.2, SD = 3.52) years. There were 10 (35.7%) adolescents and 18 (64.3%) young adults. Most of the youth were originally from the Democratic Republic of Congo (DRC) (57.1%), Burundi (14.3%), and Somalia (7.1%). The youth arrived in Canada as refugees with 7 (25%) of them being unaccompanied, 15 (53.6%) being accompanied by their families while 6 (21.4%) were accompanied by one of their parents. By the time of carrying out the study, youth had lived in Canada for an average of 4.87 years.

3.2. Youth's Cultural Adaptation Experiences Before Coming to Canada

Experiencing new cultures and undergoing the process of acculturation started when youth left their countries of origin. Youth migrated through different transitional countries in Africa where they lived for between 1 and 13 years. Twenty-five (89.3%) of the youth lived in one transitional country, while three (10.7%) lived in multiple countries prior to migrating to Canada. When asked about where they lived after leaving their countries of origin, youth's responses reflected a journey through countries and was similar to the following quote:

> "*I left Sudan and went to Ethiopia to start school and then I stayed for a couple of years then they gave us a resettlement paper. We filled it out and ended up coming here.*" (25-year old Sudanese male)

Youth moved through countries because of war or other conflicts. At times, their families stayed in more than one place as they searched for an ideal place to settle leading to a sense of instability. In their discourse, youth used phrases and words such as you have to *"move to a different province," move to a different country," "you have to go back,"* and *"we never lived permanently in one place,"* to emphasize the instability that living while on the move created.

Living in multiple places and countries introduced them to new cultures with youth having to deal with multiple ethnicities. One of the youth that migrated to Cameroon from Burundi mentioned:

> "*We went to Cameroon, I saw our house, the new house and I was surprised, I was not used to it. It felt so weird. I saw the people and they were all different because there were people from Burundi and Cameroon. Their cultures were also different.*" (20-year old Burundian male)

Youth often, felt discriminated because of their ethnicities and countries of origin. Because of facing discrimination, youth struggled to belong:

> "*Well at first, it was kind of hard because people in Nigeria were insulting us by saying, 'You Congolese people, you guys cannot stay in your country,' because there are a lot of Congolese people in Nigeria. I felt like the people there were ignorant, I felt like I had nowhere to go, my life was ruined, and I did not know why I was still living.*" (22-year old Congolese male)

The challenges of living in places other than their home country helped to shape youth's identity and approach to navigating different cultures. For the most part, youth integrated to the cultures and their identity evolved to the point of feeling more connected with the transition countries rather than their birthplaces. When it came to the time of migrating to Canada, youth expected their experiences to be better. Youth expected to tap into their identity and integration experiences of living in multiple countries and finding ways to adapt to different cultures in Canada.

The youth's cultural adaptation experiences in Canada are depicted in the four themes: (1) disruption in the family, (2) our cultures are different, (3) searching for identity: a cultural struggle, and (4) learning the new culture.

3.2.1. Disruption in the Family

On the theme of 'disruption in the family,' youth talked about separation from their parent(s) because of their experiences of leaving their countries of birth, and its influence on their adaptation in Canada. Youth's parents separated because of divorce, or because one or both parents moved to a different country in search of opportunities that were missing in their countries of birth. At other times, the disruption was because of loss of one of the parents. One of the youth who was originally from Burundi narrated that his parents separated because his father needed to find better employment:

> "*My dad went back to Burundi to work because in Cameroon it was hard for him to work. In Cameroon, it is not easy to find a good job and stay there. In Cameroon he had a nice job, but they did not pay him well. The payment was always late yet in Burundi he had a better position, so he went back in Burundi to work.*" (20-year old Burundian male)

In the initial times after their families were disrupted, youth struggled to understand the reasons for the separations and whereabouts of their parents. Loss of contact with parents resulted in youth feeling ill fated, lonely, and sad. Two refugee youth mentioned:

> "*My parents divorced when I was like four years old, so I never saw my father since I was like seven years old. You know to grow up with that longing for my father is not so lucky.*" (14-year old Somalian male)

> "*I ask my mom, 'Who is my father?' Sometimes she tells me, 'Your father was a good man, he usually helped me a lot, he was trustworthy,' all those. But I ask her, 'Why did he leave us?' She tells me, 'I do not know too.' It makes me wonder.*" (14-year old Somalian male)

Youth coped with the experience of living without their parents by seeking out for opportunities on their own. One of the youth who was left by his parents when he moved to Canada talked about living far away from home and learning to be self-dependent. He migrated to Canada with his sister, but his parents never joined them. They remained in Sudan. He found it difficult to live away from his parents but felt that the experience shaped his perspectives and approach to life:

> "*I keep repeating 'it is a hard time' because as a kid I did not get that love that one is supposed to get from their parents. I was just going to school and pretty much raised myself. I had to grow up on my own, never stopping to work for something that I wanted. I never gave up or whined for anything. I never ask anybody for anything, but I believe in hard work.*" (25-year old Sudanese male)

When parents separated, either one parent raised the youth or a relative whom they felt affected their future relationships. For example, one of the youth who was raised by her grandmother had difficulties in relating with her stepsiblings and mother when they reconnected in Canada. The teenager felt misunderstood by her stepsiblings and struggled to understand them as well.

> "*When I arrived, I joined my family and it took me a long time to connect with my stepsiblings. I knew that they loved me, but I was not used to them. When I came, I just used to live with my cousin, my sisters, and my brothers. I never had a chance to talk to my stepbrothers, and then when I came everybody was happy to see me. However, we could not understand each other. It was so hard. I was so sad and sometimes I thought that maybe my mother did not like me either.*" (18-year old Congolese male)

The family disruptions that took place before and during youth's resettlement, made it difficult for youth to settle down and adapt to life in Canada. These youth lacked the social support by their parents.

3.2.2. Our Cultures Are Different

On the theme of 'our cultures are different,' youth talked about differences between cultures from their African countries of origin and Canadian cultures that were evident

upon their immigration. Youth were relieved to come to Canada but were astonished to face new challenges. The cultural differences between their birth countries and Canada were great. In their discourse, youth talked about the differences as a '*culture shock*' and went further to describe how families, parenting, and food were perceived differently. Youth used words like *'here,' 'there,' 'back home,' 'in Africa,'* or *'in Canada'* to elaborate on the cultural differences in the two places.

In youth's discourse about how families were different, they felt that in Canadian culture, families are more of the nuclear type, which comprises of a father, mother, and children. Whereas in their countries of birth, families were perceived to go beyond the connotations of nuclear types to include community members and neighbours. Because of the family structure in birth countries, one felt a sense of support, sense of belonging, and believed there was someone watching their back while in Canada, there was a sense of loneliness, isolation, and individualism.

Some people have a different concept of family. For example, in the African culture, family does not just mean you, your parents and your siblings. It is basically the neighbours. You consider them as family such that everybody knew everybody pretty much. (16-year-old Burundian Male)

In expressions of familism, refugee youth's families expressed a welcoming attitude to guests. During data collection, research assistants were often asked to join families in sharing meals, which was common in the culture of many African countries. One of the research staff reflected the welcoming experience where other people are perceived as family members and invited to share meals. In her field notes, she stated: "I was impressed and humbled by the way the participant and her family welcomed me. After the second interview, they insisted that I share a meal with them. I observed from the food that they did not have much prepared, but they insisted that they share the little they had with me." Their generosity reminded her of a proverb from her country back home which states, "*However little food we have, we'll share it even if it is only one locust*" [37].

Youth felt there were differences between the cultures around parenting at their countries of birth and Canada. At their countries of birth, youth felt the culture around parenting involved disciplining children using stricter and firmer behaviours such as parents "*shouting orders*" at their children. However, the cultures in Canada encouraged parents to be more lenient and supported children to report to the authorities all forms of strict behaviour including shouting. In addition, youth felt that African parents were very protective and sometimes restricted their movement or roles. On the other hand, Canadian parents were less protective and more willing to let their children develop their own independence.

> "*Back home, our parents were very strict on us. They would say, 'Oh do not go out.' Those were the standards. But in Canadian culture, parents are very relaxed. You know, their children turn 18 and they tell them 'We will kick you out of the house, go get yourself an apartment,' but our parents want to keep you even though you are 21, 22, years old because they fear, they do not trust that their child can live on their own. It is more of the culture thing, like a black people thing.*" (25-year old Nigerian Female)

Sometimes the differences in cultural practices created conflict between youth and their parents. While in their countries birth, youth were expected to follow their parents' commands without questioning. However, once in Canada, youth had a desire to change how they related to their parents, move on, and adapt to Canadian culture, against their parents' wishes. When asked about the differences in cultural practices around relating to their parents, youth stated:

> **Participant:** "*We are not in Africa anymore; I know we are expected to keep the African culture but that has to stop*."
>
> **Interviewer:** "*You do not think it is a cultural thing, like you know when in the African culture children are meant to be sent to do things*."

Participant: "*Well I believe there is a limit for everything. There is a limit especially when your parent is able to do what he/she is requesting you to do, because that is just being lazy. We are not in Africa anymore and I have to stopsome of the African cultural practices*." (19-year old Congolese Male)

Despite the conflict that differences in cultural practices around parenting created, the youth and their parents managed the differences by navigating multiple cultures. Youth and their parents learned from peers about other parenting practices, reflected on their culture and preferences, then adopted practices they were comfortable with.

Cultural foods were different between youth's countries of birth and Canada. Upon coming to Canada, youth struggled to get used to their new diets. Some of the regular foods surprised youth because they were not usually part of their diets. Youth found it difficult to come across cultural foods (e.g., halal or foods that were permissible to eat based on their religious or cultural values):

"*I discovered that nothing was halal. What they were selling and used to give us for breakfast was not halal. Back home everything you eat is halal of course. What I did was to ask where I could find halal food. We did not want to feed ourselves with something that was not halal because we are Muslims.*" (20-year-old Congolese Male)

3.2.3. Searching for Identity: A Cultural Struggle

On the theme of 'searching for identity,' youth talked about challenges in finding a balance between their heritage and Canadian culture, and the impact it had on their evolving identity. Youth were undecided on whether to keep the culture of their countries of origin, adopt Canadian culture, or come up with their own culture. The struggles felt like a "*push and pull*" with youth grappling with the desire to please others (e.g., other Canadians) or their families. Youth shared what it meant to struggle with how to navigate two cultures:

"*How do I adapt myself with the Canadian people? What, how do I behave in a manner that gives pride to all immigrants in Canada and to Canadians and to my family? I have not faced something that may be very rough or very rude to myself or from a Canadian citizen or from other refugees like me. I feel comfortable but I face challenges. I do not succeed, as I desire.*" (24-year old Congolese Male)

Youth who lived in other countries for three years or more or lived in multiple countries expressed more complexity in describing their identity. Their comments about the complexity of their identity were similar to the ones shared here by a 20-year old Congolese male:

"*We went to Rwanda, Zambia, like a lot of countries. People would always look at me and ask, 'What are you? Are you a Congolese? Do you speak Swahili?' I would respond, 'No I am everything you know'*." (20-year old Congolese male)

Upon coming to Canada, the youth were on a path to acquiring Canadian citizenship, adding another layer on their identity:

"*Mostly I ask my mom, I asked her 'What am I?' and she told me, 'You are half Canadian, half Kenyan, half Somalian, because we came from Somalia but I was born in Kenya.'*" (14-year old Somalian male)

Language was an important part of their identity and a source of struggle for the youth. When youth arrived in Canada, they felt a need to keep their traditional language skills from their African countries of origin even though they were no longer in those countries. As a way of maintaining their heritage, youth felt compelled to communicate in their native languages with their friends and relatives from their societies of origin. However, youth found limited opportunities to speak their African dialects with people in Canada considering English or French are the official languages of Canada.

Another form of struggle with a new culture arose in youth discussions about finding friendships that reflected their identity. Because of migration, youth separated from their

friends in their societies of origin and found the need to make new ones in Canada. Almost all youth talked about seeking and keeping friends who shared similar behavior, which was an important aspect of their identity. However, while finding friends was critical, youth struggled with identifying peers that made them feel comfortable. A 16-year-old female from Congo underscored the difficulty she and other youth faced as a young person trying to make new friends in a new sociocultural environment. In her interviews, she kept reiterating *"it is difficult to make friends here. Canadians are different from people in Germany and France*." Her response highlighted one of the many challenges that refugee youth face when seeking to form new friendships, seeking people they could identify with, as well as find a sense of belonging and acceptance amongst their peers.

Youth felt indifferent and did not identify with the culture around making friends in Canada. In their perspectives, the culture around making friends with newcomers in Canada was different from what they were used to in their birth countries. In Canada, youth felt they could not approach their neighbours or strangers to create friendships:

> "*You cannot go to someone's house you know. When I came here, I learned that one needs to give everybody his or her space. You do not go to people. So it was really hard. When you go to school you see everybody is cool you know, they have their friends, like everybody is with somebody, they will not go to someone who is alone. Like nobody really cares about you apart from the teacher.*" (19-year old Congolese female)

Despite the struggle to develop or find their cultural identity, youth found ways of learning and establishing themselves.

3.2.4. Learning the New Culture

The theme of 'learning the new culture' refers to youth experiences of being acquainted with and adapting to different cultures in Canada. Youth needed to find ways to adapt their own culture to the cultural practices at their new country. Youth felt the need to learn the cultures in order to integrate. Youth talked about experiences of learning about the Canadian culture through patience, silence, and careful watching of people's behaviours. One of the youth expressed his experiences as follows:

> "*In my first two months, I was a very quiet kid in school. I was just analysing everything, how people act, because our cultures are very different. I was trying to understand the behaviours of Canadians, how, why, and what they are like.*" (20-year old Burundi male)

Youth adapted to the culture in Canada by tapping into their experiences and understanding of what could help them to navigate different cultures. Youth went to schools where they learned English, found fellow Africans, formed friendships, and learned from them. Youth were better prepared, a little older, and had experiences that could act as reference points for their adaptation and in navigating cultures in Canada:

> "*When we came here, oh my God, I had that feeling for the second time of my life of coming to a new place and living a new life. However, this time, I was older and better prepared. I was like wow, everything looked different, I went to school, and it was better than the school in Cameroon. I really adapted well because usually for newcomers when you go to school and do not know how to speak English, you are not going to make any friends, unless there are some other African that are going to take you and you guys start hanging out. It is sort of like in Africa because in Cameroon, when you are a new student, people come around you, hey what is your name and stuff like that.*" (20-year old Burundian male)

In addition, in Canada, their teachers or immigration counsellors taught youth. Youth were made aware of other cultures, were asked to be respectful, open minded, and willing to learn. Younger siblings were taught about the way of life and how to adapt in Canada by their older siblings. One of the youth shared his experiences of teaching his siblings about Canadian way of life:

> "*I am teaching my brother and sister how to live here. Before they do anything, I ask them to think about their actions and evaluate whether they are good or bad. To ask, 'Can I do it; if I do it can I be responsible for it?'*" (20-year old Burundi male)

In learning a new culture, youth believed age at immigration and time spent in Canada played an important role. By the time of carrying out our study, youth had lived in Canada for between 1 and 16.5 (average of 4.87) years. Youth felt that those who immigrated at a young age were more likely to learn faster about the Canadian culture with ease compared to older youth. Youth learned to develop their own culture by blending multiple cultures. For example, a youth from Sudan shared his experiences of coming to Canada when he was young and believing that age played an important role.

> "*I grew up here, so I know more but when I came, the experience was just different. English wise, the lifestyles, what I see it is just as if 'oh I got myself blended in this.' The good thing I was happy about is that I came here when I was young, and this was great for me you know, I could do a lot of stuff.*" (25-year old Sudanese male)

In addition to their experiences, youth made recommendations for other refugee youth to live in neighbourhoods where other newcomer youth lived. Living in such neighbourhoods could help them to find ways to learn and blend with the Canadian culture at their own pace.

4. Discussion

Our study examined the adaptation experiences of first-generation African refugee youth upon their migration to Canada. From youth's discourse, their experiences focused on how they navigated Canadian and cultures from their African countries of origin. Youth shared their struggles and opportunities they experienced in their integration process. Accordingly, we identified the themes of 'disruption in the family,' 'our cultures are different,' 'searching for identity: a cultural struggle,' and 'learning the new culture.'

Research examining the migration journey and the effect on youth adaptation in receiving countries [3,38,39] is increasing. Much of the work focuses on post-migration challenges that highlight language proficiency, inter-generational conflicts, educational challenges, and difficulties in navigating different cultures and stops short of describing how youth navigate these challenges [38,39]. Our study findings compliment this body of knowledge by highlighting that youth's migration experiences play a key role in guiding how they navigate different cultures and adapt in their final destination countries.

Youth in our study described their adaptation experiences in Canada and made suggestions on the need to get used to multiple cultures. Upon migrating to Canada, youth faced difficult experiences of navigating between cultures but learned to live with them. In their integration, youth utilized their experiences of living with new cultures in their migration journey to navigate living with the Canadian culture. While facing different cultures that could be perceived as similar experiences irrespective of where youth migrated to, cultural aspects that youth needed to adjust to be nonetheless different. For instance, youth needed to adjust to the culture around parenting or food when they arrived in Canada.

On the theme of disruption in the family, youth talked about separation from their parents and the effect it had on their adaptation in Canada. Research examining disruptions in the family because of parental migration reveal experiences of economic challenges, emotional problems, and poor health [40–42]. Where family cohesion is present, Filipino adolescents felt supported, had great academic ambitions, and mental health [43]. In our study, family disruptions often took place during times of war with some of the youth never reuniting with their parents. In order to provide support to immigrant and refugee youth with a history of family disruptions, health, and social service providers in receiving countries need to help the youth attain smoother integration experiences. The service providers could connect them with welcoming families from their ethnocultural groups where they could form supportive relationships.

On the theme of our cultures are different, youth highlighted the culture around families, parenting, and food as areas where cultures from their societies of origin and Canadian differed. From youth's perspectives, in cultures from their societies of origin, there is a sense of togetherness or familism while in Canadian culture; there is a sense of individualism. When discussing about the culture around parenting, youth felt their parents were strict and authoritarian while Canadian parents were easy going. Arab immigrant adolescents in Ontario, Canada shared similar perspectives and felt that their experiences led to intergenerational conflicts and acculturation stress [44]. However, the Arab immigrant adolescents believed their parents meant well and cared about their future despite the conflicts while youth in our study felt their parents did not want to adapt to Canadian culture or were concerned about their families' reputation. In future, research that examines African parents' experiences of parenting in Canada is needed to inform strategies to help parents and their children adapt to Canadian practices.

Refugee youth in our study had recently migrated to Canada and their perspectives on differences between cultures were in contrast to perceptions by second-generation youth in Toronto [45,46]. The youth in Toronto expressed a sense of belonging that could have been possible because of parental influence and living and attending schools in multicultural neighbourhoods. To navigate the cultural difference, newcomer youth and their families should be encouraged to take part in activities and events that bring youth from multicultural neighbourhoods together. Such activities could include taking part in ethnocultural and national activism organizations [47]. Service providers could also place emphasis in promoting cultural awareness between newcomer and non-newcomer youth to promote better navigation between cultures.

On the theme of searching for identity, youth faced challenges in negotiating their identity when straddled between two cultures. Youth construct their identity based on their pre-immigration experiences, parents' identities or culture, personal characteristics, and their environment [46,48,49]. Youth with a history of living in multiple countries struggle and have more complex ways of describing their identity, which can lead to poor mental health [10,49–51]. Therefore, when refugee youth arrive in Canada, it is critical to learn about their migration experiences and histories of living in other countries in order to help them adjust to their new way of life that could shape their identity. Youth's experiences are synonymous with feelings of 'othering' which can create tremendous pressure to conform to Canadian culture and identity and poor mental health. Identity struggles can be worsened by government policies that infringe on youth's culture, religion, or identity (e.g., a ban on the use of hijabs by the Quebec policymakers) [17,52]. To promote youth's health, migrant settlement organizations and communities needs to create environments that encourage youth to identify with and maintain ties with their native culture. The organizations need to support youth to establish stable social support systems (e.g., friendships or strong family ties) and focus on training programs that support youth's sense of identity, mental health and wellbeing [53].

On the theme of learning the new culture, youth in our study shared experiences of how they learned and shared knowledge with others. Similarly, unaccompanied minors in Ireland adjusted to life in their new country by learning [28]. While youth in our study often took upon themselves to find ways to integrate, they needed a supportive environment. Similarly, Somali youth in United States expected others (e.g., the government) to help them to integrate [11]. Kennedy and MacNeela [21] found that youth blended with cultures in their resettled countries by learning from peers from their ethno cultural communities. Therefore, to promote youth adaptation, initiatives that promote different ways of youth learning such as learning through social interactions, as well as support from mentors, social service providers, and community members could be beneficial. Helping youth to understand and appreciate living with multiple cultures is warranted.

Youth in our study emphasize the challenges experienced in navigating between cultures and the impact on their settlement and adaptation in their destination countries. Despite those challenges, researchers elsewhere have found that a strong foundation in

one's original culture and identity can help youth in their adaptation process. Youth can benefit from parental influence and maintaining connections with their culture as they adapt new cultures [46,54]. In the wake of increasing immigration between countries, it is critical to understand and support refugee youth's adaptation efforts.

Strengths and Limitations

The strength of our study is that we engaged 28 youth from diverse backgrounds to arrive at study findings. We included the languages of English, French, and Kiswahili in our interviews and worked with translators and back interpreters to allow youth to present their perspectives in a language they were most comfortable with. In spite of the strengths, we did not examine refugee youth's perspectives over time. We were not able to show how youth's perspective evolved overtime. Also, although youth in our study were of different ages, their experiences were similar. Needed is longitudinal research that examines how refugee youth's experiences change over time after arriving at their final destination country. Such research could also examine for differences or similarities based on age and sex.

5. Conclusions

African refugee youth arrive in Canada with their own cultural beliefs and experience challenges in adapting to the culture in Canada. These youth present with challenges of family disruptions, cultural conflicts, and their evolving identity, yet they receive limited support. In the wake of increasing immigration because of reasons that include war, refugee youth could greatly benefit from opportunities to develop cultural awareness with attention to experiences of facing new cultures. Additionally, services providers including those who provide social, educational, and health supports could pay greater attention to the unique needs of refugee youth especially those who are relieving adaptation challenges and offer better settlement support.

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Informed Consent Statement: Informed consent was obtained from all subjects involved in the study. Assent was obtained from youth who were 17 years old and younger in addition to consent from their parents.

Data Availability Statement: Due to ethical restrictions related to protecting participant privacy imposed by the University of Manitoba Education/Nursing Research Ethics Board of the University of Manitoba, the full, qualitative dataset (i.e., interview transcripts and field notes) cannot be made publicly available. Public availability would compromise patient confidentiality or participant privacy.

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Factors Affecting Changes in the Mental Health of North Korean Refugee Youths: A Three-Year Follow-Up Study

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Abstract: This study identified factors affecting changes in depression of 64 North Korean refugee youths (NKRYs) aged 13 to 23 years (40 female) using follow-up data over a three-year period. We collected intrapersonal factors (emotional regulation strategies, resilience, quality of life) and external factors (psychological and practical support, family adaptation, and cohesion) to understand the preventative and risk factors affecting changes in depression. The trend of depression symptoms significantly increased, and the proportion of people classified as depressed (cut-off score = 21) increased steadily from 45.3% to 59.4% in the third year. In addition, we conducted a panel regression analysis, which showed that individual internal factors had a statistically significant effect on changes in depression. Specifically, expressive suppression of emotions was shown to increase depression over time. Resilience and life satisfaction were significant factors reducing depression in this study. On the other hand, external factors were not significantly related to changes over time in depression of NKRYs. Interventions for NKRYs at risk of depression are necessary and should include ways to enhance resilience and life satisfaction, and foster ego strength by recognizing emotions and promoting healthy emotional expression.

Keywords: North Korean refugee youths (NKRYs); depression; emotional regulation strategy; expressive suppression; resilience; life satisfaction

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1. Introduction

According to a report by the Ministry of Unification (September 2020) [1], there are 33,718 North Korean refugees (NKRs) living in South Korea. Among them, a significant proportion, 40% (13,367), are adolescents and young adults aged 10–29. North Korean refugee youths (NKRYs) are likely to have experienced various physical and psychological traumas in North Korea and are known to experience various direct and indirect traumas from the process of defection to South Korea [2,3]. Additionally, one of the latest trends regarding NKRYs is the growing proportion of teenagers born in third countries to parents who are NKRs [4]. In 2020, the proportion of NKRYs born in a third country, including China, was 62.8% [5], and they have been shown to experience difficulties with both language communication and cultural differences [6]. Considering that NKRYs will play a socioeconomic role as members of South Korean society in the future, their stable adaptation is critical.

The cultural adaptation stress experienced by NKRYs in the process of settling is a significant factor that makes adapting to South Korean society difficult [7]. In particular, it is highly likely that they will experience additional stress due to the developmental transition from childhood to adulthood [8,9]. NKRYs are known to experience many psychological symptoms, such as posttraumatic stress disorder, anxiety and depression, delinquency, aggression, and hostile behavior [10–14]. Among them, depression is the most commonly observed psychological problem in NKRYs.

Depression, along with posttraumatic stress disorder, has been used as an indicator of the mental health of these groups, and is commonly experienced by immigrants and

refugees [15]. High levels of depression have been reported in NKRYs who perceive their daily stress to be high [11]. Low resilience and low self-esteem are known to be factors that maintain depression [16]. Particularly, resilience is one's capacity for adapting successfully in spite of adversity or overwhelming circumstances, and its importance as a protective factor for depression was highlighted in a South Australian study with refugee youths [17,18]. Furthermore, low levels of life satisfaction and low expectations of the future were also found to be factors related to depression in NKRYs [19]. Expressive suppression is one of the emotional regulation strategies in which one intentionally suppresses emotionally expressive behavior while experiencing emotional stimulation [20]. It has been shown to exacerbate the effects of early trauma on depressive symptoms [21]. In terms of external factors, low levels of emotional or practical social support contribute to depression in NKRYs [11,19]. On the other hand, several studies have found that an internal locus of control or family support protect against depression in NKRYs and have been reported to be able to help them adapt to living in a new society [8,9,22–24]. In addition, participation in social groups (e.g., religious and social organizations) was also found to reduce depression [25].

A two-year follow-up study with 1348 Southeast Asian refugees found that pre-immigration stressors affected the initial mental health of migrants, but over time, the effects of post-settlement stressors, such as financial problem or cultural adaptation were greater [26]. A three-year follow-up study with 151 NKRs in South Korea also showed that experiencing stress after settling in South Korea, such as misunderstanding the language or law, and lack of basic knowledge needed in everyday life, has a stronger impact on depression than the psychological trauma experienced during the defection process [27]. These studies suggest that factors affecting depression of NKRYs may vary over time, and it is therefore necessary to conduct a longitudinal follow-up study taking into account temporal changes. According to a literature review by Lee, Lee, and Park [28], most studies on NKRs used cross-sectional research methods, with very few longitudinal studies to consider changes over time. Furthermore, previous studies have only identified the relationship to each individual factor, but no studies have so far been found to identify relative influences by simultaneously looking at internal and external factors affecting NKRYs' mental health. The specific purpose of this study is to answer the following questions: First, do the symptoms of depression in North Korean defectors change over time? Second, what are the risk factors or protective factors that affect changes in their symptoms of depression? Thus, the present study seeks to find a longer-term way to intervene in the psychological problems of NKRYs by clarifying the factors affecting changes over time, using three-year follow-up data. In addition, this study clearly identified intrapersonal and external factors, as well as the preventative and risk factors affecting depression.

2. Method

2.1. Participants

Participants were recruited from two alternative schools for NKRYs in Seoul. Both schools participated voluntarily in the study for the benefit of the mental health screening program. Our research team visited each school and asked for consent to participate in the study after explaining the contents of the questionnaire and the procedures of this research. Furthermore, in the case of participants under the age of 20, the consent of the participant and his/her parents was obtained together. All participants were firstly provided with questionnaires in Korean. However, for participants whose main language is Chinese, questionnaires with Chinese translations were provided, and questionnaires without Chinese versions were directly explained to and answered by Korean and Chinese bilingual speakers. Among all students who attended the two schools, 174 students enrolled in our study in 2017 and 2018 (baseline). A total of 108 completed the following year's questionnaire (T2), and only 64 were finally included in the study after completing a three-year follow-up questionnaire in 2018–2019 and 2019–2020 (attrition rate: 63.29%), because of changes such as graduation, suspension of study, and relocations.

Sociodemographic information and childhood trauma experience were included in the baseline questionnaire. In addition, depression, emotional regulation strategies, resilience, life satisfaction, psychological and practical support, family adaptation, and cohesion were reported (T1). One year later, follow-up data were collected using an identical questionnaire (T2), and the year after, the second set of follow-up data were accumulated (T3). The study was reviewed and approved by the institutional review board of the National Center for Mental Health (No. 116271-2017-11).

2.2. Measurements

2.2.1. Sociodemographic Characteristics

Sociodemographic data were collected including age, gender, period of living in South Korea, country of birth, and residential type (i.e., with the immediate family, other relatives, friends, alone, in a dormitory, or in a facility).

2.2.2. Childhood Trauma Experience

Early trauma experiences were assessed using the Adverse Childhood Experiences (ACE) questionnaire [29]. The ACE questionnaire consists of 17 items that assess whether participants had ever experienced various adverse childhood experiences and dysfunctional family relations, including child abuse (6 items), neglect (4 items), and household dysfunction (7 items) such as domestic violence and mental illness (1 = yes, 0 = no). The total score ranges from 0 to 17, with higher scores indicating more experiences of early trauma. Cronbach's α for the scale was 0.80.

2.2.3. Depression

Depression symptoms were measured using the Center for Epidemiologic Studies Depression Scale (CES-D), which was developed to measure depressive symptoms in the general population [30]. The Center for Epidemiology Studies-Depression Child Scale (CES-DC) [31] was used for individuals younger than 19 years. Both scales were translated into Korean and validated with the Korean population [32,33], and we utilized the Korean versions in this study. Also, Chinese validated version of CES-D and CES-DC were provided for participants whose main language is Chinese [34,35]. The CES-D and CES-DC are comprised of 20 items: four positive items and sixteen negative items. The scale was rated on four points: 0 = rarely or none of the time (less than one day per week), 1 = occasionally (one or two days per week), 2 = frequently (three–four days per week), and 3 = most or all of the time (five–seven days per week). Higher scores indicate greater depressive symptoms; total scores reflect depression [36]. In the present sample, Cronbach's α for the scale was 0.85.

2.2.4. Protective and Risk Factors: Intrapersonal Factors

Emotion regulation strategies were assessed using the Emotion Regulation Questionnaire (ERQ) [37], which comprises 10 items measuring two emotion regulation strategies: cognitive reappraisal (6 items) and expressive suppression (4 items). The original version of the ERQ was rated using a seven-point Likert scale (1 = strongly disagree, 7 = strongly agree). In this study, we adopted the validated Korean version of the ERQ, which has been modified into a five-point Likert scale to make it easier to answer [38]. The total scores range from 6 to 30 for cognitive reappraisal and 4 to 20 for expressive suppression, with higher scores indicating greater use of the corresponding emotion regulation strategy. We used each sub-item separately, Cronbach's α for cognitive reappraisal was 0.76, and for expressive suppression was 0.58 in the present study.

Resilience was assessed using the Brief Resilience Scale [39], which is the self-perceived ability to recover from stress. The six items were scored on a five-point scale (1 = strongly disagree, 5 = strongly agree). The scale consists of three positive and three negative items. The range of total possible scores is from 6 to 30, and a higher score represents higher resilience. In this study, Cronbach's α for the scale was 0.79.

Life satisfaction was measured by the subjective well-being question from the Gallup World Poll [40], which was originally from the Cantril Self-Anchoring Striving Scale [41]. Participants describe their level of life satisfaction during the past, the present, and the future on a scale of 0 to 10 (0 = worst, 10 = best); we used only the response pertaining to the present.

2.2.5. Protective and Risk Factors: External Factors

Psychological support was assessed by the following question: "How much psychological support do you currently receive from your family, relatives, friends, and others around you?" Practical support was assessed by the following question: "How much practical support do you currently receive from your family, relatives, friends, and others around you?" The responses to both questions were assessed using a 10-point Likert scale (1 = not at all, 10 = receive enough support).

The family adaptability and cohesion evaluation scale III (FACES-III) was developed by Olson, Portner, and Lavee [42] to assess family function for family cohesion and adaptability. In this study, a measure validated in Korean by Lim, Lee, Oh, Kwak, Lee, and Yoon [43] was used. It consists of two sub-scale units of adaptability and cohesion. Family adaptability indicates the degree to which the family system can change in response to current and developmental stresses facing the family system, and family cohesion represents emotional bonds between family members. Each consists of 10 questions on a 5-point Likert scale. The higher the score, the higher the cohesion and adaptability of the family. The Cronbach's α of family adaptation was 0.91 and family cohesion was 0.9 in the present study.

2.3. Statistical Analysis

Descriptive statistics were conducted to describe the sociodemographic characteristics of the data at the baseline time. Repeated measures analysis of variance (ANOVA) was conducted to reveal the annual differences of each variable, using SPSS 20.0 (IBM SPSS Statistics for Windows, version 20.0; IBM: Armonk, NY, USA, 2011). For panel regression analysis, the longitudinal data (wide type) collected over three years were merged first, and the data converted to long type data according to the ID and utilized for analysis. Additionally, a Hausman test confirmed the suitability of the fixed effect model and the random effect model. The Hausman test considers it more appropriate to apply a random effect model if the null hypothesis is rejected, rather than applying a fixed effect model [44]. The Hausman test and panel regression analysis were performed using STATA 14.0 (StataCorp LCC, version 14.0; Texas, USA, 2015.) with a statistical significance level of $\alpha = 0.05$.

3. Results

Table 1 presents the characteristics of the 64 participants. The sample was composed of 40 females (62.5%) and 24 males (37.5%) aged 13 to 23 years (mean = 16.89, SD = 1.64 years). At the time of their first enrollment, the average number of years they had lived in South Korea was 3.06 years (SD = 2.54), from less than one year to 12 years. Meanwhile, the average childhood trauma experience was 1.63 (SD = 2.38), with 42.2% reporting no experience of trauma.

Table 1. Characteristics of participants at the baseline point.

Characteristics	N = 64
Gender, N (%)	
Male	24 (37.5)
Female	40 (62.5)
Age (years), mean (SD)	16.89 (1.64)
Periods of living in South Korea (years), mean (SD)	3.06 (2.54)
Birth place, N (%)	
North Korea	22 (34.4)
China	42 (65.6)
Residential type, N (%)	
Living with their families or relatives	32 (50)
Living alone or with their friends or in facilities	32 (50)
Childhood trauma experience, mean (SD)	1.63 (2.38)

Note SD: standard deviation accounted for.

Descriptive statistics and repeated measures ANOVA were performed to identify the annual characteristics of variables; results are presented in Table 2. The trend for depression symptoms increased year by year, and was also statistically significant (F = 3.09, $p < 0.05$). Specifically, the proportion of people who can be classified as having depression (cut-off score 21) increased steadily from 45.3% in the first year, to 53.1% in the second year, and 59.4% in the third year. Satisfaction with life was not statistically significant, but was observed to be decreasing, and practical support was also perceived to be decreasing by participants compared to the first year, indicating that the statistical differences are significant (F = 3.516, $p < 0.05$).

Table 2. Characteristics of variables, mean (SD).

Variables	1st Year	2nd Year	3rd Year	F
Depression	19.88 (9.07)	22.69 (11.18)	22.86 (10.92)	3.09 *
Cognitive reappraisal	19.58 (3.08)	19.89 (3.27)	20.70 (3.58)	2.59
Expressive suppression	12.14 (2.45)	12.16 (2.37)	12.13 (2.61)	0.004
Resilience	18.56 (4.65)	19.22 (4.1)	18.34 (4.84)	1.594
Life satisfaction	5.52 (2.15)	5.38 (2.13)	5.34 (2.26)	0.196
Psychological Support	6.69 (2.74)	6.56 (2.4)	6.58 (2.09)	0.076
Practical Support	7.44 (2.47)	6.66 (2.23)	6.75 (2.32)	3.516 *
Family adaptability	29.75 (7.19)	29.81 (6.76)	30.14 (6.8)	0.107
Family cohesion	32.63 (7.83)	32.28 (7.54)	32.11 (7.92)	0.209

* $p < 0.05$.

A panel regression analysis was performed to determine how much change in the independent variables over time affects the degree of change in depression, and the results are presented in Table 3. Prior to the panel regression analysis, the Hausman test was performed. As a result, the random effect model was adopted in this study, indicating that the probability of significance was greater than 0.05 ($\chi^2 = 14.69$, $p = 0.1$). The overall model's explanatory capacity was 37%, suggesting that the model's explanatory power was high ($R^2 = 0.37$, $p < 0.01$). First, it was shown that suppression of emotional expression affects depression as the period of living in South Korea increases. In other words, if emotional expression suppression increases by one unit over time, depression increases by 0.89 (B = 0.886, $p < 0.05$). On the other hand, resilience and present life satisfaction have been shown have an opposite effect over time, and with each unit increase in resilience and life satisfaction, depression decreased by 0.87 and 0.8 (B = 0.867, $p < 0.001$; B = 0.798, $p < 0.05$). The correlation between the independent variables and depression at each time point is presented in the Supplementary Table S1. Meanwhile, external factors (i.e., emotional and practical support, family adaptability, and cohesion) were not significantly related to changes over time in the depression of NKRYs.

Table 3. The result of random-effects GLS regression.

Variables		Coef.	Std. Err	Z	$p > \|z\|$
Control Variables	Gender	1.647	1.894	0.87	−0.385
	Age	0.375	0.443	0.85	0.40
	Birth place	0.166	1.860	0.09	0.93
	living in South Korea	−0.235	0.301	−0.78	0.44
	Residence type	0.701	0.867	0.81	0.42
	ACE	0.196	0.363	0.54	0.59
Intra-personal Factors	Cognitive reappraisal	−0.240	0.200	−1.20	0.23
	Expressive suppression **	0.886	0.282	3.14	0.002
	Resilience ***	−0.867	0.176	−4.92	0.000
	Life satisfaction *	−0.798	0.361	−2.21	0.027
External Factors	Psychological Support	−0.059	0.331	−0.18	0.860
	Practical Support	−0.071	0.343	−0.21	0.837
	Family adaptability	−0.070	0.178	−0.39	0.697
	FamilyCohesion	0.026	0.174	0.15	0.882
_cons		28.06	11.07	2.54	0.01

Note: Coef: coefficient, Std. Err: standard error, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

4. Discussion

This study aimed to identify the factors affecting changes in depression over time by tracking NKRYs for three years. The findings and implications of this study are presented below.

First, the depressive symptoms of NKRYs increased significantly over the three years. Consistent with our results, a three-year follow-up study conducted by Cho et al. [27] with NKRs also showed that the level of depression increased significantly over three years after settling in South Korea. In addition, the number of participants who could be classified as depressed based on the cut-off score also increased every year, especially in the third year, with a high rate of about 60%. This is higher than that reported in previous cross-sectional studies with depression rates of approximately 30% to 48% [13,19,45], indicating that the psychological vulnerability of NKRYs can be considered high. Several studies have pointed to academic and socio-cultural differences as some of the reasons why NKRYs experience difficulties in adapting [46,47]. Despite the importance of academic achievement due to their developmental age, many NKRYs give up their regular academic courses because of academic maladjustment and the burden of academic achievement, which is likely to be high [46]. In addition, they are reported to have difficulty in forming peer relationships because of acculturation stresses based on different values and forms of expression of opinions, which may consequently lead to deterioration in mental health [48]. After arriving in South Korea, they receive short-term adaptation education and are immediately deployed to South Korean society, and their psychological stress seems to be increasing as they enter a boundlessly competitive system with South Korean teenagers without psychological stability and adaptation. [14]. In particular, given that the average residence period in South Korea is only 3.06 years, special attention is required for the mental health of NKRYs in the early stages of settlement.

Second, panel regression was used to determine factors affecting changes in depression over time, and it was shown that individual internal factors had a statistically significant effect on changes in depression. Specifically, expressive suppression of emotion was shown to increase depression over time. This result is in line with previous studies that mentioned expressive suppression as a risk factor for depression [16,21]. Aldao, Nolen-Hoeksema, and Schweizer [49] suggested that the presence of expressive suppression is likely to be more strongly associated with depression than the absence of cognitive reappraisal. In terms of interpersonal relationships, adolescents seem to choose emotional suppression rather than expression to avoid damaging relationships with peers who show their own symptoms of depression [50].

In addition, resilience was a significant preventative factor for changes in depression in this study. Previous studies on NKRYs focused on resilience as a preventative factor for mental health issues including depression [16,19,24,45,51]. According to McLaughlin, Doane, Costiuc, and Feeny [52], resilience consists of two aspects: heightened psychological vulnerability and adaptation to risk. Based on the above concepts, for NKRYs who are forcibly exposed to various stresses, resilience is likely to be an important internal factor that can increase adaptability by protecting them from the psychological stresses that may appear in the adaptation process.

Additionally, life satisfaction has been shown to have a negative impact on the increase in depression over time. This is consistent with a two-year follow-up study of 189 NKRs [53], which showed that participants' depression increased while their overall life satisfaction decreased. Another study of NKRYs also reported significantly lower life satisfaction in a group with depression than in a group without depression [19]. Several studies on refugees and immigrants mention post-immigration factors, such as experiencing discrimination, not having close friends, and acculturation stress, which affects life satisfaction or depression rather than pre-immigration stress [54–56]. Therefore, the results imply that depression prevention programs should consider ways to enhance resilience and life satisfaction and foster ego strength by recognizing emotions and promoting healthy emotional expression.

Meanwhile, external factors were not significant in the change in depression over three years in the present study. Specifically, psychological and practical support did not directly affect the change in depression. This is contrary to previous studies, which showed that the perception that support can be gained from relatively close family or peer relationships plays a positive psychological role in the cultural adaptation process [23,45,57]. However, according to a study by Jeong and Kang [8] on environmental protection factors, peer support alone does not have a significant impact on cultural adaptation stress, but can be indirectly influenced by personal internal protection factors such as internal locus of control, suggesting the indirect influence of external factors. Regarding family function, no statistically significant association with changes in depression over time was reported in this study. Meanwhile, Nam et al. [24] revealed that family cohesion was significantly associated with depression among NKRs, in contrast to our finding that family adaptability was not associated with depression. However, half (50%) of the participants were reported to be living with friends or in dormitories away from their families, and may therefore be significantly affected by peer relationships rather than family relationships [58].

There are some limitations to this study. First, the sample size was relatively small; therefore, care should be taken in interpreting and applying the results. Given the characteristics of school-based research, the dropout rate was very high because of changes in students enrolled in the school; participants who failed the study were no longer present at school due to reasons such as graduation or suspension of study, and were no longer able to follow up. This was beyond the control of the researchers; therefore, we propose in following studies the need to select a study subject by considering the dropout potential of participants in the research design phase. Second, some scales, such as psychological support and practical support, comprised a single question, which had limitations for obtaining substantial responses. Therefore, future studies will likely need to gather more detailed information through validated questionnaires. Also, the Cronbach's alpha for the measure of expressive suppression was relatively low. We believe this is due to the small total sample size, and one must be careful about understanding the result. Third, although this study explored variables that affect temporal changes in depression, there are limitations that have not been able to compare the relative influence of variables or present structural models. Therefore, for further studies it is recommended to use statistical methods to clarify the temporal causal relationship.

Nevertheless, to the best of our knowledge, there is only one longitudinal study of NKRYs to date [16], and it is therefore a significant achievement for this study to identify individual psychological changes over three years using follow-up observations. It is also

meaningful in that it provides information on the mental health of NKRYs in the initial settlement process, less than five years after settlement. In this study, we found a tendency for depression in NKRYs to increase year by year for three years. Emotional suppression has also been found to be a risk factor that can increase depression, and resilience and life satisfaction have been shown to be protective factors that decrease depression. These results suggest that the development of programs to encourage individual resilience and life satisfaction is required to promote mental health in NKRYs, and to seek ways to promote and safely address the emotions experienced. Further research is required to expand and justify the research results through a larger and more representative sample.

Supplementary Materials: The following are available online at https://www.mdpi.com/1660-4601/18/4/1696/s1, Table S1: Correlation analysis between depression and main variables.

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Alcohol, Other Drugs Use and Mental Health among African Migrant Youths in South Australia

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Abstract: This paper was part of a large study that explored suicide among African youths in South Australia. The paper reports perspectives about alcohol and other drugs (AOD) use and mental health among African migrant and refugee youths in South Australia. The study employed a qualitative inquiry, conducting 23 individual interviews and one focus group discussion with eight participants. An acculturative stress model informed data analysis, interpretation and the discussion of the findings that form the current paper. African migrant and refugee youths revealed challenging stressors, including related to cultural, socioeconomic, living conditions, and pre- and post-migration factors that contributed to mental health problems and the use of AOD in their new country. The traumatic loss of family members and social disruption experienced in their countries of origin were expressed as part of factors leading to migration to Australia. While in Australia, African migrant and refugee youths experienced substantial stressors related to inadequate socioeconomic and cultural support, discrimination, poverty, and unemployment. Participants believed that differences in cultural perspectives about AOD use that existed in Africa and Australia also shaped the experiences of social stressors. Additionally, participants believed that these cultural differences and the identified stressors determined AOD use and mental health problems. The findings highlight the need to understand these social and cultural contexts to improve mental health services and help reduce the use of AOD, which, when problematic, can influence the health and integration experiences of these populations.

Keywords: African migrant and refugee youths; mental health; alcohol and other drugs; integration; South Australia

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1. Introduction

1.1. Migration and Resettlement of African Refugees

Across the world, the ease of travel and international mobility have increased, including for people from Africa. Additionally, in 2000, the United Nations High Commissioner for Refugees (UNHCR) called for the need to provide resettlement opportunities for refugees who have spent several years in refugee camps in challenging conditions [1], especially from the African continent. Following the UNHCR calls, the Australian Government declared a humanitarian commitment to resettle refugees from African nations, particularly those living in protracted refugee situations from the Horn of Africa. This commitment resulted in a sharp increase in the proportion of refugees resettled from African countries, rising from 33 per cent in 2003 to 70 per cent in 2005 [2]. In 2012–2013, over half of visas granted under the Humanitarian Program were allocated to people born in Sub-Saharan Africa, North Africa, and the Middle-East, with 39.2 per cent of all persons granted visas being aged between 0 and 17 years [3]. There were 317,182 people born in Sub-Saharan Africa in Australia in 2016, and over 20,000 were living in South Australia [4].

During the process of immigration, migrant and humanitarian refugees are exposed to multiple stressors [5,6]. Studies among African migrants (the majority of whom have a

refugee background in Australia) have reported significant stressors relating to inadequate employment, housing, education, and integration following settlement [7–9]. Additionally, there are considerable and diverse migration trajectories experienced between and within refugee groups. Pre-migration contexts such as cultural backgrounds, the country of origin and circumstances surrounding the decision to immigrate can affect groups and individuals in a range of ways, including poor mental health outcomes [10].

1.2. Migrants and Refugee Youths, Alcohol and Other Drug Use and Mental Health

The age at which a migrant and refugee migrate, and the related settlement opportunities and challenges can have a profound influence on mental health. A study suggests that compared to other migrant groups, migrant youths are more likely to be at a higher risk of suicide [11]. Migrant and refugee youths experience an increased risk of self-harm behaviors and are vulnerable to suicidal ideation because of challenges to the social factors following resettlement, described previously [12]. Migrant and refugee youths are also at risk of increased alcohol and other drugs (AOD) use, which increases individual risks to mental health problems and suicide [13]. AOD use among migrant and refugee youths has also been linked with experiences of social, emotional, and behavioral problems, including feeling depressed [14].

In Australia, these are serious issues because a large proportion of young people who emigrated from war-torn areas in Africa and the Middle East in the last decade arrived unaccompanied, without parents or guardians, in their critical stage in life [3]. It is important to point out that despite the increased risks of migrant and refugee youths to AOD use and mental health, African migrant and refugee youths are resilient, which play protective roles in reducing the use of AOD and related harms [15].

Although previous research has explored the resettlement and integration particularly of African refugees [16], there is a dearth of research examining the beliefs about AOD use and mental health among African migrant and refugee youths in Australia [17]. African migrant and refugees, including youths, are under-serviced by AOD and mental health services. This inequity in service requires more research to enhance an understanding of this community [18].

1.3. Aims of the Study

This study was commissioned by the African Communities Council of South Australia (ACCSA), an overarching organization for African communities in South Australia, to determine the perspectives of African youths (the majority of whom has a refugee background) in South Australia on suicide, AOD use and mental health following increased suicide among youths in this community. This paper presents part of the findings from this project and explores the perspective of African migrant and refugee youths on AOD use and issues of mental health. This study aims to contribute to the limited existing literature on AOD use and mental health problems in the African communities by understanding the contexts in which AOD use and mental health issue occur among African migrant and refugee youths in Australia. We attempted to achieve this aim by answering the research question: What are the main factors that influence AOD use among African youths in South Australia?

2. Methods

2.1. Theoretical Framework

We employed the acculturative stress model to guide our data analysis and interpretation. This model focusses on understanding the unique stressors that are rooted in the process of acculturation [19]. Acculturation is a process of cultural change experienced by migrants following a contact with or living in a different cultural environment, and it is understood to be complex and dynamic [20]. According to Berry, Kim, Minde, and Mok [19], the process of acculturation and related stressors can lead to a stressful experience of resettlement and integration. They argue that individuals might have different

experiences during the process of acculturation and that stressors might depend on the degree of their experience.

Culture and identity, reasons for migration, language, demographic characteristics, social practices, and cultural values are reported factors moderating experiences of acculturation and stressors [21]. Acculturative stress is reported to be a risk factor to mental health outcomes among refugees [22]. Although the concept of acculturative stress model has been used in studying different refugee groups, the use of this model is needed to understand the nature of stressors resulting from acculturation of African refugees, particularly youths following their resettlement in Australia.

2.2. Study Design and Recruitment of Participants

The study employed a qualitative inquiry and respectively conducted 23 face to face interviews and one focus group discussion with eight youths aged 18–25 years who lived in South Australia. Participants had arrived in South Australia between 2000 and 2012. Participants were purposively selected to ensure we had representation from different age groups, year of arrival, and countries of origin from Central, Eastern, and Western Africa. Although the majority of the participants had a refugee background, participants who did not have a refugee background were also included recognizing that the youth population is susceptible to a mental health issue in their new country [6]. Because we have included both migrant and refugee youths, we will from here on use African migrant youths to denote both participants with or without a refugee background and we acknowledge the overrepresentation of those with a refugee background among the study participants.

We recruited participants through an African community youth worker who invited potential youths who spoke conversational English to enroll and participate in the study. This method of recruitment was a strength for the project in that, it did draw from the perspective of the community strength, using the youth worker's position, and not rely upon other service providers to link researchers to participants. The researchers explained the aim and scope of the research to the community youth worker who then invited other youths to participate. Individuals then referred the researchers on to friends who were eligible to be invited to participate face-to-face. All participants were informed about the study and accepted to participate voluntarily.

Data collection included 23 one-on-one interviews and one focus group discussion with eight participants. All interviews and focus group discussion were conducted in English and held at a place where young people felt comfortable.

The interview and focus group guides (Table 1) explored issues on premigration experiences, challenges and difficulties faced in Australia, why some young people may use AOD or take their own life, how they come to use drugs or alcohol, the impacts of AOD use, how they would describe the AOD use among their friends, issues concerning AOD and mental health, social networks and support, family relationships, seeking support from mental health and AOD services, and community support. The interview and focus group discussion guides were informed by research literature and questions were designed to ensure flexibility to expand on points of interest and to explore issues that were important for the topic [23]. Participants were encouraged to actively engage in expressing their views and were made to feel safe talking about stigmatized issues.

Table 1. Focus group discussion and interview guides.

1.	Tell me about your community in South Australia (where you have come from, social life and social networks and support etc).
2.	How has it been like for you here in Australia? Challenges/successes?
3.	What problems/challenges/issues do you think young African people face in Australia?
4.	What would you say are the main health and social issues that affect young people in your community in South Australia? (if not mentioned, ask: what are your views about alcohol use and mental health issue among youths in African community?)
5.	Why are these issues affecting youths in your community?
6.	How are these issues different from when youths were in Africa?
7.	How do youths cope with these challenges?
8.	What do you think the community should do to help African youths?
9.	There have been cases in recent times some young people took their own lives in the African community; why do you think young people in the African community take their own lives?

2.3. Ethical Considerations

The Flinders University Social and Behavioral Ethics Committee (SBREC) approved the study protocols. The permission to collect information from members of the community was also obtained from ACCSA. Each study participant received an information sheet outlining details of the research and its purpose before commencing interviewing or focus group discussions. Participants were assured that their identity would be kept confidential and all names would be replaced with pseudonyms. Although they all lived across the suburbs of Adelaide, some, but not all focus group participants knew each other.

Researchers reminded participants that information disclosed in the focus group discussion needed to remain confidential. All participants provided written consent and received information on their rights to terminate their participation at any time during the focus group discussion or the interview. Each participant received a list of professional counselling agencies and offered a free, private, and anonymous follow-up counselling session with costs covered by ACCSA. Each participant was reimbursed $30 for their time and other expenses incurred to participate in the study.

2.4. Data Analysis

The focus group discussions and interviews were audio-recorded and transcribed verbatim. Both authors are experienced qualitative researchers, were part of the investigating team, and analyzed the transcripts to ensure credibility, rigor, transparency, and validity of the analytic process [24].

To provide coherence and structure [25], we used the framework approach described by Ritchie and Spencer [26]. The framework identified five steps of data analysis involving familiarization with the data, coding and identifying themes, indexing, charting, mapping, and interpreting the data. In line with this framework, the researchers identified passages of text according to the context, coded them to several relevant categories and assigned the related codes into themes. The analysis was dualistic including inductive, with categories emerging purely from the data and deductive, with categories derived from prior knowledge and the thematic approach enhanced the rigor, transparency, and validity of the analytic process [24,25]. Table 2 provides a snapshot of data analysis for the current paper.

The research team members are experienced in working with young people from African backgrounds and were also members of the African community in South Australia. This background was vital across the continuum of the project and eased the data collection, analysis, and interpretations. Additionally, being members of the African community facilitated trust and rapports between the participants and researchers, although it could have played out exactly in the opposite way.

Table 2. Examples of thematic analysis and interpretation of study data.

Extracted Texts	Codes	Themes
- Parents have died - I didn't know I had family - Living without parents	Separations and fragmentations of families	Pre-migration contexts and losses
- Difficult life - Studying in refugee camps - Restricted in refugee camps	Lack of opportunities and access to jobs	
- Depending on rations - Hard life - Living alone	Living in refugee camps under difficult circumstances	
- Some of us don't know English - Can't get a job - Low level of skill	Low skills and poor employment outcomes	Post-migration contexts and realities
- Put your problems into alcohol - They tend to drink alcohol a lot - You don't have a good quality of life	Impacts of poverty and unemployment	
- Coming to this new place - A new environment - Don't want to operate with other people	Cultural differences	

3. Findings

3.1. Characteristics of the Study Participants

The average age of the interview (Table 3) and focus group (Table 4) participants was 22 years old. The interview participants involved 8 females and 15 males from five different countries, including the Democratic Republic of Congo (DRC), South Sudan, Liberia, Ethiopia, and Burundi. The focus group members consisted of six females and one male originally from South Sudan, Ethiopia, Ghana, Liberia, Burundi, and Somalia. Tables 3 and 4 provide the characteristics of the study participants.

There were three themes describing the perspectives of African migrant youths in South Australia reported, including (i) Pre-migration contexts and losses, (ii) Post-migration contexts and realities, and (iii) Contextualizing AOD use and mental health. These themes are described in detail below.

Table 3. Characteristics of face-to-face interview participants.

Participants	Gender	Age at Data Collection	Country of Origin	Year Arrived in Adelaide
1	Male	18	DRC	2010
2	Male	20	South Sudan	2008
3	Female	21	Liberia	2010
4	Male	23	South Sudan	2009
5	Male	20	South Sudan	2011
6	Male	23	Ethiopia	2003
7	Female	24	Liberia	2004
8	Male	20	Burundi	2007
9	Male	23	South Sudan	2007
10	Male	25	South Sudan	2007
11	Male	21	Liberia	2008
12	Male	22	DRC	2005

Table 3. *Cont.*

Participants	Gender	Age at Data Collection	Country of Origin	Year Arrived in Adelaide
13	Female	25	South Sudan	2003
14	Female	23	South Sudan	2005
15	Male	20	South Sudan	2005
16	Female	25	South Sudan	2008
17	Female	21	Liberia	2008
18	Male	25	South Sudan	2006
19	Male	25	South Sudan	2003
20	Male	20	South Sudan	2001
21	Male	25	South Sudan	2006
22	Female	18	Liberia	2005
23	Female	23	South Sudan	2003

Table 4. Characteristics of focus group youth participants.

Participants	Gender	Age at Data Collection	Country of Origin	Year Arrived in Adelaide
1	Male	25	South Sudan	2000
2	Female	20	Liberia	2005
3	Female	21	Somalia	2001
4	Female	23	Burundi	2005
5	Female	20	Liberia	2005
6	Female	23	Ghana	2004
7	Female	24	Ethiopia	2005

3.2. Pre-Migration Contexts and Losses

The narratives from the participants revealed that most African youths arrived in Australia as refugees and stressors related to separations from or witnessing deaths of family and relatives while fleeing from home countries had significant life impacts. The pre-migration deaths of parents meant that many youths came to Australia with relatives or sole parents. Some youths described their relationships with their guardians as strained as the below quote demonstrates:

> *I don't have parents. My mum passed away. And most of these young people here they don't have like family and some of them might have a mum, but they don't have a dad. And they might struggle with the family, but most of them don't talk about it.* (Participant 21)

Also, some youths fled their countries of origin and lived for many years in refugee camps in the countries of asylum. Some had to move from one country of asylum to another in challenging circumstances as the following quote encapsulates.

> *All my parents and the other families stayed in South Sudan. So, we first went to Uganda, we stayed there for a couple of months, in the northern part of Uganda. At the time, it wasn't safe; there was no difference between Northern Uganda and South Sudan because of the war in South Sudan and the Lord Resistance Army operating in Northern Uganda. We stayed there for a couple of months, but every night was a nightmare. We moved from Northern Uganda, and we went to Kenya, and we arrived in Kenya in 1995. So, we stayed in the refugee camp from 1995 until 2003 when we finally came to Australia.* (Participant 14)

Similarly, respondents described the experiences of separations from families and uncertainties related to not knowing whether their parents were alive or dead, factors that had a lasting emotional impact and effects on their growth and resettlement in a new country.

Before I came to Australia, I didn't know that I had a family. When I came to Australia, people started calling me up and saying, 'we are your parents', and I just said, 'oh my God'. I didn't know my family because during the war you don't live with your parents. (Participant 20)

Furthermore, as a result of frequent movements from one country of asylum to another, and before arriving in Australia, African migrant youths reported to have lost important opportunities, including educational disruption. Some youths noted that these disruptions were a hindrance to continuing their education in Australia and were forced to grow up early to meet social obligations including looking after younger relatives and marrying at a young age. These experiences are illustrated in the following assertion:

Because of the war, I was in a camp. I started my education there from year three to year 12. When I came to Australia, I went to the factory, I work. I decided to marry, so I went back home and proposed my wife to come to Australia. My wife came with three boys, one is my nephew, and two are cousins. So, from there, I decided not to go back to school because it has been a long time plus I have personal issues. (Participant 22)

3.3. Post-Migration Contexts and Realities

Upon resettlement in Australia, some participants experienced poverty, poor employment outcomes, unfamiliarity with the new environment, and complex systems and challenges, including language and cultural barriers.

Coming to Australia was a sudden thing, like 'oh you're coming to this new place'. Like I was young and so didn't know how it was. (Participant 16)

I know a few people even now they don't have Centrelink [social security assistance in Australia] money and they don't have an income. They just live with their parents, but the parents are poor too, they don't give them an income. They are looking for work, but they can't get a job, so they have to survive like that. (Participant 20)

As a result of disadvantages including poverty, low English proficiency and the difficulties associated with growing up as a young person without parents, these youths were desperate and found it difficult to access job opportunities, ending up with poor resettlement and health outcomes.

Young people in our community, they have no access to jobs—and because they don't have access to jobs, they find something to keep themselves busy. Also, because we come from Africa, some of us don't know English. Some of us, they came here they don't have parents—their parents died—and they come when they are single . . . like the cause of all the bad thing is because you don't have a good quality of life, and if you don't have a good quality of life, you think you can do bad things. (Participant 5)

They'll be like saying they're looking for work, but they're not going to get a job because of their low level of skill. They can't get a job, and they'll be like 'what can we do?' (Participant 20)

Participants reported being anxious, bored, depressed, and perceived themselves as having failed to improve their lives in their perceived land of opportunities, which they reported led youths to antisocial and destructive behaviors, including substance use as a coping mechanism. The following statements encapsulate these claims:

It goes back to the main problems like depression, anxiety, all these kinds of things. When you start to experience those kinds of things, then you tend to put your problems into alcohol to forget the problems. (Participant 14)

When they get depressed what I see a lot and is more common, is they tend to drink alcohol a lot. They tend to drink and pretty much do things like maybe smoking weed and all that stuff. (Participant 21)

3.4. Contextualising AOD Use and Mental Health

There was a common consensus among the participants that African migrant youths' experiences of loneliness, the loss of informal social networks and family ties in addition to their circumstances in Australia made them vulnerable to social peer pressure, which seemed to facilitate AOD use. One participant observed, "*sometimes peer group. Peer group is one of them, I think. If you fall into the wrong group and the environment*" (Participant 6). Other participants also expressed a similar view.

> *When you have friends that take alcohol or other drugs, so you tend to follow so that if you want to fit into that friendship or that company, you have to do what they do.'* (Participant 15)

> *I have some of my friends here, they use drugs, they ask me . . . they give me—like smoking or drinking.* (Participant 13)

A common agreement among the participant was around the view that there are high expectations on youths in their community, and they are expected to be respectful to maintain their 'reputation'. However, this high expectation sometimes led to a breakdown of personal and social relationships with the broader community, an issue identified by participants as perpetuating AOD use and mental health problems. Additionally, there was a view among the participants that any 'reputational damage' in the community is hard to mend, leading to youths feeling trapped and marginalized from their community.

> *If you become frustrated, maybe people don't pay respect to you sometimes. You say there is nothing to fear again because I already lost that reputation'. That's the most important thing in my community, is if you lose that reputation in the community it's very hard to get it back.* (Participant 15)

Similarly, respondents noted that the breakdown of intimate relationships influenced substance use among youths, a view demonstrated by the following statement.

> *They come to drug and drinking alcohol because sometimes their relationships break up. They start smoking, and they start drinking, and they start using drugs. And they think doing these things can help them.* (Participant 13)

Complex and conflicting cultural and contextual interplays between the Australian and African communities encouraged the use of AOD among African migrant youths in Australia. Unlike in Africa, the Australian society did not prohibit excessive alcohol use, a freedom which participants revealed African migrant youths preferred but created tensions with parents. The lack of social consequences in Australia and access to government financial safety nets encouraged the use of alcohol, as illustrated here.

> *Well because it's a new environment whereby if you have the money you can buy whatever you have and there's the freedom—so the parents are going to advise their kids, but they do not listen to their parents.* (Participant 3)

> *There is alcohol in Africa, but there's a way if you're going to drink alcohol—and you know there's no Centrelink—if you're going to drink alcohol you're going to die because you're not going to have any other help.* (Participant 7)

Participants noted the negative impacts of AOD use on physical, psychological, and social health, with risky alcohol consumption both arising from and perpetuating stressors related to acculturation amongst African youths. The following statement demonstrates this sentiment among participants.

> *Well, I think alcohol is a health issue because a lot of young people are drinking alcohol. The way I see it, drinking is not the problem, but it's the amount of alcohol they drink at one time is the problem because if you drink too much, then it becomes heavy on you.* (Participant 14)

There was acknowledgement among participants that AOD use leads to antisocial behavior and poor decision making. Participants identified poor decision making typi-

cally presenting as violence and inappropriate sexual behaviors, and young youths are being vulnerable to offences committed by older youths within their social group when intoxicated.

> *Underage drinking has become a problem because a lot of young boys, a lot of young girls under the age of 18 are drinking heavily. And as a result of that, they end up doing a lot of silly things like sexual offences. So they expose themselves into sex earlier because of alcohol and drugs. Young people, as young as 15 and 16, you know, just because they drink and take drugs too they become vulnerable to older people that hang out with them.* (Participant 14)

Several participants also elaborated on this sentiment with one respondent suggesting that a loss of control with intoxication represented a manifestation of the inability to control turbulent internal emotions. The result of this was violence and arguments with others.

> *I think that [alcohol] is dangerous. It leads to a lot of disasters because it makes—teenagers especially when they have alcohol they lose control, they don't know how to handle that or control their emotions and stuff like that. They start arguing, they start fighting and stuff like that, so I think it's a big problem for teenagers.* (Participant 8)

Participants recognized alcohol as an accomplice to suicide, although they did not clarify the precise role that alcohol plays in suicide ideation, attempts, or completion. Respondents observed that alcohol consumption precipitates suicide ideation in youths with underlying psychological problems as the following comment demonstrates.

> *If their mind is not working, like sometimes if you take alcohol, you know that cause actually somebody to commit suicide.* (Participant 6)

> *You know mostly these young kids, they tend to drink and with other people making troubles. They drink, and then they try to kill each other and make themselves suicide because of those factors.* (Participant 5)

4. Discussion

This study explored the perspectives of African migrant youths in Australia about AOD use and mental health issues. Acculturative stress model provided the framework to understand these issues in migrant youths because of scarce internal and external coping resources available to them when adjusting to life in Australia [27]. Upon numerous challenges that face the youths in the current study, participants were negotiating not only the transition to a new culture but also that of meeting the expectations of their community. It has to be understood that, as a result of losses including of parents, some participants with refugee backgrounds arrived in Australia as unaccompanied minors, had extended stays in refugee camps with unmet basic nutritional, educational, or recreational needs, contributing to a poor start of new life in Australia. A combination of social and peer pressure, vulnerability, and complexities of their social deprivation could influence substance use, ultimately leading to poor social and health outcomes [28].

An important aspect of the acculturative stress model is how stressors experienced because of a lack of internal and external coping resources during acculturation contribute to stresses [27]. While the paper emphasizes the role of acculturative stress, it is important to acknowledge that there are also other factors that could contribute to AOD use and mental health issues among the participants. For example, pre-migration experiences such as traumas of past lives and losses could contribute to mental health issues among youths and the use of AOD as coping mechanisms. The current study shows that participants experienced loss, separation from families and friends, and uncertainties for their future before and after migration. For example, settlement issues such as lack of employment and underemployment could be additional factors that would lead to AOD use. There are views from the data which suggest that such experiences resulted into extreme stresses, which supports previous evidence that young people with refugee backgrounds experience extreme challenges predisposing them to a wide range of poor health and social

outcomes [29]. Participants in this study revealed being trapped in vicious cycles of social disadvantages and socioeconomic situations that affect individuals' health outcomes, particularly mental health [30]. The data from this study show that unemployment was a common issue facing African migrants youths in Australia, which contribute to their impoverishment and marginalization, often in a state of poor physical and mental health, leading to them using AOD as a coping mechanism. These findings support the link between a lack of employment opportunities and poverty as significant determinants of health [31].

Additionally, missed opportunities and the lack of education due to circumstances described elsewhere in this paper meant that African migrant youths felt excluded and at times discriminated against, for example, when accessing social security support. Discrimination is a known stressor and social determinants of health which hampers the socioeconomic opportunities and has implications for AOD use, poor social outcomes, and mental health [32,33]. Moreover, participants in the current study also revealed living in poverty and experiencing other deprivations. These complex experiences, coupled with AOD use and past trauma could shape the way individuals experience mental health issues in this population group [10]. Alternatively, the poor socioeconomic, harsh environment, and other disadvantages and mental health issues experienced by participants in this study because of past trauma could contribute to this population group having a unique experience of AOD use [34,35].

Consistent with other studies that have demonstrated the influence of alcohol on antisocial, disruptive behaviors [36], and poor health among young people [35], the views expressed by participants in this study suggest that AOD use may contribute to many social, emotional, and behavioral problems among African migrant youths. Participants in the current study revealed that the use of alcohol could contribute to risky behaviors and overall vulnerability of youths. Additionally, the participants in this study acknowledged that many migrant youths use alcohol regularly, and this is concerning because the early onset of alcohol use can contribute to alcohol-related behavioral problems later in adolescence or adulthood [37,38]. Earlier research found that people who began drinking before age 15 were four-fold more likely to develop alcohol dependence during their lifetime than were people who started drinking after 21 years old [39].

In Australia, drinking alcohol is a common characteristic of social life among youths and perceived as a pleasant social norm [40]. For African youths in Australia, it is reasonable to argue that drinking is part of assimilation and acculturation processes [41]. Young people adopting to AOD use can be perceived as embracing the norms in their new society [28]. It is also likely that alcohol use among African migrant youths is rising because of conflicting attitudes between African and Australian cultures regarding their use. In Africa, alcohol use by youths is restricted and often carry severe consequences, whereas it is socially accepted in Australia [40]. Previous studies have supported the assimilation and acculturation process as facilitators shaping the behaviors of migrants [28,42].

To this end, it is worth acknowledging that African youths are resilient but also vulnerable because of the social settings and circumstances in which they live. The results in the current study seem to justify the need for broader social determinants of health approach and provide opportunities for service providers to work with youths in this population to improve AOD and mental health services. These youths can be empowered by service providers through targeted initiatives to become ambassadors and agents of change in their communities. The information from this study has influenced youth-specific preventive mental health interventions and programs run by the African Communities Council of South Australia.

Limitations and Strengths

One limitation worth noting is that the data were collected eight years ago. However, the data are still relevant because similar issues exist in our community. As such, the need to advocate for programs and policy on AOD use and mental health issue for migrant

youths in this community persists. The paper has the potential to contribute to the scant body of literature on AOD use and mental health issue among African migrant youths in Australia. A lot of the views expressed by participants in the current study were about their peers and provided essential insights into AOD use and mental health issue in this population. Another limitation was the use of English language in conducting focus group discussions and interviews, although only participants with conversational English were enrolled. Therefore, this limits the transferability of the findings to youths who do not speak English as they may have different experiences or barriers that need to be addressed. Participants of this study were recruited from metropolitan Adelaide and might have missed African youths living outside of Adelaide. However, the use of an African youth worker to engage participants in the study was a strength, facilitating capacity building in the community. Additionally, the strength of the evidence provided by the findings of this study outweighs its limitations and thence adding to the body of knowledge. Moreover, the researchers' knowledge and lived experiences of the African culture and context in Australia has shaped the data analysis and interpretations by focusing on pertinent issues that require attention to support African migrant youths in Australia.

5. Conclusions

African migrant youths in Australia revealed significant challenges and barriers which were rooted in their pre-and and post-migration contexts. As a result of needing to adapt to their new society, there was a consensus among the study participants that African migrant youths were conflicted, and their effort to fit in led to adverse outcomes, including AOD use and mental health issue. The findings of this study are important and provide some insight into the contexts in which AOD use and mental health issue occur among African youths in Australia. Recognizing these contexts calls for interventions that address the underlying social determinants of health among African migrant youths in Australia. Addressing these socio-environmental factors that foster distress including employment opportunities and culturally unsafe service provision is necessary in order to provide effective and supportive services for these population groups and improve their mental health and wellbeing.

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Can Circumstances Be Softened? Self-Efficacy, Post-Migratory Stressors, and Mental Health among Refugees

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Abstract: Post-migratory stressors (PS) are a risk factor for mental health problems among resettled refugees. There is a need to identify factors which can reduce this burden. Self-efficacy (SE) is associated with refugees' mental health. The current study examined whether SE can protect this group from the impact of PS on mental wellbeing. Higher levels of PS were expected to be associated with higher levels of mental health problems. In addition, we expected this linkage to be moderated by lower SE. Questionnaires were administered to a non-clinical refugee sample (N = 114, 46% female, average age 35 SD = 10.42 years) with various backgrounds. The following questionnaires were used: the Self-Reporting Questionnaire-20 (SRQ-20) to assess mental health problems, the General Self-Efficacy Scale (SGES) to measure SE, and an adapted version of the Post-Migration Living Difficulties Checklist (PMLD) to measure PS. Bivariate correlations and multiple linear regression analysis were performed. No significant contribution was found for SE or the interaction of SE and daily stressors, above and beyond the significant contribution of daily stressors to mental health problems. The findings reinforce that PS affects mental health and suggest that SE had a limited impact on mental health in this non-clinical sample of refugees.

Keywords: refugees; self-efficacy; post-migratory stressors; mental health problems; non-clinical population

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1. Introduction

The worldwide number of refugees has continuously increased since 2005. By the end of 2019, the number of forcibly displaced people was 79.5 million, 26 million of whom were registered as refugees [1]. Forcibly displaced people have left their homes as a consequence of social and political or other events that disorganize public stability [2]. The sub-group of refugees contains people who are defined by the UNCHR as "someone who is unable or unwilling to return to their country of origin owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group, or political opinion" ([3], page 3). This group is at high risk of developing mental health problems [4–7]. To illustrate, the prevalence of common mental health disorders among refugees is about twice as high compared to migrant worker populations [8].

Factors contributing to these mental health problems can be roughly divided into two categories. First, as an increasing number of studies have shown, refugees are exposed to many traumatic experiences, inflating the risk of mental health problems and psychiatric diagnoses, such as posttraumatic stress disorder (PTSD) and depression [9]. The second established factor that threatens the mental wellbeing of refugees is post-migratory stress [10–13]. Examples of post-migratory stressors are social isolation [14], unemployment [15], and discrimination [16,17].

Although intervention studies among refugees are relatively scarce, trauma-focused interventions have been recommended as first-line interventions for PTSD in refugees [18,19]. Unfortunately, there is less clarity on how to intervene on the profound effects of post-migratory stressors [20]. Evidently, the impact of post-migratory stressors can be partially reduced by practical changes, such as obtaining a job or increased proficiency in the host country language [21], as well as by policies enabling these factors [22]. This level of intervention, however, often requires policy change in host countries, and thus is usually beyond the influence of individual refugees and their helpers. Therefore, increasing personal resources for dealing with these post-migratory stressors is crucial. A focus on resilience building within refugee communities is recommended [23]. However, the psychological mechanisms underlying the association between post-migration stressors and mental health outcomes, that might be targeted to improve resilience, are still largely unclear [12,21].

Self-efficacy, the individual perception of one's personal ability to deal with upcoming challenges and stressors [24], may be one key mechanism moderating the relationship between post-migratory stress and mental health problems. Previous research among refugees revealed its positive association with mental health and positive post-migratory outcomes (e.g., employment) [25]. Additionally, self-efficacy predicted positive affect over a time period of two years among a group of refugees living in the United Kingdom [26]. An experimental study demonstrated that enhancing self-efficacy led to increased distress tolerance among treatment-seeking refugee torture survivors [27]. Although these studies underline the importance of self-efficacy for refugees, it still needs to be determined whether self-efficacy mitigates the negative impact of post-migratory stressors on mental health problems within this group.

The current study examined the potential moderating role of self-efficacy in the relationship between post-migratory stressors and mental health problems, in a non-clinical sample of refugees residing in the Netherlands. We expected that higher levels of post-migration stressors would be associated with higher levels of mental health problems. In addition, we expected this linkage to be moderated by lower self-efficacy. Findings can be used to guide (preventive) mental health programs and policies for refugees.

2. Materials and Methods

2.1. Procedure

The current study used a cross-sectional design. Participants were recruited via six different non-governmental organizations (NGOs) operating in the area of Amsterdam, the Netherlands. Measurements were primarily conducted to monitor various support programs offered by these NGOs, focussed on job skills and empowerment. The current study utilized their baseline measurements for secondary data analysis. The aim of their evaluation was to investigate whether their programs were associated with increased empowerment, measured by changes in self-efficacy, and quality of life, measured by post-migration problems and mental health problems. Subsequently, the collected data were deemed suitable for our research objectives.

Participation was voluntary and participants gave informed consent before filling out the questionnaires. Questionnaires were available in Dutch and English. Additionally, the questionnaires were translated from Dutch and/or English (depending on the translators' preference) into Arabic and Tigrinya, the most prevalent languages in the study sample, using a back-and-forth method, with discrepancies being reconciled. Translators were accredited translators or bilingual individuals with experience in working with refugees.

The self-report questionnaires were administered during group meetings, just before the participants started a group program aimed to increase their personal skills in dealing with work or social challenges connected to their refugee status. The content of these support programs differed between the participating NGOs. It was guaranteed that the data would be anonimized, and participation was voluntarily. Participants were instructed to fill out the questionnaires individually.

Assistance to the participants during the administration of the questionnaires was provided by researchers and/or bilingual professionals who were instructed by the researchers. They also checked questionnaires for missing responses directly after administration and requested the participants to complete missing items when applicable.

The Utrecht University medical ethical review board declared that there was no need for review of the ethical merits of the current study, because the questionnaires were primarily administered for evaluating the NGO programs.

2.2. Participants

One hundred and fourteen (N = 114) refugees participated in the current study. Their characteristics are listed in Table 1. All participants had a temporary residency permit, which indicates that, in general, they received a legal residency permit less than 5 years ago. The target groups of the participating NGOs overlapped with the inclusion criteria of the current study, which were (1) being a refugee, (2) age $\geq$ 18, and (3) available informed consent regarding the data collection and analysis. There were no exclusion criteria. Participants had been referred to the NGOs by their personal (online) network, charity organizations, or governmental organisations.

Table 1. Participants' characteristics (N = 114).

Variable	*N*	(%)	M	(SD)	Range
Demographic characteristics					
Gender					
Female	52	45.61			
Male	56	49.12			
Missing	6	5.27			
Age in years	98	85.96	35	(10.42)	21–65
Missing	16	14.04			
Background					
Syrian	66	57.9			
Eritrean	12	10.5			
Other background	17	14.9			
Missing	19	16.7			

Because the current study was based on secondary data analysis, no sample size calculation was made prior to the data collection. However, after the current study was designed, an estimation was made to check if the current sample size was satisfactory. A sample of N = 114 was found to suffice for detecting a moderation effect, explaining 6.5% of the variance by the interaction effect of self-efficacy and daily stress, in the context of multiple regression, with a power of 0.80.

2.3. Questionnaires

2.3.1. Self-Reporting Questionnaire-20

The Self-Reporting Questionnaire-20 (SRQ-20) was used to measure general health problems within the last 30 days. Participants were asked to respond to 20 questions (2-point scale: "*yes*" or "*no*"), regarding their mental health (e.g., "*Do you feel nervous, tense or worried?*"). The questionnaire, developed by the World Health Organisation [28], was validated in several cultural contexts [29,30]. The Cronbach's alpha in the current study was 0.84.

2.3.2. General Self-Efficacy Scale

Self-efficacy was measured with the General Self-Efficacy Scale (GSES) [31]. Participants were asked to rate 10 items (e.g., "*Thanks to my resourcefulness, I know how to handle unforeseen situations*") on a 4-point scale (ranging from "*not at all true*" to "*exactly true*"). The

internal consistency and multicultural validity of the questionnaire are endorsed [31,32]. Cronbach's alpha in the current study was good (alpha = 0.81).

2.3.3. Post-Migration Living Difficulties Checklist

Daily stressors were measured with the Post-Migration Living Difficulties Checklist (PMLD) [33]. This questionnaire was adapted to the specific situation and characteristics of the study population, in cooperation with cultural mediators. For example, the item "*little government help with welfare*" was changed into two items, namely "*little help from charities*" and "*little help from the government*" since the target population often experiences these two sources of help as very different. The cultural mediators were people with a refugee background working or volunteering for the participating NGOs. Participants rated the burden they experienced from 11 potential daily stressors (e.g., "*poverty*" and "*communication problems in the Netherlands*") on a visual analogue scale (VAS) (from 0 = "*not a problem at all*" to 100 = "*a very big problem*"). Cronbach's alpha in the current study was acceptable (alpha = 0.77).

2.4. Statistical Analyses

SPSS version 23.0 was used to perform the statistical analysis. Missing values were avoided as much as possible, as described above. Bivariate correlations were calculated in order to reveal the correlations between self-efficacy, mental health problems, and daily stressors. Hierarchial linear regression analysis was used, following the enter method, to examine the study hypothesis. The predictor variables were mean centered before the analysis was conducted. In the first step, self-efficacy and daily stressors were entered as independent variables. In the second step, the interaction between these variables was added as a predictor to the model. The SRQ-20 (mental health problems) was entered as the dependent variable. Before running the analysis, several assumptions were checked. No outliers were found and the data were distributed normally. Multicollinearity levels indicated enough independence of the different predictors (see Table 3). Listwise deletion was applied for missing items.

3. Results

Descriptives are listed in Table 2.

Men scored significantly higher on self-efficacy compared to woman ($p = 0.046$). The scores on mental health were significantly different ($p = 0.029$) between origin groups, with the lowest scores for Eritreans, followed by Syrians, and the highest scores for participants from other countries. They did not differ by age, gender, or background on any other variable in relation to mental health, self-efficacy, and postmigration stressors ($p > 0.05$). Self-efficacy was not significantly correlated with post-migration stressors (r = 0.01) nor general mental health problems (r = −0.07). Post-migration stressors and general mental health problems were significantly positively correlated (r = 0.31, $p < 0.001$).

The results of the regression analysis are summarized in Table 3. In step 1, self-efficacy and PMLD were added to the model as independent variables, and mental health was added as the dependent variable. Adding the predictors to the model resulted in a significant increase in R^2 (F(2, 102) = 4.40, $p < 0.05$), indicating that these variables explain 7.9% of the variance in mental health. In step 2, the interaction between self-efficacy and PMLD was added to the model as an additional independent variable, which did not result in a significant increase in R^2 (F(1, 101) = 2.24, $p = 0.138$). PMLD was the only variable explaining unique variance in mental health. Self-efficacy and the interaction between self-efficacy and PMLD did not contribute to the explained variance in mental health.

Table 2. Descriptives (N = 114).

Variable	N	(%)	M	(SD)	Range
SRQ-20	110	96.49	0.34	(0.23)	0–1.00
GSES	106	92.98	2.94	(0.54)	1.60–4.00
PMLD	109	95.61	34.88	(19.29)	0–100
Worries about housing situation	108	94.74	22.96	(31.53)	0–100
Interaction with roommates	106	92.98	30.41	(37.05)	0–100
Contact with Dutch institutions	105	92.11	33.64	(30.55)	0–100
Little help from government	101	88.59	34.07	(34.89)	0–100
Little help from charities	106	92.98	26.55	(33.40)	0–100
Being separated from family	108	94.74	33.04	(39.42)	0–100
Worries about family back at home	108	94.74	56.82	(38.86)	0–100
Communication in the Netherlands	104	91.22	43.95	(31.51)	0–100
Discrimination	107	93.86	22.81	(28.92)	0–100
Poverty	105	92.11	32.84	(29.86)	0–100
Loneliness and boredom	106	92.98	39.55	(34.78)	0–100

Note. GSES = General Self-Efficacy Scale; PMLD = Post-Migration Living Difficulties Checklist; SRQ-20 = Self-Reporting Questionnaire-20.

Table 3. Hierarchical regression analysis on predictors and moderator for general mental health problems.

Predictor	B	SE B	B	t	p	VIF	ΔR^2	R^2
Step 1							0.079	0.079
Constant	0.328	0.021		15.519	0.000			
GSES	−0.024	0.040	−0.058	−0.608	0.545	1.00		
PMLD	0.003	0.001	0.276	2.908	0.004	1.00		
Step 2							0.020	0.099
Constant	0.328	0.021		15.623	0.000			
GSES	−0.030	0.040	−0.07	−0.739	0.461	1.01		
PMLD	0.003	0.001	0.291	3.062	0.003	1.01		
GSES * PMLD	−0.003	0.002	−0.143	−0.150	0.138	1.02		

N = 105; GSES = General Self-Efficacy Scale; PMLD = Post-Migration Living Difficulties Checklist; GSES * PMLD = interaction GSES and PMLD, VIF = variance inflation factor.

4. Discussion

The objectives of the current study were to determine (a) the relation between post-migration stressors and mental health, (b) the relation between self-efficacy and mental health, and (c) the moderating role of self-efficacy in the relationship between post-migratory stressors and mental health problems, in a Dutch refugee sample. We expected that higher levels of post-migration stressors would be associated with higher levels of mental health problems. In addition, we expected this linkage to be moderated by lower self-efficacy. The results only partly confirm our expectations.

A first main finding was that post-migration stressors explained significant variance in mental health problems among the study population. This agrees with prior evidence that post-migration stressors are relevant for the psychological wellbeing of refugees [34]. Our findings support prior recommendations [35] that (preventive) mental health interventions and policies should consider the impact of post-migratory problems.

We did not find a significant contribution for self-efficacy to mental health problems, which contradicts our hypothesis and previous findings among refugee populations [25,27]. Additionally, we did not find a significant moderation effect for self-efficacy, which was also contrary to our expectations. Our study is not the first to find that self-efficacy is unsupportive for mental health among refugees. A recent study among refugees resettled in Turkey and Sweden even revealed that self-efficacy was, via emotional suppression, correlated to psychological distress [36], but the link to post-migration stressors was not examined. A literature review [37] suggests that self-efficacy is not exclusively advantageous

in relation to stress and mental health. For example, one study among patients with somatic conditions indicated that high self-efficacy combined with limited control over pain was related to elevated mental health problems [38]. A comparable mechanism could explain the absence of a relationship between mental health and self-efficacy in our study. That is, since refugees generally experience high uncontrollability over the daily stressors [39], they may experience a friction between their self-efficacy and actual control over circumstances that impact their lives, which can abolish the supportive role of self-efficacy [25,27]. This assumption could be examined in future research by including socio-political factors that objectify the actual control that individuals have over their environmental stress, next to mental health and self-efficacy.

The current study has several limitations. First, the design was cross sectional and consequently it remains unclear how the examined parameters interact on a longitudinal basis. It would, for example, be valuable to know if prior self-efficacy levels affect the impact of later upcoming stressors on mental health. Secondly, the use of questionnaires for non-western populations, as in the current study, has been criticized [40]. In addition, questionnaires were administered in a group setting, which is a third limitation, since this may have had an impact on the response tendencies of participants [41]. The presence of peers may, for example, result in socially desirable responses. Fourth, the postmigration stress questionnaire items are limited. Although the content was adapted to the specific sample (see Section 2), the items do not represent the entire scope of postmigration problems that refugees in different contexts may experience. Therefore, we should be cautious in drawing conclusions about the impact of other, non-assessed, stressors on mental health. Additionally, the total load of post-migration stressors was included in the analysis, which does not display information on the impact of the separate stressors. Sixth, the items on the postmigration stress questionnaire were administered on a VAS scale, which has not been validated in previous work. The original five-point ordinal scale ranges from "no problem" to "a very serious problem". Lastly, we had no data about characteristics of people who were unable or unwilling to participate. Therefore, this study could not control for any selection bias. Additionally, to limit the burden for participants, a limited number of questions was administered on demographic features. Consequently, the impact of the precise duration of the refugees' stay in the Netherlands on the examined mechanisms remains uncertain.

The study also has several strengths. First of all, this study gains insight into mechanisms underlying mental health for refugees. Despite its relevance, this is a relatively under-researched topic [12,21]. Secondly, the study was performed in a naturalistic setting which contributes to the external validity of the findings. Third, attention was paid to the cultural validity of the questionnaires by using translators or bilingual individuals, and using a back-and-forth method, with discrepancies being reconciled. Lastly, all refugees had a temporal recidency permit. Despite the fact that the number of items on the post-migratory stressors questionnaire was limited, the study population was demarcated on this relevant characteristic which impacts their living conditions and possiblities [42].

Considering these strengths and limitations, several remarks must be made. First, we should be cautious with generalizing our conclusions to other groups of displaced populations (e.g., refugees with a permanent recidency permit or asylum seekers). Moreover, all participants were connected to an NGO, and therefore generalizing the current findings to refugees who are less embedded in their host country should be done with caution. Secondly, the amount of administred postmigratory stressors and characteristics was limited. We therefore recommend future research to include a larger sample and expand the items in the data collection, to objectify the relevance of independent stressors and demograpic characteristics. To increase the cultural validity, a multimethod (e.g., qualitative and quantitative) design is advised for future studies. To investigate the longitudinal relevance of our findings, a cohort study would be a suitable next step.

5. Conclusions

The findings from this study endorse the relevance of post-migratory stressors for mental health among refugees with relatively low levels of mental health problems. The findings are in line with prior work [34,36], and illustrate the applicability of prior research findings to the situation of refugees in the Netherlands. In addition, this study was, to best of our knowledge, the first to examine a potentially moderating effect of self-efficacy for the relationship between post-migration stressors and mental health in refugees. Its findings shed light on mechanisms underlying the resilience of a vulnerable population. Counterintuitively and in contrast with several other study findings [25,27], no impact of self-efficacy on mental health was found, and neither did it moderate the relationship between daily stressors and mental health. Our findings dissuade preventive inverventions to focus on increasing control over circumstances that may be beyond the influence of an individual, circumstances which may often prevail for refugees, seriously constraining personal control and agency. Considering that the current study focusses on a non-clinical population, findings are relevant to policies directed at tertiary prevention for resettled refugees.

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Review

Communication Experiences in Primary Healthcare with Refugees and Asylum Seekers: A Literature Review and Narrative Synthesis

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Abstract: Refugee and asylum seeker population numbers are rising in Western countries. Understanding the communication experiences, within healthcare encounters, for this population is important for providing better care and health outcomes. This review summarizes the literature on health consultation communication experiences of refugees and asylum seekers living in Western countries. Seven electronic databases were searched from inception to 31 March 2019. Studies were included if they aimed to improve, assess or report on communication/interaction in the primary health care consultation setting with refugees or asylum seekers, and were conducted in Western countries. A narrative synthesis of the literature was undertaken. Thematic analysis of the 21 included articles, showed that refugees and asylum seekers experience a range of communication challenges and obstacles in primary care consultations. This included practical and relational challenges of organizing and using informal and formal interpreters and cultural understanding of illness and healthcare. Non-verbal and compassionate care aspects of communication emerged as an important factor in helping improve comfort and trust between healthcare providers (HCP) and refugees and asylum seekers during a healthcare encounter. Improvements at the systems level are needed to provide better access to professional interpreters, but also support compassionate and humanistic care by creating time for HCPs to build relationships and trust with patients.

Keywords: refugees; asylum seekers; primary healthcare; general practice; communication; patient-centered care; patient engagement

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1. Introduction

There are currently 70.8 million forcibly displaced people worldwide, with approximately 37,000 people displaced every day [1]. This includes refugees "who have fled war, violence, conflict or persecution, have crossed an international border and been granted protection/safety" and asylum seekers "who have sought international protection and whose claims for refugee status have not yet been determined" [2]. Many of the refugees and asylum seekers arrive in Western resettlement countries with complex psychological and physiological health needs. They face challenges accessing and utilizing healthcare due to numerous factors, such as unfamiliarity with the healthcare system, language and cultural barriers, cost and other social circumstances [3–6].

Primary healthcare services are usually refugee and asylum seekers' first point of care in the resettlement countries [3,5,7,8]. Such services often face challenges in not only training healthcare providers (HCP) in effectively responding to the healthcare needs of the refugee and asylum seeker patients but also in identifying issues with patient's immigration status and access to healthcare [9]. Apart from these broader system-level challenges, another key area where challenges arise is the healthcare encounter between refugee and asylum seekers and HCP [9]. Communication plays a key role in the healthcare encounter between refugee and asylum seekers and healthcare providers and is an essential starting point for patient satisfaction and positive health outcomes [10].

Experiences within the healthcare encounter, in particular the interpersonal relationships, are fundamental to good healthcare provision [11,12]. Clinician–patient relationships and patient health outcomes rely on effective communication between the clinician and patient [10]. When considering people from culturally and linguistically diverse backgrounds, communication has been identified as the starting point for building up confidence between the healthcare provider and patient [13]. Evidence has shown that patient satisfaction is strongly associated with communication behaviors during the clinician–patient interaction [14–16].

This aim of this review is to summarize the literature on the communication experiences of refugee, asylum seekers and healthcare providers during primary healthcare consultations in Western countries (defined by UN regional grouping) in order to inform recommendations for practice [17].

2. Methods

This review summarizing current research on communication experiences is guided by a systematic literature searching methodology [18] with narrative data synthesis and analysis techniques [19].

2.1. Search Strategy

Seven electronic databases were systematically searched from inception to 31 March 2019: OVID Medline, EMBASE, CINAHL, Web of Science, Scopus, Global Health and Informit.

Search terms for primary healthcare, refugees and asylum seekers and communication were combined to develop the search strategy (Appendix A). No date limits were applied, but studies were limited to those with titles and abstracts in English. Further hand-searches were conducted based on included studies' reference lists and citations (in Google Scholar).

After the removal of duplicates using Endnote X8 software (Clarivate Analytics, Philadelphia, PA, USA), the remaining references were imported to the Rayyan online tool [20] for screening and data extraction. The titles and abstracts were screened by two researchers, excluding articles that did not clearly meet the pre-defined inclusion criteria. The full texts of the remaining articles were obtained and assessed by two independent researchers, according to prespecified study selection criteria (detailed below). Any disagreements were resolved via discussion. Where full texts were not in English, native speakers completed the screening process. Full texts of studies which met the pre-specified study selection criteria were translated into English using Google Translate and proofread by native speakers prior to data extraction.

Studies were excluded if the full-text could not be obtained either through institutional access or from requests sent to authors through Research Gate.

2.2. Selection Criteria

2.2.1. Population

Studies were included if participants were refugees and asylum seekers living in Western countries (defined as countries that are members of UN classification of Western European and Other States Group (WEOG)) [17]. Studies were limited to Western countries because of the authors' interests in developing recommendations for practice applicable to primary healthcare systems in this context.

The literature that presented a mixed population broader than refugees and asylum seekers was excluded, as were studies which referred to "migrants" or "immigrants" but had no information on the migration pathway. Studies regarding "Undocumented migrants," defined as anyone residing in any given country without legal documentation, were also excluded as this population is known to have unique characteristics that would not necessarily be typical of refugees and asylum seekers [21].

2.2.2. Study Design

Empirical quantitative studies and qualitative studies, case reports, mixed-method studies, reports and opinion articles were included in the review.

Studies designed to improve, assess or report on communication in the primary healthcare consultation setting were included. The definition of the "primary healthcare provider team" is diverse; hence this review was limited to the literature involving the following clinical healthcare providers (HCP): general practitioners (GPs), nurses and midwives. The literature including mental health professionals was also excluded as this clinical area has specific characteristics that shape the communication context.

Studies were excluded if the setting was not within a healthcare encounter or if it was related to accessing healthcare.

2.3. Data Extraction and Quality Assessment

Study characteristics were extracted by one author using a data extraction proforma. Characteristics included country of origin, aims, participants, setting, study design, methodology, results and recommendations/applications.

The quality of the included literature was assessed using the respective Joanna Briggs Institute critical appraisal checklists for qualitative research (10-item checklist), text and opinion papers (6-item checklist), studies reporting prevalence data (9-item checklist) and case reports (8-item checklist) [22].

2.4. Data Analysis and Synthesis

Qualitative and quantitative methodologies are varied in nature; therefore, a narrative synthesis of the literature was undertaken and involved using inductive thematic analysis in which dominant and recurrent themes were identified. The narrative synthesis described by Popay et al. [19] was used in guiding the process. The analysis involved generating codes from the literature to identify key ideas and then identifying the themes by grouping the codes with similar ideas together. The relevant codes which aligned with the initial research question were all incorporated into themes. We also used grouping and tabulation methods for preliminary synthesis of the study characteristics.

3. Results

The systematic database searches identified 4692 articles. Twelve further articles were identified through hand-searching of reference lists and citations. After the removal of duplicates, 2676 articles remained. A further 2588 articles were removed after screening of the title and abstracts. Full texts of the remaining 88 articles were obtained and assessed against inclusion criteria. Full texts could not be obtained for five of the articles. After reviewing the 83 available full texts articles, 21 articles were included in the narrative synthesis (Figure 1). This included sixteen qualitative studies, two opinion articles, two quantitative studies and one case report.

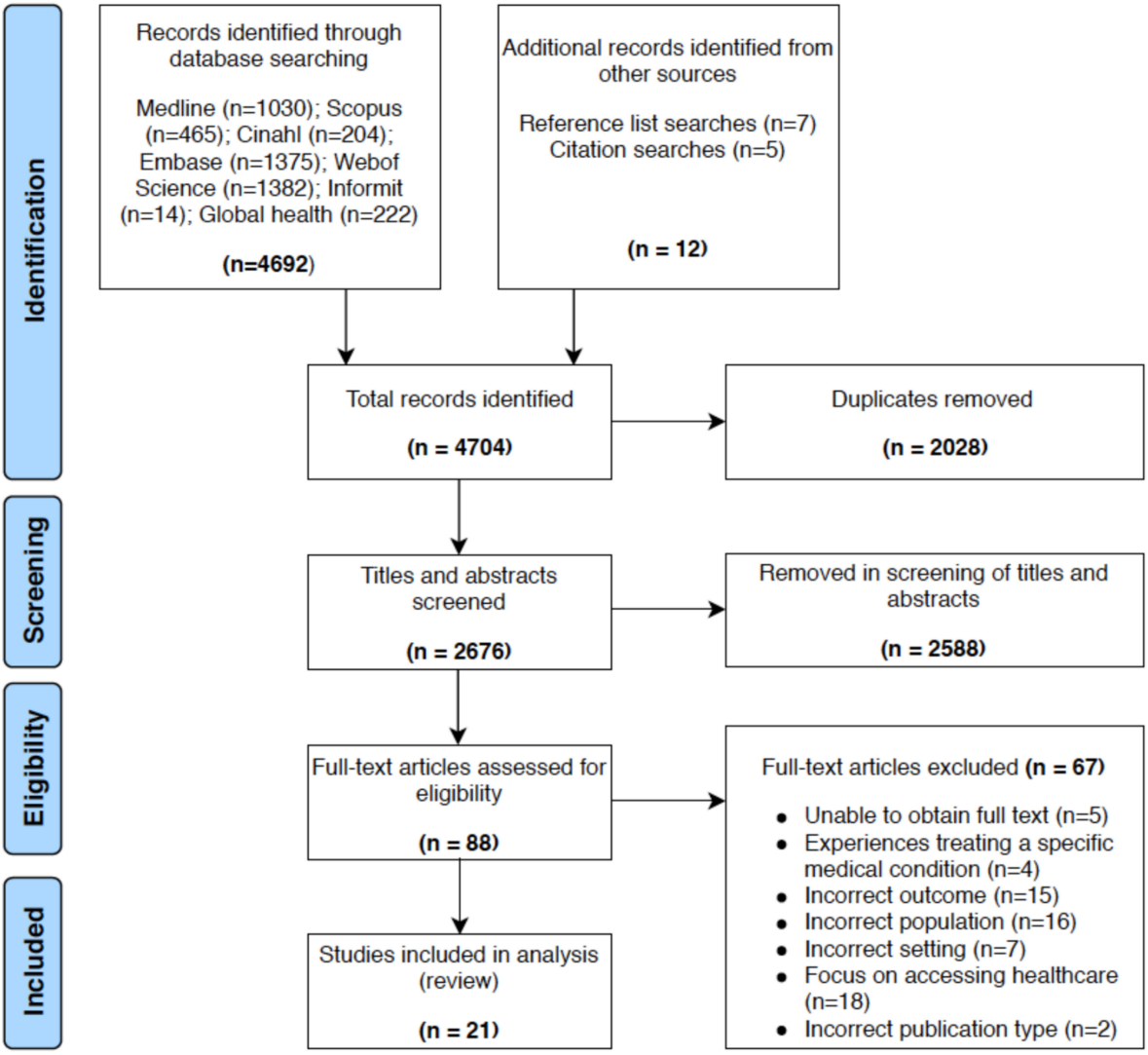

Figure 1. PRISMA flow diagram: The PRISMA diagram details the search strategy and selection process.

The included articles were conducted in nine countries; six articles were from Australia, four from the Netherlands, three from the United States, two from Ireland, two from Scotland and one each from Norway, Denmark, Sweden, and Canada. All articles were published between 1999 and 2018 (Table 1).

The studies represented the experiences of a total of 357 patient participants and 231 healthcare providers. Of the eighteen qualitative and quantitative studies, nine looked at patient experiences of communication in healthcare setting, six looked at HCP experiences and three looked at HCP and patient perspectives. Both the quantitative studies looked at the HCP experiences. Patient participants were described as "refugees" in seventeen articles, "asylum seekers" in two articles and "refugees and asylum seekers" in two articles.

The Joanna Briggs Institute critical appraisal checklists scores for qualitative studies ranged from 6 to 9 (out of 10), the case report was 5 (out of 8), the studies reporting prevalence data ranged from 7 to 8 (out of 9) and the opinion articles were 6 (out of 6). All of the studies were deemed to be of high quality, so were all included in the literature review (Table 1). Table 2 identifies the study aims, objectives and outcome measures of included studies.

Table 1. Summary of participant and study characteristics of included studies.

Author	Year	Country	Population (Service Users)	Setting (Service Provider/Setting)	Number	Data Collection Method	Analysis Methodology	Quality Score
Adair et al. [23]	1999	United States of America	Refugees (Somali)	Primary care clinic—both doctors and nurses	38 patients, 6 nurses, 32 doctors	Refugees—semi-structured telephone interviews Medical professional-survey questions	Quantitative analysis	8
Carroll et al. [24]	2007	United States of America	Refugee women (Somali)	Primary care provider	34 refugees	Refugees—in depth interviews	Grounded theory	9
Farley et al. [25]	2014	Australia	Newly arrived refugees	General Practitioners, nurses, admin staff	20 GPs [b], 5 nurse, 11 admin staff	HCP [c]—focus groups and semi-structured interview	Inductive thematic analysis	9
Feldmann et al. [26]	2006	Netherlands	Refugees (Somali)	General Practitioners	36 refugees	Refugees—in depth interviews	Thematic analysis	7
Feldmann et al. [27]	2007	Netherlands	Refugees (Afghan/Somali)	General Practitioners	66 Refugees, 24 GPs	Refugees—in depth interviews GPs—semi structured interviews	Thematic analysis	7
Feldmann et al. [28]	2007	Netherlands	Refugees (Afghan)	General Practitioners	30 refugees	Refugees—in depth interviews	Thematic analysis	7
Feldmann et al. [29]	2007	Netherlands	Refugees (Afghan/Somali)	General Practitioners	24 GPs	Interviews (refugees and GPs)	General narrative	6
Grut et al. [30]	2006	Norway	Refugees	General Practitioners	12 GPs	GP—interviews	Narrative synthesis	6
Gurnah et al. [31]	2011	United States of America	Refugee women (Somali Bantu)	Reproductive health service	14 refugees	Refugee—interviews, focus group and semi-structured survey	Thematic analysis	8
Harris [6]	2018	Australia	Refugees	General Practice	n/a [a]	n/a	Opinion article	6

Table 1. *Cont.*

Author	Year	Country	Population (Service Users)	Setting (Service Provider/Setting)	Number	Data Collection Method	Analysis Methodology	Quality Score
Harris and Zwar [32]	2005	Australia	Refugees	General Practice	n/a	n/a	Opinion article	6
Jensen et al. [33]	2013	Denmark	Refugees	General Practitioners	9 GPs	GP—semi structured interviews	Content analysis	8
Johnson et al. [34]	2008	Australia	Refugees	General Practitioners	12 GPs	GP—semi structured interviews	Template analysis	8
MacFarlane et al. [35]	2009	Ireland	Refugees and asylum seekers	General Practitioners	26 refugees	Refugees—semi-structured interviews	Thematic analysis	9
MacFarlane et al. [36]	2008	Ireland	Refugees and asylum seekers	General Practitioners	56 GPs	GP—telephone survey	Quantitative analysis	8
Manchikanti et al. [37]	2017	Australia	Refugees (Afghan)	General Practice	18 refugees	Refugees—in depth, semi-structured interviews	Thematic analysis	8
Mengesha et al. [38]	2018	Australia	Refugees	General Practitioners, nurses, midwife	5 GPs, 8 nurses, 1 midwife	HCP—semi-structured interviews	Thematic analysis	8
O'Donnell et al. [39]	2008	Scotland (UK)	Asylum seekers	General Practice	52 refugees	Asylum seekers—focus groups and semi-structured interview	Thematic analysis	9
O'Donnell et al. [40]	2007	Scotland (UK)	Asylum seekers	General Practice	52 refugees	Asylum seekers—focus groups, one-on-one interviews or group interviews	Thematic analysis	9
Pottie [41]	2007	Canada	Refugees	Family physician	1 refugee	Refugee—case report		5
Svenberg et al. [42]	2011	Sweden	Refugees (Somali)	General Practice	20 refugees	Refugee—interviews	hermeneutic approach	7

[a] Abbreviation: n/a, not applicable. [b] Abbreviation: GP, general practitioner. [C] Abbreviation: HCP, Healthcare provider.

Table 2. Study aims, objectives and outcome measures of included studies.

Author	Study Aims and Objectives	Outcomes Measures	Study Outcomes/Conclusions
Adair et al. [23]	To identify barriers to healthcare access perceived by a group of refugees from Somalia and by the doctors and nurses providing care for them.	Somali and HCP[a] responses to questions regarding transportation to clinic, payment for medical care, availability of interpreters and satisfaction with the level of communication achieved, comfort with being examined, and obtaining of medical care at multiple clinics.	Nurses and doctors who provide care for these patients and are quite familiar with their demographic characteristics but were inaccurate in predicting how they felt about access to care.
Carroll et al. [24]	To identify characteristics associated with favourable treatment in receipt of preventive healthcare services, from the perspective of resettled African refugee women.	African refugee women's response to questions about positive and negative experiences with primary healthcare services, beliefs about respectful vs. disrespectful treatment, experiences of racism, prejudice or bias, and ideas about removing access barriers and improving healthcare services.	Qualities associated with a favorable healthcare experience included effective verbal and nonverbal communication, feeling valued and understood, availability of female interpreters and clinicians and sensitivity to privacy for gynecologic concerns.
Farley et al. [25]	To explore the experiences of general practices working within this new model, focusing on the barriers and enablers they continue to experience in providing care to refugees.	HCP responses to questions regarding barriers and enablers experienced when providing refugee healthcare and the resources providers felt would assist them in this task.	HCP working with refugees were enthusiastic and committed. The flexibility of the general practice setting enables providers to be innovative in their approach to caring for refugees. However, most practices continue to feel isolated as they search for solutions.
Feldmann et al. [28]	What are participants' frames of reference, in respect of healthcare, and what is their definition of health? How did participants try to solve their health-related problems and what was their experience of the process? What personal and social resources were useful to them? How can we explain differences between participants' experiences of healthcare and their interpretations of their experiences?	Refugee responses to questions regarding healthcare experiences, health-related problems and social and personal resources used in healthcare.	The elements that constituted positive and negative episodes and led to the development or undermining of trust were identified in the narratives. Negative experience tended to be interpreted as a sign of prejudice on the part of the HCP.
Feldmann et al. [26]	Which frames of reference play a role in the development over time of an individual refugee's relationship with the Dutch healthcare system, in particular with the GP?	Refugee responses to questions regarding healthcare in country of origin and healthcare in the Netherlands.	For a positive relationship to develop, based on trust, GPs need to invest in the relationship with individual refugees, and avoid actions based on prejudice.

Table 2. *Cont.*

Author	Study Aims and Objectives	Outcomes Measures	Study Outcomes/Conclusions
Feldmann et al. [29]	What do refugees and general practitioner say about physically inexplicable somatic complaints?	GPs' perspectives on medically unexplained physical symptoms presented by their refugee patients, strategies to address this and problems assisting refugee patients.	The personal attitude and communication skills of the practitioner appear to be central to building or undermining trust.
Feldmann et al. [27]	To confront the views of refugee patients and general practitioners in the Netherlands, focusing on medically unexplained physical symptoms.	Refugees' perspectives on health, illness and mental worries, their expectations from doctors and problems dealing with Dutch doctors. GPs' perspectives on medically unexplained physical symptoms presented by their refugee patients, strategies to address this and problems assisting refugee patients.	GPs need to invest in the relationship with individual refugees, and avoid actions based on prejudice.
Grut et al. [30]	What challenges do the regular GPs experience in meeting these patients (refugee backgrounds)?	GP responses to questions about the challenges about meeting patients from refugee backgrounds.	GPs need more guidance materials to adapt to cultural challenges of treating refugee patients.
Gurnah et al. [31]	Explore the reproductive health experiences of Somali Bantu women in Connecticut, to identify potential barriers to care experienced by marginalized populations.	Somali women's response to questions regarding perceptions of barriers to reproductive healthcare.	There was a lack of cultural fluency between patients and provider. There is a need for developing cultural competency in health care delivery.
Harris and Zwar [32]	n/a[c]	n/a	Refugees and asylum seekers come to Australia with a range of health problems related to their experience both overseas and in Australia. These problems need to be addressed in general practice, as should preventive care, which is often overlooked.
Harris [6]	n/a	n/a	Need for more integrated health service provision for people from refugee backgrounds, based on trust and communication.
Jensen et al. [33]	To investigate how general practitioners experience providing care to refugees with mental health problems.	GP responses to questions regarding delivery of care to immigrants in general, and delivery of care to patients with different immigration status.	Findings suggest that the development of conversational models for general practitioners including points to be aware of in the treatment of refugee patients may serve as a support in the management of refugee patients in primary care.

Table 2. *Cont.*

Author	Study Aims and Objectives	Outcomes Measures	Study Outcomes/Conclusions
Johnson et al. [34]	To document the existence and nature of challenges for GPs who do this work in South Australia. To explore the ways in which these challenges could be reduced. To discuss the policy implications of this in relation to optimising the initial healthcare for refugees	GP responses to questions regarding challenges in providing initial care to refugees, suggestions on how to reduce challenges and ways to optimise initial healthcare for refugees.	GPs in this study were under-resourced, at both an individual GP level as well as a structural level, to provide effective initial care for refugees.
MacFarlane et al. [35]	Exploration of the elements of that experience in terms of their access to informal interpreters, choices and trade-offs about who to ask and negotiations with general practitioners about their use.	Asylum seeker responses to questions around use of health services; barriers and facilitators to accessing care; use of secondary care services; experience of translators; and previous experience of healthcare in responders' country of origin.	Overall, service users experience a tension between the value of having someone present to act as their interpreter and the burden of work and responsibility to manage the language barrier.
MacFarlane et al. [36]	Quantify the need for language assistance in general practice consultations and examine the experience of, and satisfaction with, methods of language assistance utilised.	GP[b] responses to questions regarding the need for language assistance, their knowledge and use of professional interpreters and use of informal interpreters	The need for language assistance in consultations with refugees and asylum seekers in Irish general practice is high. General practitioners rely on informal responses.
Manchikanti et al. [37]	To investigate the acceptability of general practitioner (GP) services and understand what aspects of acceptability are relevant for Afghan refugees.	Refugees responses to questions regarding access to primary healthcare.	The findings reinforce the importance of tailoring healthcare delivery to the evolving needs and healthcare expectations of newly arrived and established refugees, respectively.
Mengesha et al. [38]	To explore the healthcare professional (HCP) experiences of working with interpreters when consulting refugee and migrant women who are not proficient in English around sexual and reproductive health issues.	HCP responses to questions regarding their recent encounters with refugee and migrant women not proficient in English language in sexual and reproductive healthcare.	Communication barriers in the provision of sexual reproductive health services to refugee and migrant women may not be avoided despite the use of interpreters.
O'Donnell et al. [39]	How migrants' previous knowledge and experience of healthcare influences their current expectations of healthcare in a system relying on clinical generalists performing a gatekeeping role.	Asylum seekers response to health services; barriers and facilitators to accessing care; use of secondary care services; experience of translators; and previous experience of health care in responders' country of origin.	HCPs need to be aware that experience of different systems of care can have an impact on individuals' expectations in a GP- led system.

Table 2. *Cont.*

Author	Study Aims and Objectives	Outcomes Measures	Study Outcomes/Conclusions
O'Donnell et al. [40]	To identify the barriers and facilitators to accessing healthcare, both medical and dental, and to explore the healthcare needs and beliefs of asylum seekers.	Asylum seeker responses to discussion around health services; barriers and facilitators to accessing care; use of secondary care services; use of dental services; experience of translators; and previous experience of healthcare in their own country.	The findings highlight issues of access to timely health care and the role of interpreters within the consultation. In addition to understanding the role of GPs and the UK health system.
Pottie [41]	n/a	n/a	The quality of patient care is improved with the use of professional interpreters.
Svenberg et al. [42]	To explore Somali refugees' experience of their encounters with Swedish healthcare.	Refugees' responses to questions regarding their and their family's experience with meeting Swedish healthcare.	Interpretation of the findings suggests unfulfilled expectations of the medical encounters, resulting in disappointment among the Somali informants. This entailed a lack of trust and feelings of rejection and, ultimately, decisions to seek private medical care abroad.

[a] Abbreviation: HCP, Healthcare provider. [b] Abbreviation: GP, general practitioner. [C] Abbreviation: n/a, not applicable.

Three themes were identified from the included literature from both the patient and healthcare provider perspectives: (a) linguistic barriers, (b) clinician cues and (c) cultural understanding. The included quantitative studies focused only on linguistic barriers whilst the other study types had elements of all three themes.

3.1. Linguistic Barriers

Linguistic barriers were identified through the qualitative and quantitative studies, opinion articles and the case report. This theme emphasized the challenges stemming from the discordance of language between the patient and HCP as well as the difficulties of organizing and using both professional and informal (family and friends) interpreters.

3.1.1. Qualitative Studies

Across studies, accessing appropriate interpreters in a timely manner was one of the prominent challenges highlighted by HCPs. In particular, those with limited experience working with migrants were not always aware of available interpreting services (e.g., telephone services) and the time required to organize an interpreter before the consultation with the patient [32,34,35,40].

> *"The times that I have needed it they have been–appointments have been booked well in advance. How do you book an interpreter when someone rings up at lunchtime and sees you two hours later for something that is minor or insignificant?"* —HCP [34]

Generally HCPs felt that professional interpreters were more experienced with medical terminology and, therefore, provided better outcomes [23,32,33,41]. In the absence of professional interpreters, they used family or friends as interpreters for clinical consultations but expressed their concerns about safety, confidentiality and accuracy of translation [23,25,32,33,36].

> *"Sometimes it is okay, but in the majority of the cases it is better with the authorized interpreters since they are more familiar with the medical terminology. So it is always a poorer consultation. It is typically the family being used and I feel they shouldn't be there at all"* —HCP [33]

Patients often reported that they were not confident using interpreters due to fear that their problems would not remain confidential and would become gossip. This caused them to be less open with their HCP [31,35]. HCPs also reported that often patients would choose to have a consultation without an interpreter due to the interpreter being known in the community [38].

> *"Sometimes you will see a client who does not want to work with an interpreter, especially in small communities there are limited numbers of interpreters from that community. The client may know the interpreter or know people who know the interpreter and they will worry about confidentiality. That causes a lot of embarrassment for women . . . "* —HCP [38]

Miscommunication with both professional and informal interpreters (e.g., family and friends) was also seen as an issue by patients in several studies as they sometimes felt that the translations were not correct or the language the interpreter was using was slightly different to their own. HCP experiences in some studies also showed that they were apprehensive about the translation as patients often spoke for an extended period but the responses received through the interpreter were relatively short [24,25,31].

> *"When you get a translator and the translator doesn't really get you the translation in details. Some of them just talk and talk and then when it comes to the translator, he can't put the words the [right] way..." —patient* [24]

In the absence of interpreters and with limited language skills, patients expressed that they sometimes did not understand the information and explanations that the HCP had given. However, they did not often express this and hence left with unresolved questions and, in some instances, incorrect diagnoses [31,35].

"Inevitably there were misunderstandings during her GP consultations and, on one occasion, her son who had diarrhoea was prescribed medication for constipation..." —patient [35]

3.1.2. Quantitative Studies

A survey of 38 HCPs in the United States showed that HCP's overestimated how often they themselves used informal interpreters and underestimated the patient's satisfaction with the interpreter quality [23].

According to telephone interviews with general practitioners in Ireland, 77% responded saying language assistance was required during consultation with refugees and asylum seekers [36]. However, the results from the study show that only 7% of HCPs could name a professional interpreting service and only 5% could name one which they had used. In consultations where an interpreter was required but they managed without, the HCP either used sign language and diagrams, the patient spoke some English or the GP themselves had some knowledge of the patient's language [36]. There was also a greater preference for informal interpreters and the main reason reported was accessibility. However, concerns about confidentiality with informal interpreters was reported by 43% compared to 11% with professional interpreters.

3.2. Clinician Cues

Across a number of included studies, patients consistently emphasized the importance of non-verbal cues and compassion from the HCPs, such as smiling, nodding, kindness and showing patience. They were all seen to be factors in helping to alleviate stress and improving trust as they allowed the patients to feel welcome and valued, and reportedly affected perceived levels of engagement [24,26–29,37,39].

"When you sit with a doctor and you hear kind words, that has an influence on your nerves, on your body. You start feeling better, healthier, than when the doctor is angry." —patient [27]

"We don't have anybody here. It is very important that the doctor is friendly." —patient [28]

On the other hand, lack of interest from the HCP and not being taken seriously about their health concerns led patients to be less open in their communication [24,26,28,29,42]. Patients reported that they were not likely to trust and communicate with an HCP who was not willing to consider their individual characteristics and needs [26–28,42].

"I did not give him the medical file, because he was not interested. My expectation was somebody who will be open to me, like doctors in Africa." —patient [26]

"That generalizing attitude is what still makes me angry." —patient [26]

In contrast, HCP's willingness to listen to the patient's personal story and non-medical information was seen as a way to encourage trust and improve the relationship. The HCP's openness, understanding and attentiveness towards the patient's needs, alongside willingness to take detailed medical history, helped to build trust and allowed the patient to open up to them [24,26–29,37].

"To show that you are interested in the person, not only in the disease; to show that you want to know something about the context. Sometimes it is difficult to find time for it in a busy practice, but I see it is a worthwhile investment . . . " —HCP [27]

3.3. Cultural Understanding

Cultural considerations play a key role in open communication and understanding of medical context between patients and HCPs.

When organizing professional interpreters, it was important to some patients that same gender interpreters were organized to allow them to be open with the HCP. When they had interpreters of the opposite gender, they expressed that they felt it was inappropriate

and that they felt embarrassed [23,24,28,31,38]. Patients reported that having interpreters and HCPs of the same gender allowed for them to form a connection and speak more freely about their health concerns [24,37].

> *"Give her a woman translator, so that she can be open to tell all the problems" —patient* [24]

> *"Religion sometimes says it is good for you to have [a] female doctor if you are female" —patient* [24]

HCPs expressed that often a challenge for them was causing patients to understand and explain their symptoms due to cultural differences [23,25,27,30,33,34]. They reported that there were cultural differences in the way some patients interpreted health and illness, as well as challenges in addressing long-standing cultural beliefs which impacted the medical care they gave. Patients also expressed not wanting to contradict the HCPs who were seen as authority figures and felt that any self-advocacy from them would not be accepted, which highlighted the notion of hierarchy within the interaction [31]

> *"They have a different culture, so their cultural perception of symptoms and what they mean... trying to interpret the difference between a bloated abdomen and a painful abdomen, just becomes an impossible task..." —HCP* [25]

4. Discussion

This review found that refugees and asylum seekers experience a range of communication challenges and obstacles in primary care consultations. These relate to the availability and access to appropriate interpreters, HCP demeanor and cultural considerations. The highlighted themes: linguistic barriers, clinician cues and cultural understanding, are all interrelated and emphasize the preferences for considerate and appropriate care.

While previous research looking at the use of interpreters in healthcare services has shown the benefits of professional interpreters in communication, clinical outcomes, utilization and satisfaction, [43,44] the findings from this review highlight the practical and relational challenges of organizing and using interpreters in consultations with refugees and asylum seekers. Patient preferences for same-sex interpreters further complicated these challenges. Although quantitative studies included in this review indicate the challenge of being able to access professional interpreters, who were more proficient in medical terminology, the qualitative evidence demonstrates that the alternative (i.e., to use informal interpreters) can produce poor quality translation and confidentiality concerns. Importantly, studies included in the review also report concerns about accuracy and confidentiality when using professional interpreters, illustrating that the clinical encounter is complex and that both professional and informal interpreters provide benefits and challenges. Challenges with language and the use of interpreters, for example, transcend clinical context and are a pervasive system challenge [45].

Issues around cultural considerations and understanding were identified as potential challenges in the healthcare encounter. Our review indicates that HCPs often play a role in helping bridge the gap in different cultural understandings but perceive this to be an ongoing challenge in their practice. Other studies in this review focused on cultural issues of gender concordance, and existence of a clinician–patient power dynamic in primary consultations which limited communication. While these cultural issues are undeniably important, previous research highlights that there are many other cultural differences and beliefs which influence health and healing practices [46]. Different cultures have different understandings of illness and disease and many have traditional healing practices [46]. The fact that these issues are absent from the studies included in this review suggest that the research in primary care communication may have only looked at this aspect of communication and the HCP's role superficially with this population group. To address this research gap, further work should be done to understand the role of cultural factors in developing a shared understanding of health in primary care.

As well as identifying challenges, this review also uniquely summated the literature about factors which facilitate primary care consultations with refugees and asylum seekers. Non-verbal and compassionate care aspects of communication, for example, emerged as an important factor in helping improve comfort and trust between the HCP and patient. The patients preferred to see HCPs who were welcoming, kind and patient, and those who were willing to take time to listen to non-medically relevant information and took an interest in them as a person. These findings align with the previous literature which identifies such non-verbal cues as a method to help alleviate anxiety and improve trust in patient-centered communication. [47–49] Non-verbal cues and compassionate care by HCPs play a key role in assisting to build the HCP–patient relationship, and additionally, identify an opportunity for a positive healthcare encounter when there are linguistic and cultural barriers present with patients from refugee and asylum seeker backgrounds.

The refugee and asylum seeker experiences identified in our review are similar to those found in other migrant groups, including language barriers, interaction with HCPs and cultural differences in healthcare [50,51]. Experiences of non-migrant and non-refugee populations also highlight similar desires for the traits which they consider important in their HCP, in terms of clinician demeanor and competence [24,52]. The model of humanistic medicine provides a framework for understanding these similarities as it illustrates that the experiences and preferences of patients are generalizable to the patient experience as a whole. With an emphasis on HCPs being compassionate and empathetic towards their individual patients and being aware of their emotions, concerns and suffering [53], humanistic medicine is seen as the basis of medicine [54]. However, there are challenges with applying humanistic care in practice as HCPs find bureaucratic barriers and challenges with time given the business-like climate of certain areas of medicine [55]. In addition to the linguistic and cultural barriers, HCPs treating refugee and asylum seekers have to navigate social factors and experiences of trauma [5,6]. Nevertheless, applying this framework of humanistic care has benefits to both the patients and the HCPs [55], suggesting organizational support should be given in this area. Greater effort should be undertaken to provide humanistic and compassionate care when encountering refugees and asylum seekers and healthcare systems need to provide support to HCPs to facilitate this approach.

There are strengths and limitations of this review. A strength was that systematic searches were conducted using seven relevant databases with additional reference and citation searches. In addition, full texts which were in languages other than English were also reviewed, further strengthening the search strategy. It is therefore unlikely that published studies have been missed. However, due to the defined inclusion criteria, some literature may have been excluded if it used the broad term of migrants rather than specifying the subpopulation group.

Another strength of this review is that the included literature covers various ethnic groups in various western resettlement countries. However, the number of participants combined from all the studies is still relatively limited which may not allow for any conclusions concerning the communication experiences of a broad group of refugees and asylum seekers in different countries. Furthermore, interpretations based off participant demographics, such as sex difference, age difference or the educational difference in refugee and asylum seeker populations are not possible as they are not reported in many of the included studies. Another limitation is at the search strategy only identified the scientific literature and failed to capture grey literature, such as non-government organization reports which often report on patient and HCP experiences.

5. Conclusions

Primary care HCPs need additional support to allocate time and provide compassionate and humanistic care desired by refugees and asylum seekers. Ongoing issues with organizing and routinely utilizing professional interpreters suggest infrastructure should be in place to allow HCPs to be trained on the accessibility of accessing professional interpreters, with systems that allow for timely scheduling. Beyond issues of language, refugees

and asylum seekers may also to be sensitized to non-verbal cues and compassionate care from the HCP. This is an area that should be further investigated, particularly in light of the current shift to virtual consultation for some healthcare encounters.

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Abbreviations

HCP—Healthcare provider; WEOG—Western European and Other States Group; Clinicians—general practitioners, nurses and midwives.

Appendix A. Search Terms Used For Database Searches

1. Pop

   Refugee$

or. Asylum seek$
or. (forced migrant$)
or. (involuntary migrant$)
or. Migrant$

2. AND

   (Primary healthcare)

or. Nurs$
or. (General practi$)
or. (community health centr$)
or. (community clinic$)

3. AND

   Communicat$

or. Languag$
or. Translat$
or. Perception$
or. Experienc$
or. Attitude$

or. View$
or. Facilitat$
or. Barrier$
or. Challenge$
or. Interact$

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Article

The Reliability and Feasibility of the HESPER Web to Assess Perceived Needs in a Population Affected by a Humanitarian Emergency

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Abstract: Needs assessment is essential in the humanitarian response, and perceived needs can be associated with the levels of health in populations affected by humanitarian emergencies. This study aimed to evaluate the reliability and feasibility of The Humanitarian Emergency Settings Perceived Needs Web (HESPER Web) in a humanitarian context and to compare perceived needs of a random walk study sample with a self-selected study sample recruited though social media. The study context was the Dadaab refugee camp in Kenya. An alternate forms reliability evaluation and a feasibility evaluation was conducted. In total, 308 refugees participated in the study. HESPER Web was found to be reliable and usable for assessing needs, with an intraclass correlation coefficient (ICC) of 0.88, Cohen's κ between 0.43 and 1.0 and a first priority need rating match of 81%. The HESPER Web was positively experienced, and the self-recruited study sample reported similar levels of needs and similar demographics as the randomized sample. The participants reported several unmet needs. HESPER Web offers a reliable tool for needs assessment in humanitarian emergencies where web-based surveys are considered as practical and suitable. It offers new possibilities for conducting remote assessments and research studies that include humanitarian populations that are rarely included in such evaluations.

Keywords: humanitarian emergencies; mental health; needs assessment; refugee health; disaster health

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1. Introduction

Humanitarian health has been suggested as a key research priority and an essential part of global health initiatives in emergencies [1]. In 2020, nearly 168 million people worldwide are estimated to be in need of assistance or protection due to humanitarian emergencies, such as conflicts or natural disasters [2]. Needs assessment is one of the fundamental cores of the humanitarian health response, both in long-lasting humanitarian settings and after sudden-onset disasters. A proper and well-designed needs assessment lays the foundation for a coherent, efficient and trustworthy humanitarian response to any emergency [3]. Many of the humanitarian emergencies are long-lasting crises, and the majority of all people considered as affected by humanitarian emergencies live in designated areas, such as camps [3]. Health and well-being among people living in such camps include a wide range of potential health problems: infectious diseases, chronic conditions, injuries, malnutrition, gender-based violence, mental health problems and disruption of cultural and social conventions [4]. The daily life of affected people living in camps is fraught with unmet basic needs [5]. Having a higher level of perceived needs has been found to predict a greater level of psychological distress [6]. Therefore, a reliable

assessment of perceived needs can be said to be the fundament in order to understand mental health and other health problems among people in vulnerable situations [7].

The development and availability of scientifically and contextual feasible instruments to assess health and needs in humanitarian emergencies is strongly needed [1]. The Humanitarian Emergency Settings Perceived Needs (HESPER) scale was developed to provide a quick and reliable way to assess the perceived needs of affected people in humanitarian emergencies, including complex emergencies, conflicts and natural disasters [8]. The HESPER scale was developed by the World Health Organization and Institute of Psychiatry at King's College London, based on literature studies, experts on humanitarian assessments and several pilot- and field tests including different samples of populations affected by different kinds of humanitarian emergencies. A detailed description of the development and testing of the scale has been reported elsewhere [8]. The original HESPER was designed to gather data through individual face-to-face interviews and paper surveys. Today, an increasing part of the world population has access to Internet connections. About 93% of all displaced people in the world have access to a mobile network, and many have access to the Internet, through a mobile connection, broadband in schools, community Internet cafés or other sources. Additionally, in rural areas, the coverage and quality are progressively improving [9]. Internet-based data gathering offers quicker data collection and analysis and fewer internal dropouts and processing errors, and is often a more economical alternative to other types of surveys [10]. To combine the strengths of Internet-based data collections and a scale measuring perceived needs among humanitarian populations, we developed HESPER Web, a self-administrated web-based version of the original HESPER [11]. The HESPER Web can be administrated through a web link and answered on a computer, tablet or mobile phone and the first psychometric evaluation of HESPER Web showed very good reliability and feasibility among a study sample of asylum seekers in Sweden [11]. In order to further evaluate the HESPER Web, a field test in a large scale humanitarian context was necessary.

This study had three aims; (1) to evaluate the reliability and feasibility of HESPER Web in a large-scale humanitarian context, (2) to compare the demographics and means of the perceived needs of a random walk method study sample and a convenient, self-selected study sample recruited though social media and (3) to describe the perceived needs within the study sample.

2. Materials and Methods

The study consisted of two parts: an alternate forms reliability evaluation and a feasibility evaluation. When analyzing the reported needs, data from both the alternate forms evaluation and the feasibility evaluation were used.

2.1. Study Setting

The Dadaab refugee camp in eastern Kenya has been operative for about 26 years and consists of three smaller camps, Dagahaley, Ifo and Hagadera. In February 2019, the camps hosted about 205,000 refugees [6]. The absolute majority of the Dadaab population are refugees from Somalia, and about 50% of all people living in Dadaab are male. The United Nations High Commissioner for Refugees (UNHCR) is the operational manager of the camps, and all services, such as housing, food, water supply, basic health care and schools, are free for registered refugees [12]. The Hagadera refugee camp houses about 83,940 people, where 50% are male. Hagadera has 10 schools. In a household survey conducted in 2017, 43% of all households reported English as their first language [13]. The Internet is available through a 3G connection (via mobile networks) or by broadband in the 10 schools, one adult literacy centre and one ICT training centre [13]. The study context for this study was the Hagadera refugee camp and the data collection was conducted in February 2019.

2.2. Instrumentation

The HESPER scale consists of 26 fixed questions covering physical, psychological and social needs [8]. The ratings are made by interviewers in a face-to-face interview with affected persons by asking whether a certain need is perceived as a "serious problem" or not. In addition, the affected person can add other needs if not covered by the original 26 stated needs. After reporting their needs, the affected person is asked to prioritize the three most serious perceived needs. A total sum score can be calculated by adding up the total number of "serious problem" ratings [8].

The HESPER Web is a newly developed web based, self-administrated survey version of the original HESPER scale [11]. The HEPSER Web could be accessed by a web link by a mobile phone, tablet or computer. In addition to the 26 questions regarding certain needs and the prioritizing question in the HESPER Web, study specific feasibility questions were added to the HESPER web survey. These questions were: how long did it take for you to fill in the survey? were the questions easy to understand? what mean did you use for answering the survey? did you experience any technical problems when answering the survey? did you suffer from any harm by filling in the survey? could you answer the survey in privacy? and how did you get the invitation for this survey?

2.3. Alternate Forms Evaluation

The alternate forms reliability between the original HESPER scale and HESPER Web was evaluated using a voluntary convenience study sample of 50 study participants from the camp. Based on a power analysis that indicated a need for a minimum of 19 participants in both data collections in order to detect a statistically significant correlation and a power of 90%, and previous experiences from conducting alternative forms evaluation [11,14,15], a sample size of 50 was chosen. Inclusion criteria were that the person should be at least 18 years old, have access to the Internet by mobile phone, tablet or computer and be able to participate in the interview using the English language. For all participants, the HESPER interview was made prior to the web survey, due to practical reasons. The HESPER interviews were conducted by two male and two female volunteer assistants trained during a six-hour training session in accordance with the HESPER manual. Using a cluster random sampling method, four square areas within the Hagadera camp were first selected by lot to be included in the study [13]. Thereafter, the households asked to participate were selected using a kind of random walk method [8], where every second house in a direction pointed at by spinning a pencil was visited. In the first household, the first person to approach the interviewers was asked to participate. In the second household visited within the cluster, the second person seen by the interviewers was asked to participate, and so on. If any of the persons selected could not participate for any reason, the next person in the household was asked. The interviewers estimated that in every third household, there was no person eligible for participation. If so, the interviewers continued to the next household. A code list was used to group the HESPER scale and HESPER Web answers. Both data collections were answered anonymously, using the specific code only as reference in the web survey. The participants got a personally written reminder note from the interviewer, with the code and the link to HESPER Web, asking them to complete it within 48 h. The time between the HESPER interview and that taken to answer HESPER Web varied from a few hours up to three days.

2.4. Feasibility Evaluation

The sample for the feasibility evaluation of HESPER Web was conducted with 289 voluntary study participants who were recruited by advertising the study in the adult training centre, secondary schools and internet- and communication centers in Hagadera. Additionally, digital advertising on Facebook and on three specific pages aimed at people living in Hagadera or other Dadaab camps was used. Inclusion criteria were that the study participant should be at least 18 years old, have access to the Internet by mobile phone, tablet or computer and be able to participate in the survey using the English language. The

data collection period lasted for seven days (see Figure 1). The web survey was anonymous, and there were no limitations on answers from the same IP address, in order to allow several responders to use the same computer, tablet or mobile phone to answer the survey. Data were saved in a secured research database at Orebro University in Sweden.

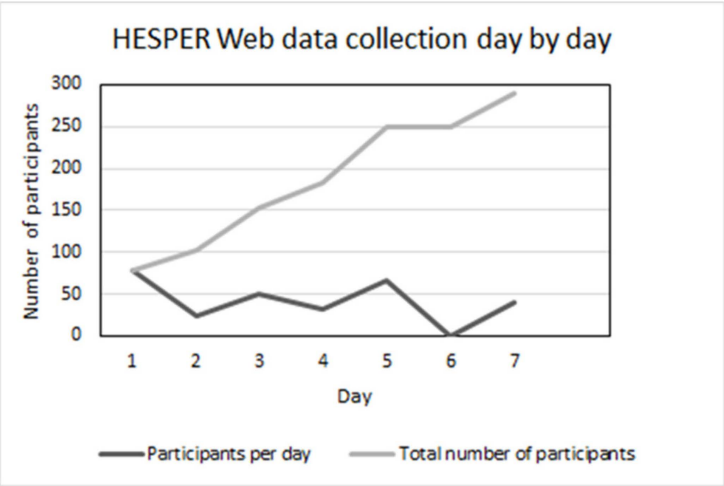

Figure 1. Number of participants per day in the HESPER Web voluntary, self-recruited study sample.

2.5. Analysis

For the alternate forms reliability between the HESPER scale and HESPER Web, intraclass correlation coefficients (ICCs), two-way mixed and absolute agreement [16], of the total number of reported serious needs was calculated. To assess agreement on an item level and the percentage match between first priority needs in the HESPER scale and HESPER Web, Cohen's κ was used. Additionally, descriptive statistics for analyzing the feasibility questions and the reported needs were used. SPSS software (IBM Corp. Released 2016. IBM SPSS Statistics for Windows, Version 24.0. Armonk, NY: IBM Corp) was used to conduct the statistical analysis. A significance level of $p \leq 0.05$ was used.

2.6. Ethical Considerations

Informed consent was obtained by each study's participants before participating in the interview and/or web survey. The study was approved by the Regional Ethical Committee in Sweden (ID 2017/481) and the National Commission for Science, Technology and Innovation (NACOST) in Kenya. Permission to develop and evaluate the HESPER Web was obtained from the WHO.

3. Results

In total, 308 individuals participated in the study: 50 in the alternate forms evaluation and 289 in the feasibility evaluation. Table 1 shows the demographics. There was no significant difference between the HESPER interview sample (n = 50) and the HESPER Web feasibility evaluation sample (n = 289) regarding gender (Chi 2 test, p = 0.33), age (Chi 2 test, p = 0.78) or present location (Chi 2 test, p = 0.99) but for country of origin (Chi 2 test, $p < 0.001$). There was no significant difference between the participants who participated in both the HESPER interview and the web survey, and those who dropped out from the survey (gender (Chi 2 test, p = 0.61), age (Chi 2 test, p = 0.50) or present location (Chi 2 test, p = 0.99) and country of origin (Chi 2 test, p = 0.97).

Table 1. Demographics of the study participants.

		Alternate Forms Reliability Evaluation		Feasibility Evaluation
		HESPER (Interviews)	**HESPER Web (Web Survey)**	**HESPER Web (Web Survey)**
N		50	31	289
	No participation *n*	-	19	-
Gender, *n* (%)	Male	28 (56)	18 (58)	152 (53)
	Female	22 (44)	13 (42)	136 (47)
	Missing	0	0	1
Age	Mean (SD)	28 (7.2)	31 (6,8)	28 (8,0)
	Min	19	19	18
	Max	45	44	54
	Missing	0	1	4
Country of Origin, *n* (%)	Somalia	41 (82)	28 (90)	234 (81)
	Sudan	1 (2)	0	23 (8)
	Stateless	0	0	4 (1)
	Other	6 (12)	0	19 (6)
	Missing	2	3	9
Location, *n* (%)	Hagadera camp	50 (100)	31 (100)	244 (85)
	Dadaab, other			10 (3)
	Kakuma camp			28 (10)
	Other			3 (1)
	Missing	0	1	4
Mean of needs (SD)		4.7 (3.3)	5.1 (3.0)	5.0 (4.1)
Range of needs		1–15	1–15	1–19

SD = Standard Deviation.

3.1. Alternate Forms Evaluation

Of the 50 participants recruited for the alternate forms reliability evaluation and who participated in the HESPER interview, there were 19 dropouts who did not answer the HESPER Web. The alternate form results were therefore based on 31 participants.

The ICC was 0.88 (CI 0.60–0.91) between the HESPER scale and HESPER Web. For the item-by-item evaluation between the HESPER scale and HESPER Web, Cohen's κ was calculated, and it varied between 0.43 (for the item concerning safety) and 1.0 (for the item relating to law and justice in the community and other serious problems), see Table 2. Regarding the first priority need rating, an overall match of 81% was found between the HESPER scale and HESPER Web.

Table 2. Persons reporting specific needs and Cohen's κ between the HESPER and HESPER Web, per item.

Item [1]	**HESPER Interviews**	**HESPER Web**	**Cohen's κ**
	***n* (%)**	***n* (%)**	
n	50	31	
Drinking water	0 (0)	0 (0.0)	*n*/a
Food	4 (8)	2 (4)	0.70
Place to live in	8 (16)	6 (12)	0.59
Toilets	0 (0)	3 (6)	*n*/a
Keeping clean	1 (0)	2 (4)	0.659
Clothes, shoes, bedding or blankets	11 (22)	5 (10)	0.60
Income or livelihood	28 (56)	22 (44)	0.77

Table 2. *Cont.*

Item [1]	HESPER Interviews	HESPER Web	Cohen's κ
Physical health	6 (12)	6 (12)	0.62
Health care	15 (30)	8 (16)	0.83
Distress	9 (18)	6 (12)	0.81
Safety	7 (14)	3 (6)	0.43
Education for your children	0 (0)	6 (12)	*n*/a [2]
Care for family members	3 (6)	5 (10)	0.57
Support from others	12 (24)	8 (16)	0.56
Separation from family members	14 (28)	11 (22)	0.93
Being displaced from home	21 (42)	15 (32)	0.87
Information	7 (14)	4 (8)	0.87
The way aid is provided	8 (16)	6 (12)	0.89
Respect	10 (20)	7 (14)	0.91
Moving between places	15 (30)	12 (24)	0.93
Too much free time	15 (30)	8 (16)	0.82
Law and justice in your community	7 (14)	3 (6)	1.00
Safety or protection from violence for women in your community	3 (6)	*n*/a	*n*/a [2]
Alcohol or drug use in your community	1 (2)	*n*/a	*n*/a [2]
Mental illness in your community	0 (0)	*n*/a	*n*/a [2]
Care for people in your community who are on their own	2 (6.5)	*n*/a	*n*/a [2]
Other serious problems	1 (2)	1 (2)	1.00

[1] Items presented in the HESPER Web order; [2] Kappa value could not be calculated due to zero answers in one or more samples.

3.2. Feasibility Evaluation

Answering the HESPER Web survey was quicker than being interviewed for many of the study participants ($p < 0.001$, see Table 3). The questions asked in HESPER Web were considered to be easy to understand, and no participant reported experiencing harm caused by the survey. About 86% of all study participants could answer HESPER Web in privacy (see Table 4). An absolute majority of the participants used their own mobile phones to answer the survey (60%), followed by a significant number who used someone else's computer or tablet, including the school's or ICT center's (19%). About 13% used someone else's mobile phone or their own computers or tablets (4%).

Table 3. Time to answer the survey.

	HESPER (Interview)	HESPER Web
n	50	302
<10 min	23	234
11 to 20 min	13	22
>20 min	2	0
Missing	4	54

Chi 2 test, $p = 0.00$, Cramer's V = 0.503.

3.3. Differences in Demographics between the Randomized Study Sample and Self-Selected Sample

No significant difference in the total reported numbers of needs could be observed between the HESPER scale and HESPER Web study samples ($p = 0.067$, paired *t*-test) or when comparing HESPER Web (alternate forms) and HESPER Web (feasibility evaluation; two-sample *t*-test, $p = 0.132$). No significant difference in gender (Chi 2 test, $p = 0.670$) or age (two-sample *t*-test, $p = 0.810$) between the HESPER interview sample and the HESPER Web self-selected sample was observed.

Table 4. Feasibility evaluation questions for HESPER Web.

Total HESPER Web Answers *N* = 289	Yes *n* (%)	No *n* (%)	Don't Know *n* (%)	Missing Data *n* (%)
Questions were easy to understand	257 (89)	7 (2)	2 (0)	23 (8)
Experienced technical problems	36 (12)	237 (82)	6 (2)	10 (6)
Experienced harm from filling out the survey	0 (0)	267 (93)	5 (2)	17 (6)
Possible to answer the survey in private	247 (86)	10 (4)	6 (2)	26 (9)

3.4. Perceived Needs

When reporting results on their perceived needs, a total sample of 320 people was used, including all study participants who answered HESPER Web (as part of the feasibility evaluation (*n* = 289) or the alternate forms evaluation (*n* = 31)), and not the ones who only participated in the HESPER interviews. When reporting results on their perceived needs, a total sample of 320 people was used, including all study participants who answered HESPER Web (as part of the feasibility evaluation (*n* = 289) or the alternate forms evaluation (*n* = 31)), and not the ones who only participated in the HESPER interviews.

The mean number of reported needs among the study participants in the HESPER scale was 4.52 (SD 3.2, range 1–15). The frequency of reported needs in total and sorted on gender is shown in Table 5.

Table 5. Reported serious needs, item by item.

Item	Total Persons Reporting the Need *n* (%)	Male Reporting the Need *n* (%)	Female Reporting the Need *n* (%)	Differences between Gender *p*-Value [a]
N	320	168	152	
Drinking water	0 (0)	0 (0)	0 (0)	-
Food	11 (3)	6 (4)	5 (3)	0.539 [b]
Place to live in	60 (19)	30 (18)	30 (20)	0.345
Toilets	3 (1)	2 ()	1 (0)	0.539 [b]
Keeping clean	27 (0)	9 (5)	18 (12)	0.023
Clothes, shoes, bedding or blankets	60 (19)	29 (17)	31 (20)	0.363
Income or livelihood	160 (50)	88 (52)	72 (47)	0.332
Physical health	38 (12)	15 (9)	23 (15)	0.087
Health care	98 (31)	45 (27)	53 (35)	0.077
Distress	78 (24)	32 (19)	46 (30)	0.017
Safety	55 (17)	18 (11)	37 (24)	0.001
Education for your children	18 (6)	8 (5)	10 (7)	0,346 [b]
Care for family members	8 (3)	5 (3)	3 (2)	0.380 [b]
Support from others	59 (18)	19 (11)	40 (26)	0.001
Separation from family members	96 (30)	52 (31)	44 (30)	0.400
Being displaced from home	87 (27)	34 (20)	53 (35)	0.003
Information	51 (16)	28 (17)	23 (15)	0.397
The way aid is provided	91 (28)	51 (30)	40 (26)	0.308
Respect	65 (20)	44 (16)	21 (14)	0.006 [b]
Moving between places	43 (13)	33 (20)	10 (7)	0.001 [b]
Too much free time	111 (35)	72 (43)	39 (26)	0.001
Law and justice in your community	105 (33)	66 (39)	39 (26)	0.015

Table 5. *Cont.*

Item	Total Persons Reporting the Need *n* (%)	Male Reporting the Need *n* (%)	Female Reporting the Need *n* (%)	Differences between Gender *p*-Value [a]
Safety or protection from violence for women in your community	51 (16)	26 (15)	25 (16)	0.076
Alcohol or drug use in your community	16 (5)	11 (7)	5 (3)	0.093 [b]
Mental illness in your community	1 (0)	1 (0)	0 (0.0)	0.534 [b]
Care for people in your community who are on their own	4 (1)	2 (1)	2 (3)	0.668 [b]
Other	5 (2)	1 (0.0)	4 (3)	0.147
Mean of total needs (SD)	6.14	5.88	6.43	0.765 [c]

Bolded number indicate a significant difference ($p \leq 0.05$). a = calculated with the Chi^2 test or if indicated with [b] where the Fischer's exact test was used, or [c] where the Student's *t*-test was used.

There was no significant difference between males and females regarding the mean of the total number of reported needs (Student's *t*-test: male mean 5.88, SD 3.9, (95% CI: 5.27; 6.48), range 0–21), female mean 6.43, SD 3.9, (95% CI: 5.50;7.0), range 1–19, $p = 0.765$), but there were some differences in what kind of needs were reported (see Table 5)

4. Discussion

HESPER Web was found to be reliable and usable for assessing perceived needs among refugees living in a large-scale humanitarian context such as the Dadaab refugee camp. The use of a web-based survey was positively experienced by the study participants, and the voluntary self-recruited study sample reported similar levels of needs and similar demographics regarding gender and age to the walking methods randomized study sample. The participants reported several unmet needs, and there were some differences in the kinds of needs identified depending on gender.

The alternate forms evaluation showed overall good correspondence between the HESPER scale and HESPER Web in general (ICC 0.88) and on an item by item level (Cohen's κ from 0.43 to 1.0) [17]. The item with the lowest consistency was the question on perceived problems caused by security issues. The reason for this might be that the current level of security varied a lot from day to day and from location to location within the Dadaab camp. Additionally, there was an observed difference when reporting on educational needs for children. However, this item was frequently reported in the larger sample (Table 5) and therefore, we could not explain the difference noted in the comparison between the HESPER and the HESPER Web. The association for the first priority rating was very good (81%) [17], showing that HESPER Web reliably can be used to assess the most serious perceived needs instead of or as a complementing data collection method to the HESPER interview. However, it should be noted that the timeframe between first and second data collection was short (from a few hours up to 3 days), and that might have influenced the results. It would have been preferred with a longer timeframe between the two measurements, but due to security regulations, repeated visits could not be conducted. The short timeframe may have resulted in that participants remembered their answers from the first data collection, which may have contributed to a slightly overestimated alternate forms reliability coefficient. Even when taking this into account the alternate forms reliability between the two forms of administration of the HESPER is good.

In the HESPER manual, strategies to perform data collection in order to ensure a proper study sample are described. When using web-based methods, the same procedures may be used with the difference that the study participant answers the web-based survey instead of taking part in an interview. If advertising the survey on social media or physical locations, the study sample will be a convenience sample. This study suggests that the study samples from the walk-around sampling method and the self-selected sample were similar, regarding both their demographics and the mean number of reported needs. However,

it should be noted that the number of study participants differed between the samples, and the exact number of study participants needed for generalization of a web based, not randomized data collection cannot be concluded from this study.

When conducting HESPER interviews face to face, the interviewer could interact with the person and, if needed, provide specific advice or refer to, for example, psychosocial support. When using a self-administrated web-based survey, this is no longer an option. Therefore, it is of extra importance for a survey provider to state the limitations and to provide practical support and to state where the study participants should turn for help in case of an immediate need for such support. In addition, a web-based survey may offer new possibilities to direct people who report need of support, and guide them on where to turn for available support.

HESPER Web has shown potential in reducing several challenges that are common in disaster or humanitarian emergency health research related to the practical possibilities of physically reaching or visiting an area, security concerns and ethical considerations, such as the possibility of being anonymous [18–20]. HESPER Web can offer possibilities for conducting assessments and research studies that include populations that are rarely included in such evaluations, such as people who constantly move around, people evacuated from the study area or those who do not have access to a fixed address [20]. In addition, the tool may be used for longitudinal studies on perceived needs [11]. However, not all study populations or contexts are suitable for web-based needs assessment or research. The reasons may be several, including limited access to the Internet or a means for answering the survey, limited privacy when answering the survey or illiterate or severely traumatized populations where personal contact may be necessary to assess mental health or provide support. The responsibility of using a valid and proper instrument and data collection procedure and considering the context and study population is always the researcher's or the head of the organization's responsibility, and not that of the affected population.

In this survey, the study participants reported several needs, although, they were settled in a long-lasting state of displaceability. Web-based methods for assessing mental health have been suggested to provide a better picture of the actual situation while offering anonymity and reducing stigma in the interview situation [19]. Higher levels of perceived needs can significantly predict psychological distress and lower levels of functioning [6]. It has been suggested that further emphasis should be put on developing tools for community mental health providers to enhance reach and effects from mental health interventions in low- and middle-income populations [21]. To assess perceived needs and plan for mental health interventions also in populations with long lasting displaceability seems therefore reasonable. Additionally, it has been suggested to further explore the use of self-help digital mobile applications used in community based mental health interventions in for example refugee camps [21]. For such purposes, the HESPER Web could be a feasible tool, but need to be further evaluated.

This study had several limitations. It would have been preferable to let half of the study participants in the alternate form evaluation answer the HESPER scale first, and then HESPER Web, and the other half in the opposite order. Due to security reasons, that could not be done. Additionally, such a strategy was however considered to increase the risk of dropouts between the two data collections and therefore dismissed. The use of "random walk sampling" is usually not the preferably choice of the sampling method for research studies. However, it was considered as the best possible option, given the security environment and practical possibilities. The way the "random walk sampling" was used in this study can be described as a combination of a "spin the pen" sampling and a clustered sampling method and is recommended for research in humanitarian emergencies when other, traditional methods are not possible or suitable [22].

When conducting research in humanitarian emergency settings, the research needs to be done with, and for populations affected in order to determine interventions that are feasible and appropriate for the context [1]. In this study, several actors with extensive knowledge and involvement in local processes were involved in planning, practical data

collection and the analysis of this study, including local UN agencies, NGOs and academic partners. Partnerships with local individuals ensure a local perspective and add value to the interpretations of the results [23,24]. However, the study participants themselves were not actively engaged in parts other than the data collection. The active engagement of the people affected is essential to ensure that the response is based on their actual needs and supports their recovery [23]. Asking the refugees themselves for their perceived needs may, therefore, contribute to both community engagement and individual recovery [25]. However, little is known about refugee participation in the development of policies and programs that matter to their health and well-being. Such participation is fundamental for more sustainable and responsive projects [4], and a plan for the dissemination of the results should, therefore, be considered in future projects.

5. Conclusions

HESPER Web was found to be reliable and usable for assessing perceived needs among a population affected by a humanitarian emergency. The use of a web-based survey was positively experienced by the study participants, and the voluntary, self-recruited study sample reported similar levels of needs and similar demographics regarding gender and age to the randomized study sample. HESPER Web offers a reliable and feasible tool for assessment of needs in situations where web-based surveys are considered as practical and suitable. It offers new possibilities for conducting remote assessments and research studies that include humanitarian populations that are rarely included in such evaluations.

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Institutional Review Board Statement: The study was approved by the Regional Ethical Committee in Sweden (ID 2017/481) and the National Commission for Science, Technology and Innovation (NACOST) in Kenya. Permission to develop and evaluate the HESPER Web was obtained from the WHO.

Informed Consent Statement: Informed consent was obtained by each study participants before participating in the interview and/or web survey.

Data Availability Statement: The datasets analyzed during the current study are not publicly available due to the Swedish law on ethical approval for research but are available from the corresponding author on reasonable request.

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The Role of Culture and Religion on Sexual and Reproductive Health Indicators and Help-Seeking Attitudes amongst 1.5 Generation Migrants in Australia: A Quantitative Pilot Study

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Abstract: In Australia, 1.5 generation migrants (those who migrated as children) often enter a new cultural and religious environment, with its own set of constructs of sexual and reproductive health (SRH), at a crucial time in their psychosexual development—puberty/adolescence. Therefore, 1.5 generation migrants may thus have to contend with constructions of SRH from at least two cultures which may be at conflict on the matter. This study was designed to investigate the role of culture and religion on sexual and reproductive health indicators and help-seeking amongst 1.5 generation migrants. An online survey was completed by 111 participants who answered questions about their cultural connectedness, religion, sexual and reproductive health and help-seeking. Kruskall-Wallis tests were used to analyse the data. There was no significant difference between ethnocultural groups or levels of cultural connectedness in relation to sexual and reproductive health help-seeking attitudes. The results do suggest differences between religious groups in regard to seeking help specifically from participants' parents. Notably, participants who reported having 'no religion' were more likely to seek help with sexual and reproductive health matters from their parent(s). Managing cross-cultural experiences is often noted in the extant literature as a barrier to sexual and reproductive health help-seeking. However, while cultural norms of migrants' country of origin can remain strong, it is religion that seems to have more of an impact on how 1.5 generation migrants seek help for SRH issues. The findings suggest that 1.5 generation migrants may not need to adapt their religious beliefs or practices, despite entering a new ethnocultural environment. Given that religion can play a role in the participants' sexual and reproductive health, religious organizations are well-placed to encourage young migrants to adopt help-seeking attitudes.

Keywords: 1.5 generation migrants; sexual and reproductive health; Australia; cross-cultural; religiosity

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1. Introduction

In Australia, over 27% of Australians were born overseas, and another 20% have at least one parent born overseas. Australia has also committed to the resettlement of over 12,000 new refugees and net overseas migration contributes to over 60% of Australia's total population growth [1]. Australia thus provides a particularly rich case study of a migrant-receiving country undergoing rapid transformation. While other countries are experiencing similar changes, Australia has a comparatively rich range of visa schemes and a rapidly increasing overall intake of migrants. In Australian major cities, migrants

make up a significant proportion of the population. According to the Australian Bureau of Statistics [1], cities where the migrant population is over 25% include Sydney (38.9), Perth (37.1), Melbourne (34.6), Adelaide (27.4), Brisbane (27), Darwin (25.9) and Canberra (25.3).

The cohort of interest is referred to as 1.5 generation migrants because they are not the conventional first generation migrant, who are old enough to emigrate on their own, nor are they the conventional second generation migrant, the offspring of the first generation migrant born in the new country [2].

1.1. The Role of Culture and Religion in Constructions of Sexual and Reproductive Health (SRH)

The cross-cultural positionality and/or religiosity of some migrants is often cited as having an impact on SRH decision-making processes [3]. Cultural and religious differences between a migrant's country of origin and that of immigration are linked with reduced help-seeking across a range of health outcomes [4], and especially with regard to sexual and reproductive health (SRH) [5]. SRH may be of particular note as many cultures and religions have quite clear ideologies about sexuality, sexual behaviour, and thus SRH [6,7]. Given this reality, research indicates that when migrants feel bound to constructions of SRH, as per their ethnic origins or religious doctrines, they may not utilize SRH services. Migrants may perceive them to be inappropriate for their needs or that seeking such services would be perceived of negatively by their cultural or religious group (especially if strong ties are still present) thus tainting their sociocultural identity as well [7]. This type of sociocultural clash may be intensified for 1.5 generation migrants who may be culturally and/or religiously from two worlds and may thus be conflicted about how to seek help for their SRH needs while at the same time maintaining the values.

1.2. Cross-Cultural and Intergenerational Understandings of SRH

These 1.5 generation migrants not only contend with cross-cultural and religious understandings of SRH, but must also navigate intergenerational differences in the midst of cross-cultural parenting. For example, research indicates that in the first few years of arrival, first generation skilled Zimbabwean migrants found the ways in which Australian culture constructed and dealt with sexuality to be confronting and at odds with their beliefs and ways of understanding sexuality [8]. This resulted in increased avoidance of and resistance to Australian constructions of SRH delivered via Australian media and Australian people [8]. As a result, families experienced conflict when trying to educate their 1.5 generation migrant children about SRH from a Shona-Zimbabwean lens within contemporary Australia [8]. This intergenerational discrepancy may exist when the only point of reference that migrant parents have about youth sexual development is from when they themselves were youths in their country of origin. They then draw on these experiences and understandings when it becomes relevant–when they have to raise youths. Until that point, contemporary youth/teenage life in Australia or their country of origin may seem irrelevant. Furthermore, first generation migrant parents and 1.5 generation migrant children indicated that many parents of 1.5 generation children expected these children to comply with constructions of sexuality from their country of origin [8]. In addition, these expectations were more readily expressed and enforced for 1.5 generation migrant children than for second generation children/siblings born in Australia. Notable expectations include avoiding interactions with members of the opposite sex (especially enforced with girls), restrictions on participation in youth peer events (e.g., birthday parties, sleep-overs, or group excursions) and restrictions on engagement with LGBTIQ people, information, or media.

1.3. Exploring SRH with 1.5 Generation Migrants

Despite the dearth of research in this area evidence indicates that 1.5 generation migrants, especially of non-Western backgrounds, often enter a new (Anglo/Euro-centric) cultural and secular environment when they move to Australia. This environment has its own set of constructs of SRH which 1.5 generation migrants are confronted with at a

crucial time in their psychosexual development–childhood, puberty and adolescence [8]. This may result in having learnt and being expected to uphold (by other members of one's cultural community) particular norms about SRH [9] from their culture of origin while at the same time adopting and enacting Australian secular constructions of SRH contributing to a culture clash [8]. Such a clash may have immediate and far-reaching implications for the SRH of 1.5 generation migrants. For migrants arriving from countries with very different cultural, ethnic and religious values, and beliefs to those in Australia the process of adapting constructions, understandings and experiences of sexuality often results in a number of challenges. This study was therefore designed to investigate the role of culture and religion on sexual and reproductive health indicators and help-seeking amongst 1.5 generation migrants.

2. Methods

This paper focuses on the results of the quantitative questionnaire portion of a larger project conducted in 2015. The larger project used a mixed methods cross-sectional design (i.e., quantitative questionnaire, qualitative interview and Q Methodology) to explore constructions of SRH and SRH help-seeking amongst 1.5 generation migrants in Greater Western Sydney (see [2] for results of the Q Methodology study). The Q methodology helped us to create conceptual maps of participant perspectives as it allows for the sampling of subjective viewpoints, and assists in identifying patterns, including areas of difference or overlap, across various perspectives on a given phenomenon. The Q methodology combines elements from qualitative and quantitative research traditions to understand and explore the many facets of a range of phenomena simultaneously [10].

Greater Western Sydney was chosen as more than 50% of its approximately 800,000 people are migrants or their descendants [1]. Furthermore, the region has been found to have pockets of cultural concentration which allows migrants to stay connected to key aspects of their culture, such as their ethnicity, community, language, and religion. To that effect, it is likely that the cultural and religious norms of migrants' country of origin remain strong and may therefore have a significant influence on how 1.5 generation migrants in this region construct, experience, and understand various aspects of SRH. The study therefore sought to address the following questions:

1. Do ethnicity and cultural connectedness influence 1.5 generation migrants SRH help-seeking?
2. Does religious affiliation influence 1.5 generation migrants SRH help-seeking?
3. From which sources are1.5 generation migrants most likely to seek SRH support?
4. What barriers or facilitators do 1.5 generation migrants perceive to have an impact on their SRH help-seeking?

2.1. Survey

The survey (see Supplementary Materials Text S1) was specifically designed for this investigation and began with demographic questions including what year the participant moved to Australia, with whom, and at what age. Participants were also asked about their religious affiliation and ethnicity. With regards to cultural connectedness, participants were asked to rank, on a 5-point Likert scale, how strongly they identified with the culture and values from their country of origin and with Australian culture. They were also asked to rank how strong relationships were with their community based on their culture of origin and the extent that cultural values created strong ties between the participant and their family. Questions on participants' SRH history, safer sex practices, and prospective SRH help-seeking were posed. With regard to their help-seeking attitudes, participants were asked: "If you were having a sexual and reproductive health concern, how likely is it that you would seek help from the following people/places? Please indicate your response by clicking on the number that best describes your intention to seek help from each help source that is listed." Participants then indicated on a 5-point Likert scale the likelihood of them seeking help from an intimate partner, friends, parent, other relative/family member,

sexual health clinic, the Internet, a doctor/general practitioner (GP), or community/cultural or religious leader, or alternatively if they would not seek help, or would seek help from another source not listed above. Finally, participants were also asked about barriers and facilitators to seeking SRH support.

2.2. Participant Recruitment

A cohort of 1.5 generation migrants were recruited via advertisements posted at seven Western Sydney University campuses and surrounding off-campus venues (e.g., major shopping malls). This was done to strategically engage participants from several suburbs within the Greater Western Sydney region to ensure that the data collected were from as many ethnocultural groups as possible. Individuals over 18 years old who indicated that they had migrated as children (under 18 years old) to Australia were included in the study. No upper age limit was set as an exclusion criterion to participation.

2.3. Ethics Approval

This study is part of a larger research project examining the SRH of 1.5 generation migrants in Australia and ethical approval was received from the Human Research Ethics Committee of Western Sydney University. In addition, informed consent to participate in this study was obtained from all participants (approval date and code: 19 June 2015, H11168).

2.4. Data Analysis

Using SPSS (version 23.0. IBM, Armonk, NY, USA), quantitative data analysis software, the data were cleaned to exclude incomplete responses (x = 121) and the following analyses were run: descriptive statistics, correlations, and Kruskall-Wallis tests. Kruskall-Wallis tests were used as an alternative to one-way ANOVAs given that groups sizes were small and uneven [11]. To identify whether the salience of one's cultural identity related to their help-seeking, Pearson product-moment correlations were performed between the measures of cultural connectedness and sources of help (Intimate Partner, Friend, Parent, Relative, Sexual Health Clinic, Internet, Doctor/general practitioner (GP), Community Leaders, No Help) using an alpha level of 0.05. As the sample was considered robust (N = 111), all assumptions were satisfactory. Additionally, Pearson product-moment correlations were performed between all sources of help to examine whether one help-seeking action related to another. Regarding seeking help from parents, a series of 15 post hoc pairwise comparisons were conducted using Mann-Whitney U tests and an adjusted alpha of 0.003.

2.5. Sample Demographics

The sample consisted of 111 participants from across the Greater Western Sydney (see Table 1). The majority of participants were female (51.4%), with a nearly equal number of males (47.7%) and one participant identifying as transgender. Participants' ages at the time of participation ranged between 16 and 60, with a mean age of 22.90 (SD = 5.25). Most participants were single (n = 82.9%) and had no children (94.6%). Seventy-six participants arrived in Australia between 2000 and 2009 (68.4%) with their close kin (mother 83.8%, father 71.2%, sibling 46.8%). The majority migrated from Sub-Saharan Africa (25%), closely followed by South-East Asia (24%), with the others migrated from East Asia (13%), the Middle East (11%), Eastern Europe (9%), the Pacific (6%), the Americas (6%), Western Europe (4%), and North Africa (2). The mean age at the time of migration was 11 years old (Mean (M) = 11.90, Standard Deviation (SD) = 4.67). The majority spoke English as a primary language (66.7%). Twenty-four languages were noted by those whose primary language was not English. The majority indicated a religious affiliation (87.4%), with 55% of those being Christian/Catholic. Ninety-five participants were heterosexual (85.5%), eight were bisexual (7.2%), five were homosexual (4.5%), one identified as lesbian (0.9%) and one identified as other (0.9%), and prefer not to say (0.9%), respectively.

Table 1. Demographic information for the study sample.

Demographic Information	*n*	(%)
Gender		
Male	53	47.7
Female	57	51.4
Transgender	1	0.9
Marital Status		
Single	92	82.9
De Facto	6	5.4
Married	8	7.2
Divorced	3	2.7
Engaged	1	0.9
N/A	1	0.9
Parent of Child		
Yes	6	5.4
No	105	94.6
Year of Arrival		
1960–1969	1	0.9
1970–1979	0	0
1980–1989	1	0.9
1990–1999	11	9.9
2000–2009	76	68.4
2010–2017	21	18.9
Arrived with:		
Mother	93	83.8
Father	79	71.2
Sibling	52	46.8
Grandparent	4	3.6
Aunt/Uncle	6	5.4
Extended Family	5	4.5
Family Friends	4	3.6
Alone	4	3.6
English as Primary Language		
Yes	74	66.7
No	37	33.3
Religion		
No Religion	14	12.6
Catholic/Christian	61	55.0
Greek Orthodox	4	3.6
Islamic	24	21.6
Buddhist	3	2.7
Other	5	4.5
Sexual Orientation		
Heterosexual	95	85.5
Homosexual	5	4.5
Lesbian	1	0.9
Bisexual	8	7.2
Other	1	0.9
Prefer Not to Say	1	0.9
Region of Origin		
Sub-Saharan Africa	25	24.0
North Africa	2	2.0
South East Asia	24	25.0
East Asia	13	13.0
Eastern Europe	9	9.0
Western Europe	4	4.0
Middle East	11	11.0
The Americas	6	6.0
The Pacific	6	6.0

3. Results

The present study sought to examine the role an individual's culture has in the construction of their sexual and reproductive health. Table 2 presents the degree to which a participant's cultural identity was determined by their cultural connectedness to their Country of Origin, Australian Culture, Community, or Family.

Table 2. Cultural identity in relation to participants' perceived cultural connectedness (%).

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Country of Origin	43.2	31.5	19.8	4.5	0
Australian Culture	22.5	30.6	35.1	9.0	2.7
Community	41.4	27.0	15.3	10.8	4.5
Family	49.5	31.5	12.6	3.6	1.8

The results indicate that stronger identification with one's family positively correlates with seeking help from an intimate partner, a doctor, community leaders, and seeking no help. Table 3 depicts correlations between the measures of cultural connectedness and sources of help. Table 4 depicts correlations between the sources of help. The results indicate significant positive correlations between a strong identification with one's country of origin and seeking help from an intimate partner, parents, a sexual health clinic, the Internet, and a doctor.

Table 3. Bivariate correlations between measures of cultural connectedness and sources of sexual and reproductive health (SRH) help-seeking.

	Country of Origin	Australian Culture	Community	Family
Intimate Partner	0.22 *	0.34 **	0.36 **	0.28 **
Friend	0.05	0.03	0.04	0.00
Parent	0.20 *	0.19	0.20 *	0.21
Relative	0.07	0.27 **	0.13	0.13
Sexual Health Clinic	0.32 **	0.33 **	0.12	0.12
Internet	0.20*	0.12	0.14	0.08
Doctor/GP	0.40 **	0.26 **	0.22 *	0.28 **
Community Leaders	0.10	0.22 *	0.34 **	0.23 *
No Help	0.15	−0.08	0.27 **	0.28 **

Note. Correlations marked with an asterisk (*) and double asterisk (**) were significant at $p < 0.05$ and $p < 0.01$, respectively.

Table 4. Bivariate correlations between sources of SRH help-seeking.

	1.	2.	3.	4.	5.	6.	7.	8.
1. Intimate Partner	—							
2. Friend	0.22 *	—						
3. Parent	0.24 *	0.15	—					
4. Relative	0.28 **	0.14	0.50 **	—				
5. Sexual Health Clinic	0.45 **	0.10	0.30 **	0.23 *	—			
6. Internet	0.34 **	1.8	−0.18	−0.10	0.20 *	—		
7. Doctor/GP	0.32 **	−0.03	0.25 **	0.04	0.60 **	0.14	—	
8. Community Leaders	0.11	−0.02	0.46 **	0.44 **	0.11	−0.08	0.17	—
9. No Help	−0.09	−0.13	−0.19	−0.23 *	−0.37 **	−0.01	−0.19	0.16

Note. Correlations marked with an asterisk (*) and double asterisk (**) were significant at $p < 0.05$ and $p < 0.01$, respectively.

Analyses indicated significant correlations between the identification with one's country of origin, Australian culture, one's community, and one's family and various sources of help, whereby stronger connections related to stronger inclinations toward seeking help from specific sources. Interestingly, seeking help from an intimate partner or doctor/general practitioner (GP) was significant across all measures of cultural connectedness. Additionally, seeking help from various sources often related to seeking help from other

sources. However, stronger inclinations to seek help from a relative or sexual health clinic were significantly related to lower inclinations to seek no help.

To identify group differences between participant's religious identifications (No Religion, Catholic/Christian, Greek Orthodox, Islamic, Buddhist, Other) among the various sources of help (Intimate Partner, Friend, Parent, Relative, Sexual Health Clinic, Internet, Doctor/GP, Community Leaders, No Help), Kruskall-Wallis nonparametric tests were conducted to accommodate the uneven group sizes. A statistically significant difference was identified for receiving help from parents (X^2 [5, N = 111] = 11.30, $p < 0.05$, $\eta^2 = 1.16$).

These results suggest significant differences between religious groups in regard to seeking help from parents. No significant differences, however, were found between the six religious categories—most likely due to small group sample sizes. However, the results show a significant difference only between religious affiliation and seeking help from a parent. Table 5 depicts the degree to which individuals of various religious identities seek help from their parent(s).

Table 5. Participants' perceived likelihood of SRH help-seeking from parent among religious identities.

	Parent	
Religious Identity	***M***	***SD***
No Religion (N = 14)	4.00	0.88
Catholic/Christian (N = 59)	3.07	1.30
Greek Orthodox (N = 4)	3.50	1.00
Islamic (N = 24)	3.54	1.29
Buddhist (N = 3)	3.67	0.58
Other (N = 5)	2.20	1.10

The present study also sought to determine which sources individuals felt most comfortable seeking help from. Table 6 indicates participants' perceived likelihood (in percentage) to seek help from various sources. Doctors/GP (92.7%), sexual health clinics (88.1%), the Internet (84.1%), and intimate partners (81.1%) were among the most likely sources of help, while community leaders (72.5%), relative(s) (60%), and no help (56.8%) were among the most unlikely sources of help.

Table 6. Perceived likelihood (%) of SRH help-seeking depending on source.

	Extremely Likely	Likely	Neutral	Unlikely	Extremely Unlikely
Intimate Partner	52.3	28.8	8.1	7.2	3.6
Friend	12.7	34.5	24.5	20.9	7.3
Parent	11.0	16.5	24.8	28.4	19.3
Relative	3.6	11.8	24.5	29.1	30.9
Sexual Health Clinic	52.3	35.8	6.4	4.6	0.9
Internet	57.0	27.1	8.4	1.9	5.6
Doctor/GP	61.5	31.2	5.5	1.8	0
Community Leaders	2.8	3.7	21.1	25.7	46.8
No Help	3.7	6.4	33.0	28.4	28.4

The present study also sought to ascertain the most dominant barriers and facilitators to individual's help-seeking attitudes. Among the barriers hindering individuals' help-seeking, a lack of knowledge was identified as the most dominant barrier (45.9%). This was followed by concerns regarding concealment from one's family and community (36.0%). These results are complimented by the facilitator of help-seeking, whereby an increase in knowledge was identified as the most dominant facilitator of help-seeking (63.1%). Similarly, assurance of concealment was identified as the second most dominant facilitator of help-seeking (45.9%). Tables 7 and 8 depict the barriers and facilitators of help-seeking.

Table 7. Participants perceptions of potential barriers to SRH help-seeking.

	n	(%)
I don't know where these services are	51	45.9
The risk that my family/community could possibly find out	40	36.0
These services do not cater well to people of my ethnicity/culture	15	13.5
These services cost too much money	32	28.8
These services are too far away from where I live	12	10.8
Service trading hours	16	14.4
I have other ways of getting support/assistance	16	14.4
Other	2	1.8

Table 8. Participants perceptions of potential facilitators of SRH help-seeking.

	n	(%)
Being made aware of where the services are	70	63.1
Being confident that no one would find out	51	45.9
Knowing that there are health workers who cater towards my ethnicity/culture	26	23.4
Services which are free/low cost	41	36.9
Services which are close to where I live	36	32.4
Trading hours which include evenings/weekends	31	27.9

To contextualise the key findings, participants' sexual and reproductive health histories were recorded. It was identified that 60.40% (n = 67) of the participants were currently sexually active. Of the 111 participants, 49.50% (n = 55) used contraceptives, 11.70% (n = 13) did not use contraceptives, and 38.70% (n = 43) preferred not to answer. Table 9 depicts the types of contraceptives participants have previously used.

Table 9. Types of contraceptives used by 1.5 generation migrants in Australia.

	n	(%)
Condoms	51	45.9
Birth Control Pills	26	23.4
Diaphragm	4	3.6
Intrauterine Device (IUD)	1	0.9
Vaginal Ring	0	0
Implant	1	0.9
Patch	1	0.9
Emergency Contraception	8	7.2
Permanent	0	0

With regard to prior sexual health concerns, 2.7% (n = 3) of participants had previously been diagnosed with an STI. Among those, 66.7% (n = 2) were diagnosed with gonorrhoea, while 33.30% (n = 1) were diagnosed with herpes. Additionally, 66.7% (n = 2) took antibacterial medications, while 33.3% (n = 1) sought help from a doctor. When queried about the duration leading to their help-seeking behaviours, it was revealed that 66.70% (n = 2) sought help within 1—3 days of having sex while 33.3% (n = 1) sought help within 4—7 days. Participants justified this by saying that they were not aware that they were infected with an STI (n = 2, 66.7%) and that they were hoping that the STI would go away without intervention (n = 1, 33.3%).

In terms of pregnancy, 9.0% (n = 10) had previously experienced an unplanned pregnancy. Among these participants, 40% (n = 4) kept the child, 40% (n = 4) terminated the pregnancy, 10% (n = 1) organised an adoption, and 10% (n = 1) preferred not to answer on the outcome of the pregnancy.

4. Discussion

This study was designed to investigate the role of culture and religion on sexual and reproductive health indicators and help-seeking attitudes amongst 1.5 generation migrants

using a quantitative survey. Overall, the results suggest that 1.5 generation migrants were most likely to seek help from doctors/general practitioners (92.7%), sexual health clinics (88.1%), the Internet (84.1%), and intimate partners (81.1%) regarding clinical SRH issues. For support on non-clinical SRH matters, the results suggest that 1.5 generation migrants feel the least comfortable seeking SRH support from community leaders (72.5%) and relative(s) (60%). These findings can be further contexualised when culture and religiosity are considered.

With regards to the role of cultural connectedness on 1.5 generation migrants SRH help-seeking, the results indicate significant positive correlations between a strong identification with one's country of origin and seeking help from an intimate partner, parents, a sexual health clinic, the Internet, and a doctor. Stronger identification with one's family positively correlates with seeking help from an intimate partner, a doctor, community leaders, and seeking no help. This is in line with research indicating that some youths of minority and migrant backgrounds often struggle to engage with their parents when they experience an SRH concern for fear of the consequences of transgressing ethnocultural or religious protocols held in high esteem by their parents [12,13]. However, this was not the case for all of the 1.5 generation migrants in this study. This may be because these migrants feel more connected to their parents in line with their collectivist ethnocultural values [14]. For those who sought help from parents, it could also be that both the youth and their parents have acculturated more than popular discourses give them credit for [14].

In this study, strong identification with Australian (secular, individualist, capitalist and Eurocentric) culture positively correlates with seeking help from an intimate partner, relatives, a sexual health clinic, a doctor, and community leaders, while stronger identification with one's community positively correlates with seeking help from an intimate partner, relatives, a doctor, community leaders, and seeking no help. Other studies highlighted that culture as a significant factor in SRH help-seeking [6]; however, the findings of this study suggest that 1.5 generation migrants are not influenced by culture to the same extent as their older counterparts [14]. These findings suggest that the colloquially perceived ethnocultural values between more recent migrants and those with a longer history in Australia are not so incongruent [14]. These findings can inform contemporary discourses about young migrants and their SRH help-seeking needs.

The study inquired about whether religious affiliation influenced 1.5 generation migrants' SRH help-seeking. The analyses identified a significant difference only between religious affiliation and seeking help from a parent. This may be because increased religiosity has been linked to difficulties in seeking help for SRH issues from close family members due to fear of social sanctioning, as contemporary Australians youths' sexual behaviour is often at odds with religious doctrine [2]. Notably, those with no religious affiliation were slightly more likely to seek help from parents, yet there were no statistically significant differences between the six religious affiliations. The findings therefore suggest that more inquiry is needed into the role of religiosity and SRH help-seeking amongst young migrants and culturally and linguistically diverse youth.

To support access to SRH supports, the reduction in barriers and increase in facilitators is required. In this study, the top three barriers as perceived by 1.5 generation migrants were; not knowing where to access SRH services (45.90%), ensuring that their family and community did not find out (36.00%), and not having enough money to pay for SRH services (28.80%). Likewise, being made aware of where the services are (63.10%), being confident that no one would find out (45.90%), and access to services which are free/low cost (36.90%) were identified as the most dominant facilitators of help-seeking. These findings are aligned with Australian and international research with minority youth, aged 16 to 24, indicating that increased awareness of services that provide inconspicuous access to free SRH services improve youth SRH outcomes [15–18]. For instance, SRH support provided at university campuses can offer confidentiality from family and the community and often include billing options for local and international students that require minimal to no payment upfront [17,19,20]. However, such services are only accessible to those

whose social determinants allow them the privilege of attending university. Considering that religion was an important influence in help-seeking, religious organisations may be well placed liaisons between youths, their families and communities, and SRH services.

5. Limitations

The study findings reiterate the role of cultural connectedness and religiosity in SRH help-seeking for migrant youths. The study has also highlighted key areas which require further consideration and investigation. The purposeful nature of the sampling strategy helped to achieve a varied sample with the aim of capturing perspectives from various ethnic, religious, and migration backgrounds. However, the country of origin of the sample was not proportional, as most participants were from sub-Saharan Africa. In addition, the majority of participants were Catholic or Christian, which may not reflect many 1.5 generation migrants who do not prescribe to Christianity. This cultural similarity may mean the full breadth of cross-cultural SRH help-seeking perspectives and behaviours have yet to be explored. Additionally, although participants' mean age of migration was 11 years old, those who arrived much younger may not experience as much pressure or culture clash, as they may have been too young to remember or for their families to feel that they had to adhere to the rules of their ethnic origins. The age of participants is also relevant in relation to when they migrated to Australia. For instance, as the participants aged, they may be less likely to recall or recount their experiences as children. Further, their perspectives of SRH help-seeking were asked in relation to the present versus help-seeking in the past, which would have included fewer SRH services and engagement from community services and networks. Irrespective of age at participation, it seemed that for the migrants in this study, religion appeared to hold more weight in determining their SRH help-seeking attitudes. More exploration is needed to determine the interaction between age of migration and SRH help-seeking and outcomes. Finally, the analysis was restricted, as one-way ANOVAs could not be conducted on the studies due to the small and uneven sample sizes; as such, Kruskall-Wallis tests were used instead. Ultimately, generalisations cannot be made about the different perspectives among such groups, and further study is recommended to assess the effect of diverse religious backgrounds on SRH help-seeking amongst migrants in Australia.

Although participants of this study were recruited from a number of Western Sydney suburbs, this was done in relation to seven Western Sydney University campuses and surrounding off-campus venues (e.g., major shopping malls). As a result, the participants are likely to have been university students or staff and therefore well-educated. In such a case, the participants would potentially have a heightened capacity to both understand and critically analyse the statements before sorting them. As such, the sample may not be representative of the many 1.5 generation migrants who may not have high levels of education. With lower levels of education come lower levels of health literacy [21]. Consequently, participants' perspectives on health care services and the engagement of these migrants with those services may be influenced by their increased ability to scrutinise, navigate, and mediate their experiences within the Australian health care system compared to other groups of migrants. Expansion of this study to include a broader variety of 1.5 generation migrants is therefore required.

6. Conclusions

The influence of a cross-cultural upbringing is often noted in the extant literature as a potentially challenging factor in migrant youths' sexual and reproductive health help-seeking. Amongst the 1.5 generation migrants in this study, there were no significant differences between ethnocultural groups or levels of cultural connectedness in relation to sexual and reproductive health help-seeking. While cultural norms of migrants' country of origin can remain strong, it is religion that seems to have more of an impact on how 1.5 generation migrants construct, experience, understand, and engage with various aspects of SRH. The present study's results suggest differences between religious groups in regard

to seeking help specifically from youths' parents. Notably, participants who reported having 'no religion' were more likely to seek help with sexual and reproductive health matters from their parents. Given that religion can play such an important role in youths' sexual and reproductive health religious organisations may be well-placed to encourage youth help-seeking. This may be a means of addressing the barriers that youths perceive to accessing support in ways that ensure equitable and easy access to confidential and low to no cost sexual and reproductive health services.

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Data Availability Statement: The data presented in this study are available on request from the corresponding author. The data are not publicly available due to ethical restrictions on public access.

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Review

Boundaries of Belonging: Theorizing Black African Migrant Experiences in Australia

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Abstract: As nationalist ideologies intensify in Australia, so do the experiences of 'everyday racism' and exclusion for Black African immigrants. In this article, we utilize critical theories and engage with colonial histories to contextualize Afrodiasporic experiences in Australia, arguing that the conditional acceptance of Black bodies within Australian spaces is contingent upon the status quo of white hegemony. The tropes and discourses that render the bodies of Black African migrants simultaneously invisible and hyper-visible indicate that immigration is not only a movement of bodies, but also a phenomenon solidly tied to global inequality, power, and the abjection of blackness. Drawing on critical race perspectives and theories of belonging, we highlight through use of literature how Black Africans in Australia are constructed as 'perpetual strangers'. As moral panics and discourses of hyper-criminality are summoned, bordering processes are also simultaneously co-opted to reinforce scrutiny and securitization of black bodies, with significant implications for social cohesion, belonging and public health.

Keywords: African diaspora; migration; Australia; belonging; politics of belonging; bordering; racism

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1. Introduction

Social anxiety in regards to immigration is not a new phenomenon in Australia, a settler-colonial country that has a long history of exclusion and marginalization towards Black people and other people of colour. Despite this historic context, the promotion of migration over successive decades in the latter part of the twentieth century led to significant demographic change as the nation became highly culturally and racially diverse. Amidst this increasing diversity, concerns about crises of immigration were publicly summoned from the late 1990s by political figures whose fantasies of the restoration of a white Australia were eventually coopted by mainstream conservative political actors and commodified for political leverage [1]. Contemporary cultural and political discourses on immigration in Australia continue to indicate how power is used to discipline and control bodies that are deemed dangerous, different, deviant, and unassimilable. As is well documented in the literature, the Black African body is typically constructed as 'other' in various ways within the Australian context. By popularizing the idea of strange and alien bodies as a signifier for protecting national boundaries, Australia can strive to maintain a state of white fantasy mediated by ideologies of securitization [2]. As an example, in the wake of mediatized 'moral panics' regarding the alleged criminality of African migrants, claims about their inability to 'integrate' successfully into Australia society were connected to reductions in humanitarian resettlement from African nations [3]. Subsequent cuts to migration in the lead-up to the 2019 Federal Election were similarly been decried by some as racialized anti-immigrant dog whistling. As the rhetoric of 'border-control' gains momentum in the context of the global pandemic, anxieties about out-of-place bodies reach new levels of amplification and thus require careful theorization.

While much research has been conducted on the lived experiences of African migrants, this has predominantly focused on the Global North particularly in North America and

Europe. As Mapedzahama and Kwansah-Aidoo have pointed out, much of the literature on African, diasporic existence has concentrated on the forced trans-Atlantic migration of Black Africans into America during slavery and on refugeeship [4]. In Australia, research on African migrants is increasing but has to date focused primarily on refugees. There is a tendency towards over-researching South Sudanese communities, often driven by efforts to contend with recurrent media stigmatization of these communities [3]. Research about other African diasporic experiences in Australia, such as skilled African migrants or second/third generation migrants, and especially research conducted by researchers who have personal experience of migration to Australia from African nations, is still an emerging field [1]. There is therefore a need for theoretical writing on alternate African diasporic experiences and identities and the changing nature of such identities, especially writing that is sensitive to and generated through Afrocentric perspectives to avoid monolithic arguments that are reductionist towards the experiences of diasporic Africans. Udah and Singh found in their research that regardless of their reasons for migration and backgrounds, Black African migrants in Australia frequently encountered reductive assumptions that singularized their identities [5]. This research reported that such experiences negatively impacted participants' health, wellbeing and sense of belonging. Extending the theorization of blackness to include multiple complexities of Black identities and resulting experiences is necessitated as this challenges the dominance of the "single story" [6] about Black Africans.

This paper provides theory-based arguments that elucidate how mainstream immigration attitudes in Australia impact upon Black African migrants through the mediums of mediatized moral panics about Black criminality and acts of everyday racism that construct and enforce their 'strangerhood'. It explains why research on the movement of Black bodies across boundaries and geographies must incorporate histories of colonialism, racism, marginalization and their impact on the lived experience of Black people in predominantly white countries. By employing critical race perspectives to understand the subjective experiences of Black African migrants in Australia, we argue that migration is more than just the movement of bodies, it is a phenomenon solidly tied to global inequality, power, and the abjection of Black bodies. In this paper, and similar to other Afrodiasporic scholars [7–9], we use 'Black and Blackness' to refer only to 'Afro-Blackness' or the blackness that is experientially embodied by people identified as 'Black Africans'. We do this while also acknowledging that not all Black people are of African descent, and not all Africans are Black. While we are careful not to homogenize the experiences of Black Africans in Australia, we acknowledge that bodies that are visibly marked as 'Black' and 'African' can share some similarities in their experience.

2. Contextualizing Migration of Africans in Australia

African migration to Australia has a long history, comprising different waves of migration under various circumstances, but large-scale immigration flows are a relatively recent phenomenon. Prior to and directly following the Second World War, the majority of African migrants in Australia were white South Africans. However, this majority began to decrease from the 1960s onwards, due to the dismantling of racially discriminatory immigration policies. The Africa-born population in Australia grew steadily during the late twentieth century, with migrants eventually drawn from almost every country in Africa and increasingly of Black African heritage [10]. Between the 2001 and 2011 Australian Censuses, the number of people born in Sub-Saharan African countries living in Australia doubled, and by 2016, the total for all Africa-born in Australia had increased to 388,683, or approximately 1.7% of the total population [11]. Although a small proportion of the overall population, the increase of Black African diaspora communities in Australia has led to high levels of public and media scrutiny, through the deployment of racialized tropes that portray them as members of monolithic social categories [12].

People wishing to permanently migrate to Australia currently enter via one of two visa 'streams': the Humanitarian program for resettlement of refugees, and the Migration program, for family-based and skilled work migration. This is in addition to a variety

of temporary migration programs, including for skilled workers and international students [13]. The intake of African-born migrants via the Humanitarian resettlement program was substantially reduced in the mid-2000s, and successive governments have aimed at reducing family reunion or 'chain' migration for several decades. Black African migration to Australia is therefore increasingly occurring via the skilled migration stream rather than in other pathways [11,14]. Skilled migration has been championed by successive governments as it directly promotes that notion that '(skilled) migrants would add to the nation's economic prosperity without threatening social cohesion' [14], p. 21.

In sectors such as healthcare where there is a high demand for migrant workers with relevant Bachelor- or postgraduate-level qualifications, there have been expanding opportunities for permanent migration to Australia for skilled African workers and their families [15,16]. However, despite the increasing size and diversity of African diaspora communities in Australia, Gatwiri and Anderson argue that the social, cultural and political positioning of Black Africans in Australia remains dominated by deficit discourses. This 'can lead to all Black African migrants being synonymized as refugees, assumed to have experienced trauma, and stereotyped as lacking in education, professional expertise, and English proficiency' [17], p. 2. Udah and Singh posit that such deficit discourses pathologize and inferiorize Black Africans, 'problematizing them as lacking in something' [18], p. 37 which complicates migrants efforts to achieve a sense of belonging in Australia.

3. Theorizing Belonging in Australia

To understand subjective migratory experiences, we must critically theorize how bordering practices are summoned when colonized and racialized bodies cross international boundaries and how that positioning impacts upon their ability to belong in the new country. We frame belonging through Nira Yuval-Davis's (2006) theorization which locates belonging as an 'emotional attachment, [and] about feeling at "home" [19], or as Ramon Spaijj has elaborated, as having 'a sense of being part of the social fabric' [20], p. 304. As belonging becomes politicized, it morphs into concept that is mediated by power [21]. Yuval-Davis, Wemyss and Cassidy suggest that belonging can be politicized, for example, when it is linked to the bordering and securitization processes through which national polities construct 'views on who has a right to share the[ir] home and who does not belong there', that is, establishing a nationalized collective 'us' that is separate to/from 'them' [22], p. 7. Since borders function symbolically and metaphorically as tools of geographical and colonial separation, bordering processes produce state-sanctioned 'expressions of sovereignty' that can be utilized to police those who have the right to cross certain borders and to join 'us', and those who do not [21], p. 73.

The borders established between ourselves and *Others* therefore operate to protect hegemonies, and privilege some groups over others. Whilst "all bordering processes are a combination of ordering and othering ... [that] differentiate "us" and "them"", [22] p. 5, categories dividing people into identity-based groups—especially those based on race—frequently have a history that is intimately connected with colonialism and the establishment of contemporary global hegemonies. Critical perspectives on the bordering practices of colonialism/post-colonialism question the identities, knowledges and traditional (Western) scholarship that work to privilege the White Western body over the non-Western body [22–24]. This body of knowledge also questions what we are socialized to think of as 'natural boundaries/borders' while interrogating the processes of border formation. In doing so, it draws strongly upon the complex 'border-crossings' and multifaceted experiences of groups of people who have been 'othered' through the processes of colonial bordering, including migrants, refugees, and Indigenous peoples.

Critical perspectives on coloniality also emphasize that borders are not only drawn on the land, but in our minds and bodies as well. In her landmark work *Borderlands/La Frontera*, for example, scholar and author Gloria Anzaldúa explored the significance of ethnicity, gender and sexuality and their intersections with various political and cultural boundaries through the creation of a complex 'borderlands biography' that illuminated the

layering of contested meanings within the personal as well as the physical borderlands she inhabited [25]. As Leanne Weber observes, intersectional 'markers of difference and exclusion' produce hierarchical 'categories' of citizenship.

> *Markers of difference and exclusion are often associated with hierarchies of citizenship. These hierarchies, whether legally defined or socially produced through the structural effects of colonization, gender, race, class or nationality, effectively sort populations into categories marked (to varying degrees and in particular contexts) as either full or partial citizens*. [21], p. 73

In the Australian context, asymmetry in regards to the rights of particular groups to police and maintain boundaries of belonging frequently plays out in relation to racialized discourses about Australian identity [21]. Ghassan Hage's theorisation of 'governmental belonging' has increasingly being deployed in order to explain the particular boundary work that is enacted by those who are able to assert 'proprietorial' or 'governmental' rights to belonging and Australian identity within a variety of contexts [20]. He argued that through greater congruence with the dominant (white) national culture, some are better positioned than others to accumulate national and social capital and if suitably motivated, can easily accumulate and enact claims to what he termed 'governmental belonging' [2]. Anderson and colleagues have argued that those that are mostly afforded governmental belonging are 'Australians of white settler-colonial heritage [who] are . . . uniquely articulated as "locals" . . . enabling them to simultaneously reject the prior claims of possession by Indigenous Australians *and* any subsequent claims to belonging' [26], p. 27.

These rights are asymmetrical, as Yuval-Davis has argued [19], in that the ability to grant or deny the claims of belonging within the Australian socio-political milieu is 'claimed by those who are in a dominant position and can lead to minoritised individuals or groups being silenced and positioned as "other"' [20], p. 305. Claims to belonging by those who are 'othered' within this environment are heavily constrained and policed. Cultural difference must be carefully managed within Australian civic spaces, in a way that does not destabilize white racial comfort or proprietary claims to belonging, otherwise even tentative claims to belonging within these spaces can be denied or even retracted. Anderson and Gatwiri have probed, for example, the way in which Black women are harshly policed and disciplined by the mainstream Australian media if they provoke racial discomfort. The punishment of racial transgressors is often 'deployed in a brutal, complex array of socially-sanctioned patterns which include penalization, retaliation, and ostracization', as a way of delineating the boundary lines they must toe while simultaneously reminding them of the power of white hegemony to silence [27]. As such, acceptance of racialized bodies and voices within Australian public spaces is a process of invoking conditional belonging, and is always contingent upon the granting of such 'rights' by hegemonic groups. As Kwansah-Aidoo and Mapedzahama highlight, establishing a sense of 'belonging-as-negotiation' [28], p. 110 requires that individuals may have to come to terms with the likelihood that they will 'occupy, what Gloria Anzaldua's refers to as "the borderlands"; that is, they are in-between places and will be juggling cultures" [25,28]. A legitimate strategy for others is the contemplation of/or decision to 'return home' [28]. That is, to relocate back to their African country of origin, in the search for a more dignified sense of belonging, where they are not relegated to the margins.

Tying together decolonial concerns and the historical complexities of national, cultural, and personal borders enables understanding of emerging migrant experiences of border-crossing and belonging. When Black Africans migrate to Western and settler-colonial societies, the relegation of individuals from a wide variety of cultural, ethnic and national backgrounds to the singular category of 'African' strips them of both individual and national identities. It can make their Black bodies hyper-visible, but simultaneously invisible, in the sense that their presence, voice, and contributions may be repeatedly downplayed, ignored, or silenced [4]. These complexities of Australia's settler-colonial history influence and shape contemporary projects of border control.

4. Bordering Projects and Practices in Australia

Australia is a settler-colonial society and prior to colonization, it was home to several hundred distinct Indigenous nations, who have never ceded sovereignty. The failure to acknowledge Indigenous sovereignty and continuous denials of the extent and ongoing negative impacts of colonization continues to cast a pall upon contemporary Australian society [29]. In addition to the legacies of the dispossession of Indigenous peoples, the development of Australian national identity was characterized by a steadfast exclusion of 'others' based on race. A range of policies and laws collectively known as the White Australia Policy were implemented to restrict the ability of people of non-Anglo heritage to enter, work and live freely in Australia. These policies were effective in engineering a racially and culturally homogenous society, but their progressive dismantling after World War II led to significant demographic change in the latter part of the twentieth century [30]. Almost a quarter of Australians now have non-European heritage, compared to the extremely small minority during the period of the White Australia Policy [31].

Despite the multicultural reality of contemporary Australian society, 'dominant narratives of "Australianness" and belongingness continue to revolve around the centrality of whiteness and "Anglo-Celtic" heritage to Australian identity' [26], p. 24. Gwenda Tavan has argued that the political success of immigration was founded in an implicit 'bargain' that immigrants would 'give up their foreignness' enabling Australian institutions and dominant culture to remain unchanged by outside influence. This means that 'while immigration might be an economic necessity, it would remain tangential to Australian national identity' [32], pp. 159–160. Reflecting this proposition, although Australians of non-European heritage have become a much larger proportion of the population, they remain underrepresented in positions of leadership within government and industry, and within key cultural industries [31].

Recurrent anxieties around demographic change and perceived threats to 'border-control' evidence the continuity of white hegemony, reflect the unresolved legacies of Australia's colonial past and present, and are linked to governmental distancing from multiculturalist policies. In 2007, for example, the Department of Immigration and Multicultural Affairs was renamed the Department of Immigration and Citizenship, which subsequently became the Department of Immigration and Border Protection, and by 2017 had been absorbed into Home Affairs, a new super-department [33]. During the same period, Australian policies towards migrants and asylum-seekers became increasingly restrictive and punitive. These developments signal a transition away from political and social endorsement of multiculturalism and a reinvigoration of racialized approaches to immigration, exacerbated by the use of 'border control' as a wedge issue for political benefit [34].

Contradictory evidence regarding mainstream acceptance of cultural diversity repeatedly resurfaces in large-scale social attitude surveys about national identity and cultural cohesiveness. On the one hand, such surveys often indicate strong affirmation that migration has been good for Australia, but simultaneously reveal continued support for assimilation. As an example, in research commissioned by a public broadcaster, 80% of respondents agreed it was good for a society to be made up of people from different cultural backgrounds, yet 49% implicitly endorsed assimilation, reporting agreement with the statement that 'people from racial, ethnic, cultural and religious minority groups should behave more like mainstream Australians' [35], p. 6. Whilst 'assimilation' is no longer government policy, it prevails through microagressive practices and exists as a tacit presumption of the 'bargain' on immigration. This means complete assimilation is the condition of successful integration of migrants and Indigenous people and is the ultimate measure of good multiculturalism. Contradictory tensions towards acceptance and exclusion of migrants are particularly fraught for people who cannot visibly 'assimilate'. Migrants and refugees who are identified or identify as Black Africans 'frequently report higher levels of discrimination and prejudice than other groups in Australian society' [26], p. 25.

As globalization becomes normalized and the certainties of borders (physical and symbolic) become blurred, xenophobic nationalism can be embraced by dominant social groups as a way to assert and defend their hegemonies. As nationalist ideologies intensify in Australia, experiences of racism and exclusion also intensify for people of colour. In a large study conducted in 2016, almost a third of young Australians reported experiencing unfair treatment or discrimination based on their race [36]. A recent study on discourses of national identity in Australian schools found that 'implicit white normativity' still acts to 'reinforce a white Anglo identity as the presumed "core" of Australian national identity . . . [this] condones the normative assumption that "real" Australians are white people and others with racially marked bodies and culturally "different" identities originate from elsewhere' [37], p. 142. Young people of colour are particularly overrepresented in out-of-home care and in custody; it can be argued that 'the criminal justice system has increasingly become a tool for substituting direct racial discrimination with less overt practices that still have discriminatory and exclusionary effects' [38], p. 528. Given the historic positioning of whiteness as central to Australian identity and the escalating moral panics that demonize Black African migrants, achievement of a sense of belonging and acceptance within new communities can be complicated or even thwarted [1]. Kwansah-Aidoo and Mapedzahama have described this as relegating Black Africans to the status 'of being a perpetual stranger who does not belong' [28], p. 97.

5. Contextualizing the Black African Immigrant Experience in Australia

New understandings of difference and race have enabled the expansion of research on experiences of discrimination and racism in Australian society. Much of the recent research in this field is being conducted by or in association with academics who themselves are part of African diaspora communities and/or are actively utilizing Afrocentric approaches in their work, and so we draw where possible upon this emerging body of research. Whilst being mindful of the need to avoid the pitfalls of reductionist generalizations, we observe some general trends and key themes and contextualize and theorize the experiences canvassed within this literature within two broad themes: [1] racialized criminality and moral panics and [2] perpetual strangerhood.

5.1. Racialized Criminality and Moral Panics

As Stuart Hall contended, representation is a process of producing meaning, which then shapes and constructs reality [39]. The politicization and commodification of racism frames Black Africans through a routined silencing of African ontological and epistemological experiences. These shared meanings/misunderstandings of blackness and Africanness are translated through language to operationalize representational discourses that justify 'moral panics', or 'a turbulent and exaggerated response to a putative social problem' that feeds off and disseminates 'popular demonologies' at a variety of interconnected local, national and international levels [40]. In reviewing the proliferation of literature invoking the concept of 'moral panics', Falkof writes that 'a heightened sense of fear is a standard feature of our times', yet simultaneously, 'often the causes of our anxiety are invisible, creating the sense that we are at the mercy of a global system that we do not fully understand and cannot hope to influence' [41], p. 233. In such a context, moral panics flourish because they effectively obscure meaningful critical analysis of the validity of these panics and instead allow for a projection of anxieties and fears onto minoritized others who can easily be scapegoated through these events.

Racialized moral panics have functioned in Australia as a key way in which the borders of belonging have been policed and patrolled. In the past two decades there has, for example, been a succession of moral panics about criminality and violence associated with African migrants [12]. Most recently, the resurfacing of this moral panic in mid-2018 led to the hashtag #AfricanGangs trending in social and popular media. Conservative political and media figures utilized a range of inflammatory and inaccurate statements about the supposed criminality of African migrants, with a focus on Sudanese refugee

communities, to achieve political mileage. The city of Melbourne was positioned as a 'terror zone' and sensationalized news coverage fostered the perception that violence perpetrated by so-called 'African gangs' was so widespread that it warranted deportations [8]. In reality, the concerns about the supposed inherent and rising criminality of African migrants have been disproportionate and proven inaccurate [8].

Widespread anxieties subside once the focus of media shifts to alternative targets. However, the repeated re-emergence of moral panic in regards to Black criminality and violence is indicative of the power of anti-Black rhetorics in community and media representations. As Falkof reminds us, 'certain folk devils or types of deviance are so potent that they reappear repeatedly even though no real proof is produced of the danger they are thought to pose' [41], p. 232. Black African people are therefore represented as having fixed identities within white dominant societies, and according to common representational tropes, they cannot be good; they are dangerous and to be feared. Majavu has demonstrated that tropes and discourses about Africanness in Australia 'draw from the global racialized archive of information about Negroes' that cast them as 'inherently dangerous, and thus in need of civilizing by white society' [8], p. 35. This discourse functions as justification for over policing 'Africans' in Australia.

In their research with young people from South Sudanese backgrounds, Weber has documented how following stigmatization of this community, 'enforcement officers on public transport and private security guards' also began to police their movements [21], p. 79. Weber wrote that, 'police participate in ... the politics of belonging when their [mis]treatment of migrant groups conveys messages about belonging to the wider population' [21]. Such experiences of 'unfair targeting' are interpreted as placing Black Africans 'outside the boundaries of "secure belonging"' [21], p. 83. Racialized anxieties fueled through such moral panics also have potential to impact on anyone who was identified (correctly or incorrectly) as Black and/or African through an increase of 'everyday racism' experiences [42]. Such personal experiences of hyper-scrutinization and violent policing, or legitimate fears about these practices, can also impact upon parenting practices and intergenerational relations within migrant communities [17].

Over policing of Black communities in Australia is not a new phenomenon, given the settler-colonial context outlined above. Cunneen argues that many of the characteristics associated with high rates of crime and incarceration for racialized peoples in countries such as Australia are 'long-term outcomes of colonial policies', with criminal justice processes working as 'a way of "weeding out" those who fail the test of (White) social conformity' [38]. Windle argues that the history of racism in Australia as well as the dominant narratives about the 'gang-culture' of Black people inform fear discourses directed towards Africans in Australia. They state:

> *Racialisation of African refugees in the Australian media appears to find its proximate source in the activation of race as an explanatory category amongst police, giving license to a xenophobic minority. This activation draws on the history of racism in Australia, on wider colonial narratives about primitive Africa, on the perennial discourse of dangerous youth, and even on fears about American cultural imperialism (in the form of black "gang culture"). As with Indigenous Australians, the dominant frame is one of underlying societal risk.* [12], p. 563

Over-surveillance and policing of Black people indicates that they remain overwhelmingly constructed as 'perpetual suspects' or 'persons of interest'. Labelling the Black body through these criminalized lenses functions as a key tool of 'othering'. In this context, the Black African body remains political as it occupies a contested space. The confluence of blackness and criminality therefore functions to position them as troublemakers and a threat to safety in communities, and to preclude other aspects of their identities from being recognized and celebrated [8].

Benier et al.'s research with young people of South Sudanese backgrounds demonstrated the frustration participants felt with the limits of Australian multiculturalism. Any

achievements by people within their communities, they observed, were lauded as evidence of their 'Australianness', whereas any 'wrongdoing' was 'rarely associated with Australian culture, policies, institutions, or systemic barriers to social inclusion . . . instead, it was attributed to the "Africanness" of perpetrators' [43], p. 32. In his analysis of media representations, Windle similarly found that there was a 'disassociation of crime from "Australianess"', with criminality repeatedly attributed to 'Africans and other "outgroups" who need to "integrate" [12]'. As Falkof has pointed out, 'the morality of the moral panic can cement the imagined community . . . when something outside of us is bad or evil or dangerous it may allow us to create positive collective identities by defining ourselves in distinction to the people or circumstances that imperil the stability of our moral worlds' [41], p. 231. By projecting criminality onto the 'Africanness' of migrant communities and individuals, 'mainstream' Australians can be shielded from the need to grapple with the reality of racism and its impacts.

Although a moral panic by definition is subject to 'ebbs and flows', and the anxiety produced through such episodic outpourings of concern may have little to no basis in reality, 'it typically leaves in its wake long-standing institutional changes that continue to affect adversely the marginalized' [40], p. 12. Negative representations lead to further policing, profiling and scrutiny of African diaspora communities, and solidify the synonymy of Africanness and blackness with negative racial codes and cultural meanings [21]. This was clearly demonstrated through efforts to contain coronavirus outbreaks in Australia which resulted in the overpolicing and stigmatization of African migrants in particular [44,45].

Studies show that racial discrimination is a social determinant to health inequities among racially minoritzed communities [46]. William Smith describes the significant negative physiological, psychological and health impacts of the ongoing onslaught of racism as racial battle fatigue (RBF) [47]. Speaking about the impact of overpolicing, Sudanese youth in Melbourne for example have reflected on consistently feeling unable to protect themselves from negative media and feeling unworthy of being included in mainstream Australia [12]. They emphasized the burden of the emotional toll of these experiences that wore them down, drained them and impacted their health and wellbeing [43].

For Africans in Australia therefore, their Black embodiment and the associated racialized scripts they encounter can lead to racial battle fatigue being woven through their daily life. As documented by Mapedzahama and Kwansah-Aidoo [7], blackness can be experienced as a 'burden' that must be carried and constantly negotiated in the Australian social fabric, which consequently amplifies experiences of strangerhood. A key study by Ferdinand, Paradies, and Kelaher [46], p. 7 demonstrated that experiences of racism contributed to poor mental health and in some cases negative physical health outcomes which 'highlight the need for interventions to protect the mental and physical health of racial and ethnic minority communities'.

5.2. Perpetual Strangerhood

While Australians of African descent may live in Australia as law-abiding and productive citizens, the ongoing scrutiny and questioning of their status within the nation-state and within 'local communities' may nevertheless position them as 'perpetual strangers'. When Black Africans migrate to Western and settler-colonial societies, they became 'objects of curiosity' for the white gaze [4]. They are marked as 'visibly different'; they are 'recognizable as different from the white, Western-clad, and English-speaking majority in various ways, including phenotype, attire, accent, or a combination of these 'visibilities' [48]. Individuals from a wide variety of cultural, ethnic, and national backgrounds are relegated to singular categories such as 'African' or 'Black'—labels which they may never have previously identified with. So, in addition to becoming hyper-visible as a body, Black African Immigrants can also experience the paradoxical opposite; that of becoming invisible. Both can lead to the imposition of 'strangerhood' and denial of belonging. As Durey and Thompson [49], p. 2 suggest, in Australia, whiteness is the norm, 'the

standard against which differences, or deviations from that norm, are measured, valued, and often demeaned'.

Conditionality of belonging has been an increasingly prominent feature of the globalized world in the past twenty years, as securitization agendas construct 'foreigners' or 'strangers' not only as 'a threat to the cohesion of the political and cultural community but also as potential terrorists' [19]. As Yuval-Davis [19], p. 213 emphasizes, 'the politics of belonging has come to occupy the heart of the political agenda almost everywhere on the globe, even when reified assumptions about "the clash of civilizations" are not necessarily applied'. African migrants confront a complex postcolonial conundrum of needing to navigate anti-Black rhetorics of 'belonging' based on 'borders that are inherently porous, of colonial origin, and paradoxically symbolic of sovereignty' [50]. Proprietary belonging by Australians of white settler-colonial heritage can also be 'reflected in the traditional vigilance and policing of boundaries between "locals" and "Others"' [26].

One of the most ubiquitous ways in which this boundary is policed in Australia is through the racialized question 'where are you from?' [1]. As Kwansah-Aidoo and Mapedzahama, [28] have noted, this question, repeatedly directed towards Black Africans and other visibly different immigrants, 'imaginatively dislocates them from "here" and makes them strangers in a familiar land'. They state:

> *The question symbolically deports [the interrogated person] back to the faraway places "where they are from" . . . they are not "authentic Australians" because their visible difference (attributable to their skin colour) impedes their inclusion in the imagined Australian nation. Yet they are not authentic foreigners because, apart from having Australian citizenship, some of them have been here too long to be bona fide foreigners. Thus, while this question may enable the questioner to 're/locate' the questioned to some distant geopolitical location, it also imaginatively dislocates them from 'here' and makes them strangers in a familiar land*. [28], p. 108

Udah and Singh argue that this question reminds the Black African migrant that they are not recognized as 'locals . . . but are considered as strangers born in some far-away place' [1]. Nyuon articulates the implications of such symbolic deportation by wondering 'what it would feel like to feel Australian but happen to be black?'. She asks, 'how do you hold on to a sense of belonging when it is so often assaulted by racism?' [51].

A dominant theme of the literature on African diasporic experiences in Australia is the way that visible differences conjure racialized coded meanings that can lead to high levels of unemployment, underemployment, and a loss of post-migration occupational status [52]. The labour market structurally excludes Africans from the job market through policing of 'English proficiency, non-recognition of overseas qualifications and skills and a lack of Australian experience', which contributes to a downward socioeconomic spiral [52,53]. The preference for Western expertise assumes those who are not from Western countries are 'strangers' to western knowledge, regardless of their training and experience. This means that even when they acquire work, Africans are more likely to experience subtle, persistent and normalized racial microagressions or biased assumptions about their ability to do the job as well as White Australians [53]. Mapedzahama locates these experiences as examples of ways that black bodies in white spaces are 'speaking a language of [their] own', one that works to essentialize, and homogenize them [4].

Black people can face significant backlash when they speak publicly about their racialized experiences in Australia, with increased severity experienced by those with multiple intersecting social identities such as women from African migrant backgrounds [27]. In a recent example, Nyuon, a Sudanese-Australian lawyer based in Melbourne has publicly documented the significant impacts of cyber-bullying she has experienced due to her outspokenness about racism [54]. As African migrants are expected to perform perpetual gratitude towards Australia for 'letting them in', representatives of dominant social groups, under the guise of 'free speech', are licensed to debate the existence and harmlessness of racism which minimizes the racial trauma fueled by the racial violence and microagressions that Black people experience everyday [27]. Always required to be cognizant of the

hyper-visibility of their skin colour, Black African migrants can come to terms with the difficult and transcendental journeys of migration by embracing their blackness, resenting it, or feeling separated from it. This can be a liberating experience, but it can also foster a deep sense of exclusion, and the impression that it is necessary to be white to be fully accepted and to exist with dignity in Australia.

6. Impact of Racialization on Health

Health and social research support the evidence that racism is a social determinant of health and that it contributes to a disproportionate health inequality and poor access to services for racialized populations [55–57]. As Marmot argues, 'inequities in health arise from inequities in society' [58], p. 512. Taking a critical race theory (CRT) perspective, we argue that processes of 'racial subordination, prejudice, and inequity' produce experiences of exclusion and fractured belonging and have a significant human cost in terms of mental wellbeing [55,59]. A CRT perspective explores how complex processes of racialization are enacted in health care and in health seeking behaviours [60]. Within an Australian context, CRT focuses particularly on the critical understandings of health and wellbeing for Black people, particularly Aboriginal and Torres Strait Islander peoples, while also attempting to de-center whiteness as the standard by which experiences of health and wellbeing are measured [49]. Within this theorization, whiteness is not seen merely as a skin colour but rather a social process of racial hierarchical structuring where markers of value, universality and social capital are consciously or unconsciously bestowed upon white people. Whiteness consequently dominates other ways of knowing, being and experiencing the world. Through this assumed universality, the western biomedical model of health care amplifies white- and Euro-centric health practices which can unwittingly perpetuate racialized pathologization of Black people. Without critically examining how race and colour-blind approaches to health care impact minoritized peoples, the health care system itself becomes complicit in perpetuating racism [61].

As Durey and Thompson argue, 'people often view racism solely as referring to interpersonal relations, where a person is treated unfairly . . . because of race. However, racism that exists systemically and institutionally, where the production, control and access to resources operates to advantage selected racial/cultural groups and disadvantage others, is more insidious' [49], p. 3. Continually highlighting the health gaps and inequalities between Black people in comparison to white people without a critical theorization of the colonial, historical, social, cultural, and political inequities driving those 'gaps' perpetuates rhetorics that pathologize blackness [62], which in and of itself, is form of racial gaslighting. As defined in the National Aboriginal Health Strategy, health for Indigenous peoples (and other colonized Black peoples), health is:

> *Not just the physical wellbeing of the individual, but the social, emotional and cultural wellbeing of the whole community . . . [it is] a matter of dignity, of community self-esteem and of justice. It is not merely a matter of the provision of doctors, hospitals, medicines or the absence of disease and incapacity*. [56], p. 26

Addressing racism and discrimination is a public health imperative. In their research, Ferdinand, Paradies, and Kelaher suggest that 'preventing racial discrimination will be a more constructive approach to protecting the health of racial and ethnic minority communities than relying on the use of appropriate response mechanisms after a racist incident has occurred' [46], p. 12. As such, transforming cultures of care must start with the acknowledgement that different forms of historical, structural as well as interpersonal oppression combine and contribute to the poor health and chronic physical and psychological ailments that are suffered by racialized and colonized peoples in Australia and globally [49,57].

7. Conclusions

The emerging literature on Black African migrant experiences in Australia highlights not only the precarities of conditional belonging, constant boundary-work and the resulting

experiences of battle fatigue that they must contend with on a variety of systemic and quotidian levels, but also the variety of strategies of resilience that are employed in response to these challenging circumstances. Among the solutions highlighted in the literature are finding belonging and solidarity within tightly-knit migrant communities [43], and developing 'negotiated' or 'hyphenated' borderlands identities 'so that both cultures can become a part of how they inhabit space in Australia' [63]. As we have also highlighted in this paper, there are significant implications for public health policy and practice in understanding and combating the impacts of racism in order to support the wellbeing and health of Black African migrants. As ongoing conversations and debates about migration are complicated by the rising influence of nationalist discourses in the context of international border closures and surging social anxiety, it becomes imperative that the stories and experiences of Africans in Australia be effectively shared and documented with a dignified sociological nuance, and that the significance of anti-racism within Australian public health discourses be substantially amplified.

Navigating the formation of novel and resilient diasporic identities is a key theme in the literature regarding African migration to Australia. Moral panics and the construction of Black African 'strangerhood' raise particular challenges for traversing the fallout from reified and homogenized black/African migrant/outsider labelling [7]. Because of such experiences, blackness can be carried as a burden within a settler-colonial society such as Australia. As African migrants are among the most 'visible' social groups in Australia in terms of phenotypical differences, the significant problems relating to their marginalization and minoritization extend beyond poor physical, psychological and economic outcomes. Given that this is an extremely salient aspect of migrant subjectivity, we see a need for further research investigating the nuances of new diasporic identities, and how they metamorphosize through different environments and experiences. More so, it is crucial to probe how Black Africans develop resilience in countering the impacts of hypervisibility and scrutinization and of being rendered invisible.

We conclude this paper by considering the words of Falkof who emphasized that moral panics have 'ideological motives, they are stories that we tell ourselves and each other to help us make sense of insecurity and social change' [41]. This means there are ways that new stories about what it means to be Australian can be told, other than the continual recycling of racialized moral panics of one form or another. To accommodate the diversity of Australian culture and the subjectivity of diverse experiences, a significant re-imagining of the Australian community is required, one that can own up to the past and current realities of racism and its impacts and find a place for those historically constructed as 'strangers' within the nation. This is a challenging proposition, but this nascent potential is within our grasp.

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Factors Influencing the Settlement Intentions of Chinese Migrants in Cities: An Analysis of Air Quality and Higher Income Opportunity as Predictors

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Abstract: With rapid urbanization, the air pollution issue is becoming an increasingly serious issue given that people are strongly swayed in their location choice to settle down in a growing urban area where most job opportunities have been created. This study investigated the influences of both air quality and income on the settlement intentions of Chinese migrants by using microlevel samples of the China Migrants Dynamic Survey (CMDS) data from 2017 and the annual average concentration of PM2.5 (particles with diameter ≤ 2.5 μm in the air) to measure a city's air quality. The results showed that the settlement decisions of Chinese migrants involved a trade-off between income and air quality. Poorer air quality could significantly decrease the settlement intention, while a higher income could significantly increase the settlement intention of Chinese migrants. However, as the migrants' income opportunity increased at a location, the negative influence of poorer air quality on the settlement intention at that location gradually declined. Specifically, when deciding whether to settle down in cities, the migrants with a non-agricultural "hukou" (household registration) tended to pay more attention to air quality than the migrants with an agricultural "hukou," and migrants who moved farther away in geographic distance tended to pay more attention to income. It was concluded that the influences of air quality and income on the settlement intentions of the migrants were robust and consistent after using different estimation methods and considering the issue of endogeneity.

Keywords: air quality; income; settlement intention; migrants

1. Background

Rapid industrialization and urbanization are changing the urban landscape in emerging markets [1]. One of the most profound changes affecting human society is the massive migration to cities to establish new livelihoods. This will eventually lead to the reconstruction of urban spaces and the integration of human lifestyles, both socially and economically. According to the International Migration Report 2017, there exist 253 million international migrants around the world, which have increased by approximately 49% since 2000, accounting for 3.4% of the total global population [2]. With the development of the global economy, most employees have gradually moved into regions with abundant economic activities and job opportunities. Furthermore, large cities offer lucrative attractions regarding the settlement intention of migrants because of the superior economic and non-economic incentives, including social, medical, educational, and municipal infrastructures that city dwellers enjoy [3].

In the past few decades, cities around the globe have experienced unprecedented growth, providing millions of people with social mobility and economic prosperity. However, the proliferation and continuous growth of urban areas have brought about many problems and challenges for the future of sustainable urban development [4]. One of the main consequences of urban expansion caused by rapid urbanization, population growth, and changes in consumption patterns is the gap between the rich and the poor in modern cities, the generation of large amounts of urban waste and urban pollution [5], and the increasingly serious environmental degradation [6]. Risk society theory emphasizes the importance of solving these ecological problems [7], which are new challenges facing the current rapid expansion of urban immigrants and urban life.

Therefore, migrants have contributed greatly to promoting global urbanization [8–10]. Especially in China, which is one of the most important advanced emerging economies, the accelerating transformation and upgrading of economic development and the rapidly growing agricultural productivity in recent decades have released millions of rural labor workers to pursue industrial activities in cities. Statistics show that in 2018, the number of Chinese migrants was 241 million, accounting for 17.3% of the total population [11]. Since the early 1980s, a large number of people have migrated from rural areas to cities and towns [12]. The emergence and growth of urban migrants have become inevitable phenomena in the process of Chinese industrial transformation and economic development, and have been one of the most important reasons for the rapid urbanization of China [13,14]. Therefore, issues related to urban migrants and the location choice as part of their settlement intentions become important. However, because of historical reasons, the differences in social and economic welfare between the migrants and residents in cities persist, especially in the "hukou" (household registration) system. The "hukou" system was established in 1958 to regulate the flow of rural migrants into cities [15,16]. The "hukou" system not only involves compulsory registration for the population but is also a formal and legal way to bind the related welfare of urban residents [17], which has been one of the key institutional factors in the settlement decisions for the migrants into cities [18].

Recent research on migrants' location choices regarding settlement intentions in urban areas has investigated the demographic characteristics of migrants (such as age, marital status, educational level), family factors (such as family size), economic factors (such as income level), and social factors (such as the characteristics of employment and social security) [19–23]. In addition to the above factors, air pollution has become one of the most significant health risks faced by urban residents around the world and, to a certain degree, influences the settlement intentions of migrants. In 2017, United Nations Environment Programme (UNEP) found that the number of annual premature deaths was over 7 million worldwide due to air pollution. Therefore, the air quality, income, and cost of living in cities have significant influences on the perception of urban livability and the settlement decisions of migrants [24–27]. As the largest emerging economy in the process of rapid urbanization, China is faced with increasingly serious challenges regarding the air pollution in cities, which may pose a formidable challenge to the settlement intentions of migrants and the urbanization process. Therefore, exploring the influences of both urban air quality and income on the settlement intentions of migrants and investigating the characteristics and functional rule of their interactions are of great significance for promoting both the sustainable development of urbanization and the livability of cities in emerging markets, such as China.

An increasing number of studies have put emphasis on various factors that affect the settlement intentions of migrants in urban areas. From the macrolevel perspective, the economic, institutional, and cultural considerations have been emphasized as the key factors influencing the settlement intentions of migrations. Boccagni put forward the idea that the social and economic conditions of original residential places may accelerate the moving out of such migrants to more livable destinations [28]. Ette et al. pointed out that socio-cultural and institutional factors are among the decisive factors regarding the settlement intentions of migrants to another area, such as an urban area [29]. From the microlevel perspective, individual characteristics, human capital, integration,

and connections with the home regions of migrants are the critical influencing factors regarding settlement intentions to another region. Paparusso and Ambrosetti found that microlevel factors in Italy, such as socio-economic and work conditions, determined the migration intentions of Moroccans [30]. Studies have been done on the influencing factors of the settlement intentions of Chinese migrants, focusing on economic, socio-cultural, institutional, individual, and family factors. Among the previous studies, the economic factors are the primary influence on location choice regarding settlement intentions, where the higher the expected or actual income, the higher the settlement intention of Chinese migrants into cities [27,31]. Liang proposed to improve the living conditions and increase the income of Chinese migrants, which would be helpful for the promotion of social integration into city life [32]. Different from the early generations of Chinese migrants, who strived to achieve an optimized level of economic status for both themselves and their families through working in cities far away from hometown and family [33], new Chinese migrants tend to take social and cultural factors into consideration when making their settlement decisions [34]. Abundant social capital, smooth social integration, and voluntary cultural adaptation are considered as positive factors that influence the sense of belonging and the settlement intentions of Chinese migrants [22].

In brief, the existing research has comprehensively studied both the macro- and micro-level influencing factors on the settlement intentions of migrants but the decisive roles played by ecological and environmental factors in the settlement intentions have rarely been addressed by researchers. According to the International Organization for Migration (IOM), "environmental immigration" refers to those who voluntarily leave or are forced to leave their residential places temporarily or permanently due to sudden or gradual environmental degradation [35]. The academic community is increasingly addressing the influences of environmental conditions on the settlement intentions of migrants. In fact, environmental livability plays an important role in migrants' decisions regarding participating in the urban labor market, thus affecting their incomes and life satisfaction [36–38]. The study of Tiebout mainly focused on the influences of non-economic factors, such as the urban living environment quality on the settlement intentions of migrants [39]. Similarly, other researchers have also confirmed the positive influences of urban life quality [40,41] and comfortability [42] on the settlement intentions of migrants. However, many types of environmental problems, such as gradual environmental degradation, soil degradation, declining vegetation, and global warming, may also affect the settlement intentions of migrants [43,44]. Especially in China, with the increasing demands for a more livable environment from urban residents, urban environment-related factors, such as living conditions [45] and environment quality [46], are found to have greater influences on the settlement intentions of migrants into Chinese cities.

In brief, it is necessary to further investigate the influences of environmental factors on the decisions of migrants, especially the air quality and its interaction with the individual incomes of migrants.

2. Model and Data

In general, this study used the China Migrants Dynamic Survey (CMDS) data from 2017 to measure the urban air quality in terms of the annual average concentration of PM2.5 (particles with diameter ≤2.5 μm in the air) and design regression models. Furthermore, this study used the monthly salaries and net incomes of respondents in the CMDS 2017 as the indicator for the incomes of Chinese migrants into cities and conducted an empirical study of the influences on the settlement intentions.

2.1. Chinese Migrants' Data

The dataset of the Chinese migrants used in this study came from the latest CMDS, published in 2017, which was released by the Migrant Population Service Center of the National Health Commission of China (http://www.chinaldrk.org.cn). The CMDS is the most detailed microlevel survey data about Chinese migrants. The survey respondents are the residents who are 15 years old and above that are not registered in the district (county, city) and have resided in their immigratory city for more than one month. The survey covers 31 provincial areas in China, including autonomous regions

and municipalities. In the questionnaire of the CMDS 2017, respondents were required to answer questions such as "If you plan to stay here, how long do you plan to stay?". The six alternative answers for this question were "1–2 years," "3–5 years," "6–10 years," "more than 10 years," "settle down," and "not sure." This question was used to identify those who have settlement intentions. Specifically, respondents who answered "settle down" could be considered to have a settlement intention (*SI*), where the value of variable *SI* was set to 1; otherwise, 0. Meanwhile, this study used the monthly salaries or net incomes of respondents in the dataset from the CMDS 2017 to represent the incomes of Chinese migrants in the sample, which excluded missing values and the minimum 1% (income <200 yuan) and the maximum 1% (income >20 thousand yuan) outliers to finally obtain 123,338 observations.

Specifically, migrants who had a settlement intention accounted for 43.20% of the migrants with a non-agricultural "hukou," while migrants who had a settlement intention only accounted for 23.67% of the migrants with an agricultural "hukou." Therefore, migrants with a non-agricultural "hukou" had a higher ratio of settlement intention. The reason for this was that under the current Chinese "hukou" system, there still exist certain institutional constraints regarding the settlement of migrants with an agricultural "hukou" in cities. These constraints in turn lead to the lower settlement intentions of Chinese migrants with an agricultural "hukou." Meanwhile, most migrants with a non-agricultural "hukou" in China are peasant workers [12,47]. Their income cannot support their lives in the cities. Hence, they often choose to work in cities but settle down in rural areas [48].

Table 1 reports the ratios of migrants with different levels of education who had settlement intentions. It can be found that the group of migrants with the highest proportion having settlement intentions (58.84%) was the population with a graduate level of education. However, the group of migrants with a proportion having settlement intentions lower than 20% was the population with a junior middle school level of education or less. In other words, the higher the education levels of the migrants in the observations, the stronger their settlement intentions.

Table 1. The proportions of migrants with different levels of education who had settlement intentions.

Level of Education	Proportion
Never gone to school	19.22%
Primary school	17.82%
Junior high school	21.31%
Senior high school	30.51%
Junior college	44.27%
Undergraduate	52.71%
Graduate or above	58.84%

2.2. PM2.5 Data of Chinese Cities

In recent years, with the acceleration of the Chinese urbanization process, PM2.5 has become one of the most important factors affecting the air quality and has caused frequent air pollution events in Chinese cities [49]. In recent years, hazy weather caused by multiple pollutants, especially represented by PM2.5 as the main pollutants, has affected large areas of China, lasting for a long time [50]. With the rapid economic development, China is suffering from serious air pollution, where PM2.5 has gradually become the primary pollutant, which has attracted widespread social concern [51,52]. The existing studies also show that PM2.5 is an important factor affecting China's population mobility. In China, with the development of society and the improvement of living conditions, people's demands on the living environment are gradually increasing.

Furthermore, interregional migration in China is no longer only determined by the levels of regional economic development and social employment. Having a favorable environment in any given region also significantly influences the location decisions of Chinese migrants, which can provide sustainable human capital for economic development and increase the external benefits of a favorable environment in the region [53]. Therefore, population mobility not only depends on the quality of the

economic conditions but also on the living environment, which has become an increasingly important indicator for people to consider. In particular, air quality is gradually becoming an important indicator for people to judge the quality of a living environment [54].

The PM2.5 concentration can be calculated using satellite remote sensing data, which exhibits higher accuracy than air quality data from other sources. Therefore, this study used the annual average concentration of PM2.5 ($\mu g/m^3$) to measure the air quality in Chinese cities. Due to the inaccessibility of the 2017 PM2.5 dataset of Chinese cities from official channels, this study used the satellite-based grid data on the global PM2.5 concentrations released by the Atmospheric Composition Analysis Group at Dalhousie University and used ArcGIS 10.2 (Esri, Redlands, CA, USA) to calculate the annual data of the average PM2.5 concentrations of Chinese cities in the prefecture-level cities or above in 2017. The results showed that the average annual PM2.5 concentration in 2017 in the sample of Chinese cities was 44.80 $\mu g/m^3$. Among the results, the highest annual average concentration of PM2.5 was 80.66 $\mu g/m^3$ in Hengshui city of Hebei province and the lowest annual average concentration of PM2.5 was 10.02 $\mu g/m^3$ in Hulunbuir city of Inner Mongolia.

The spatial distribution of the PM2.5 concentration in each Chinese city in 2017 in the sample exhibited significant differences. A city's PM2.5 concentration was highly correlated to its economic development level, industrial structure, and natural environment [55]. For example, almost all the cities in the developed provinces of China, including Shandong, Jiangsu, Zhejiang, Shanghai, and Beijing, had higher PM2.5 concentrations. Simultaneously, cities in provinces with higher ratios of secondary industries, including Hebei and Tianjin, also had higher PM2.5 concentrations. However, because of the humid and rainy climate, the PM2.5 concentrations in the cities of southern China were not so high.

2.3. Regression Model

According to the seminal work of Henderson [56] and Roback [57], when a spatial equilibrium is achieved, the levels of residents' utilities in different regions are the same. Since migrants always tend to move to the cities with higher levels of utility, whether the migrants choose to settle down or not depends on the utility levels in cities. In addition to income, which is an important influencing factor on the utility levels of migrants, satisfactory air quality can also improve their subjective wellbeing [58,59]. Therefore, the higher the income and air quality of cities, the higher the levels of utility experienced by the migrants, and hence the higher the probability of settling down in those cities, with everything else being equal [60]. However, in many cases, high income and satisfactory air quality are incompatible. The existence of an environmental Kuznets curve means that the relationship between income and air quality tends to be an inverted U shape [61–63]. Especially in emerging countries, such as China, which is a developing country with relatively low per capita income, areas with a higher income often face more serious air pollution. Therefore, whether migrants choose to settle down in a city or not is a trade-off between higher income and poorer air quality. Although poorer air quality can significantly decrease the settlement intentions of migrants, a higher income will often compensate for the resulting loss of utility of the migrants. In order to test the influences of both air quality and income on the settlement intentions of the migrants, a regression model was built, as follows:

$$SI_{ij} = \beta_0 + \beta_1 PM2.5_{ij} + \beta_3 income_{ij} + \lambda X + \rho Z + \mu_{ij} \quad (1)$$

$$SI_{ij} = \beta_0 + \beta_1 PM2.5_{ij} + \beta_2 PM2.5_{ij} \times income_{ij} + \beta_3 income_{ij} + \lambda X + \rho Z + \mu_{ij} \quad (2)$$

where i represents the individual, and j represents the Chinese city. SI_{ij} stands for settlement intention of the migrant, $PM2.5_{ij}$ represents air quality of the cities, and $income_{ij}$ represents the monthly income of migrant i in city j. Since the explained variable SI of model (1) is a binary dummy variable, this study used a logistic regression model to estimate model (1). Note that when estimating a binary choice model, such as model (1), a logistic regression model and a probit regression model are equivalent [64]. This study also estimated model (1) using a probit regression model in the following robustness test. A logistic regression model is a nonlinear model, where the coefficients of variables in model (1) are

not the marginal effects, as in a linear regression model, but their signs are consistent with the marginal effects [64]. By substituting the estimated coefficients in model (1) into the exponential function with log-base e, the odds ratio was obtained. According to the theoretical analyses above, $\beta_1 < 0$, $\beta_2 > 0$, and $\beta_3 > 0$ was expected and assumed.

Furthermore, X represents a vector that included all the control variables of individual characteristics that affect the settlement intention of the migrant (*nation*, *gender*, *age*, *party*, *edu*, *hukou*, *marriage*, *time*, *distance*^{1}, *distance*^{2}, *distance*^{3}, *reason*). All control variables came from the CMDS 2017. Z represents a vector including other city-level variables that affected the settlement intentions of migrants (*third*, *trade*, *pgdp*, *gdpr*), which all came from the China City Statistical Yearbook 2018. In addition, the provincial fixed effect in model (1) was also controlled, and μ_{ij} represents the residual term. Model (2) added an interaction term *PM2.5* × *income* based on model (1).

The specific definitions and descriptive statistics for all variables are reported in Tables 2 and 3.

Table 2. Definitions of variables.

Variable Name	Variable Definitions
SI	Binary dummy variable, standing for settlement intention of the migrant. If migrant *i* decides to settle down in city *j*, it is 1; otherwise, 0.
PM2.5	Air quality of cities, measured using the annual average PM2.5 concentration (μg/m^3) of the Chinese city where the migrant resides.
income	Monthly personal income in the immigratory city of the migrant (10,000 yuan)
nation	Dummy variable, the national/ethnic group of the migrant: ethnic Han = 1, others = 0.
gender	Dummy variable, gender of the migrant: male = 1, female = 0.
age	Age of the migrant (years).
marriage	Dummy variable, marital status of the migrant: married = 1, unmarried = 0.
party	Dummy variable, political identity of the migrant: China Communist Party (CCP) member or Chinese Communist Youth League (CCYL) member = 1, otherwise = 0.
edu	Level of education, measured in terms of the educated years of the migrant: never gone to school = 0 year, primary school = 6 years, junior high school = 9 years, senior high school = 12 years, junior college = 15 years, undergraduate = 16 years, graduate or above = 19 years.
hukou	Dummy variable, the "hukou" status of the migrant: non-agricultural "hukou" = 1, agricultural "hukou" = 0.
time	Duration of residence in the immigratory city of the migrant (year).
distance ^{1}	Dummy variable, spatial distance of migration for the migrant: migration crossing provincial border = 1, others = 0.
distance ^{2}	Dummy variable, spatial distance of migration for the migrant: migration crossing city border = 1, others = 0.
distance ^{3}	Dummy variable, spatial distance of migration for the migrant: migration crossing county border = 1, others = 0.
reason	Dummy variable, reason for migration for the migrant: economic purpose (work or business) = 1, non-economic purpose (trailing family member, marriage, or other reasons) = 0.
third	The proportion of tertiary industries in the city where the migrant resides in (%), expressed as the ratio between output value of the tertiary industry and the GDP.
trade	Dependence degree on the trade of the city where the migrant resides in (%), expressed as the ratio of the total export and import volumes to the GDP.
pgdp	Per capita GDP of the city where the migrant resides in (10,000 yuan).
gdpr	GDP growth rate of the city where the migrant resides in (10,000 yuan).

Table 3. Descriptive statistics of the variables.

Variable	Observations	Mean	Standard Deviation	Minimum	Maximum
SI	123,338	0.279	0.449	0.000	1.000
PM2.5	123,338	45.802	14.208	10.016	80.657
income	123,338	0.424	0.280	0.020	2.000
nation	123,338	0.928	0.258	0.000	1.000
gender	123,338	0.568	0.495	0.000	1.000
age	123,338	36.801	9.765	16.000	85.000
marriage	123,338	0.804	0.397	0.000	1.000
party	123,338	0.109	0.311	0.000	1.000
edu	123,338	10.385	3.272	0.000	19.000
Hukou	123,338	0.219	0.414	0.000	1.000
time	123,338	7.164	5.895	1.000	58.000
distance [1]	123,338	0.495	0.500	0.000	1.000
distance [2]	123,338	0.330	0.470	0.000	1.000
distance [3]	123,338	0.174	0.380	0.000	1.000
reason	123,338	0.927	0.260	0.000	1.000
third	123,338	52.384	11.507	1.907	80.603
trade	123,338	34.520	37.228	0.055	161.271
pgdp	123,338	6.140	2.716	0.988	13.110
gdpr	123,338	7.476	1.732	−2.800	12.300

3. Results and Discussion

3.1. Basic Results

Table 4 reports the estimated results of model (1) and model (2). Among them, column (1) exhibits the results from model (1), while column (2) represents the results from model (2). Specifically, the coefficient of the variable *PM2.5* in column (1) of Table 4 was significantly negative at the level of 5%, which indicated that with all else being equal, an increase in the PM2.5 concentration could decrease the settlement intentions of Chinese migrants. In other words, when increasing the annual average PM2.5 concentration of Chinese cities by 1 $\mu g/m^3$, the odds ratio of the settlement intentions of Chinese migrants decreased by 0.30% (calculated using $1 - e^{-0.003}$). Simultaneously, the coefficient of the variable *income* was significantly positive at the level of 1%, which showed that the higher the incomes that the migrants earned from the city, the stronger the settlement intentions of the migrants. That is, with all else being equal, the odds ratio of the migrants to settle down in the city increased by 12.76% when the monthly incomes of the migrants increased by 10,000 yuan (calculated using $1 - e^{-0.755}$). Because poorer air quality can decrease the utility levels of the migrants, and higher incomes can increase the utility levels of the migrants, the signs of the coefficients of the above two variables were consistent with the theoretical expectations.

Table 4. Results of baseline regression for factors influencing the settlement intentions of Chinese migrants in cities.

Variables	Model (1)	Model (2)
PM2.5	−0.003 **	−0.005 ***
	(0.001)	(0.001)
PM2.5 × *income*		0.004 **
		(0.002)
income	0.755 ***	0.561 ***
	(0.027)	(0.090)
nation	−0.103 ***	−0.102 ***
	(0.029)	(0.029)
gender	−0.238 ***	−0.238 ***
	(0.015)	(0.015)
age	0.013 **	0.013 **
	(0.006)	(0.006)
age^2	−0.000 **	−0.000 **
	(0.000)	(0.000)
marriage	0.593 ***	0.593 ***
	(0.024)	(0.024)
party	0.120 ***	0.120 ***
	(0.024)	(0.024)
edu	0.139 ***	0.138 ***
	(0.003)	(0.003)
Hukou	0.390 ***	0.390 ***
	(0.018)	(0.018)
time	0.064 ***	0.064 ***
	(0.001)	(0.001)
$distance^2$	0.592 ***	0.591 ***
	(0.019)	(0.019)
$distance^3$	0.873 ***	0.873 ***
	(0.024)	(0.024)
reason	−0.800 ***	−0.799 ***
	(0.026)	(0.026)
third	0.011 ***	0.011 ***
	(0.001)	(0.001)
trade	0.001 ***	0.001 ***
	(0.000)	(0.000)
pgdp	0.003	0.003
	(0.005)	(0.005)
gdpr	0.041 ***	0.041 ***
	(0.008)	(0.008)
Constant	−4.549 ***	−4.477 ***
	(0.158)	(0.161)
Province Fixed Effects	Yes	Yes
Observations	123,338	123,338
Pseudo R^2	0.149	0.149

Note: The robust standard errors are given in parentheses, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively. The abbreviations are defined in Table 2.

After including the interaction term *PM2.5* × *income*, the regression result of column (2) in Table 4 shows that the coefficient of *PM2.5* × *income* was significantly negative, which confirmed the trade-off between a higher income and poorer air quality that was faced by the migrants when deciding whether to settle down in a city. In other words, the influence of air quality on the settlement intentions of Chinese migrants was conditional on their incomes. As income opportunities increased at a migrant's location, the negative influence of poorer air quality on the settlement intention at that location gradually decreased, which indicated that a higher income could make up for the lost utility caused by poorer air quality. Figure 1 further shows the average marginal effect of the variable *PM2.5* on

the settlement intentions of Chinese migrants. As shown in the figure, with the increasing income of the migrants, the average marginal effect of PM2.5 gradually increased from significantly negative to eventually being insignificant. Therefore, the results above indicated that a higher income weakened the negative influence of poor air quality on the settlement intentions of Chinese migrants.

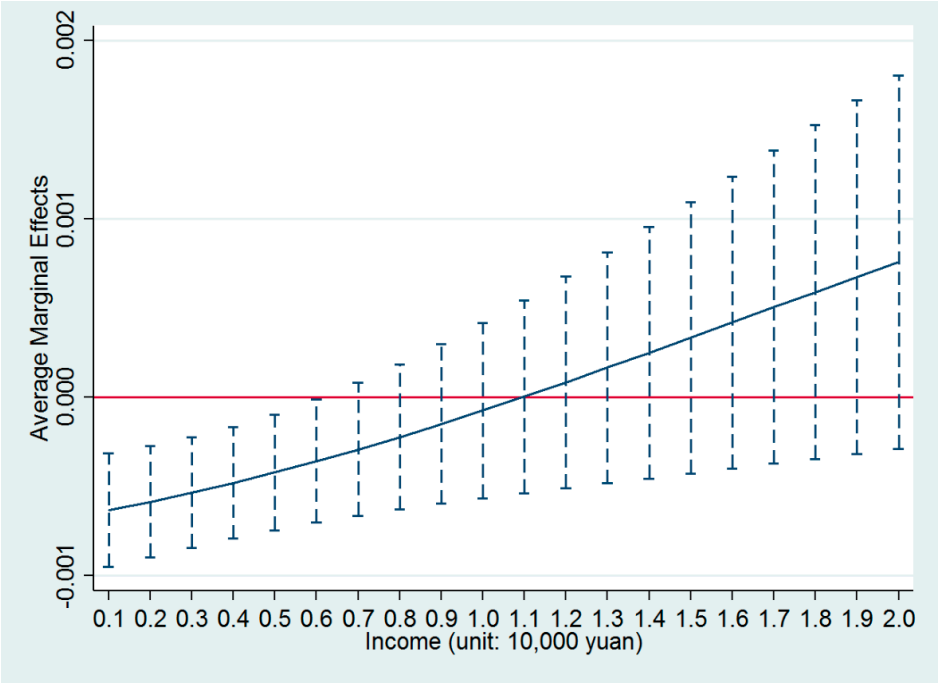

Figure 1. Average marginal effects of PM2.5 with 90% confidence intervals.

According to the results of the coefficients of the individual control variables, migrants with the following properties had stronger settlement intentions: non-Han ethnic group, female, married, CCP member or CCYL member, higher educational level, a non-agricultural "hukou," a longer duration of residence in migratory cities, a shorter migration distance, and a non-economic purpose. With the increase of age, the settlement intentions of Chinese migrants first increased and then decreased, which was basically consistent with the existing studies [65–67].

According to the results of the city-level control variables, Chinese migrants were more willing to settle down in the cities with higher proportions of tertiary industries that accommodate the major part of the employed migrants. In our samples, 59.3% of the migrants were employed in a tertiary industry. Meanwhile, the settlement intentions of the migrants were stronger in the cities with a higher level of openness to international trade, as international trade creates a lot of employment opportunities [68]. In addition, Chinese migrants tended to settle down in the cities with a higher per capita GDP (not significant) and a higher GDP growth rate.

3.2. Heterogeneity Test

The heterogeneity in the influence of both air quality and income on the settlement intentions of Chinese migrants was mainly tested in terms of the following two aspects:

(1) Heterogeneity of the migrants' "hukou." Under the current "hukou" system in China, the "hukou" of the migrants can be divided into two types: non-agricultural "hukou" and agricultural "hukou." The migrants with a non-agricultural "hukou" are mainly city residents, while the migrants with an agricultural "hukou" are mainly rural workers who moved from rural areas to cities.

The preferences of the migrants of these two types in terms of both income and air quality may be significantly different. Based on model (2), the following model could be further estimated:

$$SI_{ij} = \alpha_0 + \alpha_1 PM2.5_{ij} + \sum_{h=0,1} \alpha_h PM2.5_{ij} \times income_{ij} \times hukou_{ij}^h + \lambda X + \rho Z + \mu_{it} \quad (3)$$

where the coefficients α_h (h = 0 or 1) of the interaction term $PM2.5 \times income \times hukou^h$ represents the difference in the preferences of income and air quality in the settlement decisions of Chinese migrants with either an agricultural "hukou" or a non-agricultural "hukou." Column (1) in Table 5 reports the estimated results of the coefficients of the variables in model (3), which showed that the coefficients of the interaction term $PM2.5 \times income \times hukou^h$ were significantly positive. On this basis, Figure 2 reports the average marginal effects of PM2.5 on the settlement intentions of the migrants with different types of "hukou."

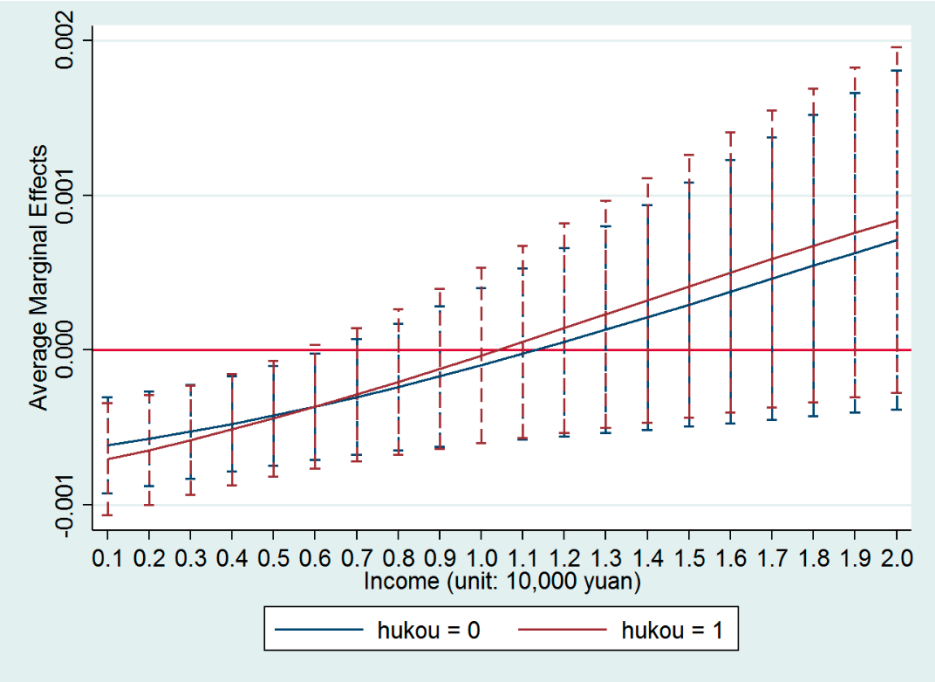

Figure 2. Average marginal effects of PM2.5 with 90% confidence intervals for the migrants of different "hukous."

It was found that the negative influences of PM2.5 on the settlement intentions of Chinese migrants gradually became insignificant with the increase of their incomes, no matter whether they had an agricultural "hukou" or a non-agricultural "hukou," which was consistent with the conclusion drawn from Figure 1. However, with the increasing incomes of Chinese migrants, the negative influence of PM2.5 on the settlement intentions of Chinese migrants with a non-agricultural "hukou" decreased at a faster speed, which indicated that the migrants with a non-agricultural "hukou" paid more attention to the air quality than those with an agricultural "hukou" when deciding whether to settle down at a location in the city. In other words, in order to get higher incomes, Chinese migrants with an agricultural "hukou" were more tolerant of poorer air quality than those with a non-agricultural "hukou." The main reason for this was that rural workers with an agricultural "hukou" tended to have lower environmental awareness [69] and paid more attention to incomes in the settlement decision. Gu and Ma [46] also found that Chinese migrants show an indifferent attitude toward the environmental problems in their immigratory cities in their case study of Shenzhen, which is one of the most developed cities in China.

Table 5. Heterogeneity test for factors influencing the settlement intentions of Chinese migrants in cities with interaction terms included.

Variables	(1)	(2)
PM2.5	−0.004 ***	−0.005 ***
	(0.001)	(0.001)
PM2.5 × *income* × *hukou* ^{0}	0.0040 **	
	(0.002)	
PM2.5 × *income* × *hukou* ^{1}	0.0043 **	
	(0.002)	
PM2.5 × *income* × *distance* $_{1}$		0.003 *
		(0.002)
PM2.5 × *income* × *distance* $_{2}$		0.005 ***
		(0.002)
PM2.5 × *income* × *distance* $_{3}$		0.006 ***
		(0.002)
income	0.563 ***	0.552 ***
	(0.090)	(0.090)
nation	−0.102 ***	−0.104 ***
	(0.029)	(0.029)
gender	−0.238 ***	−0.240 ***
	(0.015)	(0.015)
age	0.013 **	0.013 **
	(0.006)	(0.006)
age ^{2}	−0.000 **	−0.000 **
	(0.000)	(0.000)
marriage	0.593 ***	0.592 ***
	(0.024)	(0.024)
party	0.120 ***	0.120 ***
	(0.024)	(0.024)
edu	0.138 ***	0.139 ***
	(0.003)	(0.003)
hukou	0.383 ***	0.392 ***
	(0.028)	(0.018)
time	0.064 ***	0.064 ***
	(0.001)	(0.001)
distance ^{2}	0.591 ***	0.549 ***
	(0.019)	(0.028)
distance ^{3}	0.873 ***	0.819 ***
	(0.024)	(0.035)
reason	−0.799 ***	−0.799 ***
	(0.026)	(0.026)
third	0.011 ***	0.011 ***
	(0.001)	(0.001)
trade	0.001 ***	0.001 ***
	(0.000)	(0.000)
pgdp	0.003	0.003
	(0.005)	(0.005)
gdpr	0.041 ***	0.041 ***
	(0.008)	(0.008)
Constant	−4.475 ***	−4.420 ***
	(0.161)	(0.163)
Province Fixed Effects	Yes	Yes
Observations	123,338	123,338
Pseudo R^2	0.149	0.149

Note: The robust standard errors are given in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively. The abbreviations are defined in Table 2.

(2) Heterogeneity of the migrants' migration distance. According to the migration distances, the sample was divided into three subsamples of intercounty migration (within the same city), intercity migration (within the same province), and interprovince migration. In order to test the heterogeneous

effects of both income and air quality on the settlement intentions of the migrants with different migration distances, the following model based on model (2) was estimated:

$$SI_{ij} = \gamma_0 + \gamma_1 PM2.5_{ij} + \sum_{d=1}^{3} \gamma_d PM2.5_{ij} \times income_{ij} \times distance_{ij}^{d} + \lambda X + \rho Z + \mu_{it} \quad (4)$$

where the coefficient γ_d (d = 1, 2, 3) of the interaction term $PM2.5 \times income \times distance^d$ represents the preferences for income and air quality in the settlement decision of migrants with different migration distances. Column (2) in Table 5 reports the estimated results of model (4), which shows that the coefficient of the interaction term $PM2.5 \times income \times distance^d$ was significantly positive. The average marginal effects of PM2.5 for migrants with different types of migration distances are shown in Figure 3.

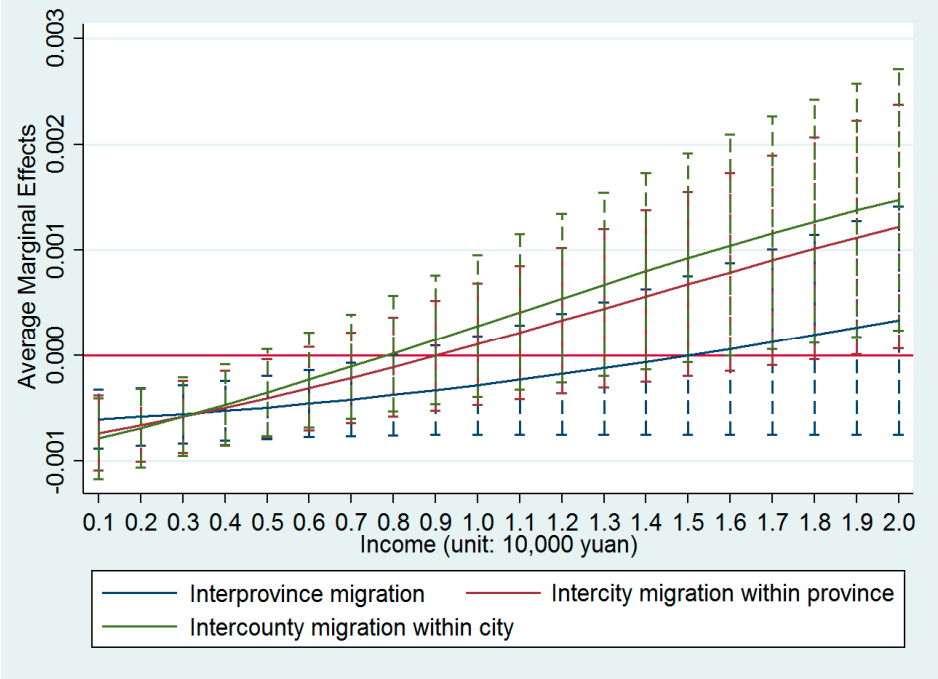

Figure 3. Average marginal effects of PM2.5 with 90% confidence intervals for migrants migrating over different migration distances.

According to Figure 3, with the increase of income, the negative influence of PM2.5 on the migrants' settlement intentions decreased the fastest in the intercounty (within the same city) samples, followed by the intercity (within the same province) samples, and finally the interprovince samples. That is to say, migrants with a longer migration distance preferred income and were less likely to substitute income for air quality in their settlement decisions. The main reason for this was that 92.73% of Chinese migrants in the sample made their migration decisions for economic reasons, such as working or doing business, to improve their incomes. For all migrants with economic reasons for migrating, the migrants that undertook interprovince migration, intercity migration, and intercounty migration accounted for 50.14%, 32.83%, and 17.03%, respectively. Hence, migrants with a longer migration distance paid more attention to income than air quality.

3.3. Robustness Test

This study used different estimation methods. In particular, the logistic regression model was used to estimate model (2), the results of which are reported in the previous tables. Next, this study further used the probit regression model to re-estimate the model. Column (1) in Table 6 reports the estimated results. It was found that the coefficient of the variable *PM2.5* was significantly negative

at the level of 1%, the coefficient of the variable *income* was significantly positive at the level of 1%, and the coefficient of the interaction term *PM2.5* × *income* was significantly positive at the level of 1%. As for the average marginal effect of the variable *PM2.5*, it is clearly shown in Figure 4 that the negative influences of PM2.5 on the settlement intentions of the migrants gradually became insignificant with the increase of income, which was consistent with the results presented in Table 4.

Table 6. Robustness test for the factors influencing the settlement intentions of Chinese migrants in cities using a probit regression model and the instrumental variables.

Variables	(1)	(2)
PM2.5	−0.002 ***	−0.005 ***
	(0.001)	(0.001)
PM2.5 × *income*	0.003 ***	0.002 **
	(0.001)	(0.001)
income	0.320 ***	0.357 ***
	(0.053)	(0.054)
nation	−0.058 ***	−0.061 ***
	(0.017)	(0.017)
gender	−0.140 ***	−0.141 ***
	(0.009)	(0.009)
age	0.008 **	0.008 **
	(0.003)	(0.003)
age ^{2}	−0.000 **	−0.000 **
	(0.000)	(0.000)
marriage	0.331 ***	0.336 ***
	(0.014)	(0.014)
party	0.074 ***	0.076 ***
	(0.014)	(0.014)
edu	0.080 ***	0.080 ***
	(0.002)	(0.002)
hukou	0.238 ***	0.230 ***
	(0.011)	(0.011)
time	0.037 ***	0.037 ***
	(0.001)	(0.001)
distance ^{2}	0.343 ***	0.339 ***
	(0.011)	(0.011)
distance ^{3}	0.510 ***	0.502 ***
	(0.014)	(0.014)
reason	−0.478 ***	−0.477 ***
	(0.016)	(0.016)
third	0.006 ***	0.006 ***
	(0.001)	(0.001)
trade	0.001 ***	0.001 ***
	(0.000)	(0.000)
pgdp	0.002	0.002
	(0.003)	(0.003)
gdpr	0.023 ***	0.026 ***
	(0.005)	(0.005)
Constant	−2.600 ***	−2.487 ***
	(0.093)	(0.094)
Province Fixed Effects	Yes	Yes
Observations	123,338	123,338
Pseudo R^2	0.149	0.148

Note: The robust standard errors are given in parentheses. **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively. The abbreviations are defined in Table 2.

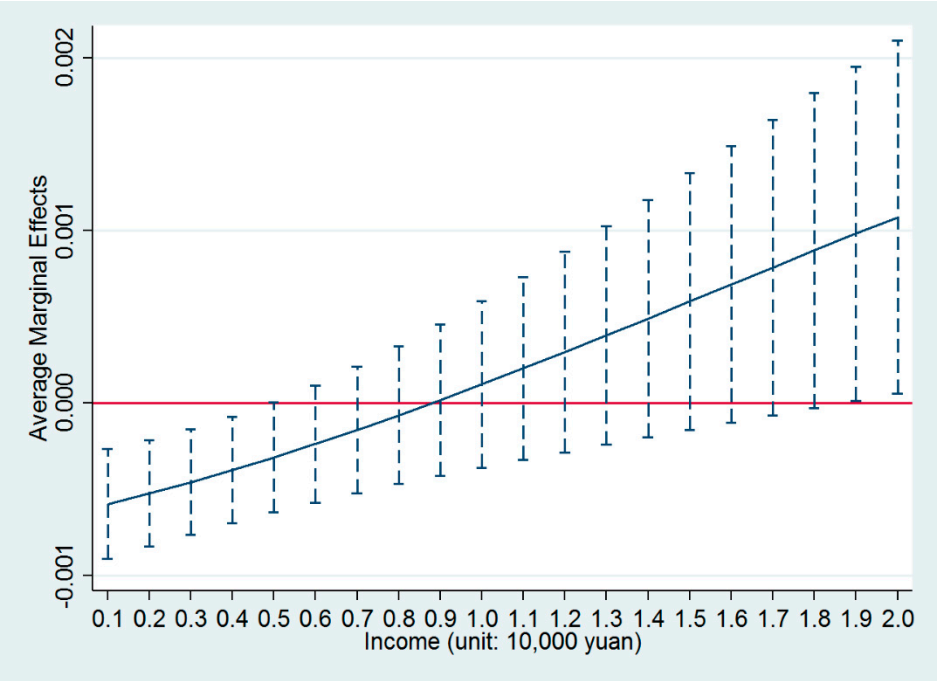

Figure 4. Average marginal effects of PM2.5 with 90% confidence intervals using the probit regression model.

Next, this study controlled for the endogeneity in the variable *PM2.5*. The baseline regression used in this study was the microlevel cross-sectional data model. However, the variable *PM2.5* was a variable at the city level. The PM2.5 concentration of a city may be correlated with other unobservable factors affecting migrants' settlement intentions in the residuals μ_{ij}, thus causing potential endogeneity problems. In order to control for this potential endogeneity, instrumental variables were used to re-estimate the probit regression model. In terms of the selection of the instrumental variables, this study calculated the average PM2.5 concentrations $\overline{PM2.5}$ of each city during 2015–2016 as the instrumental variable of *PM2.5*, and used $\overline{PM2.5} \times income$ as the instrumental variable of $PM2.5 \times income$ accordingly. The PM2.5 concentration of a city tends to be relatively stable in the short term, where the correlation coefficient of *PM2.5* and $\overline{PM2.5}$ in the sample was 0.96, and thus the instrumental variables were highly correlated with the endogenous variables. Furthermore, since $\overline{PM2.5}$ was a lagging variable, the correlation of $\overline{PM2.5}$ and the city level unobservable factors in the residual term μ_{ij} could be theoretically excluded; therefore, $\overline{PM2.5}$ satisfied the condition for an instrumental variable. The column (2) in Table 6 shows the estimation results using the instrumental variables, where it was found that the results were basically consistent with the results of column (1) in Table 6. Therefore, the robustness of the relationship between the influences of air quality and income on migrants' settlement intentions was confirmed.

3.4. Discussion

With the gradual progress of the Chinese urbanization process, it is crucial to advance the smooth integration of the migrants into cities to further achieve sustainable development in terms of both modernization and urbanization. For emerging countries with a relatively low urbanization ratio, improving the living environment and income level of the migrants can increase their settlement intentions and integration into city lives. The empirical research based on the Chinese dataset used in this study indicated that the migrants often faced a trade-off between income and air quality in their settlement intentions. In varying degrees, the migrants tended to tolerate poorer air quality to obtain higher incomes. In order to break through this dilemma, it is necessary to find a way out of

the traditional development pattern indicated by the left side of the environmental Kuznets curve, in which economic growth tends to aggravate environmental pollution.

On the one hand, green and environmentally friendly industries should be encouraged in the cities of emerging industrializing countries. The coordinated development model of both economic growth and environmental protection needs to be further explored. At the same time, the government should strengthen environmental regulations, reinforce the prevention and control of environmental pollution, and keep engaging in the continuous improvement of the environment during economic development. Furthermore, it is of great importance to take environmental governance as one of the most important goals of urban development to further improve the livability of cities for both local residents and migrants.

On the other hand, regional coordinated development models should be established to reduce the gaps in both income inequality and environmental awareness between Chinese cities. At present, there exist significant differences in economic development and the level of the livability of cities in China. Therefore, migrants tend to settle down in the cities with lower air quality but higher incomes. Therefore, it is necessary to further promote coordinated economic development between cities, innovate the existing household registration system, and use the development of urban agglomerations or city clusters to drive economic development and employment in the small- and medium-sized cities surrounding metropolitans. Furthermore, the economic development and awareness of environmental health in less developed regions of emerging countries, such as China, should be promoted and encouraged. It is critical to promote the optimization of the regional industrial layout and spatial agglomeration and nurture the environmental awareness of residents to achieve an optimized balance between economic development and environmental health in emerging countries.

4. Conclusions

Using a microlevel sample from the China Migrants Dynamic Survey data from 2017 and the annual average concentration of PM2.5 to measure city air quality, this study investigated the influences of both air quality and income on the settlement intentions of Chinese migrants. The results of this study showed that when making a settlement decision, Chinese migrants were faced with a trade-off between poorer air quality and higher income. Poorer air quality could significantly decrease the settlement intentions of the migrants, while a higher income could significantly increase the settlement intentions. However, the negative influences of poorer air quality on the settlement intentions of the migrants gradually decreased with the increasing income opportunities of the migrants at that location. This seems to be a bit of an unreasonable choice that was made by the migrants, as generally, people tend to live in an environmentally safer place with the rise of income. The findings implied that the Chinese rural migrants moving into cities were still financially weak and sacrificed their wellbeing for higher income opportunities. They had not yet crossed the income threshold from where they would prioritize settling down in an environmentally safer place over a location with a higher income opportunity but was environmentally less safe.

Furthermore, there existed an apparent heterogeneity in the influences of both air quality and income on the settlement intentions of the migrants with different "hukous" and migration distances. Specifically, when deciding whether to settle down in a city, Chinese migrants with a non-agricultural "hukou" paid more attention to air quality than the migrants with an agricultural "hukou," while the migrants with an agricultural "hukou" were more tolerant of poorer air quality than migrants with a non-agricultural "hukou." Furthermore, the longer the migration distance of the Chinese migrants, the more emphasis that was put on the income when making settlement decisions. In addition, this study also used different estimation methods in the robustness test and controlled for potential endogeneity using instrumental variables. The robustness of the relationship between air quality and income regarding their influences on the settlement intentions of the migrants was confirmed.

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Review

Superdiversity and Disability: Social Changes for the Cohesion of Migrations in Europe

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Abstract: In recent years, international migration has changed considerably, improving our understanding of the diversity of migrants, something that until recently was viewed as a fixed pattern associated with the ethnic group in question. At the same time, in the international context, the importance and the need to recognize the rights of people with disabilities has grown. Therefore, the purpose of this paper is to provide a more detailed analysis of this phenomenon in Europe, from the perspective of superdiversity, which covers the different variables that come into play, as well as the responses to the diverse needs that are provided through the action protocols in host countries. To address the objective of this research, we present a critical review of the migration policies undertaken at the European level, methodologically approached using the causal inference model. Our findings show a lack of structure of social and professional intervention policies, at the international level, towards refugees with disabilities. We conclude by presenting a series of political guidelines that rely on scientific evidence to improve the lives of migrants with disabilities.

Keywords: migrations; disability; superdiversity; social changes; social work

1. Introduction

Millions of people are continually forced to leave their home countries for various reasons. According to data from the UN Refugee Agency, UNHCR [1], in 2017, 68.5 million people were forced to flee their countries: of these, 4.4 million people emigrated to one of the EU-28 Member States [2]. It is estimated that a considerable number of them are people with disabilities, although very little information is available about them [3].

There are many reasons why people move to another country, sometimes voluntarily for professional or academic reasons, but there are many others who do so forced by a conflictive situation or catastrophe in their country of origin [4]. Similarly, there are many complexities involved in the phenomenon of migration, giving rise to what Vertovec defines as "superdiversity", understood as "a dynamic interplay of variables among an increased number of new, small and scattered, multiple-origin, transnationally connected, socio-economically differentiated and legally stratified immigrants" [5]. In other words, the term superdiversity indicates that not only are there differences between the people of the host country and citizens of other nationalities, but that there are also differences between all immigrants in terms of their multiple origins, their socioeconomic differences, and different languages, etc. Put another way, Vertovec points out that we are talking about a diversification of diversity.

The growing notoriety of these social issues in the international arena leads to questions about the interrelations that occur between migration and disability. In keeping with Crenshaw's [6] intersectionality theory, according to which each individual suffers oppression or holds privilege

based on their membership in multiple social categories, if the population with disabilities and the migrant population are separately subject to political action because of the vulnerability of their situation, then being a migrant while having a disability must be approached through the interaction of the inequalities faced by the collective. Hence the need to study the characteristics of the migrant population with disabilities and the obstacles that must be overcome in different contexts so as to allow for the design of adequate planning to develop effective policies that address their needs [7].

It should be noted, as McAuliffe and Ruhs point out [8], that the International Organization for Migration recognizes disability as an element of vulnerability:

Vulnerable migrants are those who, even without meeting the requirements to receive protection under refugee frameworks, face a variety of situations in their home countries that endanger their lives or are subject to discrimination based on any reason (p. 159 [8]).

A politically effective response to the current migration crisis in Europe requires a greater understanding of the causes of migration. Inconsistencies in European statistics on irregular migration make this difficult. However, there are two key drivers for this phenomenon to occur. The first involves the combination of conflicts and political instability, and the second stems from the economic insecurity in the countries of origin, which seems to be the engine of migration [9].

Moreover, people seeking refuge in a foreign country often experience trauma and distress due to their uncertain residential and legal status. Previous research has identified how the relevant services and the creation of policies continue to be precarious in responding to their needs [10].

Under the generic paradigm of disability and immigration, it is necessary to understand common situations in which both realities are combined with everyday activities. Previous research has pointed out clarifying examples, such as the educational reality of migrant children with disabilities [11] or the employment situation [12]. All of them are necessary for a greater understanding of the phenomenon of migration and for improving the living conditions of migrants with disabilities.

The general objective of this study is to analyze the phenomenon of migration in Europe from the perspective of superdiversity, as well as the social responses that are currently offered through the action protocols in different host countries. In addition to this general objective, the following research questions are presented to provide a guide for the synthesis of information from the scientific literature:

Research question 1: Why is it necessary to speak of superdiversity in migratory movements today?
Research question 2: What are the implications of dual vulnerability when the condition of being a migrant and having a disability intersect in an individual?
Research question 3: What action protocols are being carried out to improve the coexistence of migrants with functional diversity in host countries?

To respond to the proposed general objective and the different research questions, we provide a critical review and analysis of legal, political and human rights documents, methodologically approached using the causal inference model.

2. Methodology

A review of the literature was conducted in the Web of Science, Scopus, PsycINFO ProQuest and PubMed databases, in the Google Scholar academic search engine, international web pages related to the field of research, and Legislation and Jurisprudence Databases.

The methodology applied for the development of this legal and human rights policy document is based on the Frankfort–Nachmias and Nachmias model of causal inferences [13].

Among the main components of the inference model, it is necessary to point out the strength of the causal approaches, since in them lies the identification of the social mechanisms that will explain the relationship between a cause and its corresponding effect. Being able to discover what the mechanism is through research also facilitates an articulated reconstruction of events. All this leads to an explanatory–causal model. Consequently, different theoretical perspectives are selected,

considering the following operational path in the research design (data → information → evidence), collecting and assembling the evidence with data and information.

The ultimate goal is to create a structure capable of providing a comprehensive political analysis of migration and disability in Europe that is able to assemble significant evidence and thus provide the opportunity to propose solutions or mitigate the negative consequences of this phenomenon.

3. Migration and Disability: A Challenge with No Answer

Migrations are among the main factors that contribute to growing diversity, a diversity that cannot be understood solely as the presence of multiple cultures in a society. Therefore, if disability and ethnicity are linked and we are able to talk about "superdiversity plus", how does the world act in the face of superdiversity plus? The answer must be based on conviviality, understood as processes of cohabitation and interaction that turn multiculture into a common feature of social life. This is because conviviality [11] and superdiversity [5] are concepts that, when applied to certain realities, are intended to guide the daily management of said differences.

It is essential to link citizenship and human rights in contemporary societies in the context of migration and disability, but the issue becomes complicated in contexts of crisis and austerity, and as a result, the reduction of available services solidifies the idea of whether the person who is receiving said services "is one of us". For all these reasons, we must rethink diversity by placing governance at the center of any progress, in a place closely linked to hyperdiversity and social cohesion [14].

Between 2015 and 2016, there was a massive influx of applicants for international protection in the European Union. That period was a turning point that triggered a change in European strategy that would create the necessary network to define new social policies and provide a solution to a huge list of unanswered needs.

In 2014, the number of first-time applicants for refugee status was 562,675 (women: 164,155). In 2015, this figure increased considerably to 1,257,035 (women: 344,390). In 2016, it fell slightly to 1,206,115 (women: 389,165) [15], falling further in 2017 to a figure similar to that of 2014 at 619,685 (women: 204,355), likely as a result of the agreed containment policies. Refugees, asylum seekers and other migrants with disabilities are not properly identified. This invisibility makes it difficult to plan the necessary support measures so that they can have equal access to services in reception centers [7]. In this era of "superdiversity" [4,5], the rights of individuals are a key concern.

In this sense, there is a set of regulatory, legal and human rights frameworks that support immigrants, both with and without disabilities. Migration and displacement are important issues for both policy-makers and human rights and development professionals [16]. In 2014, the United Nations presented the document "The economic, social and cultural rights of migrants in an irregular situation" [17,18], which lists fundamental rights, such as the right to health, the right to an adequate standard of living, including housing, water and sanitation, and food, the right to education, the right to social security, the right to work and the right to just and favorable working conditions.

More specifically, for people with disabilities, the Common European Asylum System (CEAS) defines the set of regulations at the European Union level that, since 2003, has addressed the issue of refugees with disabilities, including the following:

- Council Directive 2003/9/EC of 27 January 2003, laying down minimum standards for the reception of asylum seekers in the Member States, Article 17 of which specifies that "Member States shall take into account the specific situation of vulnerable persons such as minors, unaccompanied minors, disabled people, elderly people, pregnant women, single parents with minor children and persons who have been subjected to torture, rape or other serious forms of psychological, physical or sexual violence, in the national legislation implementing the provisions of Chapter II relating to material reception conditions and health care".
- Council Directive 2005/85/EC of 1 December 2005 on minimum standards on procedures in Member States for granting or withdrawing refugee status, which guarantees access to fair and effective asylum procedures [19].

- Directive 2011/95/EU of the European Parliament and of the Council of 13 December 2011 on standards for the qualification of third-country nationals or stateless persons as beneficiaries of international protection, for a uniform status for refugees or for persons eligible for subsidiary protection, and for the content of the protection granted. This Directive states that it is appropriate to guarantee access to health care, both physical and mental health care, to beneficiaries of international protection [20] and clarifies in Article 30.2 that Member States shall provide adequate health care including, if necessary, the treatment of mental disorders, to beneficiaries of international protection who have special needs, such as pregnant women, disabled people, persons who have undergone torture, rape or other serious forms of psychological, physical or sexual violence or minors who have been victims of any form of abuse, neglect, exploitation, torture, cruel, inhuman or degrading treatment or who have suffered from armed conflict, under the same eligibility conditions as nationals of the Member State that granted them protection [21].
- Directive 2013/33/EU of the European Parliament and of the Council of 26 June 2013 laying down standards for the reception of applicants for international protection, Article 21 of which classifies refugees with a disability in the group of especially vulnerable people.

In the national law implementing this directive, Member States shall take into account the specific situation of vulnerable persons such as minors, unaccompanied minors, disabled people, elderly people, pregnant women, single parents with underage children, victims of human trafficking, persons with serious illnesses, persons with mental disorders and persons who have been subjected to torture, rape or other serious forms of psychological, physical or sexual violence, such as victims of female genital mutilation [22,23].

There are also international standards that specifically protect disabled refugees: for example, Article 11 of the Convention on the Rights of Persons with Disabilities of the United Nations states that parties shall take, in accordance with their obligations under international law (including international humanitarian law and international human rights law), all necessary measures to ensure the protection and safety of persons with disabilities in situations of risk, including situations of armed conflict, humanitarian emergencies and the occurrence of natural disasters.

On 19 September 2016, the General Assembly of the United Nations approved the New York Declaration for Refugees and Migrants [24], which established that the States will address:

In accordance with our obligations under international law, the special needs of all people in vulnerable situations who are travelling within large movements of refugees and migrants, including women at risk, children (especially those who are unaccompanied or separated from their families), members of ethnic and religious minorities, victims of violence, older persons, persons with disabilities, persons who are discriminated against on any basis, indigenous peoples, victims of human trafficking, and victims of exploitation and abuse in the context of the smuggling of migrants.

Specifically, they commit to using the registration process to identify specific assistance needs and protection arrangements, where possible, including but not exclusively for refugees with special protection concerns, such as women at risk, children, especially unaccompanied children and children separated from their families, child-headed and single-parent households, victims of trafficking, victims of trauma and survivors of sexual violence, as well as refugees with disabilities and older persons.

In response to the Committee's recommendations, the European Parliament adopted the European Parliament Resolution of 7 July 2016 on the implementation of the United Nations Convention on the Rights of Persons with Disabilities, with special regard to the Concluding Observations of the United Nations Committee on the Rights of Persons with Disabilities (2015/2258 (INI)). The European Parliament [25]:

58. Recognizes that vulnerable members of society are further marginalized if they have a disability, and stresses that the EU institutions and the Member States should redouble their efforts to fully accommodate the provision of rights and services for all persons with disabilities, including stateless people, homeless people, refugees and asylum seekers and people belonging to minorities; underlines the need to mainstream disability in the EU's migration and refugee policies;

59. Asks the Commission and the Council, in accordance with Article 11 of the Convention on the Rights of Persons with Disabilities (CRPD), when making proposals for resolving the refugee issue, for funding or for other support measures, to provide for special care for persons with disabilities.

Additionally, the diversity between the different Member States is not only considerable in terms of the number of applications submitted, but also in terms of public policies, the policies of the respective governments and the response of societies. However, the common denominator in every country is the deficiencies in the reception systems for this group, which pose a serious risk of vulnerability and exclusion. Care systems for international protection applicants and disabled and/or dependent refugees are often insufficient, and frequently caused by traumatic situations suffered in countries of origin or during their escape.

4. Non-Homogeneous Responses to Diverse Needs in Superdiversity

The notion of superdiversity encompasses changes in the multiple dimensions presented by migration standards. As Wessendorf [26] points out, it is configured as the prism through which to describe "an exceptional demographic situation characterized by the multiplication of social categories within specific localities" (p. 1287 [26]).

This term was first used by Vertovec [5] to describe the changing patterns observed in migration data in the United Kingdom, where not only had the number of people from different countries increased, so had their ethnicities, languages and religions.

It was observed that ethnic diversity alone is not enough by itself to describe the phenomenon of migration; rather, it is characterized by being a dynamic interaction between the different combinations of variables that come into play such as gender, age, generation, legal status, education, and others.

However, "many of those who use the term have referred only to more ethnicities rather than to the more complete original intention of the term to recognize multidimensional changes in migration patterns. This implies a worldwide diversification of migration channels, differentiation of legal states, divergent patterns of gender and age, and a variation in the human capital of migrants" [27].

In this sense, in a context where international migration has changed considerably, the idea of unique forms of diversity centered around a fixed pattern determined by the ethnicity of the migrants in question is now outdated. This phenomenon must be analyzed from the perspective of a multidimensional prism that spans the different variables that come into play. Obviously, between the different groups of emigrants and within each one of them, regardless of their origin, there are significant differences between generations, between women and men, as well as between people with different educational levels. Therefore, a change is needed in the analysis used, one that goes beyond the membership group to encompass the dynamic interaction between the different individual characteristics of each of its members, from a multidimensional prism [28] that goes beyond the limits of the group to consider variables that, until now, were ignored, such as functional diversity.

In order to consider the vulnerability of a migrant, their situation and individual needs must be thoroughly evaluated regardless of their predefined category, since what defines their potential vulnerability is the combination of both intrinsic and extrinsic characteristics and circumstances at a given time.

In Europe, community policies on migration have been posed within the framework of freedom, security and justice considerations, rather than that of the free movement of people, and have focused on limiting entry into community territory of citizens from third countries for professional purposes and on establishing effective borders against irregular immigration. Each Member State has imposed the function of safeguarding the borders of the European Union against uncontrolled migratory flows and ensuring the protection of all the territories of the States against illegal immigration.

The EU's treatment of immigration has a dual role: to ensure the legal integration of the immigrant, placing the individual and their rights (especially minors and women) at the center; and to treat irregular immigration from the perspective of controlling migratory flows, protecting the internal labor market and assuring the gradual integration of immigrants into indigenous society. From this dual

perspective, an attempt is made to design a coherent and integrated framework between national and European policies.

Among all immigrant groups, asylum seekers, refugees and other migrants with disabilities are not properly identified and do not have equal access to services in reception centers, and that is precisely where the problem begins. Additionally, the diversity between the different Member States is not only considerable in terms of the number of applications submitted, but also in terms of public policies, the policies of the respective governments and the response of societies. However, the common denominator in every country is deficiencies in reception systems that pose a serious risk of vulnerability and exclusion. Care systems for international protection applicants and refugees who are disabled and/or dependent are often insufficient, and frequently result from traumatic situations suffered in their countries of origin or during their escape.

Among the deficits identified are the problems in diagnosing the specific needs of people who are disabled and/or dependent, legal restrictions that prevent them from accessing regular care services, lack of accessibility in reception facilities, lack of employment offers, and insufficient cooperation between the systems responsible for receiving refugees and those that are tasked with caring for persons with disabilities.

The International Federation of Red Cross and Red Crescent Societies [29] believes that the best way to support migrants is by helping them be resilient throughout their journey. If they have that capacity, they can better address the risks and overcome the external crises associated with migration. While every aspect of resilience and recovery is important, at certain times of the journey, some aspects are more prominent than others.

5. Building True Citizenship: Global Solutions to the Needs of People with Disabilities

According to Human Rights Watch research [30], among the deficits identified are the problems with diagnosing the specific needs of people who are disabled and/or dependent, legal restrictions that prevent them from accessing regular care services, lack of accessibility in reception facilities, lack of employment offers, and insufficient cooperation between the systems responsible for receiving refugees and those that are tasked with caring for persons with disabilities.

The UN refugee agency (UNHCR) and international and local relief organizations working with refugee centers in Greece informed Human Rights Watch [30] that they have very few or no programs specifically designed to address the rights and needs of asylum seekers, refugees and other migrants with disabilities. Both asylum seekers and other migrants with disabilities face enormous difficulties obtaining basic services such as shelter, sanitation and medical care, and like other vulnerable migrants, they have limited access to mental health care. Based on research carried out in Greece between 2016 and 2017, Human Rights Watch concluded that in Greece, asylum seekers and refugees with disabilities are not properly identified, partly because the registration process is rushed and the staff lack proper training. Without an adequate understanding of the magnitude and needs, assistance agencies cannot respond effectively.

To end this dual discrimination, the EU should request information from its Member States on the execution of its programs to ensure that the projects they finance benefit people with disabilities and other groups at risk.

All this happens despite the fact that the various European Directives and international standards are unquestionable, urging Member States to take into account these and other especially vulnerable groups; and yet, compliance with them is usually the exception [31–34].

To lay the foundations for a new way forward to correct all these imbalances in the procedure, a hearing on "The situation of refugees and migrants with disabilities" was held in Brussels (2017). The objective of this hearing was to draw attention to this particularly vulnerable group of refugees and immigrants, trying to raise awareness of the rights and needs of people with disabilities through the international organizations that work with them. Most significantly, it was noted that European regulation (Directive 2003/9 of 27 January 2003, laying down minimum standards for the reception of

asylum seekers in Member States) requires Member States to take into account the specific situation of vulnerable persons, especially in relation to reception conditions, individually assessing their particular needs, specifically those related to a disability. One of the problems highlighted is the lack of a homogeneous response by the Member States when it comes to offering protection to vulnerable people who come to Europe in search of asylum, so in many cases, the integration of migrants with disabilities, as well as their access to social rights, is still precarious.

Among the main conclusions of the meeting, we note the following [35]:

1. Article 11 of the Convention on the Rights of Persons with Disabilities, which requires participating States to take all necessary measures to ensure the protection and safety of persons with disabilities at risk, must be fully implemented.
2. It is necessary to have accurate data on the number of people with disabilities among refugees and migrants. To date, the records are either unavailable or unreliable.
3. Access to asylum applications must be guaranteed by adapting to people with disabilities.
4. A comprehensive approach to all basic rights (medical care, housing, education, etc.) needs to be taken, taking into account functional diversity.
5. Cooperation between the different organizations and institutions that work with refugees and people with disabilities.
6. We must advance the resettlement system and shorten the deadlines for family reunification in cases of vulnerability.
7. The capacities of local authorities need to be strengthened (pp. 67–68 [35]).

The Global Pact on Safe, Orderly and Regular Migration of 2018 [36], together with the International Convention on the Rights of Persons with Disabilities in 2006, both of the United Nations [37], are the main bases that establish the reality of migration and disability in Europe, adherence to which would imply undertaking actions aimed at protecting migrants with disabilities within a paradigm of superdiversity. However, since they are not binding regulations, States find shortcuts with which to manage both realities based on their own economic and intervention paradigm.

Although public actors play an important role both in making visible and in ensuring the protection of vulnerable groups, it is the different levels of intervention by the States that are unbalanced in terms of government actions. A lack of coordination in the creation and application of legislation is one of the reasons why migrants with disabilities are currently in a situation of potentially understandable extrinsic vulnerability [38].

6. Creation of New Protocols as a Tool for Coexistence

For decades, international migration has been one of the factors that has contributed the most to cultural diversity. However, when migratory studies focus on integration, their analysis of intercultural diversity is limited. That is why new paradigms have emerged—although still poorly implemented—with a more holistic vision, which include patterns of relationships, interactions and types of influences between immigrant and native residents. However, much remains to be done before the need for coexistence in global cities is fully conceived [39].

As Berisso and Giuliano [40] point out, the relationship between liberation and interculturality requires coexistence to prevail over competitiveness. This necessitates an educational process that promotes the eradication of the factors that exalt a dominant Western epistemology of humanity's knowledge over that of other cultures.

Observing diversity from a sociological perspective makes it possible to accentuate the painful historical evidence that there is no diversity without power and asymmetry, but at the same time we must not lose sight of the fact that there is a daily component of the difference that passes through the subjective dynamics used in intercultural relationships [41].

In this regard, Amín [42] points out the weight that daily life holds in neighborhoods, workplaces, and public spaces, where historical, global and local processes intersect to make sense of living with diversity.

Given the bi-directionality that integration entails, the structural guidelines of the host society are essential to determine the possibilities of integrating immigrant groups. The characteristics of the labor market and the welfare model are therefore configured as determining elements, but the economic and demographic structure of each region must also be taken into account, as well as the institutional capacity to ensure adequate reception for those arriving from another territory [43].

In the comparative study that Crul [28] performed on diversity and assimilation in the European cities of Amsterdam, Stockholm and Berlin, he points out that "the theory of segmented assimilation maintains that some ethnic groups find themselves more frequently on a descending path, while others find themselves more frequently on an ascending path". This issue is largely explained by the different forms of reception, as well as by the ethnicity and socio-economic peculiarities of the first generation (p. 63 [28]).

However, according to the author, in addition to the ethnic factor, in the case of Amsterdam, background and contextual factors also play a very important role. Regarding social mobility, the results of the study reflect a dual reality; on one hand, it presents an upward social mobility, in contrast to Berlin, where stagnant or downward mobility prevails. The theory of diversity as reformulated in the aforementioned study weighs the need to observe the discrepancies within groups related to differences in local and national contexts.

Therefore, it is unavoidable to design an action protocol from the praxis of social work for coexistence, governed by three fundamental principles—universality, active integration and intercultural coexistence—in order to offer a global response to the different problems of migrants. This will allow this heterogeneous collective to be freely and fully incorporated and to experience equal rights, duties, and opportunities, just like the rest of the host population.

7. From Observation to Intervention

As a consequence of the aforementioned facts, our knowledge of the incidence and specific cases involving disability in the group of applicants for international protection is quite poor. Most studies cover different forms of vulnerability and analyze the situation of refugee camps in neighboring countries, comparing them to those of the originating country [44].

An example of this are the reports of the Women's Commission for Refugee Women [45], which describe the situation of refugees in camps located in urban areas in five developing countries and Syrian refugees in Lebanon. The reports analyze the lack of intervention protocols for the population of refugees with disabilities and the need for inventiveness in the face of the various situations they had to endure every day to respond to the situation [46]. Other examples are the studies of Roberts and Harris [47] and Ward, Amas and Lagnado [48], where they analyze the care given to refugees with a disability in the United Kingdom, re-highlighting the need for intervention design; similarly, Mirza and Heinemann [49] detail the situation in the U.S., in which they examine the suitability of existing services in the system to address the different needs of refugees with disabilities. They conclude that these refugees have limited access to resettlement resources due to their doubly vulnerable situation resulting from their status as both migrants and people with disabilities. In addition to concluding that, the main impediment to addressing the reality of refugees with disabilities is the lack of coordination between refugee systems and people with disabilities.

Several studies [50–53] conducted by Handicap International and other institutions detail the challenges facing refugee care, a situation that can be extrapolated to the different EU countries:

1. Deficit in diagnosing and identifying the care needs of refugees with a disability, which leads to a considerable waste of time and the transfer of these refugees to reception centers that do not have the resources to guarantee adequate treatment.
2. Legal restrictions that prevent refugees with a disability from accessing regular care services.

3. Lack of accessibility in the facilities (reception centers, language academies, institutions, etc.).
4. Lack of resources for language learning appropriate to the needs of people with a disability.
5. Lack of specific offers to promote the employability of refugees with a disability.
6. Ignorance of support structures for people with a disability by the refugees themselves.
7. Insufficient cooperation between the systems responsible for receiving refugees and caring for people with disabilities.
8. Excessive complexity and bureaucratization of the care systems for people with a disability.
9. Civil society initiatives for refugee support cannot handle the complexity of supporting refugees with a disability.
10. Lack of adapted surfaces and spaces that allow for the integration of refugees with a disability.

The European Commission has identified twelve main challenges, including immigration, as a reality that virtually all European societies have to face [54,55].

In the area of immigration policies, although they have often been framed in the context of national integration models, at present, human mobility is placing immigration at the center of local political agendas. Recent studies [56–61] focus attention at the local level, mainly the city. Cities are becoming increasingly active agents, drawing up their own agendas and developing specifically local political strategies to address the integration challenges of immigrants.

Thus, for example, policies for integrating immigrants belong to the local field of action for several reasons: municipalities are the appropriate administrative level to implement local policies, since the logic of municipal policies is different from that of the central states; and only municipal policy can mobilize local resources, both formal and informal [62].

In terms of immigration and integration, the perspective of municipalities is therefore radically different from that of central governments [63,64]. In fact, in this set of policies, municipalities have played a pioneering role, promoting integration policies, obviating the criticisms of the central government, since they cannot close their eyes to pressing and immediate immigration-related problems [65]. In some countries, such as the Netherlands and Germany [66], central governments have ended up adopting postulates and central instruments of municipal policies.

In short, the commitment to local policies to integrate immigrants implies a new approach to address and promote diversity, overcoming the traditional state model of multiculturalism and assimilationism [67]. This approach has been supported by international organizations and networks of transnational cities, like the Council of Europe, which founded the network of Intercultural Cities. This development clearly points to the relevance of horizontal relationships, from city to city, of local governments [56].

8. Discussion and Conclusions

The lack of data on migrants with disabilities requires us to tackle a hidden population without an adequate understanding of their magnitude and needs; as a result, the action of the public or private institutions tasked with guaranteeing their rights is not effective. In fact, although national and international standards are unquestionable when it comes to protecting these types of especially vulnerable situations, compliance with them is usually the exception. Therefore, we must commit to a rigorous application of the law in this regard in all countries.

Heterogeneity and deficiencies in the systems for receiving this group of people, who are at serious risk of vulnerability and exclusion, are a common denominator at the international level. The care systems for international protection applicants and refugees with functional diversity, regardless of their origin or cause of the migration process and/or escape, are particularly insufficient. There are minimal programs that do not adequately identify asylum seekers and refugees with disabilities, showing deficiencies in their records and in the training and preparation of the professionals involved.

Social work is one of the best disciplines for learning about and intervening in the phenomenon of disability in the migration process, as it is characterized by intervention in situations of social need

and/or problems from which to promote the protection and assertion of social and human rights, paying special attention to those groups that are vulnerable and at risk of social exclusion. For this reason, the link between disability in the migratory process is pertinent as a challenge to be approached through professional practice, since it takes into account the necessary tools with which to favor social transformation [68].

Social work is a key consideration in the challenge to make visible, analyze and act on the reality of migrants who are disabled or who are affected by it due to their own displacement. It is the task of social intervention professionals to give a voice to these people, as well as to demand the response that their situation requires from governments and citizens [69].

Although immigration governance is increasingly Europeanized, the trend regarding integration governance directed at immigrants is more focused on the local level [70], since local policies are more sensitive and responsive to the needs of these groups than central policies. It is committed to proximity and a greater interrelation between the different actors involved in the process (local governments, public and private entities, immigrant associations, Non-Governmental Organizations (NGOs), etc.)

In short, the phenomenon of migration is not unidirectional; rather, there are many variables and processes that come into play and must be carefully considered. Therefore, intervention and the design of actions by social work and sociology professionals are necessary from a holistic perspective. These actions must be based on social diversity, superdiversity and respect for differences, and pave the way for public authorities, both nationally and internationally, to address the phenomenon of migrants and/or people with disabilities.

From the perspective of superdiversity, we must support action protocols that, while overcoming exclusion in a context of obvious inequalities, allow for the full inclusion of migrants in the hosting society, either from its applicability to social policy or from social innovation as a professional tool in achieving an inclusive society [71].

This review presents a summary of the responses that are being provided in Europe to the needs of migrants through the prism of superdiversity. In addition, the challenges facing agencies and institutions to improve the care given to refugees in host countries are listed. In this way, aspects as important as guaranteeing complete medical coverage for migrants and refugees are emphasized. So far, the institutional response to this phenomenon has been described as suboptimal [72]. Furthermore, this study tries to provide answers to problems related to the Common European Asylum System. There are certain questions presented at the European level that we have attempted to answer, such as "who needs international protection?" If the Member State of first entry is to take primary responsibility for the asylum procedure, what are the legal obligations that Member States have towards asylum seekers and beneficiaries? [73].

The results of this research are of interest to the scientific community and to the rest of the population, since they synthesize those factors that need improvement to guarantee the human rights of migrants and refugees; more specifically, of migrants and refugees who exhibit some kind of functional diversity. Accordingly, we present the political proposals that are being implemented to guarantee protection, security, access to resources, basic rights and to enhance the capacities of local authorities. The role of education as a key tool for coexistence is reinforced and the design of action protocols for coexistence is encouraged. The implications of this study are based on the detection of the various future challenges faced by both migrants and refugees with disabilities, as well as on the political approach to this situation.

Several facets of the migration phenomenon in Europe require more research in the future. It is important that studies in the near future establish a complete statistical record that shows the magnitude of the migration phenomenon in Europe and that is capable of counting the number of migrants with disabilities who arrive from different countries of origin. More scientific evidence is required of the difficulties and challenges facing migrants, both in their countries of origin and destination, as well as of the causes that force migrants to leave their native country. It is appropriate to review in depth the

protocols and policies undertaken by different countries to deal with migration from the paradigm of superdiversity.

For destination countries, it is important to offer a synthesis of political proposals that provide guidelines for the future of migration and disability. Accordingly, based on our study, the following political actions are recommended:

- Create an information system to register and identify needs that can be used to plan and advance the design of ad hoc public policies aimed at migrants with disabilities.
- Provide durable solutions that allow migrants with disabilities to be inserted into the different protection systems of the host countries.
- Craft strategic coordination plans between countries to provide assistance and protection for migrants with disabilities.
- Incorporate the participation of the migrant population with disabilities in policy decision-making spaces.

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Article

Negotiating Identity and Belonging in a New Space: Opportunities and Experiences of African Youths in South Australia

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Abstract: This paper was part of a large study that aimed to explore determinants of increased suicides among African youths in South Australia. As part of this larger study, narratives from participants indicated that identity crisis could be a potential determinant of suicide. This paper reports on how African youths negotiate and form identity in Australia. A qualitative inquiry was undertaken with 31 African youths using a focus group and individual interviews. Data analysis was guided by a framework for qualitative research. These youths negotiated multiple identities, including those of race, gender, ethnicity and their origin. 'Freedom and opportunity', 'family relationships', 'neither belonging here nor there' and 'the ability to cope against the paradox of resourcefulness in Australia' appeared to be important themes in negotiating individual identities. An opportunity was used to acknowledge privileges available in Australia relative to Africa. However, the extent to which individuals acted on these opportunities varied, affecting a person's sense of purpose, identity formation and belonging in Australia. The loss of social networks following migration, and cultural differences between African and Australian societies, shaped the experience of belonging and identity formation. These findings are crucial as they indicate the need for policies and practices that consider experiences of youths as they form their identity in Australia. Further studies with large numbers of participants are needed to explore these issues further among African youths in Australia.

Keywords: identity discourse; integration process; resilience; resettlement challenges; CALD; African youths; Australia

1. Introduction

There is dearth of information about the mental health needs of Africans, especially young people in Australia, and most refugees do not present for mental health services. As part of the major study aimed to identify contributors of increased suicides among African youths in South Australia, themes including negotiation of identity strongly emerged from participants' narratives. The formation of identity and the ways youths negotiated these in their new environment, in Australia, were further analysed and considered to be an important discovery, leading to the authors' decision to unpack further and write this paper to contribute to the body of migrant and refugee health knowledge. Identity construction is an important process for migrant and refugee youths. It helps youths to construct realistic ambitions and reasonable ideals for themselves, develop a sense of free will and self-efficacy, and form a secure perception of self [1,2]. Additionally, planning for the future at this stage occurs within a social and cultural context that influences the ability of youths to engage in society successfully [2]. This process is likely to be particularly challenging for migrant and refugee

youths given the additional complexities associated with negotiating identity in a new environment [3], often from a starting point of socioeconomic disadvantage [4]. Constructing and negotiating identity by migrant and refugee youths is concerned with social belonging and developing modalities of social relations in their new environment, as opposed to ethnic identity. Ethnic identity refers to how individuals relate themselves to a particular ethnic group through labelling, exploration, personal behaviours, and shared attitudes and beliefs [5]. There are complex links between constructing and negotiating identity and successful settlement outcomes. How a person negotiates their identity following immigration can have a significant impact on social and psychological adjustment in their new environment. A study suggests that forming a strong host-country identity is important in enhancing socio-cultural adjustment [6]. The same study reported that maintaining a strong country of origin identity is important for psychological adjustment. In some instances, identifying with heritage culture is protective against harmful behaviours [6] and improves academic performance [7] among youths. It is also worth noting that the effect can differ according to the nature of the heritage culture [8,9]. It appears that the ability to draw on the country of origin and the host country identity is vital to facilitate settlement in a new environment [10]. Evidence suggests that this acculturation strategy, referred to as 'integration' or 'biculturalism', is associated with higher self-esteem, lower rates of depression, and greater prosocial behaviours, especially among migrant youths [11]. However, 'bicultural' identity could present problems for a successful adaptation in a new environment. It is difficult for individuals to negotiate a bicultural identity when a sizeable cultural gap exists between the beliefs and practices of their country of origin and their host country. Additionally, there are issues that exist beyond individuals' control, which shape their negotiating of identity [11]. For example, issues such as the cultural characteristics of interacting ethnic groups, socioeconomic status and social hierarchies, the availability of social and economic resources, and the socio-political aspects of the host country are vital dimensions that influence the negotiating of identity. The question of bicultural identity is particularly relevant for migrant and refugee youths in Australia. The first issue is that refugee youths often find it difficult to associate with a country of origin due to protracted stay in refugee camps. As a result, identity could become tied with their refugee status following such protracted situations [3]. Additionally, there is a difference in the racial construction of migrant and refugee youths and their peers in Australia, which shapes their cultural identity [12]. Moreover, the difference in cultural identity is formed by the effect of opposing individualist and collectivist forms of social organisation between migrant and Australian communities [13]. Although those immigrating to Australia may obtain national rights and access to services, many experience difficulties in connecting with Australian culture due to experiences of exclusion and cultural difference. Their experience is that of 'guests' in a foreign country [14]. Lastly, migrant and refugee youths focus on building identity and social networks with their new host community. This focus shapes the differences in acculturation between youths and the older generation in their community who are more likely to hold an identity associated with their place of origin [15].

It is well acknowledged that migrants and refugees generally undergo readjustment and adaptation on arrival to Australia, and initially experience decreased satisfaction when faced with the realities of life following their settlement. Evidence of phases of the refugee adjustment framework suggests that their ability to integrate with or become marginalised from Australian society depends on forces of social inclusion and exclusion, the existence of discrimination, and access to economic resources such as housing and meaningful employment [16]. It is of particular public health significance to understand how the social, cultural, political, and economic conditions of resettlement influence the negotiation of cultural identity among migrant and refugee youths.

Migrant and refugee youths are recognised as a vulnerable population group, especially to self-harm behaviours [17]. Additionally, refugee youths in particular are likely to have experienced multiple social stressors that make resettlement challenging. For example, the literature cites issues such as histories of trauma and abuse, loss of status and social networks, language barriers, unemployment,

financial problems, and addiction to alcohol and substance use as challenges facing refugees following resettlement [4,17,18].

Although aspects of personal and group identity have been examined elsewhere [3,10,19–21], this study intended to explore this issue using an ecological perspective, [22] given the recognition of the socioeconomic and cultural challenges experienced by African migrant and refugee youths during resettlement in Australia, [4] and a desire to move beyond trauma-based understandings of refugee mental health and consider factors within the environment in which resettlement occurs, as echoed elsewhere [21,23,24].

This paper explores how African migrant and refugee youths in Australia negotiate cultural identity, given the limited understanding of the issue in the context of their local settlement. The aim of the paper is to better understand how cultural identity is negotiated and shaped among African migrant and refugee youths in South Australia. There are over 20,000 persons of African background in South Australia, and this number is increasing [25]. This understanding is important to inform health promotion practice and policy efforts to create appropriate environments that enable the healthy negotiation of cultural identity among migrant and refugee youths.

2. Methods

The current study employed a qualitative inquiry using both face-to-face interviews and focus group discussion. Qualitative research can reveal important accounts relating to social context, negotiating cultural identity and generating narratives that promote health-related behaviour discourse [26]. A focus group exploring the challenges of settlement and its impact on mental health was initially conducted, and the key issues from the results were used to inform further inquiry through semi-structured interviews.

2.1. Study Setting

The study took place in Adelaide, South Australia with 31 African migrant and refugee youths aged 18 to 25 years old. There were 17,784 migrant and refugee youths (aged 12–24 years old) residing within the Greater Adelaide region, which had a total youth population of 267,775 persons [27]. Of this number, over 30 percent of migrant and refugee youths resided within the northern region of Adelaide [27], an area of a relative socioeconomic disadvantage compared to the average for Greater Adelaide [28].

2.2. Recruitment and Data Collection

Research participants were opportunistically selected from a broader population of young people born in African countries and living in Adelaide, South Australia. Potential participants were approached by an African Youth Worker, employed by the African Communities Council of South Australia (ACCSA), who provided them with a written invitation to participate in the research. Before the commencement of focus group discussions and interviews, all study participants were provided with an information sheet outlining details of the research and its purpose. One focus group discussion with eight participants, and 23 interviews, were held at a central place where young people felt comfortable. The interview guide was informed by literature but also designed to allow flexibility to expand on points of interest and to explore issues that were considered important to individuals [29]. Interviews were conducted in English, as all participants spoke English. Ample time was set aside within each interview to establish rapport and to initiate and close the interviews in a sensitive manner. Interviews were confidential, and data was de-identified from the outset. Recordings of the focus group and interviews were transcribed verbatim professionally.

2.3. Data Analysis

Transcripts were analysed by two experienced qualitative researchers using the framework approach described by Ritchie and Spencer [30]. Framework analysis uses a systematic approach of

data management to provide coherence and structure within the analysis process [30,31]. Passages of text representing repeated themes were identified and assigned headings according to the context and coded to several relevant categories to reduce the likelihood of missing key points. The data were then synthesised in sub-headings identified from the thematic analysis [30]. This approach is useful in enhancing the rigour, transparency and validity of the analytic process [32]. The analysis was both inductive, with categories emerging purely from the data and deductive, with categories derived from prior knowledge [33].

2.4. Ethical Considerations

All study participants were provided with an information sheet outlining details of the research and provided written consent to participate in the research. Some focus group members knew each other but not all. The issue of confidentiality was discussed with the focus group participants. Due to the sensitivity of the topic and the possibility of participants becoming distressed as a result of the focus group discussions and interviews, referral procedures were put in place prior to data collection to address the needs of distressed participants. After the data collection procedures were completed, all participants were provided with a list of professional counselling agencies where they could access support. Participants were offered a follow-up, private counselling session to discuss any issues that were raised by the interviews, with costs covered by the African Communities Council of South Australia (ACCSA). Each participant was reimbursed thirty dollars. Ethics approval was provided by the Flinders University Social and Behavioural Research Ethics Committee (SBREC project number 5480).

3. Results

As African migrants, many of the youths participating in this study experienced insecurity and displacement because of civil unrest in their countries of origin (Table 1). Social identity for these youths is beyond the physical construct that often shapes identity discourses. Identity for these participants was not just about their race (a social construct used here as a point of analysis), gender, ethnicity or country of origin. It is innate in nature and involved matters that are important for everyday life. There were multiple identities, and it relates to how they felt both in- and outside their physical body. The concept of 'opportunity' appeared to be important, regarded as a gift holding special meaning and privilege. As such, it came with the expectation that opportunity is used for reciprocating benefits to family in Africa and the Australian society more generally. However, the extent to which individuals acted on these opportunities in meaningful ways varied, affecting a person's sense of purpose and belonging in Australia. Although there appeared a general feeling of being torn between two places among respondents, the loss of social networks following migration and cultural differences between African and Australian societies shaped the experience of belonging. The demographic details of the participants and the identified themes are presented with reference to salient quotations from respondents (Table 2).

Table 1. Characteristics of focus group youth participants.

No	Gender	Age at Data Collection	Country of Origin	Year Arrived in Adelaide
1	M	25	South Sudan	2000
2	F	20	Liberia	2005
3	F	21	Somalia	2001
4	F	23	Burundi	2005
5	F	20	Liberia	2005
6	F	23	Ghana	2004
7	F	24	Ethiopia	2005

Table 2. Characteristics of face-to-face interview participants.

Participants	Gender	Age at Data Collection	Country of Origin	Year Arrived in Adelaide
1	M	18	DRC	2010
2	M	20	South Sudan	2008
3	F	21	Liberia	2010
4	M	23	South Sudan	2009
5	M	20	South Sudan	2011
6	M	23	Ethiopia	2003
7	F	24	Liberia	2004
8	M	20	Burundi	2007
9	M	23	South Sudan	2007
10	M	25	South Sudan	2007
11	M	21	Liberia	2008
12	M	22	DRC	2005
13	F	25	South Sudan	2003
14	F	23	South Sudan	2005
15	M	20	South Sudan	2005
16	F	25	South Sudan	2008
17	F	21	Liberia	2008
18	M	25	South Sudan	2006
19	M	25	South Sudan	2003
20	M	20	South Sudan	2001
21	M	25	South Sudan	2006
22	F	18	Liberia	2005
23	F	23	South Sudan	2003

3.1. Freedom and Opportunities

Respondents tended to recognise that the rights afforded to them upon settlement within Australia provided them with the opportunity to satisfy their personal needs and ambitions in a way that was not possible given their situation in Africa. This was expressed in terms of gratefulness, particularly considering the limited opportunities afforded to those still living in Africa. For example, there were views that showed a feeling of freedom from previous experiences of education.

> In Australia, even though everywhere people have their own tough times and all that but I'm free here. No more running away from war. Free education. I have a lot of opportunities to do things that I want to do than when I was back home. (Respondent 23)

> Then, I also have this opportunity where I can go to any university without being denied for my right to study … it's a very important gift that God gave to us, so to me I think we are lucky to be here. (Respondent 17)

Through these views, not only did the participants perceive freedom as understood by the mainstream Australian community, but they also understood it in their own unique experiences. They linked freedom to their past experiences and integrated it to shape their self-construct in Australia. Freedom to study in Australia was particularly perceived as important for girls given experiences of girls' education in Africa. The following quote shows how the freedom to education was perceived through a gendered lens.

> It's when you have freedom; you have the opportunity to study whatever you want, because that's the hardest thing in Africa for a young girl, just to finish even year 11. To reach that

> stage it's really hard where here you can study as many courses as you want, so it's a privilege to be here, that's what I always tell my friends. (Participant 12)

However, participants acknowledged that the availability of opportunities tended to be an insufficient condition for using those opportunities in an instrumentally meaningful and purposeful way. Rather, support external to the individual is required to use and benefit from these opportunities.

> I think in Australia there are a lot of opportunities in education and all this kind of thing, but the downside of it is even if there's education, if there's no help to cope, you know, to cope with it then it becomes hard to use that opportunity. So, yes, there are opportunities, but we need help, something or someone to keep pushing us to get in there. (Respondent 14)

Some participants revealed pessimism because they felt their lives have not improved since coming to Australia despite the available opportunities in Australia. This view has profoundly shaped their self-outlook as expressed in the below quote.

> When we were in Africa, life was really, really terrible and then when we come to Australia—me personally, I thought I was going to have a better life. I've been here for nine years now. I wake up every morning; the only thing I see shining is the sun, but my life's not shining. (participant 14)

Additionally, many participants acknowledged that even if there are opportunities to study, they also experienced limited opportunities for employment, which negatively impacted their experience of living in Australia.

> Then you try to get a job and then no-one offering you job, so you find yourself a bit depressed, I guess. Then if you find yourself a bit depressed, what do you do? Drink up, hang out with your friends, go out, make yourself feel good. (Respondent 21)

> What I know so far, there are a lot of young people actually get frustrated from school and finding no jobs or getting an appropriate job, so things like that, and people who are actually going under the trauma of homelessness and into drugs, into other things which are negative actually to the young people (respondent 15)

3.2. Freedom and Family Relationships

Another common consensus among participants was around differences in culture from the older generation in relation to the rights and freedom of expression and how those disagreements came to shape the identity of some African youths in Australia. In some African cultures, youths are expected to follow the views of their parents and elders. Many youths in the study, however, perceived themselves as embodying Australian culture and were free to make an individual choice to do whatever they wish. Sometimes the 'freedom' in Australia put youths in the direct course of cultural conflict with parents and caused tensions within families. For example, the below quote captures this sentiment:

> We are in Australia everyone is equal, and we know our rights and wrongs so that we argue with parents, like 'this is wrong. This is what you're supposed to say to me because you are wrong' and then they don't accept that. That's how they take it to the community, because Africans consider that as being rude, you are not respecting your parents by talking back at them, but this is not what Australian culture says. Everyone is equal (Participant 12)

> I've got pressure from my culture, like family at home, and then pressure from outside because I want to be—socially interact with others and they, my family, don't want to accept that … I'm with my aunt here, and we have a lot of disagreement and stuff. Like you're a girl, you don't go out and meet friends except for close families, like a family that they know. Like I have friends from different places in Australia and stuff, but they don't accept that they find it hard because they have different culture, like 'no'. (Participant 10)

When participants were asked how the cultural conflicts within the family setting affected them, there was consensus around disengagements from their communities. Participants revealed that disengaged youths did not 'fit' in their communities or in the Australian culture. These missing pieces of identity from the country of origin and Australia made some participants define their own self-construct in ways that were comfortable and appropriate for themselves, for example, by going out to find a social group to identify with. Participants described the process of finding a sense of belonging in such a position as a "confused" situation. The following quote demonstrates this sentiment.

> For me, I have to go to meet friend just to clear thing out ... A lot of people, I think they isolate themselves from going out in the community or in a tribe with different people or getting involved in something ... It always goes back to family, you know? Follow your culture with your family, listen to them, what they want you to do or just ignore them and do what you want to do to yourself. So, you're between confused what-exactly how you're going to help yourself to get out of that issue (Participant 10)

However, there remained tension between expectations for personal responsibility for action and the role of others in supporting this action. This reflected the recognition that personal freedom, representing the ability to define oneself and one's own course of action, might result in very different consequences for an individual according to their personal resources and ability to seek out opportunities and support.

> The good thing is that it's you make your choices. At the end of the day, it's up to you. Nobody makes the choices for you, but it's up to you and if you're willing to listen to anybody, take in their advice and sort of work out your life and stuff it's up to you ... You're free, but all of that comes with consequences too. (Respondent 16)

3.3. Not Belonging and Being Torn between Two Places

Some respondents also noted conditions where opportunities could not be used in meaningful ways, making it difficult for individuals to find the means to enact their desired role within Australian society. The inability to fulfil personal ambitions resulted not only in a feeling of being trapped within Australian society, but also the experience of becoming marginalised from others because of barriers to engaging in meaningful education and employment.

> Most youths are happy from outside, but inside they are not happy because they don't have jobs. (Respondent 1)

> Because you wake up every day and then, you know, you do the same thing, and you see the same people and the same things happening over and over again ... You know you try to get—a job, trying to get to know people. Some of them tend to, you know, disengage from you and all that stuff. (Respondent 21)

The above quotations reveal the role employment opportunities and social relationships play in forming a meaningful self-concept of belonging. The inability to engage in employment or develop bonds with others led to the marginalisation and the experience of 'not belonging' by respondents. The experience of 'not belonging' can have a profound impact on an individual, as one of the participants demonstrated when narrating the experience of another youth in the community.

> So, I know one of the persons who has committed suicide. Two weeks before he died there was kind of—he said 'I want to go back to Africa', you know? He told family 'I want to go back. I don't want to live here. This place is no good'. (Respondent 7)

Although it is not clear what the phrase 'this place is no good' means, other respondents made it clear that settling in Australia came with a feeling of being torn between two places, their country of

origin and Australia. This is not to say that belonging is simply associated with connection to place, but also recognises that family and social ties may still exist within Africa and that there is a constant need to accommodate cultural beliefs from both African and Australian societies.

> Yeah if you see—I have some people here you see—if you look at that you seem happy but inside you are not happy because I know—I have some cousins and my sister is here, but our mum is in Africa. (Respondent 1)

> Let's say if you want to marry now, you want a woman, you've got to have at least forty to sixty grands to marry the woman. You have to give them to the girl's family and if you don't have those you're not going to get any girl. So that's our—you know, it's just our culture sometimes, it's just different. Yeah, difficult. (Respondent 9)

Previously, it was mentioned that the inability to make use of educational and employment opportunities resulted in the experience of being trapped. Likewise, the experience of being trapped tended to emphasise the subjective feeling of not belonging, related to the perceived difference between African and Australian societies and a loss of family and social support networks.

> Am I happy? I can say I am but like in the sense that I've got everything around me but in terms of that I'm not really—like I'm not really happy. Like back at home I was happy. Like we didn't have food and all this stuff, but I still was happy. It's just like maybe you can put it this way, here like you've been just surrounded by a fence around you, and you just want to escape, you know what I mean? (Respondent 21)

3.4. Using Available Resources

The study findings demonstrate that African youths in Australia draw on available resources when negotiating identities in Australia. For example, finding other youths from another community for social networks and a sense of belonging. They also draw on available services for youths in the community to maximise their access to resources that support their needs. Lastly, engaging in sport is another key activity through which African refugee youths negotiate their identities in Australia. Some participants who did not have their 'ethnic' communities in Australia revealed that they negotiated their identity through their friends in order to find a community for social activities and belonging. The following quote demonstrates this sentiment.

> I don't have my community here, like tribe; you know how Sudan, they have different tribes. So for me, I don't have that community here so I get involved in other people's communities, like other tribes. If they have program and stuff, I go there, just with my friends. (Participant 10)

The respondents in the current study also had a belief that there is a moral impetus not only to make use of available opportunities but also to actively seek support from others in obtaining and making effective use of those opportunities.

> If you are youth here in Australia, you are a very young person, you get so many supports and so many help, and you should be seeking to get that help. There are a lot of sports activities. If you're good at it Australian people will take you, you know. For example, if you want to make music and you're really good at it, you can get a scholarship. If you're good at basketball as African youth, you can get a scholarship. (Respondent 20)

Additionally, drawing on individual strengths of resilience and determination were important for the participants in this study. They acknowledged there were challenges of settling in Australia. In order to achieve their goals and contribute to the Australian community, however, participants emphasised the need to remain positive and focussed. The following two quotes demonstrate these views.

> I think to be a young African youth in Australia—well, for me it's a good gift, and it's a great gift because no matter what happened to you if you're still following your dream then I think it will be a good gift. (Respondent 17)

> If you're still alive, you are rich because one day you might become rich but if you're dead, even though you are rich nobody will call you as rich because you are a dead person. That keeps other kids to push their lives, because they know one day, they will be rich. (Participant 11)

4. Discussion

This qualitative study attempted to further an understanding about how African youth negotiated their identity within urban settings of South Australia. Even though it is well acknowledged that the psychological construction of identity occurs throughout adolescence [1], youths, especially those with cultural backgrounds such as in the current study, require additional negotiations to incorporate their cultural, racial, and ethnic identity [3,5] within their new society. This is in recognition that, to migrants, migration to a new setting brings with it a range of novel challenges and stressors [34,35] compared to the general community in the host nation population. For youths settling into a new host culture, this also affects the social construct of their identity.

The findings of the current study revealed that African youths valued opportunities for self-determination, in particular the availability of formal education, freedom of speech and individual action, and freedom from oppression and war. The ability to realise personal ambitions was of significant importance for these youth. This is of particular relevance given that personal accomplishments and achievements have been found to predict personal and ethnic self-esteem among Australian immigrant youth, with personal self-esteem being the single major predictor of immigrant psychological health [19]. The presence of, and effective use of, opportunities enabled youth to realise ambitions and in doing so, promoted a sense of fulfilment and belonging. However, the ability to obtain and make use of opportunities was made difficult in the context of social exclusion and economic hardships. This study revealed that increased individual freedom would lead to different consequences depending on the motivations and resources of individuals. Because of the effect of economic disadvantage and the loss of social networks on arrival to Australia, social exclusion and economic hardship may limit individuals' capacity to make use of opportunities, which in turn could further limit the attempts towards social inclusion and economic security. Within Australia, similar obstacles to social integration, including separation of family members, lack of access to housing and education support, and employment challenges have been observed amongst refugees and immigrants from the Horn of Africa [4]. Although discrimination and racism have been demonstrated to negatively affect an immigrant's self-concept, self-esteem, and access to economic resources [3,16], this was not discussed by respondents within this study. However, this may have been a consequence of the action of more covert forms of discrimination due to the perceived cultural and racial difference between African migrant youths and their host society [14].

It is well acknowledged that upon resettlement, migrants, especially those with a refugee background, tend to pass through many phases of readjustment leading to outcomes ranging from integration through to marginalisation, with the direction of this outcome dependent on the presence or absence of resources in a person's surrounding environment. Evidence also suggests that social inclusion, freedom from discrimination, and access to economic resources are important in promoting mental health during this resettlement process [16]. With its focus on African migrant and refugee youths, this study recognises the importance of these resources in resettlement, but conceptualises them as resources that can be drawn upon to realise their goals and ambitions, meet basic needs, and address the demands imposed by resettlement. This resonates with Dermot Ryan and colleagues' 'resource-based model of migrant adaptation', which extends previous conceptualisations of migrant adaptation to recognise the role played by social environments in creating, or otherwise alleviating, stressful conditions impacting on resettlement. This is particularly relevant for those operating

from a public health understanding as it takes the emphasis away from the role of individuals in managing demands and coping with stress and places it on the social conditions that create stressful demands and examines how social policies shape such conditions. Here, resources are the focus of our attention, including personal resources such as problem-solving and social skills, material resources such as housing and employment, social resources such as emotional and tangible support from others, and cultural resources that enable navigation of daily activities within a particular cultural environment. Importantly, it should be recognised that an individual's resources are likely to be reduced, for various reasons, during each stage of the migration process, including resource losses endured prior to migration and during the migration process itself [24]. It is recognised that upon resettlement, migrants, especially those who are refugees, tend to arrive with histories of trauma and abuse, loss of status and social networks, language barriers, unemployment, financial problems, psychiatric disorders, and addiction to alcohol and drugs [4,17,18]. Thus, it becomes important to build the personal, material, social, and cultural resources of African youths upon arrival, attempting to replenish those lost during the process of migration. By building resources related to education and socioeconomic status, individuals will be more likely to successfully negotiate their own identity within a foreign country [36]. Our study has highlighted education, employment, and supportive social networks as resources important in the minds of African youth, enabling them to realise their needs and goals for life in Australia. It also suggests that a resource-based approach for enhancing adaptation of migrant youths provides a useful framework for public health action enabling youth to negotiate their own identity, alongside psychological, anthropological, and sociological understandings of identity formation [1]. A few limitations of this study are worth noting. One limitation is that the study was unable to elicit details regarding the nature of goals, needs, and demands experienced by these youth and the resources required to address them. It was also unable to identify the processes by which discrimination and racism impacted on the use of and access to resources, which is a key limitation given its potential to erode personal resources [3,16] and increase aversive demands [24]. Research shows that societal responses to refugees can act to preserve or undermine their human social resources and influence the experience of resettlement [37]. Furthermore, although we identified education as an important resource for African youths, we were not able to examine how this might relate to gaining meaningful employment and the impact of this on identity formation as a dynamic process [36]. This is an important consideration, as African migrants elsewhere have been observed to encounter significant barriers to finding employment related to English language comprehension and their ability to navigate job networks [38,39]. It was also less clear as to how histories of interrupted schooling and cultural and social language differences may have impacted on educational outcomes [40]. Further examination of these issues and the extent to which social policies can influence individual resources may prove useful in framing public health action to facilitate positive settlement outcomes for migrant and refugee youths.

5. Conclusions and Research Contribution to the Body of Knowldge

Attempting to understand the way in which the socio-cultural and economic conditions of resettlement influence the negotiation of identity among African refugee youth within urban South Australia, this study has highlighted the narratives between the meaningful use of life opportunities and the experience of fulfilment and belonging within Australia, with social and economic resources as necessary for individuals' ability to make effective use of these opportunities. These findings call for consideration of the socio-cultural and political context surrounding resettlement and how this influences the negotiation of identity among migrant and refugee youths. They also resonated with a resource-based model of migrant adaptation, which shows promise in directing public health action, given its focus on social conditions that may promote or minimise psychological stress during the process of resettlement. Additionally, the recognition of African youths as a vulnerable group when it comes to negotiating identity is critical in understanding suicide in order to develop appropriate health

policies and design effective interventions to prevent suicide among these and similar populations in Australia and elsewhere in settings where African migrants have been resettled.

Although this study is limited in its ability to examine the precise nature of resources that may act as enablers or barriers to the realisation of personal ambitions and needs, it has provided direction for future research aimed at examining these issues and how they might be addressed through public health policy. The contributions of this paper to the body of knowledge are as follows:

- Recognition of the ways young people negotiate identity is important as these internal negotiations can be partly contributory to determinants of suicide among young migrants in Australia.
- Nurturing support for African youths is necessary because when they develop their identity and adapt to changes in the new environment, this support can foster successful resettlement.
- Developing culturally sensitive social support services for African youths is necessary for a successful integration.

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Migrant Women's Access to Sexual and Reproductive Health Services in Malaysia: A Qualitative Study

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Abstract: Providing sexual and reproductive health (SRH) services to migrant workers is key to fulfilling sustainable developmental goals. This study aims to explore key informants' views on the provision of SRH services for migrant women in Malaysia, exploring the provision of SRH education, contraception, abortion, antenatal and delivery, as well as the management of gender-based violence. In-depth interviews of 44 stakeholders were conducted from July 2018 to July 2019. Data were thematically analysed. Migrant workers that fall pregnant are unable to work legally and are subject to deportation. Despite this, we found that insufficient SRH information and contraceptive access are provided, as these are seen to encourage promiscuity. Pregnancy, rather than sexually transmitted infection prevention, is a core concern among migrant women, the latter of which is not adequately addressed by private providers. Abortions are often seen as the only option for pregnant migrants. Unsafe abortions occur which are linked to financial constraints and cultural disapproval, despite surgical abortions being legal in Malaysia. Pregnant migrants often delay care-seeking, and this may explain poor obstetric outcomes. Although health facilities for gender-based violence are available, non-citizen women face additional barriers in terms of discrimination and scrutiny by authorities. Migrant women face extremely limited options for SRH services in Malaysia and these should be expanded.

Keywords: migrant health; access to health; sexual and reproductive health; contraception

1. Introduction

Migration of women is an important component of international migration, with women comprising nearly half (48%) of the 258 million international migrants worldwide in 2017 [1]. In Malaysia, 19% of the 2.0 million documented migrant workers in 2019 were women [2]. The country also houses an estimated 2 to 3 million undocumented migrants [3], which increases the number of female migrants significantly. Although women represent a substantial proportion of less skilled migrant workers in Malaysia, appropriate migration and gender-sensitive policies are still lacking. As a result, female migrants are more vulnerable and prone to human rights violations [4,5].

Sexual and reproductive health and rights (SRHRs) are fundamental human rights, which lies with the right of individuals and couples to freely decide the number, timing, and spacing of children

and have adequate information to make those decisions, and the right to attain the highest standard of sexual and reproductive health [SRH] [6]. SRHR was conceptualised during the 1994 International Conference on Population and Development (ICPD) in Cairo, where reproductive health was defined as a "state of complete physical, mental and social well-being, not merely the absence of disease and infirmity, in all matters relating to the reproductive system, and its functions and processes" [6] and was subsequently built on evolving international agreements [7].

SRH addresses a wide range of health issues, including contraception, unintended pregnancies, unsafe abortions, gender-based violence (GBV), pregnancy and childbirth complications, human immunodeficiency virus (HIV) and other sexually transmitted infections (STIs), and infertility and reproductive cancers, and are seen as essential elements to achieve social, economic and environmental development goals [7].

Maternal and child health services are the cornerstone of Malaysia's public health system and are available nationwide as part of the integrated primary care services provided at public health clinics, maternal and child health clinics, and community clinics under the Ministry of Health (MOH), Malaysia. The scope of maternal and child health services includes maternal and perinatal health services (pre-pregnancy, antenatal, intrapartum and postnatal care), child health services (childhood immunisation and health, development and growth assessment), and woman's health services (family planning services, and cervical and breast cancer screening) [8]. SRH services are also provided by the National Population and Family Development Board, under the purview of the Ministry of Women, Family and Community Development, non-governmental organisations like the Federal Reproductive Health Associations Malaysia (FRHAM), and private practitioners [9].

Improving access to SRH is central to development, as reflected under target 3.7 of the Sustainable Development Goals (SDGs) which calls for "universal access to sexual and reproductive health-care services, including for family planning, information, and education" by 2030 [10]. Although providing SRH services to marginalised communities including migrant workers are key to fulfilling the SDGs [11], the 2017 Voluntary National Review of SDGs by the Malaysian government did not identify migrant workers as a vulnerable group to improve delivery of healthcare services [12].

Women emigrating for employment face intersecting vulnerabilities of gender, social class, and ethnicity [13] and often encounter physical, psychological, and sexual violence [14,15]. Despite the ratification of the Convention on the Elimination of Discrimination against Women (CEDAW) and commitments to the ICPD Programme of Action [16], Malaysia has not fully recognised the migrant workers' SRHRs [17,18]. Female migrant workers in Malaysia still face SRHR-related difficulties, mainly through the prohibition of pregnancy during employment [19,20].

In its concluding observations on the combined third to fifth periodic reports of Malaysia, the Committee on the Elimination of Discrimination against Women were concerned about the barriers faced by non-citizen women, including female migrant workers, when accessing healthcare [21]. Financial constraints are a major healthcare access barrier, as healthcare charges for non-citizens are considerably higher when compared to citizens for services at public facilities [17,18,22]. In addition, healthcare personnel are required to report undocumented migrants seeking medical care to the Immigration department, deterring women from seeking needed care due to fear of arrest and detention [23,24].

Therefore, this study aims to explore key informants' views on the provision of SRH services for low-skilled, documented, and undocumented migrant women in Malaysia, including SRH education, contraception, abortion, antenatal and delivery, and the management of GBV.

2. Materials and Methods

We used qualitative methods in an exploratory, iterative design to explore policy and the provision of SRH services for migrant workers in Malaysia.

2.1. Definition of Terms

This study focuses on low-skill, low-wage migrant workers who cross international borders for employment. Documented or "regular" migrants are authorised to enter, stay, and partake in employment in a country, and also have legal documents, such as valid passports and work permits. Undocumented or "irregular" migrants are those who enter the country, reside, or partake in employment without authorisation, including those who may have entered the country legally, but have violated either the terms of their visa or over-stayed beyond the authorised period [9–11].

Refugees, asylum-seekers, foreign wives, and expatriates are not included in this study.

2.2. Sampling and Recruitment

We conducted 37 in-depth interviews with 44 individuals from July 2018 to July 2019 in Malaysia (Table 1). Most interviews were conducted on a one-on-one basis, while several were conducted in small groups of 2 to 3 participants from the same organisation.

Table 1. Characteristics of the study participants (n = 44).

Participant Background	Label	No.
Medical Doctor	MD	
Public		4
Private		6
Civil society organisation		3
Civil society organisation	CSO	10
Industry	IND	5
Migrant worker [1]	MW	4
International organisation	IO	4
Trade union	TU	3
Academia	AC	3
Other policy stakeholders [2]	POL	2
Total		44

[1] Only 1 of the 4 migrant workers interviewed identified himself as a worker only. Others were also members of civil society organisations (2) or trade unions (1). [2] Government or government-linked organisation.

The health and welfare of migrant workers in Malaysia are contentious, with issues concerning migrant workers' SRHR and their immigration status being particularly sensitive. As such, we did not specifically target female migrant workers for interviews. We interviewed multiple stakeholders, including members of civil society organisations (CSOs), international organisations, academia, industry, medical doctors, and migrant representatives to obtain a broader understanding of SRHR for this vulnerable population.

Migrant representatives interviewed represented the interests of migrant workers and were able to speak broadly on migrant workers' experiences in Malaysia. We interviewed representatives of workers from major migrant-sending countries to Malaysia (Indonesia, the Philippines, Nepal, and Bangladesh). We also interviewed medical doctors from the public sector, private sector, and CSOs, who provided SRH services to migrant populations. In addition, we interviewed representatives of CSOs that primarily worked on migrant women's rights and welfare.

Participants were recruited purposively from a previous migrant health stakeholder workshop in Kuala Lumpur [25], and subsequently from snowball sampling of interviewees and further stakeholder recruitment through LinkedIn, until researchers agreed that new interviews would not yield additional information, as thematic saturation was reached.

2.3. Data Collection and Analysis

In-depth interviews averaged from 1 to 1.5 h and were conducted at physical locations chosen by participants or via telephone. Interviews were conducted either in English or Bahasa Malaysia

(Malay language) depending on the participants' preference, by the multi-lingual research team. The majority of interviews were conducted in English, with only 5 out of 37 interviews conducted in Malay.

Semi-structured interview guides were developed to seek participants' perspectives on SRH health services for migrant women in Malaysia, and these questions were tailored towards the participants' professional and organisational backgrounds. The interview guides were constructed based on literature review and discussion among the research team. Concurrent data analysis informed data collection and further refinement of question guides. Interviews with stakeholders from different backgrounds allowed triangulation of findings. Audio recordings were transcribed verbatim.

We conducted thematic analysis as described by Braun and Clarke, where themes or patterns of meaning within data were identified and reported using six phases: becoming familiar with the data, generating initial codes, searching for themes, reviewing themes, defining themes, and producing the report [26].

Data analysis was conducted in an immersive, exploratory, and inductive manner. The first and second authors reviewed and analysed transcripts independently, with regular discussions between researchers to refine codes and identify new themes. Transcripts were coded into emerging themes using NViVo 12 Plus, (QSR International, Melbourne, Australia) and quotations were extracted into Microsoft® Excel® for Office 365, (Microsoft, Redmond, WA, USA). Interviews in Bahasa Malaysia were analysed in the same language, while extracted quotations were translated to English for publication.

2.4. Reflexivity

Interviews were conducted by a medical doctor and academic researchers, who could be perceived as trusted authority figures. To counter possible power imbalances, especially among migrant workers and their representatives, participants chose interview times and their locations.

2.5. Ethics

Participant information sheets were distributed, which detailed the benefits and potential risks of the study, as well as patient rights and study procedures, including audio recording, confidentiality, and data storage. Verbal and written informed consent were sought from all participants before interviews. All participants agreed to be audio recorded and quoted anonymously in publications. Audio recordings and electronic transcripts were stored in secure data servers, while printed transcripts and notes were stored in a locked cupboard. Study participation was voluntary, and we explained that participants could refuse to answer questions or terminate interviews at any point.

This study was approved by the Medical Ethics Committee, University Malaya Medical Center, Malaysia and the Medical Research and Ethics Committee, Ministry of Health, Malaysia (Approval numbers: UM.TNC2/UMREC-238 and NMRR-18-1309-42043).

3. Results

Study results are presented on the health policy context, followed by findings on SRH services, such as SRH education and contraception, abortion, antenatal care and delivery, and GBV. Table 2 summarises the major study results.

Table 2. Summary of major study findings.

Health Policy and Employment Contract Clauses
• Mandatory health screening and the prohibition of pregnancy is discriminatory towards women • Less skilled migrant workers are not allowed to bring family members or allowed to get married in Malaysia • Prohibiting pregnancy forces women to become undocumented
Sexual and Reproductive Health Education and Contraception
• Employers prohibit pregnancy but do not provide access to family planning • Providing information on sexual and reproductive health or access to contraceptive services is seen to encourage promiscuity according to prevailing attitudes • Financial constraints may deter female migrants from seeking contraception • Private practitioners tend to promote more expensive contraceptives, like injectable hormonal contraceptives • Private practitioners fail to inform on the prevention of sexually transmitted infections or encourage the use of condoms
Abortion
• Pregnancy has high economic and social costs to migrant women • Migrant women who opt to continue with pregnancy are likely to be in a stable relationship • Although abortion is legal in Malaysia, prevailing cultural norms and financial barriers force migrants to opt for unsafe abortions • Medical abortion is illegal, but 'abortion pills' are pragmatically recommended by some healthcare providers for purchase online
Antenatal Care and Delivery
• Migrant women opt for private care for antenatal care as public clinics report undocumented workers to the immigration department • Some opt for traditional midwives as a result of financial barriers • Delayed booking and incomplete antenatal follow-up may result in poor obstetric outcomes • Hospital delivery discouraged as linked to immigration at public facilities
Gender-Based Violence
• One Stop Crisis Centres established as a common venue for victims of gender-based violence to access care, is linked with law enforcement • Law enforcement personnel lack sensitization in gender-based violence • Migrant women face added xenophobia and fear when in using One Stop Crisis Centres, especially if undocumented • Lack of shelters available for non-citizens and shelters have limited specialisation in gender-based violence

3.1. Health Policy and Employment Contract Clauses

3.1.1. Mandatory Health Screening and the Prohibition of Pregnancy

To obtain and renew work permits in Malaysia, documented migrant workers must undergo mandatory pre-employment medical examinations within the first month of arrival, and subsequently, annual medical examinations. These medical examinations are conducted at private clinics approved by the Foreign Workers Medical Examination and Monitoring Agency (Fomema) and include screening for a list of communicable and non-communicable diseases like HIV/AIDS, syphilis, tuberculosis, leprosy,

hepatitis B, malaria, diabetes mellitus, hypertension, and also pregnancy for women. Female migrant workers testing positive for pregnancy will fail their medical examinations, and consequently will be denied work permits and are subject to deportation.

Most participants agreed that prohibiting pregnancy during employment is an infringement of a woman's reproductive rights and is discriminatory against women. This migrant representative described how pregnancy is equated with illness in mandatory health screening.

> *"The women who are pregnant, they are considered [as having] an illness. Pregnancy is an illness. They failed [the FOMEMA medical examination] and they have to be sent back. It is like they discriminate [against] us as a woman. This is our reproductive right." MW-1*

This interviewee expressed discomfort with the government-mandated screening for pregnancy, as it does not fulfil the purpose of a pre-employment medical examination to ensure "fitness to work" and to protect the public from communicable disease.

> *"To get your work permit, you have to pass the medical screening, but the medical screening is not only screening for contagious disease, but also for pregnancy. For me, personally, it becomes a problem when it infringes the reproductive right [of migrants]. Other screenings make sense, that is something that is needed to ensure public health for everyone. For the workers themselves to be 'fit to work' and for the health of society, they have to be free from contagious disease–that makes sense! But, reproductive health issue–that concerns reproductive rights. It infringes human rights." CSO-8*

3.1.2. Employment Contracts Prohibit Relationships, Marriages and Pregnancy

Several participants shared that employment contracts expressly forbid sexual relationships, marriages, and pregnancy. This medical practitioner explained that while both men and women are expected to be celibate, women are especially vulnerable because of the possibility of pregnancy.

> *"Most of the migrant workers, especially the women, when they sign up agreements [employment contracts] with their companies, they are not allowed to get pregnant or be sexually active [throughout employment]. A lot of women have come to me and say, 'My boss shouldn't know this!' Because you are not allowed to have sex. It doesn't make sense! You are staying in this country for two years or more, and you are not allowed to have sex? Men and women are the same. But for the men, you don't see much consequences because they don't get pregnant! They don't have to worry about getting pregnant! Women have a more vulnerable position because they fear they will get pregnant." MD-12 CSO*

The immediate termination from employment is a direct consequence of pregnancy. This stakeholder informed that this practice, while legal, is inherently discriminatory against women.

> *"Migrant workers who are pregnant, they lose their job almost immediately. So, these are some of the concerns that people are afraid of . . . In terms of why is there a discriminative practice? If the woman is pregnant, you automatically lose the job. That is questionable." IO-2*

3.1.3. Prohibiting Pregnancy Forces Women to Become Undocumented

Unlike expatriates from a professional, managerial, or highly skilled technical backgrounds, less skilled migrant workers are not allowed to bring family members or to get married in Malaysia in policy. This participant explains that this denial of the right to family results in unregistered marriages among non-citizens.

> *"Reproductive rights, it is actually a basic of human right. You cannot say that [when] you come here, only the expatriate can have the family, non-expatriate cannot. This is human nature, you know? They got married, but they are not allowed to get married here. That is why there is a lot of 'nikah bawah tanah' [underground/unregistered marriages], so they get their own 'imam' [priest] . . . " IO-1*

Participants explained that migrant women who are pregnant and opt to keep their babies are driven to become undocumented migrants. This medical practitioner expresses surprise that many migrant women opt to deliver their babies in Malaysia despite the severe consequences.

> *"They will automatically be illegal migrants, because the moment they are pregnant, they will lose their visa and if they lose their visa, they become illegal migrants. But somehow, many of them do deliver locally." MD-9 PRIVATE GP*

3.2. Sexual and Reproductive Health Education and Contraception

3.2.1. Employers do not Provide Access to Family Planning

Although pregnancy is prohibited among low-skilled migrant women employed in Malaysia in policy, those interviewed informed that there is little support from employers in terms of providing SRH education or services, either in terms of preventing STIs or providing family planning services. This interviewee explained that the prevalent moral attitude in Malaysia—that providing family planning encourages sexual promiscuity—may explain employers' attitudes.

> *"The thing that upsets me is that there is very little recognition that women migrant workers who come here are young and usually sexually active. It's a fact of life. We have actually tried, through our NGOs, to promote the information on contraception, and access to contraception for these people. But people [employers] are very cagey about this! It all has got to do with the idea that: 'Oh, they are only here to work, you know. They are not supposed to have boyfriends or relationships.' And therefore, 'Why should we give them any information on contraception? It will only make them bad workers.' But the reality is, many of them are sexually active. And then, of course, if they don't have access to contraception, they get unwanted pregnancies. And of course, for them to terminate their contract halfway, it's a real waste because they made arrangements to do a two to four year contract with the factories, intending to earn and send money home. But the moment they are found to be pregnant, you know, they have two choices; They either have an abortion, or they are sent back." MD-9 PRIVATE GP*

This participant implied that providing family planning services is an important investment for both employers and workers, as unwanted pregnancies may result in job loss.

Nevertheless, civil society organisations have approached employers and embassies to provide SRH awareness for migrant workers with mixed success. This participant illustrates the best practices of multinational companies that invest in their employee's health by training migrant community leaders to ensure the continuous education of new recruits.

> *"There were programmes done by our NGO with a few companies, where we train their community leaders. So, we will start talking about, 'What is the menstrual cycle? How to prevent STDs? About contraception and everything'. So, these community leaders will keep training new people [newly recruited migrant workers]. So, they know where to get contraception and will come to the clinic to get this [SRH services]" MD-12 CSO*

3.2.2. Migrants Pay Out-of-Pocket for Sexual Reproductive Health Services

Family planning is freely available to local patients at public clinics, as part of a comprehensive package of maternal and child health services for citizens. This medical doctor explained that financial constraints may deter some female migrants from seeking contraception at public clinics, as non-citizens must pay for services.

"To be honest, migrants have to pay for the contraception-for injectable hormonal therapy or any sort of contraception-they have to pay! As opposed to locals, where contraception is free. So, the problem still comes back to financial issue. So, if they are willing to pay and can afford, and if they understand the importance to not conceive within the next two years, then they will pay for it. But most of them-no [they won't pay]." MD-13 PUBLIC CLINIC

Migrant workers pay out-of-pocket for contraception at private clinics, as SRH services are not covered by the government-mandated migrant health insurance (SPIKPA) or employer-provided healthcare.

3.2.3. Private Practitioners Promote Expensive Contraceptives and Fail to Provide Information on SRH

Medical practitioners interviewed informed that although a wide range of contraceptives are available at private clinics, most migrants prefer injectable hormonal contraceptives, especially the commonly available Depo-Provera injections. This interviewee explained that private doctors do not sufficiently advise women on contraceptive options, such as on the use of long-acting contraceptives like intrauterine contraceptive devices (IUCDs) or implants, because these options are less lucrative than injectable hormonal contraceptives.

"Not many GPs [general practitioners] even want to talk about it! But they keep telling them to use Depo-Provera because it is profitable! In a year, if you are coming [to the clinic for] 4 times. So, RM 60 × 4 = RM 240. [Whereas, the] IUCD is RM 200 for 4 years. So, you are not going to see her for the next few years. It [the IUCD] is more economical for the woman, but it is less profitable for the doctors!" MD-12 CSO

While the private practitioners interviewed acknowledged that there is a substantial market for contraceptives among migrant women due to perceived need, participants explained that the awareness and willingness-to-pay are low for the prevention of STIs, specifically the use of condoms.

"I got quite a number of them coming for depo injections [Depo-Provera injections]. Contraception, in the form to prevent pregnancy-yes. But to prevent STDs [sexually transmitted diseases], they have to buy la … Condoms and all that, they have to just find ways to buy it … But I have had quite a number of them who come in for depo injection. So, they do know about it, and they do come." MD-2 PRIVATE GP

This participant implied that migrants were not willing-to-pay for condoms, as this was not seen as essential. Likewise, there is very little information provided by medical practitioners regarding the use of condoms in the prevention of STI.

3.3. Abortion

3.3.1. Migrant Women's Abortion Decisions Linked with Financial Security and Employer Support

Migrant women may lose formal employment and face deportation, as a consequence of pregnancy. Migrant women who chose to continue with their pregnancy in Malaysia are likely to become undocumented. Since the economic and social costs of pregnancy are substantial, this participant explained that migrant women that opt to continue with their pregnancy are usually in stable, committed relationships with relative financial security.

"Migrants pay for antenatal care at private clinics themselves. So usually, the ones who are willing to keep a child, they know it's going to cost them. So, they should have some 'back up' money or husbands who are ok, and then they can afford. Maybe he is taking home RM 1800 to RM 2000 a month. So, from all his work, he can afford it. Then they go ahead. There are some who will come and say, 'No I can't, I can't afford it'. Then some are like girlfriend/boyfriend, but he might be married, she might be married, you know … 'accidents', you know. This group will come and ask if they can get a medical abortion." MD-2 PRIVATE GP

Migrant workers are generally in Malaysia for the short term, with employment contracts lasting 2 to 4 years. This participant explained that many of the relationships formed by migrant workers in Malaysia are impermanent. Without support from a partner, pregnancies are unwanted and result in abortion.

> *"Basically, when they arrive [in Malaysia], they may have a husband back home. But, after few months, no more. We heard from other Filipinos, that mostly after they separate from [their husband], they find someone else here. And then when they get pregnant, they just abort it." MW-3*

Several participants shared that some domestic workers are highly valued by their employers, and that these employers are supportive of their employees' pregnancy. Examples were given of employers sending workers back to their home countries for delivery, with the option to return to Malaysia for employment. Others gave examples of employers supporting their workers by bringing them to private clinics for antenatal follow-up. This participant shared that some employers support their domestic workers in having an abortion, as this would mean the domestic worker could keep her job.

> *"In terms of unwanted pregnancies, they cannot be pregnant and stay in the work. But fortunately, many of the private employers want to keep their maids. Very often their maids are quite well-paid and they [the employers] are happy with them. And if they are pregnant, the employer [would] actually bring her along [to the clinic], and then you [as the doctor], would do the termination because she wants to continue working." MD-9 Private clinic*

It was unclear whether domestic workers in this position received pre-abortion counselling or advice from providers on their options.

3.3.2. Health Providers have Negative Attitudes towards Abortion

Although abortion is legal in Malaysia, the prevalent negative perception of termination of pregnancies has led to the widespread belief that it is illegal, even among healthcare providers. Many healthcare providers view contraception and abortion as sensitive topics and opt not to be part of the network of private healthcare providers offering safe abortion services. This participant explained that the opposition towards abortion is related to cultural norms, as the abortion laws in Malaysia are fairly liberal.

> *"All of them who are at the top level [government] say: 'Oh, yeah, we have to recognise the law.' The law in Malaysia is almost identical to the English law on abortion. So, what happens on the ground, seems to be not so much an official policy, but all 'cultural opposition' to make reproductive health and particularly contraception accessible to single women, and to make safe abortion accessible to women in general." MD-9 PRIVATE GP*

Abortions are rarely conducted at public healthcare facilities. While a selected number of private clinics provide safe abortions, these options are expensive and maybe unaffordable for low-wage migrant workers. Thus, migrant women may opt to perform illegal, self-induced abortions, which are likely to be unsafe. Medical practitioners interviewed informed that migrant women do present at the emergency departments of public hospitals with complications of unsafe abortions.

> *"I have never seen any migrants coming to us for abortions [at public clinics]. They do it by themselves–self-induced. They have their own traditional ways of doing it, you know, by drinking vinegar and certain traditional medication, or they will try to induce trauma to the stomach! So, when they do present to us, it is already–not there [pregnancy terminated]. So, we had to refer them to the [public] hospital for a D&C [Dilation and Curettage]. Curettage is to clear off whatever is left behind." MD-13 PUBLIC CLINIC*

3.3.3. Medical Abortion Unavailable Legally

Malaysia has not legalised the use of medical abortions (i.e., non-surgical abortions, where oral medications are given to terminate pregnancy). While "abortion pills" are available for purchase online without a doctor's prescription, these pills are illegal and unregulated. Medical practitioners interviewed explained that medical abortions are a safe alternative and cheaper than surgical abortions. This medical doctor cautions patients against purchasing "abortion pills" from unknown sources and would make discreet referrals to a professional network of CSOs that facilitates safe abortions.

> *"We have to advise them on medical or a surgical abortion. A surgical abortion will cost them almost RM 700 to RM 1000, which most of them don't have. So, instead of them harming themselves [unsafe abortion], we will actually tell them that 'The procedure is not available here [at this clinic]. Don't trust anybody, don't Google, don't find [abortion services] anywhere! Here are the contact details, where you can get pills online. But there's a possibility of not fully recovering. You will then need to see these certain doctors [who are] providing surgical [abortion]!' So, usually that is how we refer them to XXX." MD-12 CSO*

3.4. Antenatal Care and Delivery

3.4.1. Migrants OPT for Private Clinics and Traditional Midwives for Antenatal Care

Due to immigration regulations, pregnant migrant workers in Malaysia inevitably become undocumented. While healthcare providers at public healthcare facilities will not deny patients necessary medical care, they are obliged to report undocumented workers to the police and immigration authorities. This medical practitioner explains that because of these restrictions, migrant women tend to opt for private healthcare.

> *"They [migrants] tend not go to the 'Klinik Kesihatan' [public clinics for antenatal care], because they have to pay quite a bit for it. Some of them are scared that if they go there, and they [health authorities will] inform immigration department and they will be deported. So, they don't want to go to the government side. So, they don't get any [antenatal] follow up, they don't get anything. Sometimes you [would] ask them, 'Do you have antenatal records [home-based antenatal book given to patients at public clinics]?' No records, you know, that makes it very difficult. But there are apparently some [private] clinics or some smaller maternity centres, who have their own follow-up for foreigners. So, they have their own [antenatal] book and they can go in for deliveries." MD-2 PRIVATE GP*

As the lack of antenatal follow-up and records prove problematic for the management of pregnancy and delivery, some more established private maternity centres provide more detailed follow-up for non-citizens.

Mainly due to the cost of private healthcare, some migrants prefer to deliver babies at home with the help of untrained traditional birth attendants. As shared by this migrant representative, this practice is likely done out of desperation, not cultural preference, and is linked with poor obstetric outcomes.

> *"Some, they prefer to go to the traditional midwives. In some cases, that's why they pass away during delivery, because they don't want to go to the hospital. Because of the lack of documents and also because the payments are very high. So, they prefer to use the 'dukun beranak' [traditional midwife]. I found one [lady like that] last year, passed away in XXX. We had sent her to the hospital, but it was too late already. The baby also passed away." MW-1*

3.4.2. Delayed Booking, Incomplete Antenatal Follow-Up and Poor Obstetric Outcomes

Most stakeholders explained that due to healthcare costs, non-citizens tend to present late for booking and default follow-up at antenatal clinics. Doctors interviewed observed that late presentations could result in poor obstetric outcomes and avoidable complications. These complications would inevitably incur additional financial expense, as more advanced treatment may be necessary.

"For migrants, when they present, it is already 30 weeks? 32 weeks? I even had one patient last week [who] presented at 36 weeks! So, that was the first time ever that I saw her. So, whatever that has happened, has happened! It is irreversible. For example, that is something we called: IUGR, which is 'Intrauterine growth restriction'. So, when that already occurs, nothing can be done! So, the baby may be born–with low birth weight from premature delivery. Then they will have a lot of complications! Like sepsis and all! So, all of these actually contribute to more financial burden to the patients! Because they will require a NIC [neonatal intensive care] admission for a long time!" MD-13 PUBLIC CLINIC

3.4.3. Hospital Delivery Linked to Deportation

The government policy to report undocumented migrants to the police has resulted in incidents of women being detained immediately after delivery. Participants explained that conditions at detention centres are unsuitable for post-partum women and newborn babies. This interviewee explains that linking healthcare with deportation is a human rights violation.

"We had a case of a migrant worker [who] was admitted to the hospital due to deliver. Within less than 24 h, both mother and the baby were already at the XXX Detention Camp. We [the CSO] needed to get intervention from the Embassy. They shouldn't detain the baby inside there because there are not such facilities, and besides, the mother was still very fragile, and shouldn't be detained. The Immigration Department persisted with their decision but [with] expedited repatriation. The Indonesian embassy refused to bear the expenses [of repatriation], so we [the CSO] had to find money for them. Because, the Indonesian government also has certain [financial] constraints. This was actually a very challenging situation for us." IO-1

3.5. Gender-Based Violence

3.5.1. One Stop Crisis Centre Linked with Police

One Stop Crisis Centres (OSCC) were established in Malaysia since 1996 to assist survivors of gender-based violence (GBV), to obtain comprehensive care from multiple agencies in a common venue. The OSCC are located at the emergency departments of Ministry of Health hospitals in Malaysia and provide immediate treatment, while facilitating protection, counselling, medico-legal, and social support services for survivors of GBV, rape, sodomy and sexual assault, domestic violence, and child abuse.

Legally, citizens and non-citizens can use GBV-associated healthcare services, which are available free of charge regardless of citizenship status at OSCCs. However, reporting violence to the police is a pre-requisite to seeking care at the OSCC. This participant explains that the procedure for reporting to the police is not always consistent. Survivors of violence are supposed to go directly to the OSCC, and the police report should be done at the hospital. However, some survivors are asked by hospitals to go to the police station first before coming to hospital for treatment.

"I have heard different information, at different times. Previously, I have heard [that] people should just go to the emergency [department] and then be referred to the OSCC. Then the police report will be lodged there. So, the police will go [there], to take the report. But I have also heard another story when they go to the emergency [department] and want to be directed to the OSCC, and they were asked to lodge [a police] report first, before they come [into OSCC]." CSO-8

This participant explained that fear of the police is a hindrance faced by many non-citizen women seeking care or justice. Law enforcement personnel were described as lacking sensitization in dealing with GBV, and migrant women face additional discrimination.

"I would say on the whole, there is definitely a lack of sensitisation amongst the police. I think in general, when it comes to gender-based violence, there is a lot of 'victim blaming' and those kinds of attitudes that are pretty pervasive. For non-Malaysian women, there is another layer of discrimination and some xenophobia. So, I think the quality of services is even lower for them! And then sometimes, if it is a situation where the employer has not done what they need to do to renew the work permit or the visa, then they might be afraid to go to the police because they can get reported to immigration! So, that is often a reason for women not to access help." CSO-7

Study participants informed that undocumented migrants were particularly afraid to come forward to report incidences of violence, due to their immigration status.

3.5.2. Limited Shelters for Non-Citizens

While government and CSOs provide shelters, those interviewed informed that there is a shortage of shelters specifically designed for survivors of GBV. Study participants informed that government shelters provided by the Welfare Department are general shelters, which may also house the homeless or elderly populations, and may lack comprehensive case management of GBV.

Furthermore, not all government shelters accept non-citizen women. Participants informed that government shelters only accept non-citizens that have been issued protection orders by the courts.

"There are two types of shelters, shelters run by the NGO and then shelters by [the] government, especially [the] Women Ministry [Ministry of Women, Family and Community Development] and the Jabatan Kebajikan [Welfare Department]. But government shelters that takes migrants are limited to migrant workers who have already been given a protection order; after the case has been determined by [the] police and court. Let's say the charges [pending] can be categorised as human trafficking, then . . . the person will be given a protection order or an interim protection order during the investigation. Only then, will they be put in the government shelters." CSO-8

Participants informed that migrants may also be reluctant to obtain refuge and protection at shelters, as they would have to make a report with the police. As government shelters are limited for migrant women, CSOs are an important source of assistance, also providing legal aid and counselling.

4. Discussion

In Malaysia, female migrant workers are subject to regulation of their reproductive rights with pre-employment and annual screenings for pregnancy, and face termination from employment if found pregnant.

Premature dismissals from employment are financially detrimental to both employers and migrant workers. Nevertheless, we found that information and access to family planning are seldom supplied to migrant workers by employers and not provided for by the government [20]. The state and employers essentially deny that migrant workers are sexually active adults, with the intent of avoiding being seen as promoting promiscuity by raising the topic of SRH. This outdated approach must change towards a pragmatic one, whereby migrant workers, including men, are provided with education and access to low-cost contraceptives. The low contraception prevalence in Malaysia (33.1% for all methods and 23.3% for modern methods) compared to the global estimate for 2019 (48.5% for all methods and 44.3% for modern methods) [27,28] may be explained by social, cultural, and structural barriers and lack of knowledge on contraception [29–32].

Our findings suggest that the choice of contraceptive methods among migrants may be influenced by the perceived risk of pregnancy and its consequences borne by women; hence, female-controlled methods like injectable steroids may be preferable, with less uptake of male-controlled barrier methods like male condoms. Poor uptake of condoms may also be explained by a worrying lack of awareness of STD and HIV prevention [33,34].

Although Malaysia has relatively liberal abortion laws, its interpretation is subject to cultural and religious resistance in the predominantly Muslim nation [35,36]. The Penal Code Act 574 (revised 1997)

Section 312 permits safe abortion if performed by a registered medical practitioner and the medical practitioner determines that continuance of the pregnancy endangers the life of the pregnant woman or harms her physical or mental health [37–39].

In 2014, a 24-year-old Nepali migrant worker who opted for an abortion for fear of losing her job was arrested when police raided the clinic where she had her abortion. This Nepali worker was the first woman charged and convicted for having an abortion in Malaysia, although her conviction was subsequently acquitted [40–42]. This case illustrates the plight of migrant women under restrictive immigration laws and labour practices, as even after her innocence was proved and despite being no longer pregnant, the Nepali worker was dismissed by employers for being a "bad role model" [43,44].

Many medical practitioners, especially public sector providers, have conservative views and exercise personal judgement that restricts a woman's access to safe abortion [35]. While abortion services are available at certain private clinics, we found that financial constraints were a likely barrier for less skilled migrant women. Furthermore, the lack of information on where to obtain safe abortions and the underlying social stigma [35,45–47] are plausible drivers for migrant women to seek unsafe abortions, including unregulated medical abortions.

Medical abortion is a non-invasive, effective method for early pregnancy termination (within 49 days of the last menstrual period), that gives control to the woman rather than the healthcare provider [48]. Despite the recent classification of misoprostol and mifepristone as essential drugs–"where permitted under national law and culturally acceptable" by the World Health Organization [49,50], the Ministry of Health, Malaysia has yet to approve their use for medical abortions [36,37].

Notably, no participants undertook pre- or post-abortion counselling, either for their decision-making and feelings around abortion or on contraception post-abortion. We have no evidence for the latter in developed countries on increasing contraceptive uptake and acceptability [51].

Prohibition of pregnancy may result in avoidance of needed care due to apprehensions of job loss and deportation, and this may lead to treatment delays or unsafe abortions. It is accepted as a given by employers and healthcare providers that migrant women will want to terminate pregnancies so they can retain employment. Yet, the legal basis to prohibit pregnancy is unclear, as pregnancy as a clause for dismissal from employment is not specifically included in Malaysia's Employment Act or the Immigration Act [52,53]. Women are effectively coerced by policy and employment contracts into abortions, and this may curtail their reproductive rights.

Migrant workers face complex barriers in accessing healthcare in Malaysia, including financial constraints, the need to present legal documents like passports and work permits at public facilities, language barriers, discrimination, and physical inaccessibility [23,54]. Immigration policies in Malaysia essentially deny maternal and child health services for migrant workers at public facilities. Previous studies support our findings that migrant women are late in initiating antenatal care, while many never attend antenatal clinics and have home births with untrained birth attendants [19,55]. These factors may lead to delivery complications, as migrant women only seek care when critically ill, necessitating more advanced and expensive care [56]. As seen in other settings, migrant women are at higher risk of poor obstetric outcomes, including increased maternal and neonatal mortality, as compared to local women [57,58].

Malaysia successfully lowered maternal mortality through health system strengthening and meticulous auditing of all maternal deaths, including non-citizen deaths, through confidential enquiry into maternal deaths (CEMD) [59–61]. Unfortunately, while non-citizen maternal deaths are investigated in Malaysia, maternal mortality among migrants are not captured in national statistics reported internationally [56,60], raising questions if definitive measures to reduce risk in this group have been attempted.

States have the sovereign right to govern migration within national boundaries. However, the detention of new mothers and their babies for immigration offence may conflict with international laws and conventions. According to the Bangkok Rules or "the United Nations Rules for the Treatment

of Women Prisoners", non-custodial measures are preferred to the detention of vulnerable pregnant women and minor children [62]. Malaysia has ratified both the CEDAW and the Convention on the Rights of the Child (CRC) [16] and is under obligation to provide reasonable care and cater to the special needs of pregnant women, breastfeeding mothers, and mothers with children in custody [63].

In Malaysia, OSCC provides integrated services for victims of GBV at public hospitals [64,65]. While services are available to all women, in theory, barriers remain in practice for non-citizen women. Migrant women, especially those with precarious legal status, are reluctant to report violence or seek medical treatment, for fear of arrest and detention for an immigration offence. Lack of uniform implementation, seen here with confusion regarding the need for victims to report violence at police stations before seeking treatment, is an example of a shortfall in service. We would like to stress the importance of gender-sensitisation training among law enforcement agents, in terms of improving gender sensitivity and reducing discrimination against vulnerable non-citizen women [44,66].

This study has several limitations. Due to the sensitive nature of this study, we had difficulties obtaining interviews with migrant workers, employers, and policy stakeholders. Nevertheless, we were able to triangulate study findings by interviewing diverse key informants, including medical doctors, representatives of civil society organisations, trade unions, and academia. While the qualitative nature of this study precludes the generalisation of findings, we were able to illustrate the landscape of SRH services for migrant women in Malaysia by examining different stakeholder viewpoints and perspectives. We were also unable to fully explore the management of STIs and HIV/AIDS among migrant populations, an important component of SRH which would need dedicated future study.

This study has several strengths. Ours is one of few studies in Malaysia that explore the access to SRH services among vulnerable female migrant workers. We hope that this work will provide a vital understanding of some of the barriers faced by this vulnerable population and opportunities for intervention. We suggest that future quantitative research be conducted to fill the gap in SRRH data in Malaysia disaggregated by citizenship, especially on contraceptive usage, abortion, utilisation of SRH services, and maternal mortality.

5. Conclusions

This study shows that the SRHR of migrant workers remains severely curtailed in Malaysia. Political will is necessary to revise restrictive immigration laws and labour policies to enable low-skill migrant workers to fulfil their SRHR. We suggest that instead of the discriminatory prohibition of pregnancy during employment, that all migrant workers are provided with access to SRH education and low-cost contraception by employers. All pregnant women, including non-citizens, should also have equal access to antenatal and delivery care at public healthcare facilities, and healthcare access should be decriminalised. A more inclusive, rights-based approach to healthcare access would have population-wide benefits, and this would put Malaysia towards the path of meeting the SDG target of 3.7 for universal access to SRH services.

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Article

A System Model of Post-Migration Risk Factors Affecting the Mental Health of Unaccompanied Minor Refugees in Austria—A Multi-Step Modeling Process Involving Expert Knowledge from Science and Practice

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Abstract: Various studies have indicated that unaccompanied minor refugees (UMRs) have a higher risk of suffering from mental health problems than do accompanied minor refugees and general population norm. However, only a few studies provide data on UMRs regarding post-migration risk factors, their interrelations, and their influence on mental health. In this study, system models of post-migration risk factors for mental health and their interactions were developed in the case of Austria. In three consecutive interactive workshops with scientists and practitioners, fuzzy-logic cognitive mapping techniques were used to integrate the experts' knowledge. The resulting final system model consists of 11 risk factors (e.g., social contacts in the host country, housing situation, or professional health care services). The model provides a deeper insight into the complexity of interrelated direct, indirect, and reciprocal relations, as well as self-reinforcing triads. This systemic approach provides a sound basis for further investigations, taking into account the inherent complex multifactorial dependencies in this topic.

Keywords: system models; expert knowledge; fuzzy-logic cognitive mapping; unaccompanied minor refugees; mental health; post-migration risk factors

1. Introduction

During the refugee movements in the years 2014 to 2016, European countries faced a rapidly growing number of refugees and asylum seekers, resulting in a record level of 1.3 million asylum applications in 2015 [1]. Of these, 8277 asylum applications were filed by under-age refugees [2]. Although the number of asylum-seeking applications has been decreasing since 2016, asylum seekers and refugees still represent a persistent issue and an important field of action, especially in terms of the vital matter of ensuring their mental health and well-being.

Refugees may suffer from mental disorders, as they often cope with dire situations and life events that affect their mental health. In particular, numerous studies have highlighted the special vulnerability of refugee children and adolescents to mental health problems and psychiatric disorders [2–8]. In a systematic review [3] that included 47 studies from 14 European countries and published from 1990 to 2017, covering a sample size of 24,786 refugee or asylum-seeking minors, the estimated point prevalence of diverse psychiatric disorders and mental health problems for children and adolescents was reported as follows: For posttraumatic stress disorder (PTSD), between 19.0% and 52.7%; for depression, between 10.3% and 32.8%; for anxiety disorders, between 8.7% and 31.6%; and for emotional and behavioral problems, between 19.8% and 35.0%. Despite the highly heterogeneous evidence base, it can be assumed that up to one-third of refugee and asylum-seeking children and adolescents suffer from depression, anxiety disorders, or emotional or behavioral problems, and up to one-half could be affected by PTSD [3]. Moreover, various studies showed that unaccompanied minor refugees (UMR) had a higher risk of suffering from mental health problems and psychiatric disorders than did the accompanied minor refugees and general population norm (cf., [3]). Out of this group, female UMRs appear to be exposed to a higher risk for developing mental health problems, PTSD and depression [4]. Several risk factors can influence the point of prevalence of mental health problems in minors. The literature differentiates between factors of pre-migration, e.g., traumatic exposure to poverty, violence, and war; factors of peri-migration, e.g., separation, sexual abuse, and trafficking; and factors of post-migration, e.g., access to education, social support, the asylum application process, discrimination, acculturation, insecure living conditions, and uncertainty about the future [9–13]. The latter factors are those that can be triggered by country-specific policies of the host countries through the creation of conditions that either hinder or facilitate the integration of refugee children and adolescents and, consequently, either reinforce or weaken their mental health. A comparison of approaches to the integration of UMRs established by EU Member States (MS) shows that MS generally give priority to the care of UMRs. Thereby, MS apply similar accommodation arrangements, appoint a representative (e.g., guardian), provide access to education, the labor market, social welfare assistance and health care (including emergency treatment, basic medical care, and in many cases additional specialized medical care and counseling) [5]. Despite these similarities, integration policies and processes generally depend on the country-specific environment and, hence, post-migration risk factors may be more or less subject to social, political, and economic conditions.

One of the main challenges for the integration of UMRs found in the above-mentioned comparison refers to a lack of specialized and trained staff [5]. This highlights the importance of political and practical recommendations for coping with post-migration risk factors, taking into account the specific conditions affecting the situation of UMRs in a foreign country.

Given the complex interplay between post-migration risk factors, mental health status, and country-specific integration conditions, this study focuses on Austria as a country recording a high share of (unaccompanied) minor asylum applicants [1]. However, in the case of Austria, only a few studies provide data on post-migration risk factors and their influence on the mental health of UMRs. Among others, the Institute for Empirical Social Research (IFES) carried out an exploratory study on the living conditions of UMRs in eastern Austria [14]. This study included quantitative and qualitative interviews with 66 UMRs who spoke about their living situations and future expectations. The study provides insights into essential framework conditions such as accommodation, access to education and work, the financial situation and daily routines of UMRs, and their future perspectives, even if the influence on mental health was not specifically surveyed. Other available publications on specific post-migration risk factors are mostly from non-profit-organizations (e.g., Asylkoordination Österreich, Caritas), international institutions (e.g., European Migration Network), and government institutions and ministries (e.g., Ombudsman Board, the Federal Ministry of Education, Science and Research), though they focus mainly on practical and/or legal matters.

Moreover, significant interrelationships between risk factors have not yet been sufficiently investigated. Consequently, the interactions and dynamics of risk factors of this complex domain

of research may be inadequately addressed and implemented in the development of strategies or measurements. In the case of UMRs, this could not only raise costs for secondary and tertiary professional care but also hinder their sustainable integration into society. Thus, evaluating the effectiveness of appropriate measures to ensure the mental health of UMRs requires more than the mere aggregation of parts of the interrelated and multidimensional factors contributing to vulnerabilities of UMRs.

In view of the topicality and relevance of the subject and the scarce availability of data at national and international levels, this study aims to identify post-migration factors, their interrelationships, and potential influence on mental health. An interdisciplinary and systemic approach incorporating experts' knowledge and experiences was applied to obtain different perspectives from both a scientific and a practical point of view. The final goal of this study was to develop a knowledge-based system model that integrates different knowledge and describes post-migration risk factors as a network of interacting factors. In research and practice, knowledge-based system modeling techniques are used to retrieve the knowledge and represent how individuals organize knowledge, link concepts within a knowledge domain, and understand complex problem situations [15–17]. Different types of problems can benefit from this approach of incorporating experts' knowledge, if, for instance, scientific data on a specific topic is limited or if the problem involves many parties and has no clear solution or clearly correct answers and is, therefore, complex [18–20].

In this study, we incorporated the approach of system modeling, as described in the section *Materials and Methods*. Based on our final system model developed within three workshops as described in the *Procedure* section, the research results are presented and discussed within the context of the specific legal and policy framework in Austria. The developed system model calls for a more detailed analysis and should currently only provide insights into future needs for action and further investigation as described in the *Limitations* and *Conclusions*.

2. Materials and Methods

2.1. The Technique of Fuzzy-Logic Cognitive Mapping

In this study, the technique of fuzzy-logic cognitive mapping (FCM), a commonly used form of semi-quantitative system modeling, was applied. It is an established technique for eliciting, capturing, and diagramming structured knowledge on interrelated issues of a knowledge domain held by individuals or groups [21,22]. The result of the process of system modeling is a cognitive map that takes the form of a system and provides a visual representation of a person's existing understanding on a particular subject. A cognitive map has three characteristics [23]. The first characteristic includes both the direction and nature of causality; the second characteristic reveals the strength of the connections, and the third characteristic reflects a feedback mechanism that captures the effect of a change in a node on another node that, in turn, affects other nodes along the path. In other words, these cognitive maps contain nodes, i.e., concepts that can be linked qualitatively (e.g., low, medium, high) or quantitatively (e.g., between −1 and 1) to other concepts. This connectivity allows researchers to uncover trends by measuring the degree of conceptual agreement in the cognitive maps produced by individuals [15] or by groups jointly defining, expanding, discussing, and collaborating on the concepts and structures of a system [18].

Furthermore, by applying mapping techniques in a group environment, the knowledge of the group can be extended by developing and discussing the emerging system models. That is, collaborative system modeling can act as scaffolding tools to create an environment in which diverse group members can share their knowledge [24]. Thus, by generating a representation of the problem to solve a particular situation, individual contributors can build on each other, and actions or ideas can be taken up or complemented by other group members [25].

2.2. Participants

The participants who were invited to the first workshop consisted of five female scientists working in the fields of migration studies and health economics (see A1–A5 in Table 1). All of them have several years of experience in research projects on health-related migration issues at the same university but are partly assigned to different departments. The expert group of practitioners invited to the second workshop consisted of three male and two female practitioners who worked directly with UMRs in social or medical fields (see B1–B5 in Table 1). All of them had several years of experience in health-related migration issues in their various fields of expertise. They were not acquainted with each other and had no official organizational connections. The participants in the third workshop were the same scientists who had taken part in the first workshop, including one additional scientist from the field of evidence-based medicine (see C6 in Table 1).

Table 1. Participants from workshop 1 to workshop 3.

Participant	Role	Field of Expertise	Years of Expertise
A1	Scientist	Migration studies	10
A2	Scientist	Migration studies	10
A3	Scientist	Migration studies	9
A4	Scientist	Health economics	9
A5	Scientist	Health economics	6
B1	Practitioner	Child and adolescent psychiatry	12
B2	Practitioner	Psychosocial services	2
B3	Practitioner	Social work (youth center)	11
B4	Practitioner	General medicine	25
B5	Practitioner	Education and labor market integration	3
C6	Scientist	Evidence-based medicine	10

A = scientists of workshops 1 and 3, B = practitioners of workshop 2, C = additional scientists of workshop 3.

2.3. Procedure

Study phases I–III were conducted to create the final system model of post-migration risk factors in Austria that contains integrated information and assumptions about the relationship between elements in the system of risk factors. The aim was to obtain different perspectives from both a scientific and practical point of view. The following phases were implemented.

2.3.1. Phase I: Co-Developing System Models

In workshop 1 with five scientists and workshop 2 with five practitioners, each group co-developed a system model of risk factors of UMRs' mental health upon arrival in Austria. The research question was as follows: "Which influencing factors negatively affect the mental health of UMRs, whereby UMR is used to define persons under the age of 18 who came to Austria without care between the years 2003 and 2018?" In the case of unclear points, the facilitators supported the groups; otherwise, they kept away from the task execution and simply observed the interaction of the participants. The co-development of a system model and its relationships were elaborated on in four tasks:

- Task 1: Individual elicitation of influential factors.

Using moderation cards, each participant freely wrote up to 10 factors associated with UMRs' mental health that he or she considered essential based on his or her knowledge and experience.

- Task 2: Collaborative identification of the main factors for the system model.

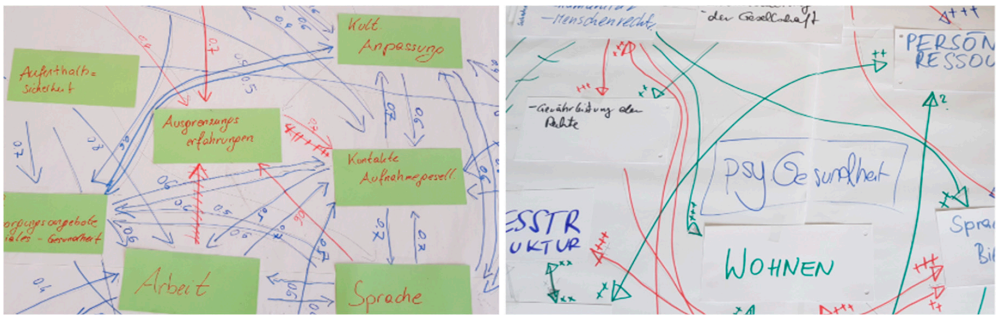
After the individual elicitation of up to 10 risk factors, the participants presented those risk factors to the group and jointly clustered the cards regarding the topics that were similar and most relevant. In a collaborative effort, they labeled these clusters on new moderation cards and defined the names of the main factors to indicate more general concepts.

- Task 3: Collaborative drawing of relations between factors.

After a detailed explanation of how to create FCM, each expert group built a system model and collaboratively drew directed relations between the identified factors. A positive relationship meant a positive effect, i.e., if the value of factor A increases, then the value of factor B also increases, while if the value of factor A decreases, then the value of factor B decreases. A negative relationship meant a negative effect, i.e., if the value of factor A increases, then the value of factor B decreases, while if the value of factor A decreases, then the value of factor B increases. The participants placed the factors written on cards on a flip chart in an arrangement of their choice and drew the relationships.

- Task 4: Collaborative decision-making of the strength of effects.

After sketching the essential directed relations, the groups decided upon the strength of each relation. For the group of practitioners, a distinction was made between strong, medium, and light relations. A strong positive relation was marked, for example, with three plus signs ("+++"), while a slightly negative relationship was marked with a minus sign ("−"). Considering that scientists are accustomed to numerical expressions of correlations, they evaluated the interactions between the factors as decimals ranging from −1 to +1. Figure 1 depicts the two system models developed in workshop 1 and workshop 2.



(**a**) (**b**)

Figure 1. Part of the group system model of post-migration risk factors in Austria co-developed in workshop 1 with scientists (**a**) and workshop 2 with practitioners (**b**).

2.3.2. Phase II: Consensus-Based Evaluation of the Main Risk Factors

Workshop 3 was designed to enable the group of scientists of this study, as a larger group of six people, to integrate the factors and assumptions of the two groups' system models from workshops 1 and 2. The task was to jointly identify those factors the participants regarded as the main risk factors of this study. Thus, all the factors identified in the scientists' and practitioners' system models were evaluated until an agreement was reached. The co-evaluation of the risk factors followed three criteria: (1) The degree of impact a factor has on UMRs' mental health, i.e., the weighted degree; (2) the impact's effects on other factors, i.e., the outdegree; and (3) the degree of being influenced by other factors, i.e., the indegree.

2.3.3. Phase III: From Individual Models to a Shared System Model

After defining the main risk factors of the final system model of this study, the researchers of workshop 3 rated the relationships between these factors and the impact of each factor on mental health. An Excel workbook was created, with one sheet providing the introduction and an example of the task and a second sheet providing a matrix of the factors identified in phase II of the study. In the matrix, the six researchers individually rated all relations between all factors from 0 (no influence) to 10 (most substantial influence). Additionally, the main risk factors were rated regarding their impact on mental health between 0 (no impact) and 10 (most substantial impact). In this sense, the scientists'

mental models, i.e., their knowledge, beliefs, and assumptions about the risk factors of UMRs, were individually gathered to calculate a shared system model of post-migration risk factors of UMRs in Austria. This shared system model is the final model of this study and was calculated by aggregating and filtering the data from all scientists. This procedure allows for the identification of the main relational patterns between the factors. The following thresholds were defined to count a relation in the final system model: Two-thirds of the group (i.e., at least four persons) indicated a value higher than 0 (from 0, no influence, to 10, most substantial influence), and the aggregated average score was higher than 5.0. Afterward, the calculated matrix was visualized as a system model, using the freely available software package Visone. Phase III ended with a sense-making workshop; the researchers evaluated the final system model to identify missing factors or correlations and discussed relational patterns by referring to the current literature. The results of this sense-making process are described in the Discussion and Conclusions sections.

3. Results

3.1. Experts' System Models on Post-Migration Risk Factors

Figure 2 depicts the system models of the expert groups in workshops 1 and 2 of this study as well as the final system model evaluated in the course of this study. In all three system models, the positive relations between the nodes are represented as green arrows in three categories: Medium influence (5.0–5.9, light green), strong influence (6.0–6.9, green), and powerful influence (>7.0, dark green). Likewise, the red arrows, i.e., the light red, orange, and red ones in the system models of workshops 1 and 2, represent the negative relations between the factors, whereby they were applied only in these two networks. Additionally, the scientists of workshop 3 rated the main risk factors of the final system model in terms of their impact on mental health. In Figure 2, these ratings are visualized as blue nodes in three categories: Medium impact (5.0–5.9, light blue), strong impact (6.0–6.9, blue), and powerful impact (>7.0, dark blue).

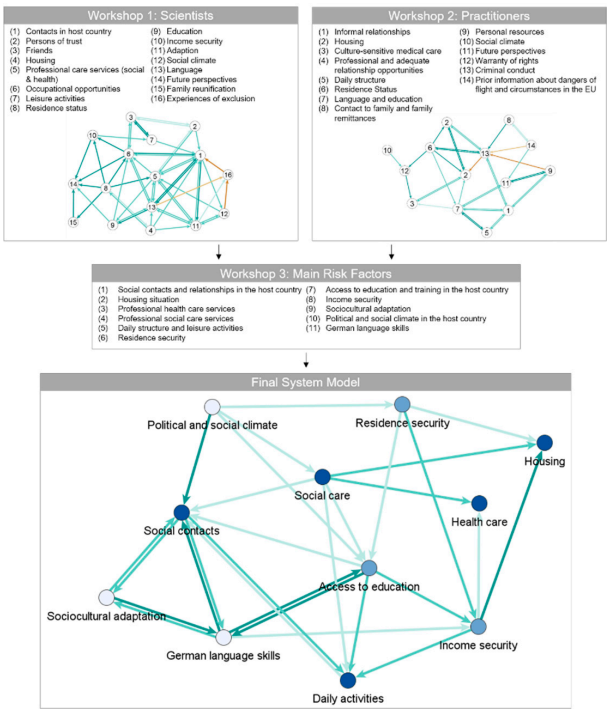


Figure 2. Illustrations depict the system models of post-migration factors developed in workshops 1 and 2. The main factors identified in workshop 3 are illustrated in the center, and the final system model developed throughout the three workshops can be seen below.

The derivation of the main risk factors of the final system model during the third workshop can be found in Table 2. Congruent factors were identified and maintained, similar factors were summarized, and rarely named factors were removed. As can be seen in Table 2, some factors were not included in the final system model, even though they were named in both workshops.

Table 2. Clustered post-migration risk factors identified in the three workshops.

Main Factors of the Final System Model	Factors of Scientists' System Model	Factors of Practitioners' System Model
Social contacts	Contacts in host country	Informal relationships
	Persons of trust	
	Friends	
Housing	Housing	Housing
Health care	Professional care services (social and health) [1]	Culture-sensitive medical care
Social care	Professional care services (social and health) [1]	Professional and adequate relationship opportunities
Daily activities	Occupational opportunities	Daily structure
	Leisure activities	
Residence security	Residence status	Residence status
Access to education	Education	Language and education [2]
Income security	Income security	Contact with family and family remittances
Sociocultural adaptation	Adaptation	Personal resources
Political and social climate	Social climate	Social climate
German language skills	Language	Language and education [2]
- -	Future perspectives	Future perspectives
- -	Family reunification	- -
- -	Experiences of exclusion	- -
- -	- -	Warranty of rights
- -	- -	Criminal conduct
- -	- -	Prior information about dangers of flight and circumstances in the EU

The factors of the scientists were identified in workshop 1 (N = 5), the factors of the practitioners in workshop 2 (N = 5), and the main factors in workshop 3 (N = 6). The main factors are presented as short names. Professional care services [1] (social and health), and language and education [2] are single risk factors that have been split into two main risk factors.

As in the case of the factor *future perspectives*, the scientists argued that this factor was already covered by the remaining risk factors, such as *income security* and *residence security*. They agreed to exclude the factors *criminal conduct* and *prior information about the dangers of flight and circumstances in the EU* because these had been classified as a mix of post- and pre-migration factors.

Furthermore, the factor *discrimination* was not included in the final system model because it has been considered the possible output of the determinant *political and social climate of the host country*. The factor *contact with family and family remittances*, which includes, among others, financial family support, was initially subsumed under the factor *income security* and excluded afterward. The scientists of workshop 3 considered that the host country cannot influence this factor, and it was ambiguous as the factor of *family reunification*, which was also subsequently excluded. The two factors were excluded for the following reasons: First, the two factors may exert both a positive impact and a negative impact

on the mental health of UMRs. For example, the prospect of family reunification can be both a positive future perspective and a source of pressure, whichever is more likely is related to the status of the UMR and the expectations of the family. The same applies to *financial support* for or from the family in the country of origin. Second, the factors have a strong linkage to the circumstances and conditions of the country of origin. Hence, it could not be clearly distinguished as a post-migration risk factor.

Table 3 lists the factors of the final system model depicted in Figure 2 and ranks them by the average score, as determined by the researchers, of the indicated impact on mental health. The network metric indegree calculates the incoming arrows (the factors that influence this specific factor), while outdegree calculates the outgoing arrows (the factors that this specific factor influences). The absolute number measures the amount of incoming or outgoing arrows, while weight measures the percentage of the weighted relations, i.e., the strength of the influence. In this context, a factor with a high absolute indegree is influenced by many other factors, while a high weighted indegree indicates that the factor is strongly influenced by other factors with a high impact, regardless of the amount of the other factors. For instance, the factor social contacts is influenced by many other factors (absolute indegree of 6) that are also highly weighted (weighted impact of 21%). The outdegree signifies the extent to which a specific factor influences other factors, e.g., health care influences a high number of other factors (absolute outdegree of 5) that are also highly weighted (weighted impact of 17%).

Table 3. Network metrics of the final system model.

Main Risk Factor	Impact	Indegree		Outdegree	
		Absolute	Weight in Percent	Absolute	Weight in Percent
Social contacts	0.78	6	21	3	10
Housing	0.77	3	11	0	0
Health care	0.77	2	7	0	0
Social care	0.75	1	3	5	17
Daily activities	0.72	4	13	1	3
Residence security	0.70	1	3	3	9
Access to education	0.67	4	14	4	14
Income security	0.65	3	10	3	11
Sociocultural adaptation	0.58	2	7	2	8
Political and social climate	0.53	0	0	4	13
German language skills	0.52	3	12	4	15

The main risk factors are presented in short names.

3.2. Main Risk Factors of the Final System Model

The resulting final system model, as depicted at the bottom of Figure 2, consists of *11 main risk factors*, listed and described below in descending order of their impact on the mental health of UMRs. For better orientation, the impact on UMRs' mental health on the respective factor is listed in parentheses:

1. The factor *social contacts and relationships in the host country* (0.78) includes UMRs' formal and informal relationships in the host country, such as contacts and relationships with social workers, caregivers, and friends.
2. *Housing situation* (0.77) refers to the living arrangements and conditions of UMRs, including the size and type of accommodation (living with a foster family or in a residential group, a residential home, supervised accommodation), and the number of roommates and reallocations.
3. The factor *professional health care services* (0.77) involves access to, and the quality of, health care utilization in the host country, including health assessments, public hospital treatment, psychological treatment, and medication.
4. The factor *professional social care services* (0.75) involves access to, and the quality of, social counseling and care involving legal advice and representation, supervising, school enrollment, educational assistance, assistance with administrative procedures, clarification of prospects and

the facilitation of family reunification, organization of leisure and recreational activities, and asset management [26].

5. The determinant *daily structure and leisure activities* (0.72) includes access to, and the structuring of, daily and leisure activities (recreation, education, group and individual activities, sports, and household tasks) to ensure a regular daily routine. This factor does not include employment opportunities in the sense of work.
6. *Residence security* (0.70) represents the right of UMRs to reside in the host country; thus, it is related to legal certainty. It depends on the duration of the asylum application process and the obtaining of residence status.
7. *Access to education and training in the host country* (0.67) describes the ability of UMRs to participate, and have equal opportunity, in education and training. This factor plays an important role in dismantling barriers to acquiring educational qualifications and job training and barriers to enhancing sustainable integration into the labor market.
8. *Income security* (0.65) describes the ability of UMRs to meet their basic needs without being afraid of losing their source of income. It depends primarily on social benefits (e.g., needs-based minimum benefit system) and access to education and the labor market.
9. *Sociocultural adaptation* (0.58) is defined as the ability of UMRs to fit into the cultural environment of the host country by adopting its specific cultural elements, such as words, values, behaviors, etc. It refers to the individual competence to handle social interactions and the problems of daily life in a new culture. This narrowed definition was chosen due to the focus, discussions, and results of the workshops. More comprehensively, adaptation is often understood as part of acculturation. Definitions vary; acculturation is a long-term process that encompasses social, systemic, individual/psychological, cultural, and group-dynamic factors [27].
10. The factor *political and social climate in the host country* (0.53) refers to the attitude of politics and society in the host country with regard to refugees—specifically, their degree of openness, acceptance, and readiness to take in refugees. In view of the multidimensionality and multi-faceted nature of this factor, it is supplemented by the inclusion of possible resulting experiences of discrimination by refugees.
11. The factor *German language skills* (0.52) describes the ability of UMRs to use the language (speaking, listening, reading, and writing) of the host country as an essential requirement for effective and proper interpersonal communication.

3.3. Description of the Final System Model

The final system model comprehends post-migration risk factors on the individual and societal levels as well as factors combining characteristics of both. However, a strict differentiation of individual and societal factors is not possible. As depicted in Figure 2, at the bottom left of the final system model, most of the factors are on an individual level or lie within the individual's sphere of influence. Furthermore, they are linked to the general and individual conditions in the country of origin, e.g., *social contacts and relationships in the host country*, *German language skills*, *daily structure and leisure activities*, and *sociocultural adaptation*.

The factor *social contacts and relationships in the host country*, left in the model, was rated as a factor having a powerful impact on the mental health of UMRs. This factor also showed the highest number of six incoming ties: *Political and social climate in the host country*, *German language skills*, *sociocultural adaptation*, *daily structure and leisure activities*, *professional social care services*, and *access to education and training in the host country*. On the lower left in the model, a triad with reciprocal relations consists of the factors *sociocultural adaptation*, *German language skills*, and *social contacts and relationships in the host country*. A closer look at the factors *sociocultural adaptation* and *social contacts and relationships in the host country* reveals the reciprocal influence and direct as well as indirect levels of impact: While *sociocultural adaptation* describes the ability and individual competence to adjust to new social and cultural settings, the factor *social contacts and relationships in the host country* describes a possible consequence of this

competence, but also has an influence on the development and extension and application of this ability (sociocultural adaptation). Social contacts, exchanges and relationships are one possible way of acquiring and applying knowledge and skills about language, culture, and the societal context. Furthermore, *sociocultural adaptation* has a powerful effect on *German language skills* and, therefore, both indirectly and directly influence *social contacts and relationships in the host country*.

The factor German language skills has the highest number of strong reciprocal relationships with other factors. Among these factors are access to education and training in the host country, social contacts and relationships in the host country, and sociocultural adaptation. Only the influence on income security is one-directional. In addition, the factor German language skills is indirectly influenced by political and social climate in the host country via the powerful factor social contacts and relationships in the host country, and itself indirectly influences other factors that have a powerful impact on the mental health of UMRs: Daily structure and leisure activities via access to education and training in the host country, as well as professional health care services and housing situation via income security. The factor daily structure and leisure activities is influenced mainly one-sidedly by other factors, with one exception: It has a medium influence on social contacts and relationships in the host country as part of a reciprocal relation.

The factors *professional social care services* and *residence security* describe societal factors and are characterized by a high outdegree. The factor *political and social climate in the host country* shows several noteworthy characteristics: Although it has only a medium impact on the mental health of UMRs, this factor directly influences factors with a strong and powerful effect and indirectly affects numerous other (very) strong factors. No other factor influences this factor in the model but, through direct—and primarily indirect—relations, it indicates a high degree of impact on factors that can strongly influence the mental health of UMRs.

Professional social care services is a factor with a high outdegree (five relations with other factors) and a low indegree; it is influenced only by *political and social climate*. All these relations are one-directional. The factors *residence security* and *income security* have a substantial effect on the mental health of UMRs and are of high relevance due to their influence on factors with a powerful impact. Most notably, *income security* influences three factors that have a powerful impact on the mental health of UMRs: *housing situation*, *daily structures and leisure activities*, and *professional health care services*. Furthermore, it is influenced by *residence security* and *access to education and training in the host country* (by shaping job opportunities) as well as by *German language skills*. *Residence security* exerts a medium influence on the factors *housing situation* and *access to education and training in the host country* and is influenced in a common way by *political and social climate*. Furthermore, this factor has a strong impact on *income security*.

Particularly striking is the frequency of reciprocal relationships as well as the strength and number of indirect and direct relations among the five factors of *social contacts and relationships in the host country*, *access to education and training in the host country*, *daily structure and leisure activities*, *German language skills*, and *sociocultural adaptation*. These factors and their interactions can also be influenced—at least in part—at the individual level. This cluster is characterized by an accumulation of five factors with a high indegree as well as high outdegree and high intensity of the (reciprocal) effect to other nodes. This also means that if one factor were to change, all the other factors would be influenced as well.

4. Discussion

The further comparison of the main factors with international and country-specific studies on post-migration risk factors of UMRs points out that while many of the identified factors correspond to the results of international research, the multifactorial impact and relations of factors are seldom addressed. A look at the final system model, including its factors and relationships, reveals that the mental health of UMRs results from a complex interplay between individual and societal-level factors as well as factors combining different characteristics.

The societal factor *professional social care services* has a powerful impact on UMRs' mental health and various other highly relevant post-migration risk factors. Since UMRs must get by without family backing, support programs connecting them to members of their own and new cultures are recommended to reduce psychological distress [28,29]. In Austria, care for UMRs takes place under a guardianship arrangement, irrespective of the UMRs' residence status. Until they obtain their residence title, UMRs receive care and social benefits from basic welfare support for foreigners in need of aid and protection and, afterward, from the child and youth welfare system, though provisions can vary from province to province [30,31]. A special challenge is the long waiting periods for the appointment of guardianship, which can lead to delayed diagnosis and treatment of any mental health illness [14]. Furthermore, the basic welfare support legislation in Austria does not define minimum requirements related to qualifications for UMRs' counselors [26,28]. Considering the societal factor *professional health care services*, which also strongly influences UMRs' mental health, the present situation is as follows: In most EU countries, health examinations of newly arrived refugee children are provided on either a mandatory basis or a voluntary basis [29]. In Austria, UMRs receive health insurance coverage as part of basic welfare support. Once their residency status has been determined, costs are covered by the statutory health insurance and by the child and youth welfare system. Thus, UMRs get the same access to health care as do Austrian child citizens [30]. However, nothing is known about medical assessments specifically designed to identify UMRs' special health care needs [28], and there is a general short supply of psychotherapeutic and psychiatric services [28,30].

Due to its highest number of relations to other factors and assumed medium impact on UMRs' mental health, *access to education and training in the host country* represents a critical factor in the final system model. According to the 2017 data, which, however, do not differentiate between UMRs and accompanied children and adolescents, 18,468 asylum seekers were registered in compulsory general schools and secondary general schools in Austria [31]. The UMRs subject to compulsory schooling generally attend schools as "exceptional pupils or students," regardless of their residence status. This status allows them to take beginners and tutorial language courses to acquire *German language skills*. However, access to vocational training is granted only to a UMR with a residence title [28]. In 2016/2017, transitional courses were established for young refugees without compulsory schooling at vocational secondary and general higher schools [31]. Education and training play an important role in daily structuring, as shown in our final system model. *Daily structure and leisure activities* have been considered to have a powerful impact on UMRs' mental health and are influenced by various other risk factors. In Austria, the Basic Welfare Support Agreement stipulates the structuring of daily activities. It covers items such as sports, recreation, individual and group activities, and household tasks [28].

The final system model supposes a powerful relation between the *housing situation* and UMRs' mental health. For center or campus housing, evidence of the impact of living arrangements on the mental health of UMRs is consistent. Living in a reception center was associated with slightly higher risks of internalizing and/or externalizing problems [32], while minors placed in a reception center for adults had higher levels of psychological distress than did those in a youth reception center [33]. However, differences are no longer significant when one adjusts for the outcome of the asylum application [33]. In one study, living in foster care was associated with higher PTSD symptoms than was living more independently [34]. By contrast, another study found that refugee minors living with a family had significantly less depressive symptoms than did those with other living arrangements [8]. PTSD symptoms were also significantly higher among those in low-support living arrangements [35], while living in unsupported accommodation was associated with psychological ill-health [36]. In Austria, UMRs' accommodation is provided within the framework of either basic welfare support or child and youth welfare [28]. The low accommodation standards in the area of basic welfare support are criticized compared to other socio-educational institutions running under the child and youth welfare system. In particular, serious differences in accommodation standards among provinces were noted [31].

In the final system model, uncertain application processes and missing *residence security* were associated with poor mental health. Considering this result, international studies have conflicting findings. Yet, ultimately, quicker resolution of asylum claims to reduce insecurity and related distress is recommended [26]. In Austria, UMRs' entitlement to various kinds of benefits depends on the respective residence status [28]. The final system model presented also illustrates the connection between *residence security* and *income security*, which is related to various other risk factors. On an international scale, one study found a significant association between general hassles such as economic hardship and depression [37,38]. In addition, based on a quantitative survey, Reference [39] found an association between household income and mental health. In Austria, access to employment is granted only to UMRs with a residence title. Generally, to take up employment, UMRs must have reached the age of 15 and completed nine years of compulsory schooling [28]. However, several factors mentioned in the literature are not shown in the system model, e.g., the direct relation of income to social contacts. The model depicts the impact of *access to education and training in the host country* on *income security* but does not include the relationship in the other direction.

The factor *social contacts and relationships in the host country* has been considered a very relevant post-migration risk factor due to its powerful impact on UMRs' mental health and its numerous direct and indirect connections to other factors, as well as due to the fact that it is part of the previously described triad and cluster. The state of research confirms the influence of social contacts and relationships on mental health. Reference [40] found that the number of friends is related to reduced internalizing behavior problems, though no influence on mental health was found in another study, which also found that being exposed to bullying or marital discord were factors that did not influence mental health [41]. As a result of a longitudinal study of unaccompanied refugees in Norway, Reference [8] stated that the level of daily, general difficulties related to family, friends, and school/work is an independent predictor of depressive symptoms. Further studies found that different daily stressors are associated with higher anxiety, depression, or PTSD symptoms [9,37].

In this regard, the *political and social climate in the host country* has a strong influence on social contacts and relationships. Our assumptions are in line with studies from Sweden and Denmark [13,29] that found an association between the experience of discrimination and lower rates of social acceptance, poorer peer relations, and mental health problems among young refugees. Several international studies confirm the influence of *sociocultural adaptation* on the mental health of UMRs. The study of [42] reported that depression decreases when the level of cultural competence increases. Perceived lower levels of discrimination mediated this effect. The same study, and others, also found an association between acculturation-specific difficulties and depression [37,42]. These findings confirm the stated reciprocal relations between *sociocultural adaptation* and *social contacts and relations in the host country*. The acculturation process should include the development of intercultural competence, describing the ability to effectively communicate and interact with people from various cultures based on one's intercultural knowledge, skills, and attitudes [43].

German language skills are a central prerequisite for broad social and societal participation, which are reflected in the final system model as part of the triad with *social contacts and relationships in the host country* and *sociocultural adaptation*. *Sociocultural adaptation* and *German language skills* are factors with reciprocal relations that are relevant in terms of their direct and indirect influences on various factors in the final model. The connections between the language skills and mental health of UMRs have hardly been researched so far. On an international level, only one study, carried out in Denmark, showed a positive effect of self-assessed Danish spelling competency on internalizing behavior [40,44]. In the final system model, language skills gain great importance because of the many indirect relationships and chains of action associated with them. The factor *German language skills* is not only part of the triad of factors at the individual level but is also linked to numerous factors at the societal level. UMRs attending school have, for the duration of the extraordinary status (a maximum of two years), the opportunity to participate in a language course of 11 h per week [14]. German courses for children

that are not compulsory for schooling are often held only once or twice a week, which affects UMRs' acquisition of language skills and hinders rapid integration processes [31].

As illustrated in the system model by the factor *German language skills*, these multifactorial connections can cause the emergence of vicious circles that follow their own dynamics and can thus further endanger, for example, the mental health, social integration, and well-being of UMRs. For example, a good knowledge of German is essential for building *social contacts and relationships in the host country* and facilitating *sociocultural adaptation*. At the same time, *social contacts and relationships in the host country* are relevant for language training (*German language skills*) and for developing the necessary understanding for *sociocultural adaptation*.

5. Limitations

While there is evidence of the higher prevalence of mental health problems and psychiatric disorders among UMRs (cf., [3]), the results regarding the influence of pre- and post-migration factors on UMRs' mental health are mixed. In this study, we adapted system modeling techniques as an exploratory tool for post-migration risk factors impacting the mental health of unaccompanied minor refugees in Austria. Our system model is intended to contribute to a better understanding of the multi-layered interdependencies between individual and societal factors in refugee-receiving countries, as we showed in the case of Austria.

However, our research is subject to some limitations that must be pointed out. Regarding the connections between post-migration factors, the final system model displays only connections with a value of 5.0 or higher to provide a clearer picture of strong interrelations between the main risk factors of the current study. However, lower weighted connections might be relevant for understanding the complex system of post-migration factors and should be considered when one is planning adequate support structures for UMRs. This involves an effect of *German language skills* on *professional health care services*, of *residence security* on *professional social care services*, and of *housing situation* on *daily structure and leisure activities*, as well as a reciprocal relationship between *access to education and training in the host country* and *sociocultural adaptation*.

Furthermore, some of the factors identified in workshop 1 and workshop 2 were excluded in the further course of the third workshop. For instance, the factor *contact with family and family remittances* or the factor of *family reunification* were not integrated into the final system model, despite their assumed relevance as an important determinant of children's mental health in workshop 1 and workshop 2 as well as in the literature on family support and family situation [36,42,45]. However, both factors seemed ambiguous to the scientists of workshop 3, as they may exert both a positive and negative impact on the mental health of UMRs, as described in more detail in the results. Moreover, the scientists of workshop 3 considered that these factors could not be clearly classified as a post-migration risk factor. In addition, the factors *sociocultural adaptation* and *social contacts and relationships in the host country* were discussed in the two workshops for the finalization of the model. While these two factors may have a strong influence on resilience and the integration process, their characteristics and strengths are already developing in the country of origin. These examples of factors that have been excluded indicate that a complete separation between pre- and post-migration risk factors cannot ultimately be maintained.

The participants in the scientists' workshop were selected because of their research focus on migration or health, but additional expertise from the fields of psychotherapy, biopsychosocial health, or the legal field could be involved in future studies in order to further expand the system model. We also could have invited practitioners to the third workshop to integrate the perspectives of scientists and practitioners as the final step of model development. These changes in the composition of the workshop participants also could have led to slightly different results. Moreover, we also could have invited UMRs or their families to one of the three workshops to broaden the perspectives of scientists and practitioners through the voices of UMRs. The process of involving refugees in system modeling, however, requires additional sensitivity regarding the way their knowledge based on experience is

drawn out, for example, to avoid emotional stress. In this study, we focused on the group of scientists and decided to expand their knowledge elements with those of practitioners. The inclusion of UMRs' perspective in a further step of system development could be an outlook for a further study.

Overall, the results of the system model depend on the expertise and knowledge of the workshop participants as well as on group-dynamic factors inherent in the discussion process, and additional expertise and workshops could further enrich the results. An objective, generally valid system model for the risk factors of UMR after migration can hardly be created in three workshops. Knowledge-based system modeling represents an explorative approach that aims to integrate the knowledge of the experts involved in system modeling. Thus, it should be emphasized that the figures and tables presented to illustrate the results could have created a sense of objectivity and generalizability, but this was not our intention. We would like to emphasize that system modeling, as we have done, is an exploratory approach, but it has nevertheless produced interesting results. Therefore, the model must still be checked empirically, and the results must be compared more deeply to the existing literature and empirical findings from similar research so the model can be adopted.

Moreover, gender differences have not been considered in the workshop discussions. In fact, female UMRs appear in small sample sizes or are even not considered in research studies on mental health and associated risk factors. However, research suggests that gender might affect the nature of traumatic events experienced during flight, as well as the challenges faced on arrival in terms of adequate accommodation or sociocultural adaptation [4,8]. The integration of gender aspects would be a further step in refining the model.

Finally, it must be noted that UMRs were defined as "children and adolescents under 18 years of age migrating into another country without a parent or caregiver". Consequently, the final system model focuses only on UMRs under the age of 18. Since living conditions and received support change when UMRs reach the age of majority, there is a need for a separate model for refugees over 18. In general, UMRs' transition to adulthood usually requires relocation to accommodation for adults and the loss of guardians and key relationships. Nationwide measures or procedures specifically designed to address refugees' needs before, during, or after their transition to adulthood are not in place in Austria [28].

6. Conclusions

Overall, our final system model of post-migration factors provides a sound basis for further investigations. The consideration of complex multifactorial dependencies illustrates, on the one hand, the limitations of this model. On the other hand, it indicates the benefit of this approach in terms of generating further questions and identifying research needs. The method this paper describes can be used in similar settings in which specialized knowledge from different fields of expertise is needed to explain and understand complex interrelations. By showing the relationships between factors through the final system model, it is possible to put diverging results into a concrete context, to show further influencing factors, and, thus, to uncover starting points for further questions and research needs. While in a standard focus group setting, researchers may develop a system model based on the experts' views, a collaborative approach toward fuzzy-logic cognitive mapping allows participants to establish their model in the meeting, reflect their current beliefs and assumptions, and run scenarios to evaluate the completeness of their prior beliefs and knowledge [21]. Applying the FCM can also be fruitful at a later implementation stage of the model, as inter-professional collaboration and cooperation among different institutions is required to enhance UMRs' mental health. Further in-depth analysis may shed some light on the relevance of the conjunction of the systemic framework and individual characteristics and resources in relation to pre-, peri-, and post-migration factors, e.g., personal and family background, socio-economic conditions in the country of origin, and migration experiences.

Nevertheless, the system model shows interdependencies that, so far, empirical research has omitted. As next steps, we encourage researchers to empirically test the relationships described in the system model of post-migration factors. For example, an analysis of the triad between *social contacts and relationships in the host country*, *German language skills*, and *sociocultural adaptation* should reveal valuable

insights into the reinforcing effect of these factors on UMRs' mental health. As discussed previously, *sociocultural adaptation* contains characteristics of both pre- and post-migration factors. In the model, this factor is embedded in reciprocal relationships and exerts strong direct and indirect effects on other factors. Therefore, we propose exploring the post-migration determinants of sociocultural adaptation skills, i.e., to explore those dimensions of social adaptation skills that may develop in the host country. Further, we recommend investigating the relationships between the factors influencing *daily structure and leisure activities*, which has a strong effect on UMRs' mental health in our model. To the best of our knowledge, empirical evidence of the importance of this factor, as well as its interplay with other pre- and post-migration factors, is scarce.

At the practice level, the system model can be used as a basic framework for determining preventive strategies as well as strategies to restore or enhance the mental health of UMRs. The model underpins the necessity of a holistic approach to address UMRs' mental health problems. Providing easy access to psychotherapeutic support, for example, represents an important protective factor. However, implemented as a single measure, it might not be as effective as a comprehensive approach dedicated to integrating systemic factors such as health and social services, and housing, with the strengthening of individual resources such as social contacts and relationships and the structuring of daily and leisure activities. Refining the model would allow for the definition of institutional interfaces between health and social care providers and for the planning of collaborative action to provide seamless and comprehensive care and support. Given this paper's methodological emphasis, the required in-depth substantive dialogue on this issue will take place in a subsequent publication.

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Asylum Seekers and Swiss Nationals with Low-Acuity Complaints: Disparities in the Perceived level of Urgency, Health Literacy and Ability to Communicate—A Cross-Sectional Survey at a Tertiary Emergency Department

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Abstract: *Background:* Emergency departments (EDs) are being increasingly used for low-acuity conditions and as primary care providers. Research indicates that patients with the status of asylum seeker (AS) may be seeking care in EDs at higher levels than nationals. The aim of this study was to identify disparities in the use of emergency care between AS and Swiss nationals (SN) with non-urgent complaints. *Methods:* Data were obtained from a survey in the period 01/12/2016–31/07/2017 of walk-in low-acuity patients attending the ED of the University Hospital Bern (Switzerland). AS and a gender, age-matched control group of SN of ≥16 years of age were included. Sociodemographic and survey data comprised information about health-seeking behavior in the home and reception country, knowledge of health care systems (HCSs), barriers to care and perceived acuity of the visit. Furthermore, attending physicians assessed the level of urgency of each case. *Results:* Among AS patients, 30.2% reported that they had no knowledge of the Swiss HCS. In total, 14.2% considered that their medical needs were non-urgent. On the other hand, 43.4% of the attending physicians in the ER considered that the medical needs were non-urgent. This contrast was less pronounced in SN patients. The majority of AS (63.2%) and SN (67.6%) patients sought care from the ED without first contacting a GP. In 53.8% of cases, an interpreter was needed during the ED consultation. *Conclusions:* Several factors associated with health-seeking behavior in the ED differed between AS and SN patients. Measures to increase health literacy, provision of easily accessible primary care services and intercultural-trained staff could improve quality of care and reduce the usage of EDs as primary care providers.

Keywords: health-seeking behavior; access to health care; emergency department; refugee; asylum seeker; non-urgent complaints; migrants

1. Introduction

In recent years, there has been an unprecedented increase in the numbers of individuals experiencing forced migration, with many seeking refuge in countries throughout Europe [1].

In particular, Switzerland has witnessed a sharp rise in persons seeking asylum [2]. The net population growth from AS and refugees in countries such as Switzerland has important public health implications since there will be a greater health care demand [3]. Research on hospital-based emergency department (ED) utilization in Norway has shown that immigrants use emergency health care services significantly more often than nationals [4]. These findings are consistent with other studies in Europe that show that recent immigrants are more likely than local nationals to seek care from EDs and out-of-hours GP services [5–8]. During the asylum process in Switzerland, every individual is granted with universal health care coverage and a GP-based model of care, which gives the asylum seekers access to a GP including regular consultations in the asylum center. Additional ED visits are possible without prior GP consultation and there are no co-payments necessary.

General trends showing that hospital-based EDs face increasing levels of visits throughout the world [9–13]. This means that EDs are confronting growing pressure to meet the needs of patients with insufficient resources, resulting in a variety of "supply" problems such as overcrowding, boarding, higher morbidity, and staff burn out [9,14].

Patients seeking care for non-acute medical issues appear to make up a large percentage of ED visits, ranging up to 62%, with a mean of 37% [15]. Triage data from a study of North African patients who had recently migrated to Switzerland showed that they were less likely to need highly urgent care [16]. In a recent interview-based study of low-acuity ED patients in Germany, two factors were identified [17]: firstly, patients felt it would be more convenient to present in the ED, as this did not require an appointment and was not restricted to office hours. Secondly, patients believed they would receive more specialized advice. In addition, poor health and socioeconomic status have been shown to be important factors that influence the threshold of ED use for non-urgent complaints [18]. These findings are supported by Kraaijvanger et al., who showed that health concerns, access to medical tests (e.g., X-rays, blood tests, etc.) and convenience are strongly associated with ED visits for non-acute issues [19].

Identifying the underlying factors contributing to consultations for non-urgent complaints could guide stakeholders and policy makers in implementing measures for equal and effective health care—especially for this vulnerable population. To understand and manage the influencing factors that force AS to seek help in the ED for non-urgent complaints will help to improve services and quality of care for those who may be unable to navigate in a new health care system and have to use the ED as an entry point to the health care system. Therefore, the purpose of this study was to conduct interviews with AS and SN patients, in order to understand the different factors that influence consultations in the ED for non-urgent conditions.

2. Materials and Methods

2.1. Study Design, Setting and Participants

We conducted a prospective cross-sectional, controlled, single-center study. Data were collected from 01/12/2016 to 31/07/2017 among patients attending the ED of the University Hospital Bern (Inselspital) in Switzerland. The Inselspital is one of the largest hospitals in Switzerland, with a catchment area of 1.8 million people. More than 45,000 patients are treated in the ED each year [20]. Eligible AS were matched for a predefined period with a group of SN as controls. The two groups were matched by sex, age and triage category. The STROBE (STrengthening the Reporting of OBservational studies in Epidemiology) guideline for cross-sectional studies was employed [21].

Walk-in AS patients attending the ED during the study period and of 16 years of age or older were asked to participate in the survey. Their asylum status was defined by the official Swiss identification card ("F": provisionally admitted foreigners, "N": permit for asylum seekers, or "S" people in need of protection). The study was restricted to patients who had no life-threatening or highly urgent problem as defined by the category in the Swiss Emergency Triage Scale (STS) (Range from 1: acute life-threating to 5: non-urgent problem [22]).

The criteria for eligibility in the SN control group included registration with Swiss citizenship, together with the same triage category, age +/−10 years as well as same sex as the matching AS. Efforts were made to obtain a close temporal match, e.g., recruiting a successive control patient shortly after successfully recruiting an AS study patient. The control group was recruited in a predefined, reduced period. Exclusion criteria for both groups were critically ill patients by the STS (STS < 3), the need for expedited diagnostic testing as judged by the attending consultant, transport by ambulance or patient's refusal to participate in the study.

We designed a survey with questions regarding prior and current health-seeking behavior based on current literature and with the help of a psychologist (YB). The survey was available both as a printed and as a protected web-based version on a tablet.

Trained medical students acted as interviewers and conducted the survey in the waiting area or the treatment area without interfering with medical care. The students received an allowance per questionnaire but were not involved in the treatment.

In cases, where communication between the participant and the interviewer was not possible due to language barriers, accompanying persons or professional interpreters were consulted by phone or in person, to ensure that the participant understood the consent form and the survey questions. These interpreters then also facilitated the medical care (not part of the study).

2.2. Measures

The survey consisted of a nineteen-item patient questionnaire and a nine-item physician questionnaire. The patient questionnaire covered questions about the patient's demographics and socioeconomic status (SES), including education, language skills and current employment situation. Furthermore, all participants were asked about their health-seeking behavior, including previous visits to a general practitioner (GP), the perceived level of urgency of the current visit, their motives in seeking help in the ED and their knowledge of the Swiss health care system (HCS). The attending physician assessed the urgency of the consultation and the discharge status.

2.3. Statistical Analysis

The distribution of categorical variables is given with the absolute number and the relative number as a percentage. The distribution of continuous variables, such as age or length of stay, is described as medians with interquartile (IQR) ranges. Unless otherwise stated, the Chi-squared test was used to test for significant differences between the study and control groups for categorical variables and the Mann–Whitney U test was used for continuous variables, as they were not normally distributed. Data were entered using Microsoft Office Excel 2016 for Windows 10 (Version 1805, Microsoft Corporation, Redmond, WA, United States). All statistical analyses were performed with IBM SPSS Statistics Version 25 (Armonk, New York, NY, United States). Statistical significance was considered at a p value smaller than 0.05. Graphs were created using Microsoft Office Excel 2016 for Windows 10 (Version 1805, Microsoft Corporation, Redmond, WA, United States).

2.4. Compliance with Ethical Standards

Study participation was voluntary, free of any compensation and individual verbal and written patient consent was obtained before answering the survey. Patient-related information was anonymized prior to analysis. The study was presented to and approved by the regional ethics committee of the Canton of Bern, Switzerland (06.10.2016, KEK-BE: 2016-01662). The study—including data collection and extraction, anonymization, analysis, and storage—was performed in accordance with Swiss law, the standards of the local ethics committee and the Declaration of Helsinki [23].

3. Results

3.1. Demographics

In total, 557 AS patients were admitted to the ED during the study period. In total, 168 patients were excluded because of admission by ambulance services. Another 38 were excluded because of a higher triage category (STS 1 or 2). In total, 351 AS met the inclusion criteria. In total, 237 patients of the eligible collective could not be included due to circumstances in the ED, e.g., study team unavailable. The analysis excluded four individuals who refused consent and four patients who, after giving consent, did not answer the questions during the interview for unknown reasons. Questionnaires with partially missing answers were included in the study. Missing answers are marked accordingly in the results section. A total of 106 AS were included in the analysis. The control study group of 68 SN was subsequently recruited during a restricted period—after matching for age (+/−10 years), gender and STS.

The demographic characteristics of the groups are summarized in Table 1. The AS patients were predominantly from two geographical regions (cumulatively 70.8%), with Eastern Africa accounting for 40.6% and Western Asia for 30.2% of cases, followed by Southern Asia for 17%, Northern Africa for 5.7% and Western Africa for 4.7%. Only one individual originated from Southern Europe. More than half of the AS were unemployed and nearly two-thirds of the patients were males. There was a significant difference ($p < 0.001$) between the groups in work status (unemployed vs. employed/self-employed vs. other (student/retired/housewife/man)).

Table 1. Study population demographic characteristics.

	Asylum Seekers (n = 106)	**Controls (n = 68)**	p
Median age (IQR)	25 (21–37)	30 (25–41)	0.034
Gender (males), n (%)	68 (64.2)	35 (51.5)	0.097
Work status, n (%)			
Employed/self-employed	18 (17)	54 (79.4)	
Student	14 (13.2)	9 (13.2)	
Housewife/man	7 (6.6)	2 (2.9)	
Unemployed	67 (63.2)	1 (1.5)	
Retired	0 (0.0)	2 (2.9)	
Region of origin, n (%)			
Switzerland		68 (100)	
Eastern Africa	43 (40.6)		
Northern Africa	6 (5.7)		
Southern Asia	18 (17)		
Southern Europe	1 (0.9)		
Western Africa	5 (4.7)		
Western Asia	32 (30.2)		
Missing	1 (0.9)		

The level of education (see Figure 1) was less than 9 years in 41.5% of the AS and 16% reported that they had no formal education at all. The level of the reported formal education was significantly lower in the AS group than in the control group ($p < 0.001$).

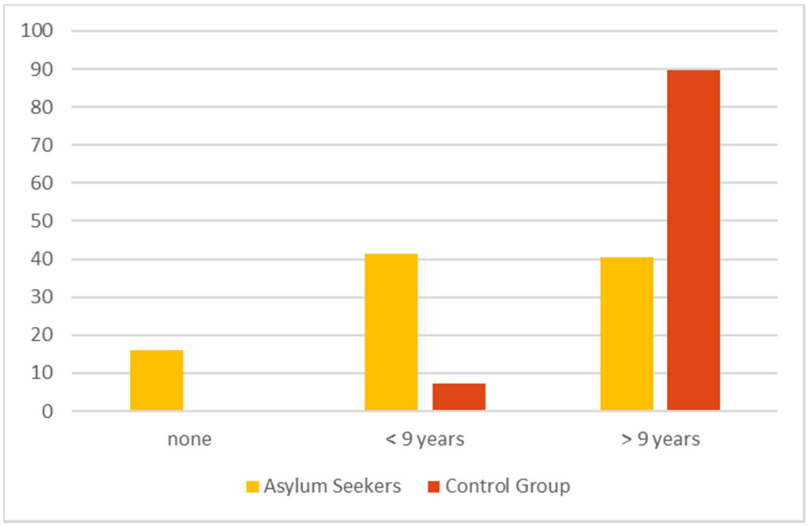

Figure 1. Formal education (years in school), numbers in % (missing answers: asylum seeker (AS) 2, control group (CG) 2).

3.2. Health Care Knowledge

Almost one-third of the AS (n = 32/106; 30.2%) reported that they had had no knowledge of the Swiss HCS, with the greatest unawareness being within 3 months of arrival. Within this group, only four persons (n = 4/13; 30.8%) reported that they had received information about the HCS at the reception center. This number rose to 28 persons (n = 28/55; 50.9%) among those with a length of stay of between three months and two years.

With increasing length of stay in Switzerland, AS patients reported that they had acquired health care knowledge from family and friends. In contrast, knowledge acquired using the provided media (e.g., printed brochures, general advertisement, internet-based information sources) was very low—at 4.7% overall. After more than 2 years in Switzerland, 11 persons (n = 11/38; 28.9%) still reported no knowledge of the health care system. This was compared to 7.4% of the SN control group.

Figure 2 shows an overview of the knowledge and source of information regarding the Swiss HCS within the AS group.

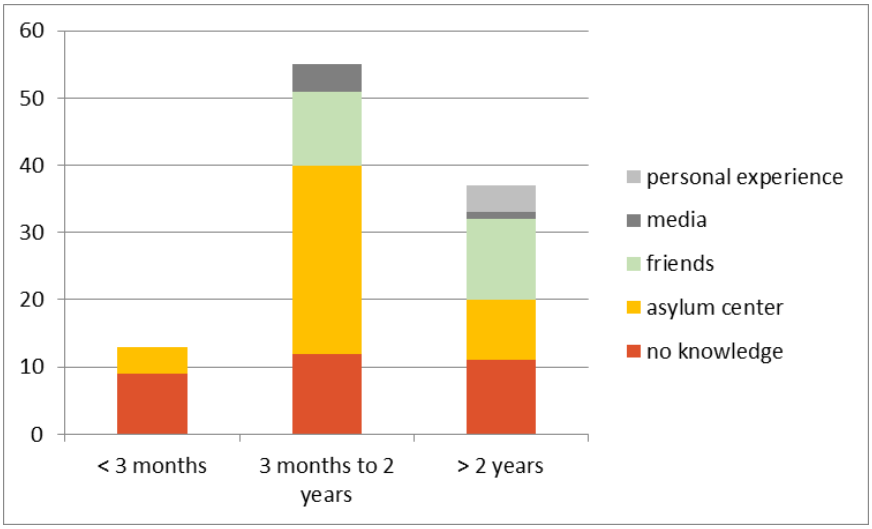

Figure 2. Health literacy of asylum seekers and source of knowledge of the Swiss health care system (HCS), dependent on the length of stay in Switzerland, total numbers (missing answers: 1).

3.3. Health Care Utilization

In total, 26.4% of the group of AS patients had a GP in their country of origin, which increased to 67.9% in the reception country. Occasional use of the ED in their pre-migration countries (1–3 times a year) was reported by 27.4% of AS patients versus 35.3% of SN patients. In general, there is a significant increase in the usage of primary care services in Switzerland (McNemar Test for GP usage in home country vs. Switzerland ($p = 0.001$) and ED usage ($p = 0.029$)), even though the use of EDs was already more pronounced than GP use in their home countries. However, a high rate of missing responses to these questions warrants special care when interpreting these results. The comparison between the utilization of health care within the pre-migration country and Switzerland is displayed in Figure 3.

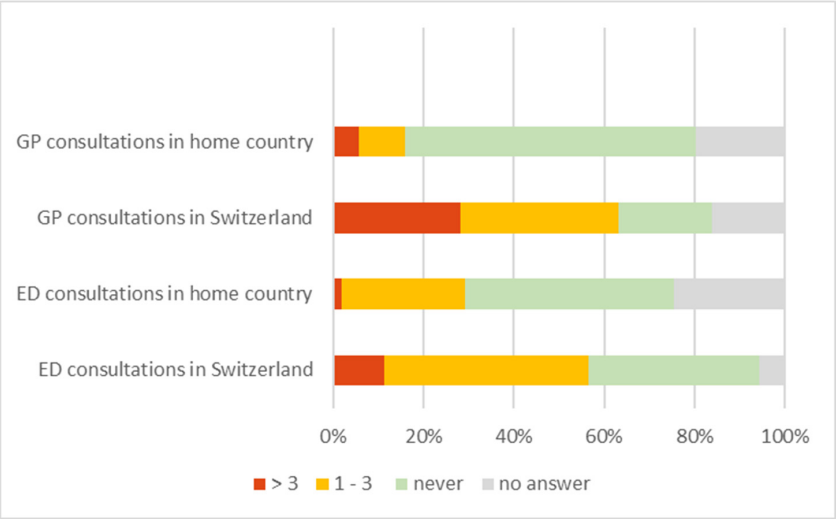

Figure 3. Chart of general practitioner (GP) and emergency department (ED) consultations of AS in their home country and in Switzerland, numbers in %.

3.4. Barriers to Care

Communication between the AS patient and the physician without an interpreter was possible in 45.3% of cases. More than half (53.8%) of the AS patient group were not able to communicate directly with the physician, as they did not speak a national language (e.g., German, French, Italian) or English. In 70.2% of these cases, accompanying persons, such as family and friends, acted as interpreters.

Approximately one-third (35.8%) of the AS patients had tried to consult the physician in their asylum center (15.1%) or their attending GP (20.8%) before consulting the ED. Nevertheless, the majority of AS patients (63.2%) and of the control group (67.6%) sought care from the ED without first contacting a GP or a physician from their asylum center. The reasons given for these decisions are shown in Table 2. The most common response (29.9%) by the AS patients was not having a GP, followed by consultations outside GP opening hours (25.4%). In total, 19.4% of the AS stated previous poor experiences with GP services or expected better care at the ED. In contrast, SN only half as often (13%) reported that they had no GP and the most common reason given (32.6%) was that they had directly consulted the ED because their visit was outside GP opening hours.

There were no significant differences ($p = 0.223$) between AS patients and SN with respect to seeking care during working hours (08:00–18:00, weekdays Monday–Friday). It is striking that more than half of the consultations in both AS and SN patients took place within general working hours. The length of stay in the ED did not differ significantly between the two groups ($p = 0.141$)—the median LOS of the SN control group was 3:22 h (IQR: 2:40–5:25 h) and the median LOS of the AS group was 3:09 h (IQR: 2:01–5:00 h)—neither did the respective proportions of patients receiving inpatient versus outpatient treatment ($p = 0.892$).

Table 2. Reasons why patients did not try to or use GP before presenting to the emergency department. (Patients with direct ED consultation N-AS: 67; N-CG: 46; multiple answers possible.)

Reasons	Study Group *n* (%)	Control Group *n* (%)
No GP	20 (29.9)	6 (13)
Calling medical helpline	1 (1.5)	5 (10.9)
Consultation outside visiting hours	17 (25.4)	15 (32.6)
Previous bad experience	13 (19.4)	5 (10.9)
Expected better treatment in ED	13 (19.4)	7 (15.2)
Highly urgent problem	15 (22.4)	10 (21.7)
Missing/Not stated	2 (3)	5 (10.9)

3.5. Patient Perceptions of Medical Urgency

Over one-third (34.9%) of the AS patients perceived a need for treatment within one hour, whereas the attending physician assigned this level of urgency to only 11.3% of cases. In addition, 14.2% of the enrolled AS patients regarded their problem as non-urgent and this assessment was shared by the attending ED physician in 43.4% of these cases.

In total, 22.1% of the SN patients perceived a need for treatment within one hour, whereas the attending physician assigned this level of urgency to 29.4% of cases. In addition, 19.1% of the enrolled SN patients regarded their problem as non-urgent and this assessment was shared by the attending ED physician in 27.9% of these cases. The estimated level of urgency from the patient's perspective compared to the physician's perspective is displayed in Figure 4.

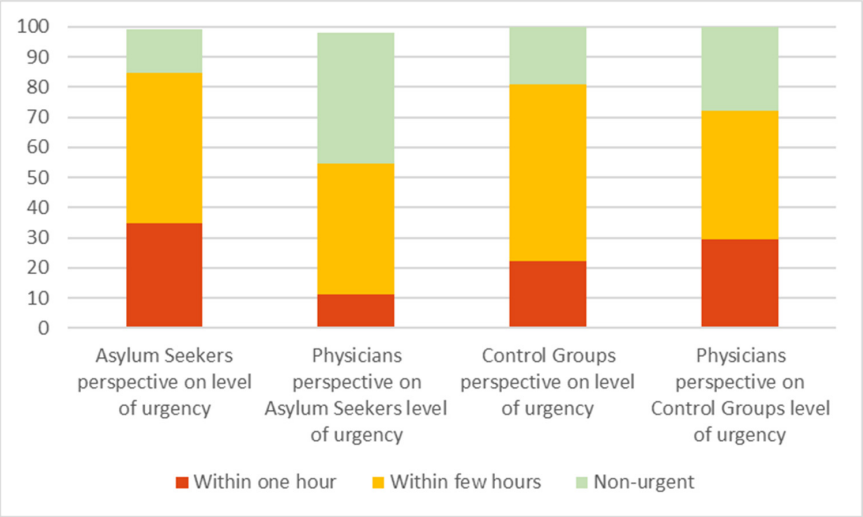

Figure 4. Assessment of the estimated level of urgency by patient vs. physician; number in % (missing answers: AS 3, CG 0).

The subjective level of urgency by patients and physicians did not influence the initially allocated triage level. All patients included in this study were categorized in STS 3–5 prior to consultation and the item "subjective level" was used only to display the perceived level of urgency.

4. Discussion

AS and SN differed in their reasons for seeking care in the ED, their knowledge of the Swiss HCS, and their perceptions of medical urgency. However, other factors, such as length of stay, discharge type, and time of visit did not differ between the two groups.

Although we are unable to determine from this study whether these findings are representative of AS patients generally, the differences observed between the AS and SN patients may shed light

on the observed high usage of the ED by AS patients in recent years (e.g., Müller et al. 2016 [3]). These findings suggest that the factors associated with seeking care in the ED among AS patients are multifactorial and reflect potential gaps in health care knowledge, linguistic barriers, and perceptions of acuity and care. The differences in health care utilization, represented by the use of PC and ED care in the home country versus Switzerland, might not be due to differences in the individual health-seeking behavior but represent effects of the different national health care systems and the availability of primary and emergency care.

Attempts to help guide and inform health-seeking behavior by AS patients will benefit from improvements in a range of social and cultural factors that influence the dissemination of health care information, coupled with training for medical staff working with the AS community.

Firstly, AS patients' lower levels of knowledge of the Swiss HCS could be due to a lack of education and general health care experience, as the usage of primary care services in their home countries was significantly lower than in Switzerland. Furthermore, information about health care appears to be gradually acquired through informal networks such as friends and family members. Such findings suggest that policy makers and those working in health care promotion may be able to reduce non-urgent visits through public health campaigns such as peer group interventions [24].

A second key factor contributing to ED use among AS patients may be actual or anticipated poor care from GPs. AS patients were more likely to say that they had had a poor experience with a GP or expected to receive better care in the ED. These findings warrant further investigation, as the specific nature of the poor experiences and the perceptions around quality of care cannot be determined from this study. A combination of public health campaigns and culturally informed training for GPs may help to improve perceptions and actual experiences of care during GP visits [25].

A third difference between AS and SN patients was around perceptions of urgency. Even though the majority of both groups sought care in the ED without prior consultation by a GP, the perceived level of urgency among SN was closer to the assessment of the attending physicians. One reason that AS patients may be more likely to seek care in the ED is that they believe their symptoms are of higher acuity. Education of AS patients on how to identify acute symptoms and better access to primary care for non-urgent complaints may help to improve quality of care [26].

More generally, these findings provide further information about the major gaps in interpretation in health care contexts for AS patients. As these data show, a majority of AS patients are not able to communicate easily with their medical providers, and often rely on family members and even children to broker these interactions. The reliance on untrained interpreters may be associated with miscommunication, misdiagnosis, and poor outcomes and includes safety concerns in relation with human trafficking [27–29].

The level of education reported by the AS group was significantly lower than in the SN group. Furthermore, the work status differed significantly, as most AS patients were unemployed, but most SN were employed or self-employed. Low socioeconomic status is linked to the overuse of ED care [18]. This result was reproduced here but we did not investigate the nature of the association.

The differences identified between the AS and SN may help to address the increase in non-urgent visits to hospital-based EDs [3,5]. The findings suggest several different approaches to improving the access of this vulnerable population to adequate and equal care.

5. Limitations

This survey was restricted to AS and SN patients with non-urgent problems and in the context of an urban university hospital in a single-center setting. There are therefore several different selection biases. Furthermore, this study does not cover an entire year, so there might be the risk of seasonality in data collection. Additionally, there were a number of randomly missing answers, which limits the interpretation of the results. The strong skew towards young males in the study group proved to be hard to match in the control group. A large peak at the outmost higher end of the age group admitted to the adult ED department was compounded by the permitted age variation of +/−10 years. The average

age of ED patients in Switzerland is above 50 years [30]. One limitation is the self-reported answers, which may be positively or negatively biased, according to the participant's impression that answers could influence their treatment in the ED or even the asylum process even though all participants were informed in advance that the study would have no influence on their treatment or asylum process.

Another important limitation is the bias due to the German language of the questionnaires. The interviewer decided in case of little or no understanding to involve a translator either in person or mostly by phone. The same was used to obtain consent.

The difference between the use of PC and ED in the home country and Switzerland does not necessarily represent a difference in health-seeking behavior but might be due to different structures with different availabilities in the national HCS.

We did not control for big differences such as education and work status and this may act as a confounder for the measured outcomes in this study.

Despite these limitations, we believe the data help to shed important light on the experiences of AS patients in the HCS. The findings are relevant for all stakeholders involved in clinical care and health care policy and can encourage them to develop and implement new strategies to fill the demonstrated gaps in health care knowledge and improve quality of care.

6. Conclusions

Disparities in knowledge of the HCS in the reception country, language barriers, and the perceived level of urgency of medical care seem to be the main reasons for AS to seek care in ED for low-acuity medical issues. In both groups, the decision to present to the ED was influenced by the unlimited access over 24 h, expectation of better treatment in the ED and the perceived level of urgency.

Measures to increase health literacy and provision of easily accessible primary care could improve quality of care and reduce the usage of EDs as primary care providers to AS. Implementation and usage of a professional interpreting service will relieve family and friends from this role and might provide better and equal care.

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The Relationship Exploration between Public Migration Attention and Population Migration from a Perspective of Search Query

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Abstract: Rapid population migration has been viewed as a critical factor impacting urban network construction and regional sustainable development. The supervision and analysis of population migration are necessary for guiding the optimal allocation of urban resources and for attaining the high efficiency development of region. Currently, the explorations of population migration are often restricted by the limitation of data. In the information era, search engines widely collect public attention, implying potential individual actions, and freely provide open, timelier, and large-scope search query data for helping explore regional phenomena and problems. In this paper, we endeavor to explore the possibility of adopting such data to depict population migration. Based on the search query from Baidu search engine, three migration attention indexes (MAIs) are constructed to capture public migration attention in cyber space. Taking three major urban agglomerations in China as case study, we conduct the correlation analysis among the cyber MAIs and population migration in geographical space. Results have shown that external-MAI and local-MAI can positively reflect the population migration inner regions and across regions from a holistic lens and that intercity-MAI can be a helpful supplement for the delineation of specific population flow. Along with the accumulation of cyber search query data, its potential in exploring population migration can be further reinforced.

Keywords: population migration; search query; Baidu Index; urban agglomeration

1. Introduction

Along with the rise of a city network, which is constructed under the push of different kinds of urban elements flows, the interactions among different cities have been emphasized in the planning of urban areas, including the interaction of population, material, information, technique, etc. Hereinto, population interaction or population migration is one of the most important aspects. The floating of population is not only the flowing of individual human but also the transfer of demand, information, and technique carried by individuals [1,2]. They discriminately impact economic, social, and political development of both resettled areas and out-migrating areas [3,4]. Timely measuring and analyzing of population migration are particularly crucial for suitably planning urban space and distributing urban resources.

Related explorations on population migration have been concerned as hotspots since the 1990s. A larger body of researches have been conducted, such as the labor market performance, social and physical status of migration [5–7], the causes of migration flow [8–10], the consequent impacts of migration [11–13], the changing migration policies [14–16], the classification research of population migration [17,18], the spatial pattern of population migration [19], etc. These researches have been

conducted mainly based on three kinds of data: national censuses data, regional field survey data, and cyber big data. In the traditional migration researches, population censuses and field survey are the principal sources to provide population data [20,21]. For instance, Zhu [22] explored the determined factors in urban area which influence migrants' settlement intention based on the data from a survey on the floating population in the coastal area of Fujian Province. He et al. [23] adopted national census data to examine the distinctive spatial patterns of floating and Hukou population and evaluated their consequent impact on Chinese urbanization and industrialization. With the development of cyber space and the popularization of personal mobile termination, numerous researches have implemented under the assistance of data from cyber space exploration of the change, characteristic, and pattern of population migration [24–27]. For instance, Blumenstock [28] analyzed migration pattern based on mobile phone records and revealed more subtle patterns that were not detected in the government population survey. Zagheni et al. [29] used geolocated data for about 500,000 users of the social network website "Twitter" to predict turning points in migration trends and to improve the understanding of migrant populations.

Those researches have contributed largely to promoting the understanding of the progress of population migration and their impact. However, the deficiencies in migration data still exist. Studies based on national censuses data can explore the migrants in a large range but with a relatively large time interval of ten years, which hinders the short time-series analysis of population migration, and little can be inferred for specific years between censuses and for recent trends [29]. The researches based on field survey can provide detailed migration information, but it asks for a lot of time, manpower, and material resource to deploy, which are expensive for many researches. Simultaneously, the field survey often has a certain spatial location and cannot cover a large spatial scope. The increasing cyber data has opened up a new opportunity to deepen our understanding of population migration. However, studies based on the network big data always need to deal with extensive data and complicated procedures in acquiring and processing the data. At the same time, some data sources are not available openly, such as cellphone signal data and GPS data of resident activities, because those types of data include much individual private information that is protected by national law. A type of data with open, timelier, and easy-taking characteristics is necessary for effectively investigating the migration population.

With the growing application of search engine in cyber space, search query data has been brought out to reflect the preference of public attention, which is generated from the personal behavior of Internet search. This kind of data with opening and timelier characteristic has provided effective support for analyzing regional phenomena and problems [30–33]. In such context, the concern is triggered about its applicability in population migration research. In current information era, most people tend to take migration after an inquiry of destinations. Web search engine as the most widely used Internet tools provides massive information to the migrants and obtains relevant public attention on the specific subject of migration. The relationship between Internet search query data and population migration deserves more attention. However, the relationship between them is still unclear and there are a number of questions to be raised: can the search query data generated from migration-related information search offer some clues about population migration? If they can, how are they related? Do cites with higher cyber search quantity have a larger migration population than the cities with lower search quantity?

Based on these questions, this paper endeavors to answer them and to propose a new angle to analyze population migration. A hypothesis can be made that the search queries generated from individual migration-related search can positively reflect population migration. Based on the search query data from Baidu search engine, we construct a series of migration attention indexes (MAIs) to explore public attention on migration. Taking three main urban agglomeration areas of China as study area, the correlation analysis has been utilized to explore the relationship between MAIs and population migration to test the hypothesis. This paper is organized as follows. Section 2 introduces the study area and data. Section 3 elucidates the methodology of this paper, including the method and indicators that we applied in this paper. Section 4 reports the result of correlation analysis between

MAI and population migration. Section 5 conducts further discussion based on the results in our study area. Last, we conduct the conclusion of this paper.

2. Study Area and Data

2.1. Study Area

To verify the relationship between search query data in cyber space and population migration in geographical space, we select three urban agglomerations in China as case study: Beijing-Tianjin-Hebei metropolitan region (BTH), the Yangtze River Delta (YRD), and the Pearl River Delta (PRD). There are 38 cities located in these regions, 10 cities from BTH, 16 from YRD, and 9 from PRD, as shown in Figure 1. These regions are chosen based on the following reasons: (1) Extensive population migration can be detected in these areas. In 2015, the migration population in these areas has reached more than 8 million in total, accounting for 30.77% in China. Exploration of migration in these regions can avoid the influence of random migration under the support of large quantities. (2) These regions with relatively higher internet penetration offer adequate search query data. By the end of 2015, internet penetrations of core cities in those three urban metropolitan areas are separately 76.5% for Beijing, 73.1% for Shanghai, 78.4% for Guangzhou, and 83.2% for Shenzhen. More widespread application of the internet can be identified in almost all the provinces cover BTH, YRD, and PRD [34]. (3) They are the most significant areas for China's urban system construction. These areas occupy approximately 5.09% land of China but account for 23.65% and 39.87% of national permanent residents and gross domestic product in 2015. Research on them can offer more information to guide the coordinated development of urban areas in China.

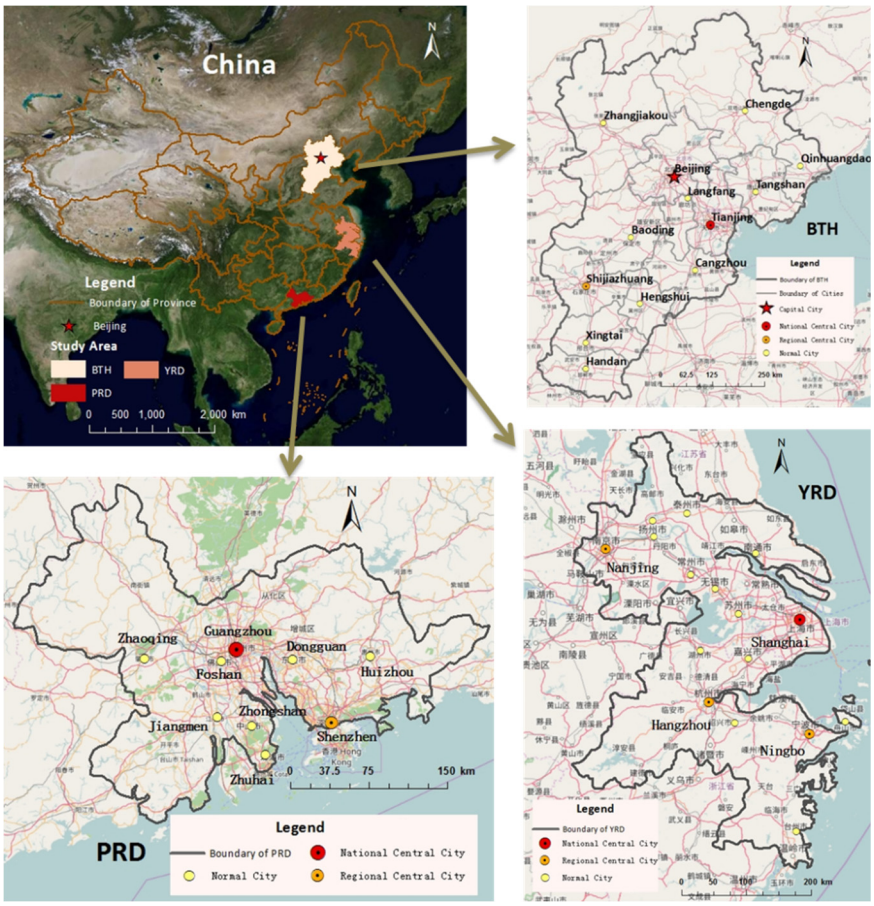

Figure 1. Location of the study area.

2.2. Data

The data used in this paper include the population migration data, search query data, and socioeconomic data. (1) There are three kinds of population migration data used in this study: the net inflow population, intercity population flow, and the floating population. The net inflow population delineates the total population migrated into the city during a specific period. Intercity population flow is the population migrate from the original city to the terminal city. Based on the prevalent use of series Tencent's applications (e.g., Wechat is the most used software for 79.6% of Chinese netizens), more precise expression on the migration of population in China can be provided by Tencent migration map under the support of enormous user base. Considering the merit of Tencent migration map and avoiding the self-certification of Baidu, we obtained the net inflow population and intercity population flow from Tencent migration map (https://heat.qq.com/qianxi.php) through web crawler technology. Due to the specific Hukou policy in China (which has been regarded as the central mechanism underlying the unsettled nature of the floating population), the floating population has been defined as the population living in the objective city more than six months without local registered Hukou [35]. It was obtained through the deviance calculation of permanent residential population and household population in the local city, which were collected from regional statistical bureaus. (2) We obtain the search query data based on the support of Baidu search engine, which is the most widely used search engine in China and freely provides the search trend of objective terms through Baidu Index (http://index.baidu.com/). The average daily queries of each migration keyword versus the name of the city (e.g., job + Beijing) from 1 January 2015 to 31 December 2015 were collected based on Baidu Index. (3) Relevant socioeconomic data were acquired from regional statistical bureau, including the Tertiary Industrial Output-Value, Participant Rate of Urban Basic Medical Care System, the number of schools, etc. The migration reasons were collected from the dynamic monitoring survey of China's migration population in 2015, which was conducted by the National Health and Family Planning Commission of China.

3. Methodology

We endeavor to verify the relationship between public attention on migration which was provided by search query in cyber space and the population migration in geographical space. Migration attention indexes (MAIs) are proposed to express public attention on migration comprehensively. Based on the different original location of migration search, we construct three MAIs as local-MAI, external-MAI, and intercity-MAI to delineate the public attention generated from local city, attention from external areas, and attention flow among urban areas; then, the correlation analysis is conducted between MAIs in cyber space and urban migrants in geographical space to further verify the aforementioned hypothesis. The framework of this paper can be illustrated in Figure 2.

Specially, the net inflow population, intercity population flow, and the floating population have been collectively adopted to depict the movement of population in this paper. The definition of migration for them can be separately clarified as follows: The net inflow population of a city is defined as population that the city has received from the external areas, which is the result of movement of people with different origins and the same destination; the intercity population flow is also defined as the movement of people, which happens among different cities; and the floating population of a city is defined under the Hukou policy of China (which has been regarded as the central mechanism underlying the unsettled nature of the floating population), of which the migration can be explained as the change in the place of personal residence.

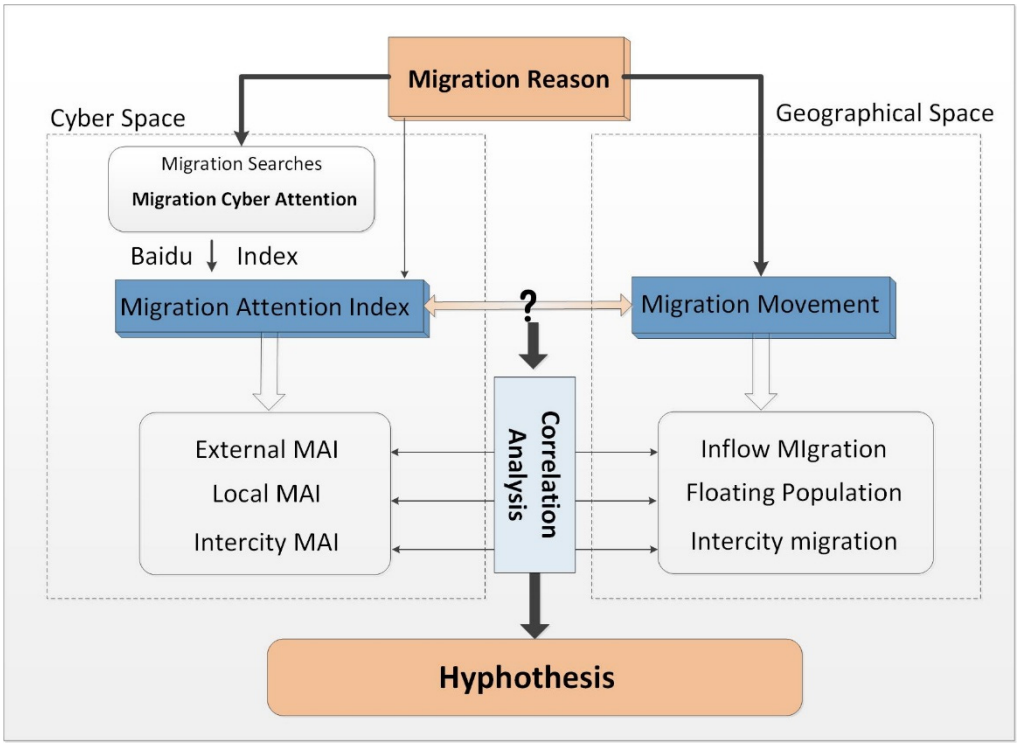

Figure 2. Research framework.

3.1. Migration Attention Index Based on Baidu Search Query

To verify the hypothesis that the migration-related search queries from individual users can positively reflect the population migration, three issues should be concerned: (1) what are the main driving factors cause population migration; (2) how to express those factors in cyber space through search query data; and (3) how to synthesize those search query data to comprehensively express public attention on migration in cyber space. For the first issue, based on the dynamic monitoring survey of China's migration population in 2015, we have conducted the statistic of population percentage on different migration reasons to confirm the main factors which cause population migration. For the second issue, a series of search keywords expressing different migration reasons has been selected. The Baidu Index of keywords versus the name of city has been collected to reflect the public attention on migration in cyber space. For the third issue, migration attention indexes (MAIs) have been constructed to integrate public attentions generated based on different migration reasons.

3.1.1. Confirmation of Main Migration Driving Forces

To pointedly select search keywords that load public attention on migration. First, we confirm the main reason for population migration based on the dynamic monitoring survey of China's migration population in 2015. The percentage statistics of migrant population based on diverse migration reasons in the three different urban agglomerations are deployed. The results have been shown in Table 1; we can see that work and trade, that study and training, that accompanying transferring of family members, and that relocation are the main migration factors in the study area. The percentages of population who migrate for the four reasons separately occupy 75.70%, 85.39%, and 89.77% in Beijing-Tianjin-Hebei metropolitan region, the Yangtze River Delta, and the Pearl River Delta.

Due to the transferring of family members always accompanying family relocation [36], we have viewed them as one perspective and marked as relocation. Therefore, three main reasons for population migration have been confirmed as *work and trade*, *study and training*, and *relocation*.

Table 1. Migration population percentage of different migration reason in the different urban agglomerations.

Reason	Beijing-Tianjin-Hebei	the Yangtze River Delta	The Pearl River Delta
Work and trade	43.61%	58.53%	69.17%
Occupation mobility	4.39%	2.13%	2.31%
Study and training	9.37%	6.73%	5.51%
Accompanying transferring of family members	11.56%	10.37%	11.15%
Join relatives and friends to find a means of living	4.61%	4.25%	2.93%
Relocation	11.16%	9.75%	3.93%
Deponi of Hukou	1.42%	0.67%	0.26%
Marriage	5.78%	3.91%	2.02%
Others	8.09%	3.65%	2.71%

3.1.2. Selection of Search Keywords from Baidu Index

To better exhibit and exploit search query data, relevant search exploit services based on search query data are produced, typically as Google Trend (www.google.com/trends/) and Baidu Index (http://index.baidu.com/). A series of researches have been conducted to analyze data from Google Trend and Baidu Index; the robustness and effectiveness of them have been assessed [37–39]. In China, compared to Google, which is the largest search engine in the world, Baidu shares more internet search engine market. In 2016, there are 731 million netizens in China and the number of search engine users has reached 602 million [34]. Hereinto, Baidu shares 77.07% of the Internet search engine market, which is more than Google China. Especially, Vaughan and Chen [40] collected and compared the data from Google and Baidu and found that Baidu Index can offer more search volume data than Google Trend did in China. Under such context, the Baidu Index is employed in this paper to obtain public search attention in the cyber space.

Focusing on the three main migration reasons, we endeavor to confirm the search keywords which reflect public attention on migration. The confirmation of search keywords is comprehensively confirmed under five steps. First, according to the least effort principle in network information retrieval behaviors, users incline to choice the search keywords in their common language with brief and straightforward features [21,36,41–44]. We set the candidate keywords with brief structure and expressed them in Chinese. Second, the specific content of candidate keywords was derived from the three main migration reasons. Relevant search terms for them were selected by brainstorming common words used in searching for migration and review of related literature [21,45–47]. Third, we have compared the daily average search query data of designated search keywords with similar words during the same period to confirm that the selected keywords are the most popular search keywords in the related aspects. For example, "租房 (house renting)" has been compared to "出租 (rent)" and "租赁 (lease)"; collecting and organizing their average daily Baidu Index can find that "house renting"(11,795) gets much more attention than "rent"(477) and "lease"(636). Fourth, we sift the candidate words to follow the principle of search query data for each keyword in each city to be delineated as a sequential time series with a yearly resolution. Fifth, the correlation analysis between the last candidate keywords has been conducted and the one with a high correlation with others has been removed to reduce data redundancy. Through the comprehensive consideration of keyword selection, the last keywords can be viewed as not only representing the meaning itself but also including some clues for other potential keywords. Finally, six Chinese keywords from Baidu index have been confirmed to express public attention on migration in cyber space as list in Table 2.

Table 2. Selection of search keywords.

Reason	The Chinese Keywords	The English Translation
Work and business	招聘,租房	recruitment, house renting
Study and training	学校	school
Relocation	房价,地图,天气	house price, map, weather

3.1.3. Construction of MAIs

The migration attention indexes (MAIs) are designed to comprehensively express public attention on migration in cyber space comprehensively. First, we combine the candidate search keywords with the name of objective cities to obtain the cityward migration keywords, such as "school + Beijing", "house price + Shanghai", "recruitment + Shenzhen", etc.; second, the average daily search volume of these cityward keywords are acquired based on Baidu Index from 1 January 2015 to 31 December 2015; third, the population percentages of different migration reasons are viewed as index weight to synthesize the corresponding Baidu Index into MAIs; fourth, according to the origin location of Baidu Index, the *local-MAI*, *external-MAI*, and *intercity-MAI* are separately constructed to express public migration attention on objective cities from internal area of the objective cities, external areas, and other specific cities. The relationship among those indexes can be depicted as follows:

$$MAI_i = External\_MAI_i + Local\_MAI_i \tag{1}$$

$$External\_MAI_i = \sum_{j=1} intercity\_MAI_{ij} \tag{2}$$

where i is the objective city, j is the original city, MAI_i is the total migration attention city i has achieved from all regions, and $local\text{-}MAI_i$ and $External\text{-}MAI_i$ are separately the total migration attention city i has received from the urban internal area and external areas. $Intercity\text{-}MAI_{ij}$ is the public migration attention derived from city j to city i. The formula of those indexes can be shown as follows:

$$Local\_MAI_i = \sum_{n=1}^{3} W_{in} \times BI_n / MAI_{max} \tag{3}$$

$$External\_MAI_i = \sum_{j=1} \sum_{n=1}^{3} W_{ijn} \times BI_n / MAI_{max}, i \neq 1 \tag{4}$$

$$Intercity\_MAI_{ij} = \sum_{n=1}^{3} W_{ijn} \times BI_n / MAI_{max}, i \neq j \tag{5}$$

where BI_n is the average daily volume of Baidu Index about different search keywords under migration reason n; W_{in} and W_{ijn} are the weights of BI_n, which are defined by the proportion of people who migrate into city i for this reason; and MAI_{max} is the max absolute value of MAI indicators.

3.2. Correlation Analysis between MAIs and Population Migration

3.2.1. Correlation with Urban Migrants

To investigate the relationship between public migration attentions in cyber space and population migration in geographical space, we conduct the correlation analysis between MAIs and urban migrants. In the cyber space, local-MAI, external-MAI, and intercity-MAI were selected to represent public migration attentions with different originations to objective cities; in geographical space, floating population, inflow population, and intercity population flow were collected. Regarding the diverse kinds of migration and different definition of MAIs, the correlation analysis have been conducted from three aspects: (1) the correlation between local-MAI and floating population, which reflects the

relationship between migration attention generated from the local city and actual floating population inside the city; (2) the correlation analysis between external-MAI and inflow population, which explores the relationship between migration attentions received from the external areas and actual inflow population of the objective city; and (3) the correlation analysis between intercity-MAI and intercity population flow, which investigates the relationship between cyber migration attention flows and the actual population flows in the geographic space. Pearson correlation coefficient is employed to test such correlations, the formula can be shown as follows:

$$r = \frac{1}{n-1}\sum_{i=1}^{n}\left(\frac{X_i - \overline{X}}{\delta_X}\right)\left(\frac{Y_i - \overline{Y}}{\delta_Y}\right) \quad (6)$$

where r is the correlation coefficient of the two indexes and n is the number of cities.

3.2.2. Correlation with Urban Migration Attractiveness

Furthermore, we inquired about the relationship between urban external-MAI in cyber space and urban comprehensive attractiveness for migrants (UAM) in geographical space to further test the validity of the proposed indicators. Based on the push-pull theory which has been widely used in analyzing migration action and willing [48–51], we confirmed the UAM from urban pull perspective. The major migration reasons confirmed by the dynamic monitoring survey of China's migration population have been employed as reference in confirming the objective content of UAM, including work and business, study and training, and relocation. The three aspects separately correspond with the three major migration reasons as job opportunity and income level, living condition, and educational opportunity of children. Based on the data availability principle and integrated analysis of previous studies, eight indicators with respect to three aspects of urban pulling power have been selected as shown in Table 3. From job and income perspectives, Tertiary Industrial Output-Value (TIV) [52] and Urban Residents' Per Capita Disposable Income (IPC) [43] were employed to reflect urban job opportunities and income level; Unemployment Rate (UR), Participant rate of Urban Basic Medical Care System (RBM) [53], and Per Capita Living Area (LPC) [43] were utilized to expose the living condition of local residents; Number of Regular Primary Schools (PSN), Number of Regular Secondary Schools (SSN), and Number of University (UN) were applied to reveal educational opportunity for migrants' children [44].

Table 3. Indicator system of urban pulling power.

Aspects	Indicators	Unit
job opportunities and income level	Tertiary Industrial Output-Value	RMB
live condition	Urban Residents' Per Capita Disposable Income	RMB/capita
	Unemployment rate	%
	Participant Rate of Urban Basic Medical Care System	%
	Per Capita Living Area	m^2/capita
educational opportunities	Number of Regular Primary Schools	unit
	Number of Regular Secondary SchoolsNumber of Universities	unit

Note: RMB is the abbreviation of Ren Min Bi (China Yuan), which is the basic monetary unit of China.

Last, we adopted the principal component analysis (PCA) to integrate the index system and to obtain the indicator which reflects urban comprehensive attractiveness for migrants. The components with eigenvalues greater than 1 and the cumulative ratio of total variance greater than 85% are extracted and rotated with the varimax method in SPSS 19.0 (International Business Machines Corporation,

New York, USA), so that each factor has the minimum number of high load variables, which can be expressed as follows:

$$UAM_k = \sum_{i=1}^{m}\left[A_i \cdot \sum_{j=1}^{n} C_{ij} \times X^*_{kj}\right] \quad (7)$$

where UAM_k is urban comprehensive attractiveness for migrants of city k; m is the number of major components which make the cumulative ratio of the total variance greater than 85%; A_i contributes the major components i to UAM of the city; n is the number of indexes; C_{ij} is the contribution of index j to the major components i; and X^*_{kj} is the standardized value of index j in city k.

4. Results

4.1. Correlation between External-MAI and Urban Inflow Migrants

According to the definition of MAI, the migration tendency of the person from the outside areas can be conveyed through external-MAI. Under the assistance of relevant migration data from the Tencent map, we engaged in exploring the relationship between external-MAI and urban migration population. Pearson correlation coefficient was adopted to reveal the relationship between them; the results have been shown in Table 4 and Figure 3. As we could observe, there are significant positive correlations between external-MAI and population migration in the three urban agglomerations. The Pearson coefficients are 0.948, 0.876, and 0.879 separately in BTH, YRD, and PRD, which has a holistic coefficient of 0.844. All of them have passed the significance test at 99% confidence level. Focused on their spatial heterogeneity, the cities of BTH has the highest correlation.

Table 4. The Pearson coefficient between population migration and external-migration attention indexe (MAI).

Region	Three UAs	BTH	YRD	PRD
Coefficient	0.844	0.948	0.876	0.879
Sig(2-side)	0.000	0.000	0.000	0.002

Note: UA: urban agglomeration; BTH: Beijing-Tianjin-105 Hebei metropolitan region; YRD: the Yangtze River Delta; PRD: the Pearl River Delta.

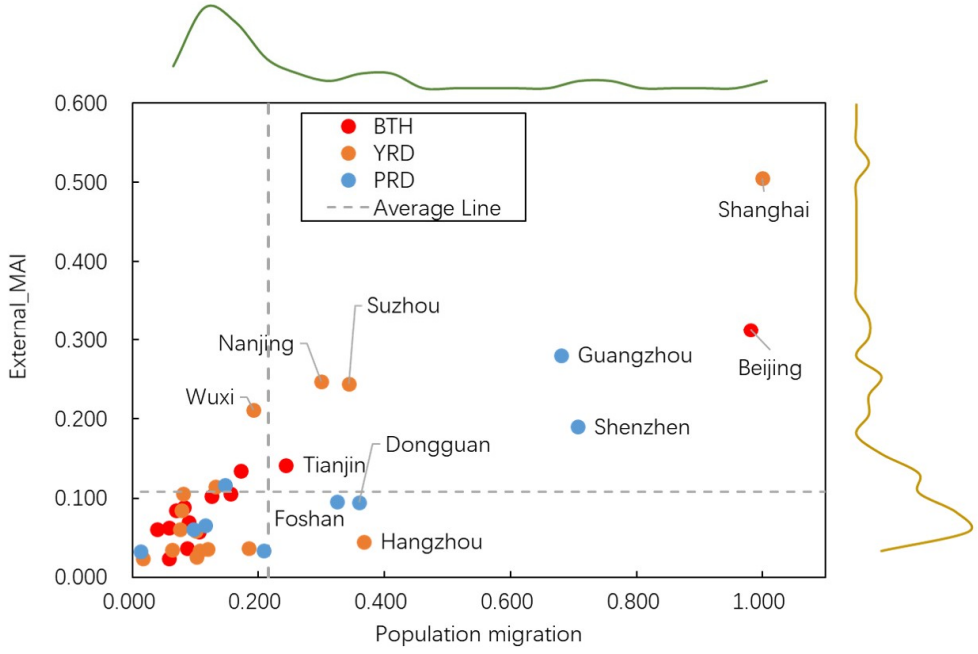

Figure 3. Scatter plot of external-MAI and migration population.

Applying the principal component analysis, we obtained UAM of target cities based on the statistical data; the correlation study was deployed between the comprehensive UAM and external-MAI. As shown in Table 5 and Figure 4, we could observe a significant correlation between the UAM and external-MAI in the study areas. The coefficients of the whole area, BTH, YRD, and PRD are separately 0.829, 0.924, 0.984, and 0.789. The high correlation between them illustrated that urban received external-MAI is highly correlated to the attractiveness of urban itself. The relationship between such a cyber-based index and a traditional statistic-based index can be implied.

Table 5. The Pearson coefficient between urban comprehensive attractiveness for migrants (UAM) and external-MAI.

Region	Three UAs	BTH	YRD	PRD
Coefficient	0.829	0.924	0.984	0.789
Sig(2-side)	0.000	0.000	0.000	0.020

Note: UA: urban agglomeration; BTH: Beijing-Tianjin-105 Hebei metropolitan region; YRD: the Yangtze River Delta; PRD: the Pearl River Delta.

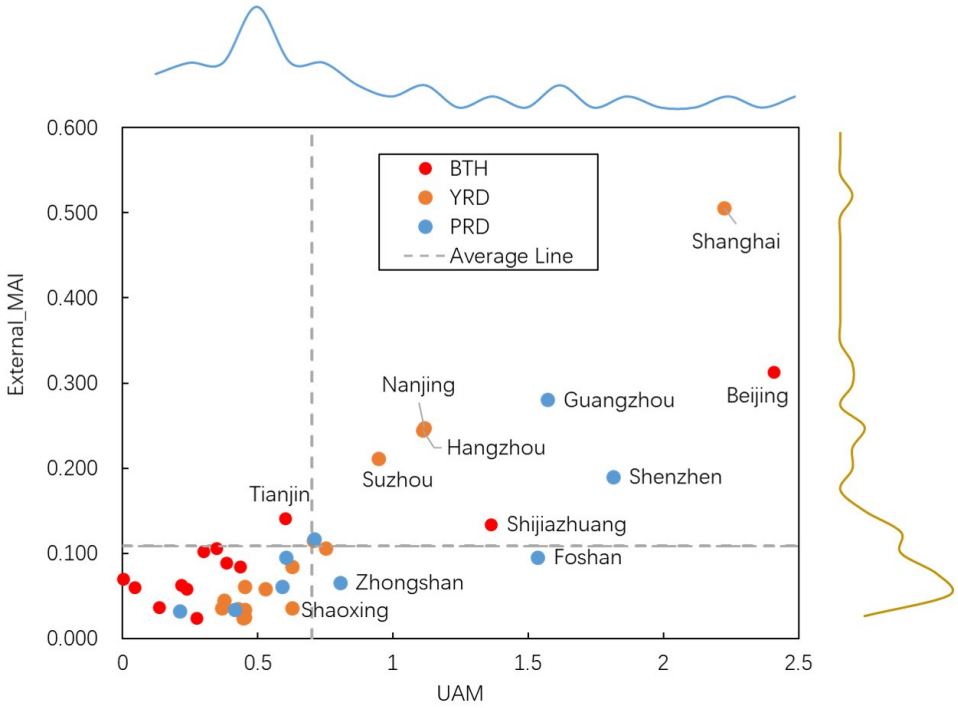

Figure 4. The scatter plot of external-MAI and UAM.

Furthermore, the Pearson correlation coefficients between the selected indexes and external-MAI have been calculated, as shown in Table 6. We can see that all the two indexes for job opportunities and income levels have the highest correlation with external-MAI in the study area. For the living condition perspective, a positive correlation can be observed between the Participant Rate of Urban Basic Medical Care System and external-MAI in BTH and YRP. However, significant correlations cannot be observed between the unemployment rate per capita living area with external-MAI. Paying attention to the education opportunities, significant correlations can be found in BTH and YRD between the three educational indexes and population attention index. In PRD, only the number of primary schools significantly correlates with external-MAI. In the three urban agglomerations, the strongest correlations are depicted between the Tertiary Industrial Output-Value and external-MAI, which reflect job opportunities in the areas being conventionally attractive for the potential migrants. Insignificant low correlation between the unemployment rate per capita living area with external-MAI can be detected.

Table 6. Correlation coefficient between external-MAI and urban pulling indicators.

Perspective	Index	ALL	BTH	YRD	PRD
job opportunities and income level	TIV	0.869*	0.913*	0.971*	0.869*
	IPC	0.598*	0.921*	0.744*	0.800*
	UR	−0.151	−0.331	0.129	−0.197
live condition	RBM	0.509*	0.916*	0.782*	0.485
	LPC	0.093	−0.203	0.264	0.217
educational opportunities	SSN	0.677*	0.851*	0.963*	0.509
	PSN	0.840*	0.865*	0.944*	0.744*
	UN	0.759*	0.930*	0.976*	0.477

Note: *: Pearson correlation is significant at the 0.01 level. TIV: Tertiary Industrial Output-Value; IPC: Urban Residents' Per Capita Disposable Income; UR: Unemployment Rate; RBM: Participant rate of Urban Basic Medical Care System; LPC: Per Capita Living Area; SSN: Number of Regular Secondary Schools; PSN: Number of Regular Primary Schools; UN: Number of University.

4.2. Correlation between Local-MAI and Floating Population Inner City

The results of correlation analysis between local-MAI and local floating population have been shown in Table 7 and Figure 5. We can see that, no matter in the whole study area or the individual urban agglomeration, high correlation coefficients were gained. Especially in the YRD, the relevant coefficient has arrived at 0.950. PRD has a relatively lower value but is still higher than 0.75. Divided by the median value of local-MAI and local floating population, the cities in the study area can be divided into four types. Thereinto, 78.95% of them has high-high or low-low features. For the cities with higher-than-average floating population and higher-than-average local-MAI, there are three located in the BTH (Beijing, Tianjin, and Baoding), two in YRD (Shanghai and Suzhou), and two in PRD (Shenzhen and Guangzhou).

Table 7. The Pearson coefficient between local-MAI and floating population.

Region	Three UAs	BTH	YRD	PRD
Coefficient	0.853	0.889	0.950	0.780
Sig(2-side)	0.000	0.000	0.000	0.013

Note: UA: urban agglomeration; BTH: Beijing-Tianjin-105 Hebei metropolitan region; YRD: the Yangtze River Delta; PRD: the Pearl River Delta.

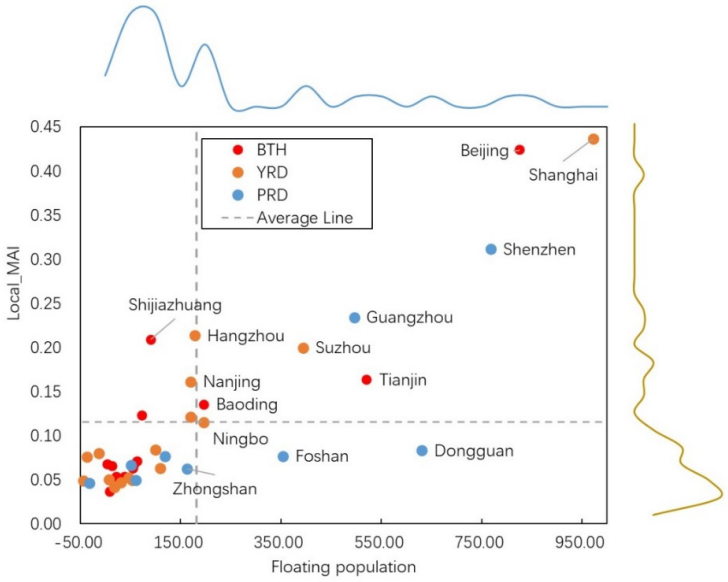

Figure 5. The scatter plot of local-MAI and floating population.

To further excavate information from MAI, the relationship between local-MAI and external-MAI has been explored; the results are shown in Figure 6. There is a highly positive correlation between the two indexes, of which the r is 0.7538 and p is 0.01. It is shown that the city with higher local-MAI also has a higher external-MAI

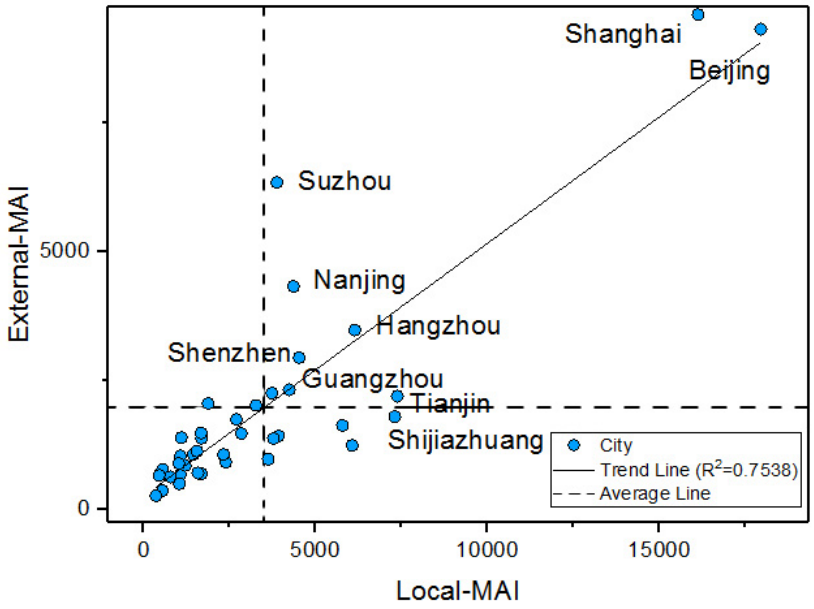

Figure 6. Scatter plot of external-MAI and Local-MAI.

4.3. Correlation between Intercity-MAI and Intercity Population Flow

To explore the relationship between intercity-MAI and intercity population flow, the results have been shown in Table 8 and Figure 7. As we could notice, the average value of intercity-MAI is 1.00, Guangzhou-Shenzhen has the highest intercity-MAI at 5.19; and Shenzhen-Chengde has the lowest index of 0.04. For the individual urban agglomeration, the intercity-MAI among Beijing, Tianjin, and Shijiazhuang has the highest top three values in BTH. The same level of intercity-MAI can be found in YRD for Shanghai, Hangzhou, and Suzhou. In PRD, such level interactions are observed between Guangzhou, Shenzhen, and Foshan.

Table 8. The Pearson coefficient between intercity-MAI and intercity population flow.

Region	Three UAs	BTH	YRD	PRD
Coefficient	0.5685	0.5283	0.5437	0.6369
Sig(2-side)	0.0000	0.0000	0.0000	0.0000

Under the correlation analysis of these two indexes, a moderately positive correlation can be observed in the study area (See Table 8). For the three urban agglomerations, PRD has the highest correlation among them and the correlation in BTH and YRD represents a relatively lower level. There are 59 pairs of cities that have a high-high correlation pattern (high intercity-MAI and high intercity population flow), there into 15 pairs in BTH, 24 pairs in YRD, and 20 pairs in PRD; 147 pairs of cities exhibited the low-low correlation pattern, of which, in BTH, YRD, and PRD, are separately 46, 69, and 32. These two kinds of correlation patterns occupy 75% of the total. Although relevant correlation coefficients of intercity-MAI are relatively limited, it can capture the interaction trend of population flow at an acceptable level.

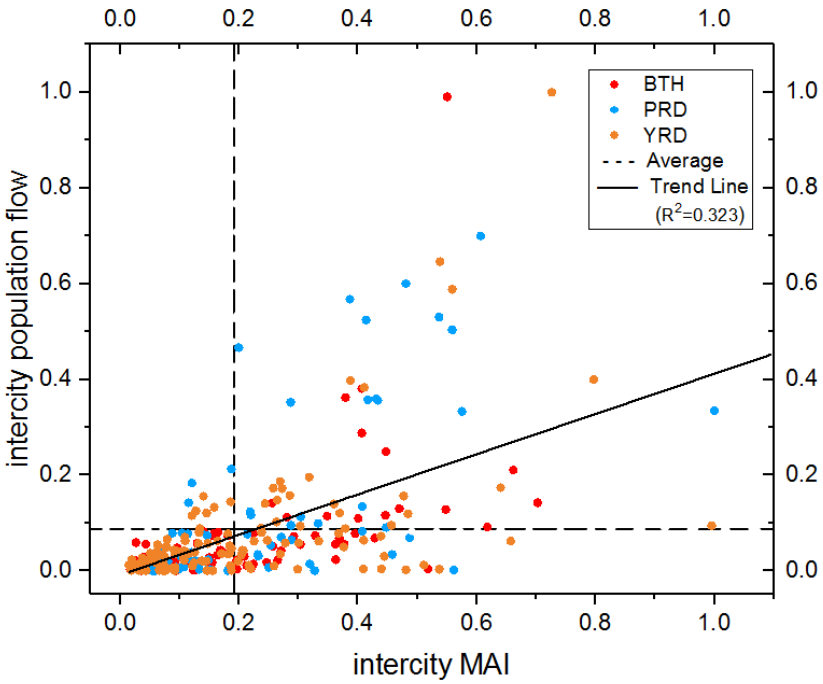

Figure 7. The scatter plot of intercity-MAI and intercity population flow.

5. Discussion

5.1. Evaluation of MAIs

The massive population migration is the specific phenomenon and the inevitable driving force promoting the urbanization of population in China and many developing countries. The collection of urban MAIs can obtain the public intention of migration based on individual search actions and can offer exploration of population migration. Depending on the MAIs, we analyzed the correlation relationship between local-MAI and external-MAI; a high correlation has been discovered. It implied that the city with relatively higher local-MAI has a higher external-MAI. Migration may be active in the high-high cities, such as Shanghai, Beijing, and Shenzhen. According to the dynamic monitoring survey of China's migration population in 2015, the proportions of floating population inside these three cities separately reached 40.26%, 38.02%, and 67.51%, which are much higher than the average value of China at 18.00%. Besides, they have separately occupied 12.22%, 11.99%, and 8.64% (ranked top 3) of the whole inflow population of the three urban agglomerations, which has the most dynamic migration in China. The predominant roles of them in attracting population outside the city are declared. Active migration movement can be detected to support the hypothesis derived from the correlation relationship between local-MAI and external-MAI.

Analyzing the correlation of external-MAI with UAM, the reasonability of external-MAI can be verified through the high correlation with conventional statistics analysis. Based on the push-pull theory of migration, in the cities with higher urban pulling force, more influx of population can be observed. Through the calculation of UAM, which depicted urban pulling force, the city with higher external-MAI can observe higher UAM. The feature of external-MAI coincides with the setting of push-pull theory. Further, exploring the relationship between external-MAI and the indexes which reflect urban migration attractiveness, there are significant correlations between tertiary industrial output-value and urban residents' per capita disposable income with the external-MAI in the whole study area. Most of the cities with higher job opportunities and income levels receive more migration attentions from the outside area. This finding coincides with the dynamics monitoring survey of migration population suggesting a migration reason in Table 1 (*work and trade* as the predominant migration reason), which can represent the ability of MAI indexes in capturing the impact of migration

reasons. With respect to the indexes described urban living conditions, there are no significant correlations between the population migration attention and unemployment rate or per capita living area, this results may correspond to the great exception of potential migrants for their future urban condition, which can be explained by the Todaro migration model from the perspective of development economics. Todaro migration model argues that the migration of population is based on the "expected profit" of migrants. The hardships in urban life have not obtained enough attention from potential migrants, particularly for the rural-urban migrants who lack the necessary information as they enter a new different world [43]. Further, the more schools a city has, the more public migration attention it receives. The positive correlation existing between the education indexes (the number of primary schools, secondary schools, and universities) and external public migration attention exposes that the educational opportunities also intensify the level of urban migration attention. In PRD, the focus of educational concern only derives from the consideration of secondary schools; significant correlation has not been observed between the number of the other two levels of schools in the area, which may be attributed to the relatively lower education level of Guangzhou Province (the administrative province that PRD belongs to) than the other two urban agglomerations.

Besides, we further adopted the neoclassical theory in population migration to explore the reasonability of MAIs. The per capita disposable income of urban residents, which has been viewed as the direct index depicting the possibility for migrants to improve economic benefit, has been adopted to conduct the correlation analysis with external-MAI; the results have shown that the external-MAI has significant positive correlation with the per capita disposable income of urban residents (with the correlation coefficients 0.650, 0.945, 0.752, and 0.780 separately in the whole study area, in BTH, in YRD, and in PRD). The reasonability of MAIs can be further identified.

5.2. Relationship with Migrants

With the correlation analysis of external-MAI and urban migration population, we could observe a significantly positive correlation. The resource endowment gap between different urban areas (e.g., economic development level, environmental quality, promotion of opportunities for individuals, etc.) triggers personal develop exception and forges migrant needs in flowing among diverse regions [22,43]. Collecting information about the targeted city by employing the search query engine is an efficient and low-cost approach to supplement requisite information before deploying actual migration to external areas. As noted as the correlation results of external-MAI and urban inflow migrants in the study area, we can accept the hypothesis that the migration-related search queries from individual users were able to positively reflect urban inflow migrants. External-MAI can be applied to reflect urban inflow migrants on the annual scale.

The high correlation between local-MAI and the floating population inside cities was a signal to prove their close relationship. Nowadays, the floating population inner city has become an influential part in enacting urban planning and policy. Generally speaking, the floating population lived with relatively weaker urban amenities than the local population [54,55]. The desire of improving current conditions was more intensive for them, which was delineated by the high demand for new job opportunities, study chance, and the possibility of improving living quality, etc. Driven by such basic needs, the corresponding search query can be brought into the cyber space and raises the high correlation between local-MAI and floating population inside the city.

Intercity migration has already become one of the significant migration models in current China. We analyzed the correlation between intercity-MAI and intercity population flow in 2015; a similar positive correlation can be observed as 0.57 (p-value 0.00) in the whole area. The results show that the representativeness of intercity-MAI for population flow between different cities was effective, but the correlation relationship was relatively limited. It might be caused by two main reasons: (1) The selection of search keywords cannot cover every reason for migration flows. A unique keyword system may exhibit some deviation in reflecting the driving force of every population flow interaction; (2) migration movement has a lagging feature. It may happen a few months, years, or a much longer

time after the search action. It also may be canceled or indefinitely delayed after information acquisition through searching, which makes the relatively lower correlation between intercity-MAI and intercity population inflow. Generally speaking, the correlation between intercity-MAI and population flow is still on an acceptable level. It can be a supplement for the population flow research of insufficient data. In future work, the construction of a targeted search keywords system for objective population flow can be adopted to remedy such drawbacks.

Besides, for the three MAI indexes, the different correlation coefficients in the three urban agglomerations revealed that regional disparity exists. We calculated the variance (VAR) and coefficient of variation (CV) of relevant correlation coefficients of three MAI indexes, as shown in Table 9. It can be seen that all the VARs are lower than 0.01 and that all the CVs are lower than 10%. The robustness of external-MAI, local-MAI, and intercity-MAI in reflecting population can be partly ensured in the study area.

Table 9. The variance (VAR) and coefficient of variation (CV) of different types of MAI.

	VAR	CV
External-MAI	0.001	3.93%
Local-MAI	0.005	8.28%
Intercity-MAI	0.002	8.71%

Furthermore, we have tested the significance of slope of the three trend lines, which were separately fitted based on external-MAI and inflow population, local-MAI and floating population, and intercity-MAI and population flow to identify whether MAI indexes could steadily reflect the migration situation in different urban agglomerations. All the significances of slopes have been rejected by significant testing at a significant level of 0.05 (sig = 0.43, 0.19, and 0.86 for external-MAI, local-MAI, and intercity-MAI). The null hypothesis could be accepted as there is no significant deviance between the slopes. Although the representations of MAI are diverse in different regions, the deviances are nonsignificant.

6. Conclusions

Migration population has immense potential to push urbanization process in current China and other developing countries. Exploration of population migration based on multisource data can bring more information about the noticeable driving force of urban development. In the information and network era, the MAI indexes can reveal how the public put their attention on migration-related items. Based on the cyber-based indexes, we explore the relationship between public migration attention in cyber space and urban migration population in geographical space inner region, across region, and between regions. The results can answer the questions mentioned in the introduction that search query data based MAI indexes can positively reflect the situation of migration population inner region and across region and, for the population flow, that it is an alternative supplement and support when relevant data is deficient.

Population migration is a complex process driven by diverse forces; this paper conducted a series of analyses from the perspective of search query data in cyber space. However, some limitations exist: First, the selection of continuous search keywords is limited by the short period of data acquisition from the search query engine. Following the incremental collection of search query data, more suitable search keywords should be selected to cover different aspects of public migration attention to thus better delineate the difference and characteristic of urban migrant population; second, this paper focus on the panel data analysis; future work will emphasize on the time-series analysis and excavate more information from a dynamic perspective.

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