FROM THE DEPARTMENT OF WOMEN'S AND CHILDREN'S HEALTH
Karolinska Institutet, Stockholm, Sweden

LOOKING FOR "THE EQUALIZER" IN ANTENATAL CARE—DEVELOPING AND EVALUATING LANGUAGE-SUPPORTED GROUP ANTENATAL CARE IN SWEDEN

Malin Ahrne

Stockholm 2022

Published by Karolinska Institutet.
Printed by Universitetsservice US-AB

ISBN 978-91-8016-872-4

LOOKING FOR "THE EQUALIZER" IN ANTENATAL CARE—DEVELOPING AND EVALUATING LANGUAGE-SUPPORTED GROUP ANTENATAL CARE IN SWEDEN

THESIS FOR DOCTORAL DEGREE (Ph.D.)

By

Malin Ahrne

Principal Supervisor:
Professor Erica Schytt
Centre for Clinical Research Dalarna - Uppsala University, Falun, Sweden
Western Norway University of Applied Sciences, Bergen, Norway

Co-supervisor(s):
Dr Ulrika Byrskog
Dalarna University, Falun, Sweden
School of Education, Health and Social Studies

Dr Ewa Andersson
Karolinska Institutet, Stockholm, Sweden
Department of Women's and Children's Health
Division of Reproductive Health

Professor Rhonda Small
Judith Lumley Centre, La Trobe University, Melbourne, Australia

Professor Birgitta Essén
Uppsala University, Uppsala, Sweden
Department of Women's and Children's Health, International Maternal and Reproductive Health & migration (IMHm)
WHO Collaborating Centre on Migration and Health Data and Evidence

Opponent:
Dr Sarah Fredsted Villadsen
University of Copenhagen, Copenhagen, Denmark
Department of Public Health
Section of Social Medicine

Examination Board:
Professor Eva Skillgate
Sophiahemmet University, Stockholm, Sweden
Department of Health Promoting Science

Professor Marie Oscarsson
Linnaeus University, Kalmar, Sweden
Department of Health and Caring Sciences
Faculty of Health and Life Sciences

Dr Caroline Lilliecreutz
Linköping University, Linköping, Sweden
Department of Biomedical and Clinical Sciences
Division of Children´s and Women´s Health

To all mothers

Abstract

Group antenatal care (gANC) is an antenatal care (ANC) model that aims to empower women and has demonstrated potential to improve outcomes for groups of women with poorer reproductive health outcomes. The overall aim of this thesis was to develop and test the acceptability and impact of language-supported gANC for Somali-born women in Sweden. The purpose of the intervention was to improve experiences of antenatal care, emotional well-being, knowledge about childbearing and the Swedish healthcare system, and ultimately, pregnancy outcomes.

Experiences of standard ANC were explored in focus group discussions with parents and midwives (Study I). Challenges and barriers in standard antenatal were described, both related to the encounters between midwives and parents-to-be, and organizational challenges. Utilising data from Study I, "language-supported group antenatal care" was developed and implemented in one clinic for 18 months. The intervention was evaluated, and women's care experiences and emotional wellbeing were compared with those of women offered standard care (historical controls) and those subsequently offered gANC (intervention). Data were collected by means of questionnaires at baseline, in late pregnancy and at 6–8 weeks postpartum (Study II). The development, implementation, and feasibility of the intervention was assessed through a process evaluation using mixed data sources (observations, interviews, questionnaires, etc.) (Study III).

In study II, no differences between the intervention group and the control group on the primary outcome of women's overall rating of antenatal care were found. The reduction in mean EPDS score was greater in the intervention group when adjusting for differences at baseline (mean difference –1.89; CI 95% –3.73 to –0.07). Women in gANC were happier with received pregnancy and birth information; e.g., in the case of caesarean sections, where 94.9% believed the information was sufficient compared to 17.5% in standard care ($p < 0.001$) in late pregnancy.

In study III, women in language-supported gANC thought it was a positive experience as a complement to individual care, but the intervention was not successful at involving partners in ANC. In gANC, the midwives and women got to know each other better. The main mechanism of impact was more comprehensive care. The position of women was strengthened in the groups, and the way midwives expanded their understanding of the women, and their narratives, was promising.

This evaluation suggests potential for language-supported gANC to improve information provision and knowledge acquisition for Somali–Swedish women during pregnancy (with residence in Sweden <10 years). Language-supported gANC is feasible and relevant if there is an adequate number of pregnant migrant or minority women in an uptake area who share a common language. To be feasible in other settings, gANC requires adaptations to local context.

Reflection is called for when forming groups based on ethnicity or language, to avoid potential unintended consequences such as reinforcing stereotypes by grouping people according to country of birth or reducing privacy for individual women. The “othering” of women in risk groups should be avoided. There may also be a trade-off in gANC between peer-to-peer support and other important aspects such as the inclusion of partners and integration/inclusion in regular birth preparation and parenting activities.

Person-centring seemed to be enhanced with gANC in this study with Somali–Swedish women. ANC interventions including gANC that target inequalities between migrants and non-migrants should adapt a culturally sensitive person-centred approach, as a means of providing individually tailored high quality care that counteracts stereotypes and biases.

LIST OF SCIENTIFIC PAPERS

I. **Antenatal care for Somali-born women in Sweden: Perspectives from mothers, fathers and midwives**

Authors: Malin Ahrne, Erica Schytt, Ewa Andersson, Rhonda Small, Aisha Adan, Birgitta Essén, Ulrika Byrskog

Midwifery 74 (2019) 107–115

II. **Group antenatal care compared with standard antenatal care for Somali-Swedish women: a historically controlled evaluation of the Hooyo-project**

Authors: Malin Ahrne, Ulrika Byrskog, Birgitta Essén, Ewa Andersson, Rhonda Small, Erica Schytt.

BMJ Open - *submitted*

III. **Group Antenatal Care (gANC) for Somali-speaking women in Sweden—a process evaluation**

Authors: Malin Ahrne, Ulrika Byrskog, Birgitta Essén, Ewa Andersson, Rhonda Small, Erica Schytt.

BMC Pregnancy and Childbirth (2022) 22:721

RELATED PAPER

I. **Rationale, development, and feasibility of group antenatal care for immigrant women in Sweden: a study protocol for the Hooyo Project**

Authors: Ulrika Byrskog, Malin Ahrne, Rhonda Small, Ewa Andersson, Birgitta Essen, Aisha Adan, Fardosa Hassen Ahmed, Karin Tesser, Yvonne Lidén, Monika Israelsson, Anna Åhman-Berndtsson, Erica Schytt.

BMJ Open 2019;9:e030314

Content

List of abbreviations

ANC	Antenatal care
C-section	Caesarean section
EPDS	Edinburgh Postnatal Depression Scale
FGD	Focus group discussion
FGM/C	Female genital mutilation/cutting
gANC	Group antenatal care
GDP	Gross domestic product[1]
gwk	Gestational week
IOM	International Organization of Migration
LARC	Long-acting reversible contraceptives
LBGTQ	Lesbian, Bi, Gay, Transgendered, Queer
LMIC	Low- and middle-income country
MRC	Medical Research Council
MFMCQ	Migrant Friendly Maternity Care Questionnaire
NCD	Non-communicable disease
PTSD	Post-traumatic stress disorder
RCT	Randomised controlled trial
ROAM Network	Reproductive Outcomes And Migration Network
SALAR	Swedish Association of Local Authorities and Regions[2]
sANC	Standard antenatal care
SES	Socioeconomic status
SDGs	Sustainable Development Goals
SFOG	Swedish Society of Obstetrics and Gynecology
SRHR	Sexual and reproductive health and rights
UCL	University College London
UK	United Kingdom
US	United States
WHO	World Health Organization

[1] GDP is a monetary measure of the market value of all final goods and services produced in a specific time period by countries. Source: Wikipedia

[2] SKR—Sveriges Kommuner och Regioner

Chapter 1: Introduction and background

1.1 Introduction

The need for care systems to better address health inequalities for migrant women during pregnancy in Sweden was the point of departure for this project. The fact that group antenatal care (gANC) has showed promising results in satisfaction with care, in empowering women (1-3) and in improving reproductive outcomes (4-12) in other settings were reasons for choosing this model for an intervention and feasibility study. gANC with an interpreter present further had the potential to overcome language barriers effectively, and to facilitate an improved dialogue between care provider and mother-to-be. We also hypothesised that group antenatal care was compatible with person-centred care and could reduce implicit bias and generalisations, and thereby improve quality of care.

Health inequalities globally and in Sweden

Health inequalities have always existed—between individuals and groups of people—and within and between countries, and there has always been a link between ill-health and poverty. The WHO Commission on Social Determinants of Health 2005–2008 was a milestone in highlighting the need to tackle health inequalities, and to involve sectors other than health care in a more systematic way (13). A Swedish Commission for Equity in Health was established following the global commission, and came to similar conclusions and recommendations (14). This lead to the new policy framework for public health and health equity in Sweden—"Good and equitable public health—an advanced public health policy" (Prop. 2017/18:249) (15), with eight target areas, including conditions in early life and equitable healthcare services.

The COVID-19 pandemic clearly exposed how social inequalities can lead to an unfair distribution of disease, with the pandemic hitting low economic strata of the population harder, including many migrants (16-19). Global health inequalities have worsened during the pandemic, both because of the virus and because of measures to minimise disease transmission, as well as of the economic consequences that has followed (20).

The Swedish healthcare system and health care inequity

Sweden has universal health care coverage. Both public and private antenatal care is free of charge. According to The Swedish Health Care Act (21), and the Patient Act (22), the goal of the healthcare system is good health and good care on equal terms for the whole population. Furthermore, care should be given with respect to the equal value of all human beings and should preserve the dignity of each individual. The healthcare system should prevent ill-health and those with the highest need should be given priority in receiving care. Digitalisation and e-health provide opportunities to increase accessibility and health care

equity, but also raise new challenges, as a significant minority of the population lacks access to the tools and knowledge required to use new technology (23). In reality, there are differences based on, for example gender, country of birth and where you live. For example, a Swedish report that explores gender inequalities describe how men tend to receive more specialised care then women, and that there are differences in the types of treatments provided—for example treatment related to heart disease—that favour men (24). Sweden is divided into 21 autonomous regions that are responsible for providing health care services (25). Therefore, the type of healthcare services available may vary geographically and can contribute to inequity between regions or between urban/rural settings. One example is vaccination against pertussis and influenza for pregnant women, which is free of charge in some regions but not in others (26). The Swedish government may allocate additional resources for health care in the regions to put extra focus on priority areas, often areas with a high degree of inequality. A report from 2018 states that even though much has been done, the regions need to do much more to minimise regional differences, especially those related to *maternal health* and *primary health care in socially deprived areas* (27). More needs to be done to improve health care services for sub-groups with poorer reproductive health. The report also highlights the need for improved monitoring and evaluation of interventions that aim to improve quality of care for sub-groups with poorer health outcomes. Furthermore, the importance of a participatory approach when identifying needs and developing interventions is stressed.

Legal right to care for migrants

Children and youths under the age of 18 have the same right to health care as all residents, regardless of legal status. All maternal health care and care according to the Swedish Communicable Diseases Act (28) is also free for all, including asylum seekers and undocumented migrants. Apart from that, adult asylum seekers and undocumented migrants are only entitled to emergency healthcare and emergency dental care, and health care that "cannot wait" (29). According to Swedish law, you have the right to an interpreter if needed during health care encounters (22).

1.2 Migration as a social health determinant

The World Migration Report 2022 estimated that about 3.6% of the global population were international migrants in 2020 (approximately 281 million) (30). Migrants include for example students, migrant workers, refugees, asylum seekers, people moving for family reunion purposes and victims of trafficking. About 26.4 million migrants were refugees, and another 4.1 million were asylum seekers (refugee status not determined). The common definition used in UN reports of "migrant" is "any person who changes his or her country of usual residence" (UN DESA, 1998)—with a distinction between short-term and long-term residence.

Sweden has been a migrant-receiving country for about 70 years. Before that, Sweden was pre-dominantly an emigration country. Today about 20% of the population are foreign-born (the total population is 10 million). With that said, it is clear that "migrants" are a very heterogeneous group, making generalisations difficult. Labour migrants first started to come to Sweden in the 50s and 60s, mainly from countries like Finland, Italy, Turkey, Greece, and former Yugoslavia. Refugees began arriving some 50 years ago from countries like Chile, Iran, Iraq, Lebanon, Syria, Turkey, and Eritrea. In the 90s, the war and collapse in what was then Yugoslavia brought refugees from Bosnia among other countries (31). Following Europe's refugee crisis in 2015, when close to 1 million refugees and migrants arrived in Europe and at least 3,550 people died (32), Sweden changed its liberal migration policy for refugees and other groups of migrants to a much more restrictive policy (31).

The "World Report on the Health of Refugees and Migrants 2022" by WHO and the report by the UCL–Lancet Commission on Migration and Health: "The Health of a World on the Move" (2018), thoroughly describe and analyse the complexity of migration and health (33, 34). The report shows that migrants are, on average, healthier and better educated than individuals in destination locations. There is a general selection of who migrates. It is easier to move or flee if you are relatively healthy. This is what is sometimes referred to as "the healthy migrant effect"—and one implication of this is that a lot of health inequalities arise post-migration. Some groups of migrants are more vulnerable, for example asylum seekers, trafficking victims, irregular migrants, and low wage workers. The global community and countries can do a lot to alleviate the structural and systematic barriers to inclusion and good health for all through migration-informed laws, policies, and services; including social inclusion, safe employment with fair wages, decent housing, and universally accessible health care systems (34, 35).

Migration and health in Sweden

Research on health and migration should be understood against the backdrop of the heterogeneity of 'migrants' as a group, and of the complexity of the interactions and the impact of other determinants on health outcomes. Factors both pre-migration and post-migration play a role (30). Refugees may have had traumatic experiences before migration (36) or from their transit period, such as having spent time in a third country or in refugee camps (37). Tuberculosis (TB), hepatitis B, and HIV are more common among foreign-born individuals in Sweden than among Swedish-born individuals. Most of these cases were infected before their arrival in Sweden (38). Mental health inequalities between foreign-born and native-born individuals in Sweden was explained to a large extent in one study by different aspects of "social integration" such as level of social activity, trust in others, and social support, as well as economic and employment conditions and experiences of discrimination (39). Migrants may also suffer from separation from family and social networks which can have a negative impact on psychosocial health and emotional wellbeing (40-42).

Integration and segregation in Sweden

Socioeconomic segregation has increased in Sweden since the 90s, both in urban and rural settings. In a report from 2021, the Delegation against segregation[3] conclude that people's life chances are much poorer for people living in deprived areas. The majority of the total population lives in areas with good or very good living conditions. However, 1.4 million people live in areas with substantial socioeconomic challenges and deprivation (43).

The Swedish government has a strategy to reduce and prevent segregation (44). Integration is seen primarily as inclusion on the labour market and in society. At the beginning of 2021, the number of unemployed foreign-born individuals was 20% compared to 4.6% of Swedish-born individuals. In socioeconomically deprived areas, over 50% of young people in the age group 0–19 lived in a household with a low economic standard in 2018 compared to 14% in other areas (45).

Integration of Somali–Swedish migrants

In 2021, there were 70,087 people living in Sweden who were born in Somalia (46). The Somali-Swedish population is a heterogeneous group with a history of migration to Sweden spanning over 30 years. In a report from 2021, the Global Village Foundation presented descriptive data from Statistics Sweden on the living conditions for Swedish Somalis. In the report, the definition of Swedish Somalis is either being born in Somalia or having one parent born in Somalia (47). That group comprised approximately 110,000 individuals in 2019. Of these, 62% were under the age of 25 and 12% were over the age of 45.

Final grades from primary school (year nine) and being eligible for secondary education is a common indicator for inequity in children. Among Swedish-born, approximately 85% are eligible for secondary school (from grade 10), compared to 51% of Swedish Somalis. Among adult Swedish Somalis, the level of education is also lower compared to other Swedish adults. Approximately 50% of Swedish Somalis aged 20–64 are employed or self-employed. The corresponding proportion of all Swedes in this age range is almost 80%, but it is also important to keep in mind that a larger proportion than in the general Swedish population are under the age of 25, and in an age group where many people are still studying. Long-term unemployment is also more prevalent among Swedish–Somalis. Younger Swedish Somalis have a significantly better position in the labour market than older individuals.

A disposable income of less than 60% of the median value for all households is considered a "low economic standard". In total, 15% of all Swedish households had a "low economic

[3] Delegationen mot segregation

standard" compared to 67% of Somali-Swedish households. Of these, 94% live in rented accommodation. In Sweden in total, the figure is 30% (47).

A report from 2012 commissioned by the government on integration on the labour market concludes that Swedish Somalis are less integrated than for example Somalis in the US or Canada. A possible explanation put forth is that it is easier to become integrated into an English-speaking country, as many Somalis already know English. A conclusion was also that it is to be expected that a migrant group from a low-income country that have settled in Sweden quite recently, where many have a low level of education, face the kind of challenges that many Somalis face in Sweden in terms of unemployment etc. (48).

Intersection of socioeconomic inequality, gender, and migration

Understanding social inequality and how it is constructed is essential to understanding the concepts of migration and health. The concept of intersectionality can be useful to guide the understanding of how health inequalities arise and affect individuals. In sociological theory, inequality stems from power orders based on categorisations such as class, gender, disability, ethnicity, and sexuality. Intersectionality deals with how these power orders interact and affect sub-groups and individuals. For low-paid workers, sub-ordinance based on class can be amplified if it is combined with belonging to other categories, such as being a woman and a migrant, with none of the dimensions having causal priority. Failure to understand intersectionality can lead to simplified conclusions about inequality or diffuse solidarity between workers, women, or migrants with different ethnic backgrounds if one dimension is given precedence over another (49, 50).

In Sweden, research by Mulinari (2009) reveals ways in which migrant women experience gendered racism in their interactions with the Swedish welfare state in their capacity as mothers, and uncovers tensions and ambivalence among women of migrant backgrounds between being conceptualised as a citizen and "being different". In Sweden, as in similar countries, migrants might technically have access to social services and health care, and be formally granted inclusion in society through legal measures, but nevertheless experience barriers to utilising services and care. It can be argued that it this is a form of subordinated inclusion based on the establishment and development of a racialised and gendered working class (51). Moreover, a lot of research on the health and wellbeing of migrants and migrant women post-migration tends to give more attention to pre-migration events and traumatic events during the migration process, while underestimating the gendered racism that migrant women face in Sweden as a cause of ill-health. Many migrant women were also challenging gender norms before migration, which is not often explored in research on gender inequalities after migration (51).

Discrimination and implicit bias in health care

Most of the literature on racism and discrimination in health care is from the Unite States (US), and European studies are pre-dominantly small and qualitative (52). Even though the

context is different in Europe and Sweden, we can learn from the research that has been done in the US. Structural discrimination and racism in the US and its implications for health is described in a paper by Bailey, et al. (2017) as *"the totality of ways in which societies foster racial discrimination through mutually reinforcing systems of housing, education, employment, earnings, benefits, credit, media, health care, and criminal justice. These patterns and practices in turn reinforce discriminatory beliefs, values, and distribution of resources."*

There are only a few Swedish studies and reports on discrimination and racism related to health. A qualitative study published in 2020 describes experiences of racism in Swedish health care encounters (53). A report on the right to health care and discrimination by the Equality Ombudsman[4] (a Swedish government agency) concludes that some patient groups have more negative experiences and have greater difficulties in accessing adequate health care. These groups include, for example, people with a native language other than Swedish, LBGTQ[5] persons, and people with mental health problems (54).

In a review from 2017 of both quantitative and qualitative studies on experiences of antenatal care among socioeconomically disadvantaged women in high-income countries, the authors conclude that racial discrimination in antenatal care is poorly documented in Europe, but they found a few studies which showed that discrimination occurs in various forms. Wilful discrimination, as well as unintentionally unfavourable attitudes, discourage women from antenatal care attendance and thus need to be addressed and further investigated (55).

An Australian study on women's experiences of discrimination in Australian perinatal care explored perceived discrimination associated with factors other than ethnicity or religion, such as being young (<25 years old), being underweight or overweight, and smoking during pregnancy, and found that women who reported three or more stressful life events or social health issues had a twofold increase in adjusted odds of perceived discrimination (56).

Implicit bias

One form of discrimination and racism is implicit bias. Implicit racial or ethnic bias in health care workers is explored in a systematic review by Hall, et al. (2015), including its effects on health care outcomes (57). Implicit bias is explained like this:

"Implicit attitudes are thoughts and feelings that often exist outside of conscious awareness, and thus are difficult to consciously acknowledge and control. These attitudes are often automatically activated and can influence human behaviour without conscious volition."

[4] Diskrimineringsombudsmannen (DO)

[5] Lesbian, Bisexual, Gay, Transgendered, Queer

Fifteen studies were included in the review, and most had used the Implicit Association Test[6] to assess implicit bias. Low to moderate levels of implicit racial/ethnic bias were found among health care professionals in all but one study, and were related to patient–provider interactions, treatment decisions, treatment adherence, and patient health outcomes. Implicit attitudes, with more positive attitudes toward whites and more negative attitudes toward people of colour, were more often significantly related to patient–provider interactions and health outcomes than treatment processes. Findings from this review also suggest that implicit bias may be activated under stressful working conditions (57).

In a paper by Saluja and Bryant (2021), racial disparities in maternal morbidity and mortality in the US are described, as is how implicit bias may contribute to these disparities (58). Approximately 700 women die each year as a result of pregnancy or delivery complications in the US, and the mortality ratios vary significantly by race, with white women experiencing 13.0 deaths per 100,000 births, compared with 42.8 deaths per 100,000 births for black women (years 2011–2015). The authors argue that since implicit bias may be activated particularly under stressful working conditions, emergency, labour, and delivery settings may be especially prone to implicit bias.

Values and norms as health determinants

Culture, values, and norms are also social health determinants (59), even though the importance of values and norms as a health determinant vs. other health determinants and socioeconomic factors like employment, income, housing and education can be debated. However, diverging values between healthcare providers and patients may challenge the provision of culturally sensitive care. In clinical practice, ambiguities may arise from efforts to merge conflicting discourses and policies, and may jeopardize the delivery of culturally safe care to non-Western populations, as described by Racine (60). In the thesis "Sacred Ideals. Diversity and Equality in Swedish Reproductive Healthcare" (2019), policies on diversity vs policies on equality is explored – and how the trade-off between these two is being negotiated in the clinical care setting. The findings suggest that a variety of norms must be accepted in a multicultural, pluralist society, as long as they are within the legal boundaries of what is allowed (61).

Societies, sub-groups, and individuals have a myriad of values and norms, but there are also values and norms that are shared within groups. Norms also constantly change, sometimes rapidly, sometimes more slowly. Norms on inclusion of partners/fathers in care during pregnancy and birth have changed rapidly in Sweden and other Western countries over the last 50 years (62). When I was born, my father was not present. He was not allowed in the

[6] https://implicit.harvard.edu/implicit/selectatest.html

room, because that was the norm at that time, and he had to wait outside in a corridor. In a migration context, values and norms are shaped and transformed in interaction with other factors such as personality, identity, and cultural bereavement (63), family and intergenerational relationships, inclusion/exclusion, transnationalism (64), and socioeconomic status. Both pre-migration and post-migration factors have an effect on the transformation of values and norms. Migration is a life-changing event, and value stability and changed values in life transitions such as migration (65, 66) require additional (adequately designed) research. Research in Sweden on attitudes towards FGM/C among Somali-Swedes have shown rapidly changing views post-migration (67).

1.3 Reproductive health and antenatal care

Global pregnancy-related mortality and morbidity remains unacceptably high. In 2017, 295,000 women died during and shortly following pregnancy and childbirth. The vast majority of these deaths (94%) occurred in low-resource settings, and most of them could have been prevented with better access to health care (68). Many risk factors such as for example grand multi-parity (≥5 births) is not a major problem in societies with a good maternal healthcare system (69, 70). Substantial progress has been made globally over the past two decades in the provision of antenatal care; however, in 2015 only 64% of women globally receive antenatal care four or more times during pregnancy (71).

The Quality Maternal and Newborn Care (QMNC) Framework was developed using the evidence from the 2014 Lancet Series on Midwifery (72). It presents the scope of care to which all women and newborns should have access, and includes:

- Education, information, and health promotion
- Assessment, screening, care planning
- Promotion of normal processes, prevention of complications

Moreover, women and infants with complications should have access to:

- First line management of complications
- Medical–obstetric neonatal services (73)

In 2016, WHO presented new guidelines and recommendations on antenatal care; “WHO Recommendations on Antenatal Care for a Positive Pregnancy Experience”. The overall aim is to provide an evidence-based framework for antenatal care practices that empowers all pregnant women and adolescent girls to access the type of person-centred care that they want and need, in accordance with a human rights-based approach. The recommended number of antenatal contacts with a skilled health worker during pregnancy was increased from four to eight (74). The recommendations on implementation of the guidelines are outlined in another report: “Integrated Person-Centered Health Care for All Women During Pregnancy: Implementing World Health Organization Recommendations on Antenatal Care for a Positive Pregnancy Experience” that further stresses the need to ensure person-centred antenatal care to all women (75).

Reproductive health and health care in Sweden

In 2020, about 110,000 children were born in Sweden, and there are about 40 labour clinics (76, 77). The total fertility rate in 2021 was 1.67 (78). Sweden has very low maternal mortality, with an average of six maternal deaths per year, and low rates of perinatal mortality, but migrant women and their babies are overrepresented (79). Excess mortality among women from low-income countries living in Sweden has been demonstrated (79).

The National Board of Health and Welfare publishes regular statistics on pregnancies, labour, and birth in Sweden (77). The total number of caesarean sections is relatively stable. The rate differs between hospitals due to differences in praxis, routines, and socio-demography of the uptake area. In 2019, the rates differed from 20.6% in the region with the highest rate[7], to 12.3% in the region with the lowest rate[8]. Approximately 17% of babies are delivered by caesarean section (C-section). Of these, a little more than half are emergency C-sections Vacuum extraction is used in approximately 6% of births, and is more common among primiparous mothers (11.5%). Induction of labour is becoming more frequent. In 2019, 20.7% of births were induced. About 80% of primiparous mothers have first- or second-degree perineal tears. Third- or fourth-degree perineal tears appear in about 3% of births, but are more frequent among first-time mothers (5.2%). More severe perineal tears in assisted vaginal delivery (such as vacuum extraction) have decreased over time (77).

The majority of babies are born in gestational week (gwk) 39–40. A little over 5% of newborns are born prematurely, before gwk 37, and about 900 babies are born before gwk 32. Close to 7% of babies are born post-term at >42 gwk. About 10% of newborns are treated in a neonatal clinic. (77).

The role of the midwife in Sweden

The midwifery profession in Sweden began to be regulated already in 1571, first by the church and again in 1663 by the *Collegium Medicum* (today The National Board of Health and Welfare). In 1686, basic training became obligatory, and in 1777, the first national guidelines for midwives were introduced[9] (80).

In a recent report on Swedish midwifery, the role of the midwife in Sweden is described as follows: *"The midwife-led interdisciplinary care model places the midwife in the centre as the primary healthcare provider for all sexual and reproductive health matters. The midwife works closely with other healthcare professionals during the woman's whole reproductive life-cycle with contraception counselling, pre-conception care, abortion care, pregnancy,*

[7] Region Värmland

[8] Region Jönköping

[9] Den 14 oktober 1777 gav Kungl Maj:t ut ett rikstäckande "Reglemente för Jorde-Gummorne".

intrapartum and postpartum care, and care for women during and after menopause. As the primary care providers for healthy women with normal pregnancies and births, the midwife will address the other professionals in the interdisciplinary team, such as obstetricians, gynaecologists, paediatricians, psychologists, social workers, when complications occur" (81).

To become a midwife in Sweden today, you need to be a registered nurse and then study midwifery for 1½ years. Midwifery training is available at twelve universities (76). Close to 100% of midwives are female (82).

Standard antenatal care in Sweden

Antenatal care (ANC) guidelines are developed at the national level by the Swedish Society of Obstetrics and Gynaecology, the Swedish Midwifery Association (83), and the National Board of Health and Welfare (84). At sub-national level, all 21 regions have their own regional ANC guidelines[10].

ANC is usually individual and midwifery-led, with continuity of care throughout pregnancy, and referral to an obstetrician or other specialist when needed. Women are usually assigned a "designated midwife" who assumes personal responsibility for the woman, to assure continuity and enhance patient safety. A minimum of nine visits to the midwife is recommended (83), exclusive of the ultrasound used to date the pregnancy, which is recommended in gwk 18–20. The first visit occurs early in the pregnancy, and is focused on information on lifestyle factors. The second visit usually lasts around 45 minutes and is focused on a detailed patient history. The other appointments are usually 30 minutes. Care includes controls of the health of the woman and the unborn baby, provision of information about lifestyle, pregnancy, labour and birth, care of a newborn, breast feeding/nutrition, social and emotional wellbeing, and screening for experiences of violence. ANC clinics often offer additional group-based elements, such as birth preparation and parent education in groups. Interpretation can be booked if needed, either face-to-face interpretation or by telephone.

In 2015, 82% of Swedish-born women attended the post-natal check-up after birth, but only 69% of foreign-born women. In 2021, the difference had decreased, with 90% of Swedish-born women attending the post-natal check-up compared to 84% of foreign-born women (85).

The number of pregnant women per full-time midwife in ANC has been stable, with 88 patients/midwife in 2019; 84 patients/midwife in 2018, and 85 patients/midwife in 2017. The national target is 80 patients/midwife. There are differences between public and private

[10] "Basprogram"

clinics. Public clinics had, on average, 85 patients/midwife and private (but publicly financed) clinics had an average of 103 patients/midwife in 2019 (86).

Father's/partner's role

Partners are welcome to attend and participate in both clinical ANC appointments and parent education, and the Swedish norm today is inclusion of partners in birth preparation and ANC (87), even though this is not clearly articulated in guidelines and policies (83). Women with a supportive partner during pregnancy have been shown to experience less physical and emotional problems (88). In a meta-synthesis of qualitative studies of fathers' experiences of their partner's labour and the birth of their baby, most men wanted to be actively involved in their partner's labour and birth (89). Other researchers have noted that fathers-to-be may experience feelings of being excluded, invisible, and irrelevant in ANC during pregnancy (90). In a study on Ethiopian–Australian fathers' involvement in perinatal healthcare in Australia, there was a willingness among both men and women that were interviewed to involve male partners more actively post-migration (91).

Parental education and birth preparation

Parent education and birth preparation are integrated in Swedish ANC, but the format and extent have changed over time and differ between clinics. Parental education can be provided individually or for couples, and/or offered in groups or in seminars for both parents. It can include birth preparation, parent education, and parent support. Lower attendance in childbirth preparation and parenting classes among migrant women has been reported (92, 93). There are recommendations on what topics should be included, presented below (83).

Table 1. Topics for parental education and birth preparation individually or in groups, as recommended by the Swedish Society of Obstetrics and Gynaecology and the Swedish Midwifery Association

Life-style factors	Nutrition, physical activity, tobacco, alcohol, drugs, stress, etc.
Pregnancy	Physical and emotional changes, anatomy, and physiology
Birth	Uncomplicated birth, pain, pain relief, relaxation, induction, complicated birth, complications, tears, etc.
Practical birth preparation	Birth preparation such as breathing, relaxation, etc.
The new-born baby	The development of the baby during pregnancy and the needs of the new-born baby after birth. Complications, prematurity. UN Convention of the rights of the child and discuss abuse and shaken baby syndrome.
Feeding	Breast-feeding (including anatomy and physiology) and alternatives.
Parenthood	The new family, gender roles, parental leave, etc.
Relationship/family	Relationship between parents, sex, family planning, work/life balance etc.

Migration and reproductive health

Multiple studies point out migrant women as having an increased risk of health inequity and poor maternal health outcomes. The increased risks include reduced access to health care, poor communication with caregivers, a lower rate of obstetrical interventions, a higher incidence of stillbirth, neonatal death, maternal death, postpartum depression, and co-morbidity in some populations (42). A meta-review by Heslehurst, et al. (2018) of perinatal outcomes of migrant women found poorer outcomes related to maternal mortality, maternal mental health, preterm birth, and congenital anomalies[11] (94). A systematic review of 18 million pregnancies in Europe showed that migrant populations had an increased risk of perinatal mortality, preterm birth, low birthweight, and congenital malformations (95).

Another large review of perinatal health by Gagnon, et al. (2009), which included more than 20 million pregnant women moving to high-income industrialised countries, found that children of migrants generally fared as good or better in terms of perinatal outcomes in the majority of studies (preterm birth, low birthweight, and health-promoting behaviour) compared to host populations. Meta-analyses found that Asian, North African, and sub-Saharan African migrants were at greater risk of foeto–infant mortality than 'majority' receiving populations, and Asian and sub-Saharan African migrants were at greater risk of preterm birth (96).

Compared with native-born Australians, East African migrant women in Australia had elevated odds of perinatal mortality, small for gestational age births (SGA), very low birthweight, and very preterm births, while having lower odds of preterm birth and macrosomia (a baby who is born much larger than average for their gestational age), with variations between individual countries of birth (97).

In a review of the health status of pregnant sub-Saharan refugee women who had resettled in high-income countries, increased risks were, to some extent, associated with prior poor health and co-morbidity. The principal medical risk factors were anaemia and high parity (98). Migrant women from low-income countries may have a higher incidence of some communicable diseases that may contribute to risks related to pregnancy and childbirth. Tuberculosis (TB), for example, is a leading cause of death globally in women of reproductive age. There is high risk of reactivation of latent tuberculosis infection (LTBI) in pregnancy, and routine screening of some pregnant migrant women is one possible preventive measure (99, 100).

[11] "Medfödda missbildningar" in Swedish

Migration and reproductive health in the Nordic countries

African-born women had an increased risk of post-term birth, meconium-stained liquor, episiotomy, operative vaginal delivery, emergency caesarean delivery, postpartum bleeding, low Apgar score, and low birthweight compared with native Norwegians in one study (101). In another population-based study in Norway, higher odds of stillbirth for several migrant groups have been shown. Multiparous migrant women who had given birth to their first child before arriving in Norway were more vulnerable to stillbirth in subsequent births (102).

In a population-based study in Finland, women of sub-Saharan African, South Asian, and East Asian origin were at greater risk of emergency caesarean section, preterm birth, low birthweight, and lower five-minute Apgar scores for newborns (103). Women of African origin had the highest perinatal mortality rates, and women from Eastern Europe, the Middle East, North Africa, and Somalia had a significant risk of low birth weight and small for gestational age newborns in another Finnish study (104).

Migration and reproductive health in Sweden

Research conducted 20 years ago in Sweden showed that perinatal mortality was increased among infants born to non-Swedish women. Even after adjustments for maternal background and risk factors (diabetes, anaemia, pre-eclampsia, placental abruption, and small-for-gestational age), the increased risk of perinatal mortality among women of foreign origin remained statistically significant. Women from sub-Saharan Africa differed from other subgroups with a higher risk of adverse outcomes (105). Higher rates of perinatal deaths among women from East Africa were associated with inadequate performance of the healthcare system, including insufficient surveillance of intrauterine growth restriction (IUGR), inadequate medication, misinterpretation of cardiotocography (CTG), and interpersonal miscommunication. Other preventable factors included delay in seeking health care and mothers refusing caesarean sections (106).

More recently, a Swedish register-based report by the National Board of Health and Welfare (2016) showed that women from sub-Saharan Africa had poorer outcomes for several pregnancy-related complications like emergency caesarean sections, perinatal deaths, Apgar-scores, and tears, even after adjusting for other maternal and socioeconomic factors (107). Another study by the National Board of Health and Welfare explored familiarity with the healthcare system using questionnaires. Women who were born outside Nordic countries were more uncertain of where to turn in case they should experience emotional or psychological distress during pregnancy or after birth. There was also a greater uncertainty of where to turn for physical health problems during pregnancy. The questionnaire was only available in Swedish, so the lack of familiarity with the healthcare system might be underestimated (108).

Further, a register-based study on perinatal health of refugee and asylum-seeking women in Sweden during 2014–2017 showed that migrant women from Syria, Iraq, Somalia, Eritrea, and Afghanistan had higher risks of poor self-rated health, gestational diabetes, stillbirth, and

infants with low birthweights (109). Another register-based study showed that South Asian, sub-Saharan African, and East Asian immigrants had a higher risk of late preterm birth compared to Swedish-born women. North African and Middle Eastern, Somali, and Ethiopian/Eritrean groups had increased risk of post-term birth (110). In 2008, Somali-born women in Sweden and elsewhere were shown to have poorer reproductive health outcomes when compared to other migrant women (111).

Self-rated health is an important health marker. A population-based study with data from the Swedish Pregnancy Register of self-rated health in migrant and non-migrant women found disparities. Women born in sub-Saharan Africa had self-rated health comparable to women born in Sweden before their pregnancy, but they had *lower odds of poor self-rated health* during and after pregnancy. Women born in Latin America and the Caribbean, South Asia, North Africa, and the Middle East had consistently higher odds of poor self-rated health before, during, and after pregnancy compared to women born in Sweden (112).

Migrant women and maternity care

A review of studies from five countries, including Sweden, concluded that migrant women were less positive about their maternity care compared to non-migrant women. Communication problems and a lack of familiarity with the healthcare system negatively impacted migrant women's experiences, as did perceptions of discrimination and care seen as unkind or disrespectful (113). Sub-optimal care as a cause of maternal mortality in Sweden has also been reported (114).

In the Norwegian MiPreg study, satisfaction with maternity care, as well as challenges and barriers to optimal maternity care among recent migrants has been studied. Overall satisfaction with maternal healthcare was high. One-third of all women did not understand the information provided by healthcare personnel during maternity care. More women with refugee backgrounds felt they were treated differently because of factors such as religion, language, and skin colour, than women who migrated due to family reunification. Several of these challenges were associated with vulnerabilities not directly related to maternal health. A combination of individual, structural, and institutional barriers hindered recently migrated women in achieving optimal maternal healthcare. Suggestions to address these challenges include improved provision of information to migrant women about how healthcare is organised, increased use of interpreter services, appropriate psychosocial support and strengthening diversity and intercultural competence among healthcare personnel (115, 116).

In a study from the Stockholm region, babies born small for their gestational age were more common among Somali-born women, as were babies born after 41 + 6 gestational weeks. Furthermore, Somali-born women contacted obstetric care for decreased foetal movement less often than did Swedish-born women (117). In another study comparing Swedish-born women with Somali-born women, Somali-born women booked appointments later and made fewer ANC visits, were more likely to experience anaemia, severe hyperemesis, emergency

caesarean section, perinatal mortality and small for date infants (118). In one study, severe vitamin D deficiency was demonstrated in pregnant Somali-born women in Sweden (119).

Qualitative studies of maternity care and Somali-born women in Western countries

There are several qualitative studies from different Western countries that explore Somali women's maternity care experiences and needs. Some of them are between 15–20 years old, while others are more recent. In 2004, Somali refugee women in the US were interviewed about their care needs during pregnancy and delivery. Among other things, they reported racial stereotyping, apprehension of caesarean births, and concern about the competence of medical interpreters. Women wanted more information about different aspects of pregnancy and care (120). In a more recent qualitative study on hesitancy toward obstetrical interventions among US-based Somali migrant women, underpinning mechanisms were fear of obstetrical interventions, perceived lack of choice in their care processes, feeling judged or undervalued by service providers, and a lack of privacy provided while receiving care (121).

In 2001 a qualitative study from the UK on the maternity information concerns of Somali women, poor communication and lack of trust in interpreters were identified as major challenges. The women also perceived that they were denied information due to punitive attitudes and prejudiced views among health professionals (122). In a qualitative study 20 years later, also from the UK, about experiences of maternity care among Somali women, the findings were similar (123). Language and communication barriers limited access to quality care and lack of cultural awareness and preconceived ideas by some hospital caregivers maked them unsupportive and insensitive. The conclusion was that positive attitudes from midwives, continuity of care, and adequate resources are needed to build trust and positive relationships with care providers.

A qualitative study performed more than 20 years ago in Sweden explored attitudes, strategies, and habits of Somali migrant women related to pregnancy and childbirth in order to gain an understanding as to how cultural factors might affect perinatal outcomes, and suggested more culturally-sensitive care during pregnancy and birth (124). Moreover, communication problems and inadequate levels of health literacy, sub-optimal care, and challenges related to navigating the healthcare system have been described as barriers to quality care during pregnancy for migrant women in Sweden, including Somali-born women (114, 125, 126).

In the thesis "The Maternal Migration Effect. Exploring Maternal Healthcare in Diaspora Using Qualitative Proxies for Medical Anthropology" (2012) qualitative research methods were used to explore sociocultural factors that might contribute to care delays for Somali migrants in Sweden. Delays to care were caused by factors like "broken trust". "Broken trust" could cause late-bookings or hesitancy/refusal of treatments. This in turn resulted in care provider frustration. Poorly functioning interpreter services, miscommunication and care providers' misconceptions about what women wanted and valued also caused delays. Women

preferred competent care over gender- and ethnic-congruence. Congruent language was identified as the key ingredient for optimal culturally-sensitive care (127).

In the thesis "'Moving On' and Transitional Bridges: Studies on migration, violence, and wellbeing in encounters with Somali-born women and the maternity health care in Sweden" (2015) transition in terms of becoming a mother and being a migrant in relation to previous experiences of war-related violence and encounters with midwives in antenatal care was explored (128). Pronounced resilience was found among the Somali-born respondents that had experienced war-related violence. Factors that facilitated resilience were motherhood, faith, and social coherence.

Swedish and Australian midwives´ experiences of caring for Somali-born women were compared in a qualitative study. Differences in midwives' attitudes and approaches to care were found, particularly in how accepting the midwives were and the flexibility with which care could be provided in order to meet the needs of the women under their care. Australian midwives appeared to be both more accepting and more flexible and responsive (129). Some possible explanations might be that Australia and Sweden have very different histories of migration—Australia being a country built by migrants—and the fact that Swedish healthcare workers may experience more tension in their everyday work, based on competing policy discourses and greater norm discrepancies (130-132).

Finally, a Swedish interview study with midwives on their experiences of caring for immigrant women in ANC (not specifically on Somali migrant women) concluded that extra time is required to overcome communication difficulties, as well as support to midwives in managing cultural differences (133).

Female genital mutilation/cutting

Many Somali-born women have been subject to female genital mutilation/cutting (FGM/C) pre-migration. The type of cutting and at which age varies. The severe forms involve the removal of extensive amounts of healthy tissue from the female genitals and narrowing of the vaginal opening, which can have a serious impact on sexual and reproductive health. For example, women who are infibulated might require de-infibulation during pregnancy or labour (134, 135).

In settings with good quality obstetric care, with proper management, FGM/C is often not associated with adverse obstetric outcomes (136-139). Adverse obstetric outcomes may be more prevalent in settings with poor quality of obstetric care (140, 141). The clinical implication of this is that detection of FGM/C during pregnancy, good quality antenatal and obstetric care, and proper management of FGM/C, especially infibulation, is essential.

Interventions for migrant women during pregnancy and birth in Sweden and neighbouring countries

Few interventions for migrant women during pregnancy and birth have been scientifically evaluated in Sweden. In a national effort in 2015–2022 to improve the care and health of migrant women before, during, and after childbirth, interventions across Sweden were mapped, and 54 regional interventions were included; 26 directed at migrant women and their families, 11 directed at healthcare staff, and 17 at the healthcare system (142).

The use of community-based bilingual doulas has been evaluated (143-145). A qualitative study of midwives' and obstetricians' experiences of bilingual doulas showed that the doulas' main contribution was to help migrant women navigate the maternity care system, to bridge language and cultural divides, and to guarantee continuous labour and birth support. However, they sometimes experienced that the doulas interfered with their professional assessments, and the role of the doulas was somewhat unclear to them (143). In a similar intervention study with multicultural doulas in Norway, the doulas saw themselves as a resource for both newly-arrived migrant women and midwives during pregnancy and childbirth (146).

Another intervention that has been evaluated is language-supported labour ward visits for pregnant migrant women. In staff interviews, the staff believed that labour ward visits during pregnancy were valuable in increasing the feeling of safety among pregnant migrant women, and the model was appreciated by expectant couples, midwives, and assistant nurses (147).

The use of a Swedish–Arabic app to improve and facilitate communication between Arabic-speaking women and midwives in ANC has been evaluated. Arabic-speaking women perceived the app as a valuable communication tool (148).

In the MAMAACT intervention in Denmark, educational materials and a smartphone app in different languages on danger signs during pregnancy were developed and the project was implemented with the aim of enhancing communication between migrant women and midwives during pregnancy regarding danger signs and how to access acute care (149). The training sessions and dialogue meetings on intercultural communication increased midwives' awareness and reflections on care provision for immigrant women. The MAMAACT was well-received among midwives and pregnant women (150).

1.4 Group antenatal care

Alternative care models have been suggested as a way of improving the quality of antenatal care and reducing maternal health inequalities. Group antenatal care (gANC) (sometimes referred to as group prenatal care) is one such intervention that could have the potential to address some of the challenges with standard antenatal care (sANC) that migrant women face, through improved communication between healthcare providers and participants; empowerment of pregnant women; peer support; and improved knowledge about pregnancy, birth, and the healthcare system.

gANC incorporates pregnancy check-ups and group sessions for education and social support in a group of pregnant women in about the same gestational week. Centring Pregnancy is a licensed gANC model developed in the US in the 1990s and practised in many countries (151-153). Other concepts of gANC include for example Pregnancy Circles in the UK (154) and Expect With Me in the US (155).

A 2015 Cochrane review of four eligible studies found that gANC was positively viewed by women and was not associated with adverse outcomes for women or their babies. No differences in the rate of preterm birth were found, and more rigorous research was called for (151). The WHO report "Recommendations on antenatal care for a positive pregnancy experience" (2016) highlights the need to consider the context in which gANC is being implemented and women's' preferences. The report concludes that gANC may be offered as an alternative to individual care, provided that the infrastructure and resources for delivery of gANC are available, and also underscores the need for further research (74). Later systematic reviews on gANC have found no evidence for improved outcomes on preterm birth, neonatal intensive care unit admission, breastfeeding (11), or gestational weight gain (156) in low-risk women. However, improved outcomes with gANC have been identified for several groups of high-risk or vulnerable pregnant women, for example a reduction of preterm birth among low-income and African American women, increased attendance at prenatal visits for some vulnerable groups of women, increased satisfaction with care, increased rates of breastfeeding in some sub-groups of women, increased pregnancy knowledge, improved psychological outcomes, and increased uptake of Long-Acting Reversible Contraception (LARC) (157). An American study of low-risk, mainly African-American women participating in gANC and delivering at term, showed a lower risk of low birth weight and other adverse perinatal outcomes (158). In a randomised study of pregnant adolescents, group prenatal care seemed to reduce depressive symptoms in the intervention group (159). In Australia, gANC has been implemented for women with refugee backgrounds with promising results (160). In the US, a group prenatal care model for Somali women has been developed and implemented and evaluated in one site, and interestingly enough it was called "Hooyo" (3). It was a form of the Centring Pregnancy model, but tailored to the perceived needs of Somali-born women. The conclusion from that study was that gANC has the potential to improve care satisfaction, increase knowledge, and reduce stress during pregnancy and the postpartum period.

Another motive for implementing gANC as an alternative model of care is structural/organisational. Depending on the reason and aim of implementing gANC, the outcome monitoring will vary. For example, in the case of Pregnancy Circles in the UK, midwives' dissatisfaction with current practice fuelled the development of an alternative care model. Midwives derived accomplishment and job satisfaction from working in a new way and considered it to empower women and improve care (154). Hence, improved provider satisfaction can also be a valuable outcome.

There is a magnitude of outcomes used to evaluate group antenatal care. The table below gives a brief overview of different outcomes used in different gANC studies.

Table 2. Selection of outcomes used in research Group Antenatal Care

Pregnancy outcomes
Pre-term birth and birthweight (1, 4-10, 12, 158), gestational age and SGA (7), pain relief during labour (153), mode of delivery (1, 10), caesarean section and APGAR score (158), and weight gain (156, 161).
Subjective and psychosocial outcomes
Birth experience (162), prenatal care experience and receiving adequate information (163), feeling listened to (153), social support, quality of life, depressive symptoms (1, 12, 164-166), prenatal care attendance (10, 153, 158, 161), satisfaction with care (1-3), health behaviours, prenatal/postnatal care knowledge, and self-esteem (1, 3).
Postpartum outcomes
Neonatal care (4, 5, 158), breastfeeding rates (1, 153, 163, 164, 167), infant feeding method (161), feeding their infants formula only (10), postpartum visit attendance (2, 10, 161), and contraceptive use postpartum (161).
Experience of health care providers
The experiences of health care providers (168).

Group antenatal care in Sweden

gANC inspired by Centring Pregnancy has previously been implemented in Sweden (169). My co-supervisor Ewa Andersson implemented an intervention in 2008–2011 as part of her PhD project. Women who attended gANC were satisfied with the information received about labour/birth, breastfeeding, and the postpartum period, and with the engagement of their midwives. Among fathers who attended gANC, there was no difference in satisfaction with care compared to fathers receiving standard care, and there was room for improvement for the inclusion of fathers in both models (170).

There are also examples of group antenatal care in Sweden that have not been scientifically evaluated. For example in Öland, where my co-supervisor Ulrika Byrskog and I made a study visit during the preparation phase. Group antenatal care in Öland was only offered to first-time parents, and both pregnant women and their partners were invited.

1.5 Rationale, aim, and objectives

The idea for this project came from midwives working clinically in antenatal care during 2015–2016. In dialogue with researchers at the local university, midwives expressed a desire to do something practical to reach out in a better way to pregnant Somali-born women in their uptake area, whom they perceived as hard to reach. At the same time, there was a growing awareness of lower ANC attendance and adverse pregnancy outcomes among Somali-born women in Sweden, and at this particular site (118). An intervention study on gANC had also just been finalised in Sweden that did not show any significant differences in satisfaction with care when comparing gANC with sANC (171). However, an inclusion criterion was proficiency in Swedish, and gANC tends to have better results when provided to women with increased risk of poor reproductive health outcomes. This led to the idea of doing an intervention study on group antenatal care, addressing Somali-born women. A research proposal was developed, a research team was formed with researchers with different areas of expertise, and I was recruited as a PhD student.

Rationale

The need to address health inequalities for migrant women during pregnancy in Sweden was the point of departure for this project. The Swedish ANC model is a universal provision model, as described in a taxonomy of ANC models that categorise models according to their level of universalism versus targeting (172). Presence of risk factors may render targeted ANC interventions or care models, which can be categorised as an augmented provision model according to the same taxonomy. Augmented or targeted ANC models may also be needed, as some pregnant women have both greater needs and/or poorer reproductive health outcomes, even though it is also important to focus on inclusiveness rather than on notions of risk (172). Doing things differently in ANC might be one way of improving care and health outcomes, and might compensate for prevailing health inequalities in host countries for pregnant migrant women, in line with the concept of proportionate universalism. In a review of "proportionate universalism", advantages and disadvantages of targeting and universalism are explored, and proportionate universalism is described as pragmatic approach to address health inequalities, that combines universalism with targeting (173). Moreover, few interventions for migrant women during pregnancy and birth have been scientifically evaluated in Sweden.

Aim and objectives

The overall aim of this study was to develop and test the acceptability and impact of language-supported gANC for Somali-born women in Sweden. The goal was to improve women's experiences of antenatal care, emotional well-being, knowledge about pregnancy, labour, birth, and the postpartum period, including improved understanding of the Swedish healthcare system, and ultimately, pregnancy outcomes.

Specific goals were:

1. To develop an acceptable and feasible gANC model together with Somali-born women and midwives.
2. To establish appropriate recruitment and data collection procedures and outcome measures to evaluate the new model with a participatory approach including the Somali–Swedish community and care providers at the respective sites.
3. To implement and evaluate the agreed-upon model of language-supported gANC.
4. To establish the acceptability and feasibility of gANC and ultimately to improve outcomes.

Chapter 2: Methodology

2.1 Planning and preparation

Reference group

A reference group was formed comprising ANC midwives and representatives of the Somali community from two sites. The reference group provided input and advice to the research team on the design of the intervention, appropriate recruitment procedures, data collection methods, development of study questionnaires, networking with Somali associations and ANC clinics, and contributed to the interpretation and dissemination of findings throughout the project period.

Selecting study sites

The project initiative initially came from midwives at site 1. When the project was realised, the research team looked for additional sites and sought to develop a contextual understanding of ANC at the different sites. Initially we aimed for two more sites, but in the end, one more ANC clinic was identified and selected, with midwives who were both interested in the project and had a sufficient number of Somali-born women in their uptake area. Both clinics are public and follow national guidelines on antenatal care (174).

Site 1

The first site is located in a mid-sized Swedish town with a fairly large Somali community. In 2022, the total population was 52,000 (175). Data from 2019 show that 25% of the population was either foreign-born or had two foreign-born parents. The most common country of origin was Somalia, with 3,467 inhabitants in 2019 (176). The clinic is located within a public hospital outside the city centre and is staffed with 10 midwives. The clinic caters to approximately 75% of all pregnant women in the municipality, including the majority of pregnant migrant women. The majority of Somali-born women in the uptake area live in two neighbourhoods at a distance of about 5 kilometres from the clinic. In 2018, the number of pregnant women per midwife was 63. In 2019, it was 80. The mean number in the region was 63 in 2018, and 64 in 2019[12]. Parental education at this clinic at the time of the intervention consisted of evening seminars of about 3 hours in Swedish for large groups of parents-to-be.

[12] Direct communication with health administrators at local level, Region Dalarna.

Site 2

The second site was an ANC clinic that had 2.5 midwives, that was integrated into a so-called "family health centre[13]", located in a suburb of Stockholm. Close collaboration takes place between ANC midwives, social workers, child health nurses, and the open playgroup[14] located in the same building. The uptake area includes two residential neighbourhoods with different socioeconomic compositions; primarily Swedish native residents in one area, with detached houses and primarily non-Swedish born residents in the other area with mostly rental apartments. Somali-born residents have lived in this area for more than 25 years, and midwives reported that most Somali-born pregnant women and their families were able to communicate proficiently in Swedish. The integration of families of different cultural backgrounds is actively encouraged in the clinic. Initial discussions revealed that the midwives believed gANC for women of mixed cultural backgrounds (with interpreters available if necessary) would contribute positively to integration. As a result, it was agreed that integrated groups would be more appropriate and acceptable at this site, with interpreters if needed.

Parental education offered at site 2 was typically two three-hour sessions, one with the midwives and one with a child health nurse and a family counsellor, with groups of 10–15 people, including pregnant women and their partners. During the preparation phase, researcher MA observed two such sessions (March and April 2017). This clinic prepared to implement gANC and collect data for the historical controls and for the quantitative study, but terminated participation after running one pilot group. The reasons for this are described on page 39.

Bilingual research assistants

Bilingual Somali research assistants with a health education were recruited and employed full time at one site. The first research assistant worked for about one year, and after that, another research assistant was recruited for the remaining project period. A third research assistant also worked short-term in the project. Having bilingual research assistants enabled networking with members of the Somali–Swedish community, bridging language gaps, providing input into questionnaire design, recruiting participants, data collection, and arranging and interpreting focus group discussions together with the research team.

[13] Familjecentral

[14] Öppen förskola

Participatory approach

The intervention was developed in collaboration with members of the Somali community and with ANC midwives at the two sites, and the reference group. The research assistants at site 1 were instrumental in the development of the intervention and the data collection instruments. They also played a major role in communication and promotion of the intervention within the Somali community at site 1 and were central in the development of information materials. Moreover, they were responsible for data collection during the quantitative study and facilitated data collection for the focus group discussions (FGDs) and process evaluation, including observations and interviews (177).

At site 2, we collaborated with a civil-society association that works with adult learning in groups[15]. They have a small office in the neighbourhood where the ANC clinic was located. They organise support groups and group training/education for parents with recent migrant experience, in light of the challenges parents may face bringing up children in a new country. Two of the bilingual (Somali–Swedish) community workers, one male and one female, were instrumental in facilitating the focus group discussions, including recruitment and interpretation. They were also instrumental as dialogue partners and provided feedback on intervention design.

Person-centred care

The focus group discussions (FGDs) held during the preparation phase also influenced the design of the intervention. Central findings from the FGDs included the desire for individualised, person-centred, or women-centred care. A person-centred approach is also in line with international and national care guidelines and literature on ANC (55, 72, 75). Antenatal care models with women-centred approaches and continuity of care have the potential to increase the care satisfaction of women with low socioeconomic status. This led us to focus on person-centred care (PCC) (178) as a foundation for the intervention. This was also in line with the ongoing implementation of person-centred care generally in health care in Sweden. In searching for a method to support this approach, the midwives proposed motivational interviewing (MI). They had already received some training in MI for use in individual appointments, and now MI for groups was added (179). Principles of PCC and MI promote understanding a person as an individual, developing partnerships, and promoting self-efficacy for which an active and open dialogue is central (178).

[15] Studiefrämjandet

Core values and underpinning principles

The core values of this intervention were respect, communication, community knowledge, and understanding. Moreover, person-centred care and continuity of care were identified as core values for a positive care experience. Key underpinning principles included:

- A participatory approach with active involvement of Somali-Swedish parents and midwives in needs assessment and intervention design.
- Attention to language and contextual factors.
- Flexibility in study methods to respond to emerging issues and challenges as they arose.
- A care model ready to continue or be replicated after project conclusion with only minor adjustments.

A study protocol was developed and published, and is included as a related paper in this thesis: “Rationale, development and feasibility of group antenatal care for immigrant women in Sweden: a study protocol for the Hooyo Project” (241). The study protocol describes the rationale behind the intervention, the core values and underpinning principles of the intervention and the study, and contains a logic model of the project (Box 1).

Logic model of the intervention

The logic model in Box 1 was developed by the research team to provide a comprehensive overview of the intervention, with key concepts and underpinning principles.

Box 1. Logic model of the intervention, including problem statements, conceptual framework and rationale, the intervention, hypothesised mechanisms of effect, and desired outcomes.

Problem statement	**Conceptual framework and rationale**	**Hooyo: A group approach to improving ANC**	**Hypothesised mechanisms of effect**	**Desired outcomes**
Current ANC in Sweden may not provide equitable care for Somali-born women: • Lower participation in antenatal care • Poorer birth outcomes • Communication difficulties • Lack of familiarity with Swedish antenatal care structures • Lower attendance in parental education • Negative attitudes and suboptimal care **Initial FGDs with Somali-born parents/ANC midwives highlight need for:** • Improved communication and dialogue • Bridging gaps between divergent health literacy knowledge • Care-free from generalisations, tailored to individual needs • Clearly described expectations regarding partner's role	**Core values for quality care:** respect, communication, community knowledge, and understanding **Person-centred care** to identify and address women's individual needs **continuity of care** for positive care experiences and health outcomes **Group antenatal care** is a promising alternative to individual visits: • More positive views of care • Some positive impacts on birth outcomes • More time with midwives and more comprehensive parental education • In Sweden, studied with Swedish-speaking groups only **Key underpinning principles**: • Active involvement of Somali parents/midwives in assessment and care design • Attention to language and contextual factors • Flexibility in study methods to respond to issues as they arise • A care model ready to continue or replicate after project ending with minor adjustments	**Language supported group antenatal care,** involving • 8–9 group sessions of 1 1/2 hours with 6–8 women (partners welcome) from gwk 24 • Facilitated by two midwives assisted by interpreter • Brief individual midwife check-ups incorporated • Childbirth/parenting themes with focus on dialogue and discussion • Motivational interviewing for groups as a vehicle for focusing care on women's needs • Adjustments based on local needs at each site: *Site 1:* Groups specifically for Somali-born *Site 2*: Groups with diverse backgrounds and languages	**Interpreter-supported group dialogue facilitated by midwives will result in** • Improved communication → better suited care • More time for discussions → mutual understandings in views around childbirth and health promotion → strategies for improving outcomes • An additional arena for social contact and support → increased well-being • Combining pregnancy check-ups with groups → motivation for attending ANC, and parental education • Common language/ background → understanding and empowering women to raise voices in having needs addressed • Mixed groups → integration and understanding through cross-language/culture interactions	**Women:** • Happier with the ANC • More confident in and knowledgeable about their pregnancies • Improved wellbeing • Improved attendance at antenatal care visits • Improved uptake of health advice • Ultimately, improved pregnancy outcomes **Partners:** • Feeling welcomed and included • Increased understanding of expectations **Midwives**: • Improved understanding of women's needs • Feel better able to share health knowledge in meaningful ways • Provide more supportive, non-judgemental care • Positive about benefits of group care

2.2 Implementing language-supported group antenatal care (gANC)

Based on the preparatory work, the research team developed an intervention that combined group antenatal care with individual care. Individual check-ups were scheduled right before or after the group session. The intervention integrated antenatal care with birth preparation and parental education. The overall project was called "Hooyo", which means 'mother' in Somali.

Training of midwives and interpreters

The midwives at both sites received a 1½ day training workshop before the intervention started. The main focus of the workshop were group processes, person-centred care, and MI in groups. Follow-up sessions were provided during the intervention period to enable feedback on implementation and address any issues that arose.

The interpreters' preparation included two hours of information on the antenatal health care system, introduction to the Hooyo project, and to the gANC model, emphasising dialogue and MI principles.

Information materials

A web-page[16] and a manual was developed for the project, with informational materials, links, and suggestions for the content and structure of the group sessions. Available resources in terms of teaching aids and suitable materials available in Somali and Swedish were mapped, and included as suggestions. No special teaching material was developed, which facilitates replication of the intervention. A pamphlet in Swedish and Somali about group care was produced and distributed to women, Somali community associations, open playgroups, and activity centres, and was hung as a poster in the waiting rooms at the participating ANC clinics.

[16] https://ki.se/kbh/modrahalsovard-for-utlandsfodda-kvinnor-hooyo-projektet

Intervention and implementation at site 1

The intervention was implemented at one clinic for 18 months, from May 2018 to December 2019. Nine midwives at the clinic took turns leading the groups. The intervention is described in detail in Box 2.

Box 2. The Hooyo language-supported group antenatal care (gANC) model at site 1

The Hooyo language-supported gANC model

The intervention was a combination of group antenatal care and individual check-ups, with language support and integrated parental education. Participants were offered 7 x 60-minute group sessions together with other pregnant women of about the same gestational age. Partners were invited. Directly before or after each group session, participants had a 15–30-minute individual appointment with their designated midwife. The individual appointment included the health check-ups. Participants started attending group antenatal care sessions at gwk 20–26. Additional appointments were scheduled if needed. Frequency and total number of appointments followed the Swedish national recommendations for antenatal care; i.e., eight to nine appointments with a midwife during a normal pregnancy. The total time spent with a midwife at each visit was extended to 75 minutes instead of the usual 30-minute appointment, but the time spent with the midwife *individually* was reduced. The groups were fixed, meaning that women were assigned to a specific group with a start and end date, led by two assigned midwives.

The midwives planned the sessions and chose relevant tools; for example films or anatomical models. Sessions started with a presentation of a selected topic, following Swedish national guidelines; life style, pregnancy, birth, practical birth preparations, the newborn baby, breast feeding (and alternatives), parenthood, and relationships.

Language support was provided by a female interpreter in every group session—usually the same interpreter, who was also a trained nurse assistant. The interpreter had a broad role, and served as a facilitator/cultural broker who could explain things if she sensed any misunderstanding.

Intervention and implementation at site 2

The intervention that was planned at site 2 was slightly different than at site 1. As the intervention was intended to address all pregnant mothers in the uptake area, we used the name "Mamma" which is 'mum' in Swedish. The design comprised six one-hour sessions offered to all pregnant women and their partners presenting at the clinic, regardless of country of origin or language proficiency, with individual 10–15-minute check-ups scheduled before or after the session, together with other pregnant women of about the same gestational age. Interpreters were to be engaged when required. The midwives would be responsible for four sessions. Two sessions would be led by a child health nurse and a family counsellor. The gANC would substitute the standard parental education otherwise offered at the clinic. The research component would still be to evaluate outcomes for Somali-born women.

Pilot group at site 2

At site 2, the midwives ran one pilot group with six sessions. The midwives were interviewed after the last session. The participants in the pilot had diverse backgrounds. Seven women and two men came to the first session, including three women and one man with a Somali background. Some women were primiparous, some multiparous. No interpreter was present. Swedish proficiency was 'ok', according to the midwives. One woman had difficulties expressing herself in Swedish, but the midwives believed she could understand, and she did not want an interpreter.

Four sessions were chaired by the midwives and two sessions were led by a child health nurse and a family counsellor, as had been planned. According to the midwives, the dialogue was rich, and participants interacted and had a lot of questions, including the two men. Participants seemed satisfied with the format. The midwives felt that it was satisfactory to have enough time to be able to talk in detail about things like conception, the development of the foetus during pregnancy, anatomy and physiology, family issues, etc. The midwives thought gANC was "a treat" and wished it could be offered to everyone, like "ANC 2.0". Moreover, they thought that their own active preparations for the sessions provided them with an opportunity to gain valuable, updated knowledge on relevant topics.

Two of the participants with Somali background were interviewed by MA over the telephone (brief interviews). The objective of the short telephone interviews with one Somali couple (primiparous) attending the pilot was to confirm/triangulate findings that came out of the interviews with the midwives, and to detect differences in views. The woman expressed satisfaction with the content, social networking, and relationship with the midwives in the pilot. Her husband had missed two sessions because of work but expressed even greater satisfaction with the sessions he had attended, they were *"fantastic, wonderful, with detailed information"*. On one occasion, he was the only man present. He said it didn't matter to him personally, *"but it would be better if there were more (men)"*. He also mentioned that

initially, participants were a bit hesitant and did not want to share private matters in the group. But he said that this is normal and to be expected, and that when people get to know each other more, they open up.

Termination at site 2

After the pilot the intervention was terminated. The immediate reasons were sick leave and heavy workload. In the interviews the midwives highlighted two main reasons for termination: lack of resources and lack of support from management. Lack of resources manifested in a high workload, and both the high degree of responsibility on the part of the midwives and manager turnover likely contributed to a lack of commitment at the managerial level. During the time of implementation, there was a regional plan in place to streamline and standardise ANC in the works, which likely contributed to their hesitation to implement gANC.

According to the midwives, a large proportion of women in this uptake area have complicated pregnancies, so the individual check-ups took longer than the scheduled 10–15 minutes. Individual check-ups were not integrated into the sessions, but performed before or after. It became stressful and too short, and they worried that patient safety could be compromised. The midwives noted that even though the quality of ANC might improve with gANC, the gANC pilot did not save time. The midwives felt that the expanded time in gANC was problematic for some participants—both the total time spent in the sessions and the waiting time for individual appointments—as there were only two midwives in this clinic. The small size of the clinic played a role also in making the clinic more vulnerable to staffing shortages, for example if a staff member needed extended sick leave. A bigger clinic could more easily offer greater diversity in terms of the care offered. These midwives were convinced that facilitating sessions as a team was crucial for group dynamics, and were not willing to chair sessions alone to become more efficient. Unless a care model could both significantly improve quality *and* be more efficient, it would not be sustainable, according to the midwives. Moreover, the midwives experienced a high degree of micromanagement from the health administration and management reducing the time they could spend with patients even further, which limited their flexibility. The conclusions drawn by the midwives was that, despite gANC's possible added value, they would need more resources to be able to carry out this model of care in a way that would be sustainable and guarantee patient safety. Some historical controls had already been collected at site 1, but these were excluded.

2.3 Methodology of the included studies

The first study was partly carried out to inform the intervention design. The second and third studies were impact and process evaluations of the intervention. An overview of the design, aim, and data collection of the included studies is presented in Table 3. Methodology is described in detail in the sections below.

Table 3. Overview of included studies

Study	Title of paper	Design	Aim	Data collection
I	Antenatal care (ANC) for Somali-born women in Sweden. Perspectives from mothers, fathers, and midwives.	Qualitative design.	• To explore experiences of attending standard antenatal care in Sweden among Somali-born parents; • To explore experiences of ANC midwives caring for Somali-born parents; • To inform intervention design.	Eight focus group discussions (FGDs).
II	Group antenatal care compared with standard antenatal care for Somali-Swedish women: a historically controlled evaluation of the Hooyo-project	Historically controlled evaluation with one control group and one intervention group.	• To compare language-supported gANC and standard antenatal care (sANC) for Somali-born women in Sweden. • To test the feasibility of the outcome measures.	Questionnaires at three time points and medical records.
III	gANC for Somali-speaking women in Sweden—a process evaluation	A process evaluation using both qualitative and quantitative data.	To assess the feasibility for participants and midwives to implement language-supported gANC, including implementation, mechanisms of impact, and contextual factors.	Observations Interviews Questionnaires Evaluation forms Field notes Logbook

Study I: Antenatal care for Somali-born women in Sweden. Perspectives from mothers, fathers, and midwives.

Study design

A qualitative study with eight focus group discussions (FGDs) with Somali-born mothers and fathers and Swedish ANC midwives was conducted. Somali speaking research assistants, interpreters and facilitators were closely involved throughout the study to address potential challenges with group dynamics and confidentiality. Oral and written information about the study, its voluntary nature, and the study's rules regarding confidentiality was provided in Swedish and Somali before the discussions began and written consent was obtained from all participants.

Setting

The FGDs were conducted in three different locations between December 2016 and May 2017. In two of the locations, a gANC intervention was planned. The third location was selected for one FGD with midwives because of their previous experience of providing tailored gANC/parental education in groups to Somali-born women. FGDs with midwives were held at the respective clinic. FGDs with parents were held in community facilities.

Recruitment and participants

Purposeful sampling was used to recruit focus group participants with as varied experiences as possible, and was conducted consecutively until data were considered sufficiently rich to answer the research questions. Parents were recruited to obtain a sample of persons with a varied length of stay in Sweden. The recruitment of parents took place via existing networks within the Somali diaspora, at public preschools and Child Health Centres. Inclusion criteria included: being born in Somalia and having a recent ANC experience (<2 years). One female participant was included despite being born in Sweden (but of Somali background), because she wished to participate. Midwives (n =7) were recruited from three ANC clinics. The inclusion criterion for midwives was having several years' experience in ANC. The FGDs and number of respondents is presented in Table 4.

Table 4. Focus groups discussions in study I

	Focus groups	Total number of respondents
Somali-born mothers	3	n =16
Somali-born fathers	2	n =13
Swedish ANC midwives	3	n =7

Data collection

Three FGDs with mothers (n =16) and two with fathers (n =13) were organized and lasted for 1½–2 hours. These FGDs were conducted by co-authors MA, UB, and RS in Swedish and Somali, assisted by a female interpreter/facilitator in all but one FGD, which had a male interpreter/facilitator. Not all participants needed an interpreter. Children were present in some groups.

The three FGDs with midwives (n =7) were conducted by co-authors MA and UB. A Somali-born research assistant was present in one of the midwife FGDs.

A topic guide supported the discussions, with four general questions phrased slightly differently for mothers, fathers, and midwives:

1) What works well with present ANC?
2) What works less well or poorly?
3) How could ANC be improved?
4) What are your experiences (midwives) /your ideas (parents) of gANC for Somali-born parents?

Follow-up questions included specific and open-ended questions for clarity to encourage a creative dialogue. At the end of each FGD, emerging themes were highlighted by the researchers and crosschecked with participants for accuracy. This approach was utilised to encourage engagement and secure accurate understanding of the key issues raised by participants (180, 181). The discussions were recorded, and FGDs in Somali were translated orally to Swedish by a Somali interpreter and transcribed verbatim by MA.

Analyses

Data were coded and analysed using Attride-Stirling's tool "Thematic networks" (2001), an approach to thematic analysis providing systematic and structured exploration and understanding of qualitative data (182). The first and last author listened to all digitally-recorded data and read each transcript several times. The four general questions asked in the FGDs were used as an initial coding framework to dissect text. Text segments were coded close to the text, after which basic and organising themes were identified and summarised in an overarching global theme. Author EA read all transcripts and coded the material independently and coding was cross-checked to increase validity. Different themes were discussed and cross-checked with the other authors, and afterwards refined and organised into a network model.

Study II: Group antenatal care compared with standard antenatal care for Somali-Swedish women: a historically controlled evaluation of the Hooyo-project

Study design

The second study was a historically controlled evaluation with one intervention group and one control group. The control group received standard, midwifery-led individual care in accordance with Swedish national guidelines, described in detail on page 19. The intervention group received language-supported group antenatal care (gANC). Participants were offered 7 60-minute midwifery-led group sessions together with other pregnant women of about the same gestational age, with an interpreter present. Directly before or after each group session, participants had a 15–30-minute individual appointment with their designated midwife. The intervention is described in detail on page 37. The study was registered in ClinicalTrials.gov (Identifier: NCT03879200).

Setting

The intervention was implemented in an antenatal care clinic in a mid-sized Swedish town. The clinic is public with a mixed socioeconomic uptake area and employs 10 midwives.

Recruitment and participants

Participants were Somali-born women who were <25 weeks pregnant. Exclusion criteria included severe health conditions; for example, needing specialist obstetric care or suffering from a severe mental health condition. Midwives provided oral and written information to all eligible women at the first ANC appointment, and the bilingual research assistant provided more in-depth information, recruited those interested to the study and obtained consent.

Data collection

Questionnaires were used at three time points to assess ratings of care, emotional well-being, and a number of secondary outcomes—questionnaire one (Q1) in gwk 21–25, questionnaire two (Q2) in late pregnancy (gwk ≥35), and questionnaire three (Q3) two months postpartum. A bilingual research assistant filled out the responses during face-to-face or telephone interviews. Additional data were retrieved from patient records, including baseline information such as age, obstetric history, height, weight, use of tobacco in early pregnancy, diabetes mellitus type 2 (ICD code O24.1), haemoglobin, and S-ferritin.

The questionnaires included both closed and open-ended questions, and were developed by the research team in English and translated to Swedish and Somali. They are described in detail in the study protocol (177). Some questions from the Migrant Friendly Maternity Care Questionnaire (MFMCQ) (183) were included, however, they were slightly adapted. The 10-

item Edinburgh Postnatal Depression Scale (EPDS) was included in all three questionnaires (184).

The questionnaires also included sociodemographic information (language proficiency, level of education, marital status, occupational and migration factors). Entire household monthly disposable income was self-reported in Swedish kronor (SEK) (1 EURO = 10.19 SEK 12th August 2021). Household size was the self-reported number of persons living in the same household.

Primary outcomes were:

- Overall rating of antenatal care in gwk ≥35 and 2 months postpartum.
- Emotional wellbeing measured with the Edinburgh Postnatal Depression Scale (EPDS) in gwk ≥35 and 2 months postpartum.

Overall rating of antenatal care was assessed with the core question 'When thinking about your overall experience of antenatal care—in general, have you been happy with the care that you have received?' with response alternatives *always, mostly* (happy with care), versus *sometimes, rarely,* and *never* (not happy with care).

The EPDS is a 10-item scale initially developed to screen for postnatal depression symptoms, which has been validated for use in Swedish during pregnancy (185). It has been translated to Somali but not validated (186). The validated language versions of the EPDS are routinely used for screening postpartum mothers in child health units in Sweden (187). The 10 items are scored 0–3 according to severity of the self-reported symptoms, with a maximum score of 30. The scale gives an indication of depressive symptoms over the last 7 days. In Sweden, a score of ≥13 has been validated as an optimal cut-off for detecting depressive symptoms in pregnant women (185).

Secondary outcomes included:

- Detailed care experiences.
- Satisfaction with received information.
- Social support.
- Knowledge of pregnancy danger signs.
- Obstetric outcomes.

Women's ratings of other components of antenatal care were assessed, as were women's ratings of receiving sufficient information about pregnancy, labour, and birth. Social support was assessed in late pregnancy and two months postpartum, with modified questions from the Pregnancy Risk Assessment Monitoring System (PRAMS) (188).

Knowledge about pregnancy danger signs and where to seek healthcare with specific symptoms were assessed in Q2. The danger signs that were included were vaginal bleeding, leakage of amniotic fluids, decreased foetal movement, and severe headache.

Obstetric outcomes obtained from patient records included: antenatal care parameters (number of ANC visits, number of visits to specialist care, referral to an obstetrician, asked about experience of violence, attendance at parental education), health parameters (haemoglobin (lowest value and last value prior to birth), S-ferritin (lowest value), weight gain during pregnancy, gestational diabetes mellitus (ICD-10 code O24.4)), birth outcomes (induction of labour, oxytocin for dystocia, pain relief, mode of birth, perineal injury, blood loss, breastfeeding at the labour ward, length of stay), attendance at postpartum check-up, breastfeeding, and body mass index (BMI) at the postpartum visit. The number of ANC visits is presented as the median number of visits, and the proportion of women having 6 or fewer visits, 7–11 visits, or more than 11 visits.

Infant outcomes were live birth/stillborn, gestational age, birthweight, small for gestational age (SGA) (ICD-10 codes P05.0 and P05.1), large for gestational age (LGA) (ICD-10 codes P08.0 and P08.1), Apgar score <7 at five minutes, umbilical cord pH (arterial and venous), and neonatal intensive care.

Sample size calculation

The study was designed to have power to detect clinically relevant differences in women's overall ratings of antenatal care and differences in mean EPDS scores. The initial sample size calculation of 70 women in each group (with 80% power and an alpha of 20%) was based on a national population study on Swedish-speaking women's satisfaction with ANC two months postpartum (189). Our assumption was that care ratings would improve, from 65% of women being happy with the individual standard care received (*"always + mostly happy with care"*) to 82% of those receiving group antenatal care.

To have similar power to detect differences in EPDS mean scores, 63 women were required in each group, based on a hypothesised reduction from a mean of 8.0 in the control group to 6.0 in the intervention group (190). To allow for loss to follow-up of 20%, a total of 174 women needed to be recruited.

Statistical analyses

Women who were recruited and contributed data were analysed according to the intention-to-treat (ITT) concept (191). Frequencies and percentages are reported for dichotomous variables, and medians and interquartile ranges (IQR) are reported for continuous variables. Chi-square tests were performed to test hypotheses for dichotomous variables, Mann–Whitney U tests for continuous variables. For the primary outcome "overall rating of care", odds ratios (OR) with 95% Confidence Intervals (CI) were calculated.

An ANCOVA test was performed to test the difference in mean EPDS scores between gANC and standard care at two months postpartum (adjusted for differences in EPDS at baseline), after the exclusion of women with missing EPDS values (gANC n =41, sANC n =38). P-values <0.05 were deemed statistically significant and all tests were two-tailed. Statistical analyses were performed in R version 4.01.

Study III: Group Antenatal Care (gANC) for Somali-speaking women in Sweden—a process evaluation

Study design

A process evaluation using the UK Medical Research Council (MRC) framework for process evaluations of complex interventions developed by Moore et al (192) was performed. The following key functions were investigated (described in Figure 1 below):

- The implementation process, including how successful the delivery of the intervention was and what was actually delivered—including fidelity to what was planned, the adaptations that were made, and who were reached and not reached by the intervention; and
- Mechanisms of impact—including participant responses to and interactions with the intervention, mediators, and unexpected pathways and consequences (192).

The MRC developed this guidance on process evaluation of complex interventions in response to the understanding that a randomised controlled trial (RCT)—or in our case, a historically controlled study (Study II) —require more than an assessment of outcomes. To look only at a few outcome measures may not do justice to the intervention as a whole (192).

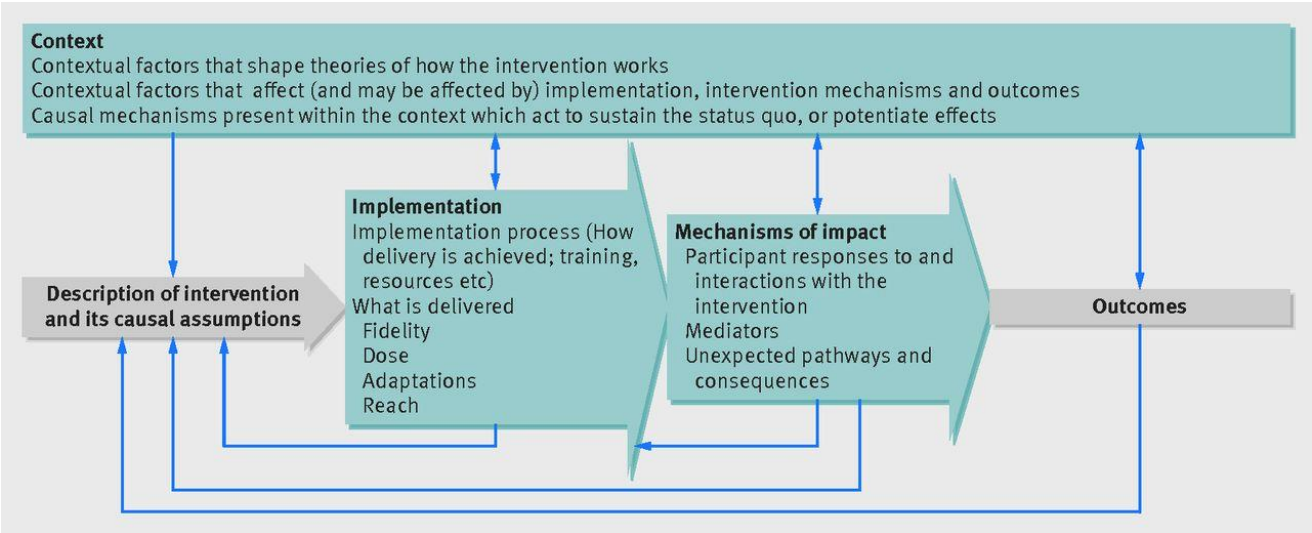

Figure 1. Key functions of a process evaluation and the relationship between them. (Blue boxes are the key components of a process evaluation. Investigation of these components is shaped by a clear intervention description and informs interpretation of outcomes.) (192)

Setting

The intervention was implemented in an ANC clinic in a mid-sized Swedish town. The clinic is public with a mixed socioeconomic uptake area and has 10 midwives.

Participants

Informants were Somali-born women who attended gANC, the midwives and interpreters who implemented gANC, and the research assistants who facilitated the implementation.

Data collection and analysis

Data collection was nested in the different phases of the main study. Data were collected from multiple sources and different measurement tools and methods were used: observations of sessions, interviews, field notes, questionnaires including open-ended questions to participating women and midwives, logbooks, and midwives' brief protocols[17] (completed after each session). Data from questionnaires, protocols, and the logbooks are presented with descriptive statistics.

Interviews

A purposeful recruitment strategy was used. The research assistant contacted gANC participants for interviews, based on her pre-understanding of the participants views of gANC that she gained from the interviews, as we wanted to interview participants with both positive and less positive experiences. The recruitment of midwives for interviews was also purposeful, aimed at giving a broad spectrum of experiences. The interviews were recorded, transcribed, and analysed using content analysis (193, 194).

Observations

Ethnographic methodology was used during the observations to provide holistic and rich insight into the behaviours, interactions, and viewpoints of the groups (195). An observation protocol was developed by the research team that included observations of twelve items related to the midwives, eight items related to the participants, and three items related to the interpreter. The items were formulated as statements with four categorical responses, "to a high degree", "to a certain degree", "to a low degree" and "not at all". Extensive notes were also taken. A total of nine semi-structured observations of gANC sessions were made (MA (n=7), UB (n =1), MA & RS (n =1)).

[17] See Appendix 1

2.4 Ethical considerations

This study was carried out in accordance with the Helsinki Declaration. Ethical approval was obtained from the Stockholm Ethical Review Board (2015/1703-31/1) (main study) and from the Swedish Ethical Review Authority (2019-01116) (process evaluation). Oral and written information about the study, its voluntary nature, and confidentiality was provided in Swedish and Somali, and written consent was provided by all informants.

There may be a potential ethical risk in 'targeting' a particular minority group because it might reinforce prevailing stereotypes or social prejudices. On the other hand, it is also unethical not to try and improve care for groups who are at higher risk of adverse pregnancy outcomes, who are often excluded from research studies due to language barriers, and who are at risk of receiving sub-optimal care.

Another potential ethical risk is that women with limited Swedish proficiency might be inclined to believe that participating in the research is mandatory or part of the maternity care. To counteract this, during the recruitment process, the midwives only provided brief initial information, and any potential participants were then given the opportunity to speak to a bilingual research assistant who could explain the research project and the voluntary nature of participation in detail in Somali, and provide written information about the study in Swedish and Somali, before asking women to agree to take part.

Initial concerns were raised about some of the questions being personal and potentially sensitive. Women were informed that they did not need to answer any question if they preferred not to. The research assistants were also encouraged to be attentive to any signs of emotional distress or to any signs of poor health; either physical or mental. If any signs of poor health were detected, the research assistants would ask for permission from the woman to inform the responsible midwife.

All data material has been handled with strict confidentiality and the identities of the participants have been protected, and in accordance with the EU General Data Protection Regulation (GDPR). We have not identified any risks attached to being part of either the control or the intervention group.

Chapter 3: Results of the included studies

3.1 Summary of results

Challenges and barriers to optimal care were described by Somali-born parents and Swedish midwives in standard antenatal care, and language-supported gANC was seen as a potential model of care that could overcome some of these challenges and barriers.

The intervention was developed with a participatory approach and implemented. In general, the women who participated in language-supported gANC thought it was a positive experience, and indications of negative effects or risks were found. Both the women and the midwives were positive about gANC as a *complement* to individual care. Both women and midwives stressed the need for ample individual time with the midwife.

About half of the eligible women who were informed about the intervention decided to participate in the language-supported gANC. The women in the intervention group had a mean length of residence of seven years in Sweden. Not surprisingly, language-supported gANC did not appeal to Somali-born women of longer residency, for example those who had resided in Sweden since childhood.

The women who came did not come for all sessions. They reported learning a lot, things they did not know about pregnancy and childbirth. The midwives also expressed that they learned a lot and got to know the Somali-born women attending the sessions better, which created a platform for more person-centred care.

Very few fathers-to-be attended group sessions—two main reasons being that we left it open to the groups to decide on male participation and some groups chose not to invite men, and because fathers/partners were not actively invited.

We did not find any significant differences between the intervention group and the control group in women's overall ratings of antenatal care. The reduction in mean EPDS scores was slightly greater in the intervention group when adjusting for differences at baseline (mean difference –1.89; CI 95% –3.73 to –0.07), so the findings may suggest that gANC can improve emotional well-being for some women. The women who attended gANC were happier with the information they had received about pregnancy and birth and were more likely to report that the information they had received was sufficient. The findings also indicated a better awareness of pregnancy danger signs in the intervention group. Moreover, the participants in gANC seemed to have expanded their social network more than the women who had received standard care.

The Hooyo gANC intervention was acceptable to participants and midwives but did not succeed in including fathers-to-be. The main mechanisms of impact were more comprehensive ANC and enhanced mutual cultural understanding. The position of women was strengthened in the groups, and how the midwives expanded their understanding of the

participants and their narratives was promising. Adoption of a person-centred approach in group care may be one way to avoid the ‘othering’ of women in perceived at-risk groups.

To be feasible on a larger scale, gANC might require further adaptations. Language-supported gANC can be useful when there is a relatively large group of migrants that have resettled somewhere within a relatively short time span, so that many individuals are on the same level of language proficiency in the ‘new language’. This was the case with the Somali migrants at the site where this intervention was implemented.

For language-supported gANC, the demography of the uptake area needs to be considered, and it may limit the possibilities for clinics to replicate the intervention. To organise single-language groups in a diverse neighbourhood requires a large uptake area and/or a concentration of pregnant women with the same country of birth or that speak the same language.

3.2 Study I: What were the challenges in standard antenatal care?

In this study, two main themes were identified: 1) challenges in the midwife–parent encounter and 2) health system challenges. The main themes and sub-themes are presented below in figure 2.

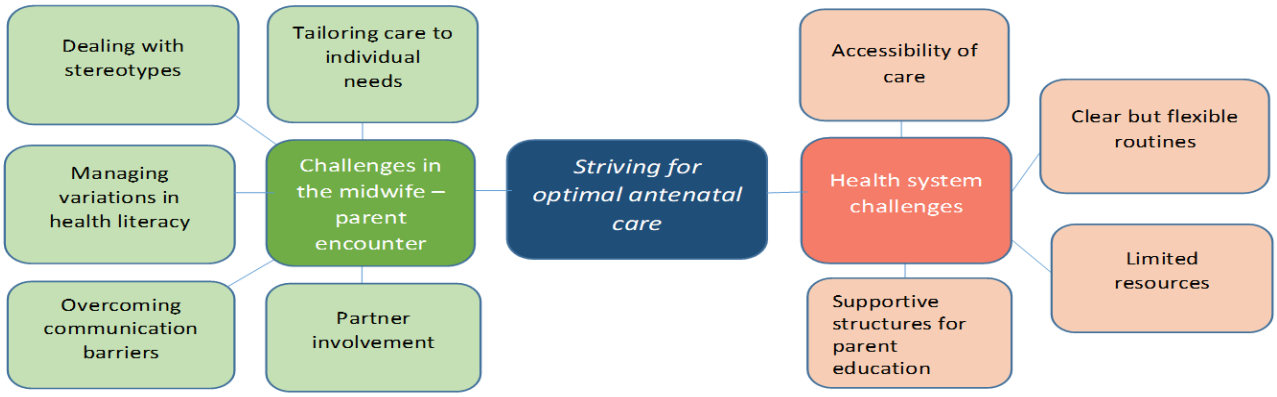

Figure 2. Main themes and sub-themes that illustrate the challenges in antenatal care that Somali-born parents and midwives may encounter in their efforts to achieve optimal care

Challenges in the midwife–parent encounter included difficulties with tailoring care to individual needs, dealing with stereotypes, addressing varied levels of health literacy, overcoming communication barriers, and how to achieve greater partner involvement. Health system challenges included accessibility of care, limited resources, the need for clear-but-flexible routines, and supportive structures for parental education. The parents and midwives were, to a large extent, in agreement about these challenges and wanted to overcome them. The data on challenges in the midwife–parent encounter were rich. Therefore, when describing the findings, I have included some citations that were not previously published.

Tailoring care to individual needs—not to 'the needs of Somali women'

The mothers and fathers who were interviewed wanted individually tailored care that was flexible to their needs as individuals. Previous pregnancies, level of education, level of knowledge (about the healthcare system, pregnancy, etc.), social networks, worries, and underlying disease/conditions were examples of individual factors that were mentioned by both parents and midwives as factors that could affect parents' individual needs. The factors that were mentioned by parents as a concern that could be attributed to being of Somali background were limited to not being fluent in Swedish and the issue of FGM/C. Apart from that, the parents in the study did not see a need to tailor care to any special needs that was specifically linked to their Somali background.

The midwives believed it to be important to provide equal care, while at the same time adapting care to suit the individual. The midwives gave several examples of adaptation to

different levels of health literacy, which is clearly linked to the provision of person-centred care. They described how they continuously adapt information to suit the woman in front of them in their day-to-day work.

> "Yes, I always ask, and not just women from Somalia—I ask how many years they have gone to school. Because that says a lot about what level I should keep. Because it doesn´t matter really if you can´t speak Swedish, Swedish is a fairly small language, but if you have an academic exam, there are some from Somalia too, they might have contacts in, for example, England, they might have been in England to study. And if you have studied at the university, then I know that this is a woman who is used to take in information and who has basic knowledge, and then I can adjust the information I provide accordingly. But that is what makes it exiting! Because you cannot give everyone the same information, I doesn´t work that way, you have to find out where people are…" (Midwife 2, Focus group 5)

Partner involvement—what is optimal?

The fathers that were interviewed had experienced unclear expectations about fathers' participation in ANC. One father said: "*Tell us how often the Swedish men come and when, and we will do the same"*. Other men also requested more clarity or clear recommendations in this regard. The midwives expressed somewhat ambivalent views on inclusion of male partners. They perceived that Somali-born fathers showed little interest in ANC. On the other hand, they perceived that some other migrant men were too controlling when coming frequently to the appointments.

There were good examples of how to encourage the inclusion of fathers, and some examples of how it can go wrong, even with good intensions. One woman had attended both the local antenatal care clinic and the specialised pregnancy clinic at the hospital during the same pregnancy. She had noticed different attitudes in how her husband was included and treated. At the specialised clinic the midwives included fathers-to-be in a clear-cut way, without ambiguity and seemingly without differentiating between men with different ethnic backgrounds:

> "Here, sit here, hold this CTG (transducer) around the belly. You (the partner) shall be properly included/useful. And you know, they (the midwives) don´t make any fuss about it, it's just 'you will do this, you are the father, it´s normal'" (Woman, Focus group 2)

At the local ANC clinic`on the other hand, the midwives had expressed exaggerated surprise about her husband accompanying her, signalling that it was a rare, atypical event.

> "…they were super focused on him. "ohh, you speak such good Swedish, ohh, what do you do?" (for a living)…I was like, hey, I am the one who is pregnant! But I mean, it was really good, he had a lot of questions, more than me, everything that I forgot to ask and so on…but if they make a scene about him coming there, then they (the fathers) might think, hey, maybe I should back off a little…" (Woman, Focus group 2)

Dealing with stereotypes

Unfortunately, many parents had experienced preconceived ideas, stereotypes, and discrimination in care encounters. Experiences of bad encounters could affect care-seeking behaviour—for example delayed uptake of antenatal care and changing antenatal care clinics

or hospitals. Limited understanding of the preventive purpose of ANC, in combination with experiences of bad encounters could result in low motivation to attend ANC and reduced trust. Having received comments about the number of children and short spacing between children was a reoccurring theme.

The midwives were generally curious and open to perceived cultural differences, but were also concerned and became frustrated about some behaviours that they perceived as risky, and about perceived weak compliance with their recommendations. The midwives could also express frustration about encounters where they did not understand or agree with the viewpoints of the woman/couple.

Other examples of preconceived ideas that parents described were when midwives jumped to conclusions about Somali-born women based on previous encounters, and expressed their preconceived ideas in statements such as "Somali women do not take iron tablets" or "Somali women prefer a natural birth". The prevailing construct that Somali-born women prefer a natural birth seemed appreciated by the midwives, which was expressed in reflections made. Somali-born women in general were described as calmer, more confident, more experienced, and as having predominantly positive notions of pregnancy and motherhood. Below is part of a conversation between three midwives in one focus group:

> – I have experienced that when you ask these Somali women: "Do you want information about labour?", "Do you want information about pain relief and breastfeeding?" -"No, no, I know that." – Ok, then you have to back off a little.
>
> – They are much calmer.
>
> – Yes, much calmer.
>
> – Comfortable with this issue of having children, labour…not as scared as many others, many Swedes.

The midwives seemed to realize that this perceived preference for a natural birth and natural processes in general were not always entirely well-informed, but because midwives may appreciate this notion of preferring 'natural', this construct might constitute a built-in risk.

The concept of language-supported group antenatal care

In the focus group discussions, the concept of group antenatal care was described theoretically and discussed, as was the concept of language-supported group antenatal care for Somali-born parents-to-be. Organising groups were considered to have both positive and less positive features. It was perceived as positive for pregnant women to meet other pregnant women. But it was also perceived as potentially sensitive to discuss some pregnancy-related issues in a group setting.

Advantages and disadvantages of Somali groups or just groups with pregnant women were also discussed. Mothers, fathers, and midwives thought that language-supported group ANC might help to improve communication, provide mutual support and enable better dialogue. The advantage of Somali groups and language-supported groups was perceived as being

mainly related to communication and the benefits of receiving pregnancy-related information in one's own native language.

However, there was a concern that group care could stereotype families according to their country of birth. Mixed groups with pregnant women—without considering language or country of birth—was perceived as having the advantage of providing insights into how 'others' do things, and that the main point for some women was to meet other pregnant women, not just other pregnant Somali women.

The midwives had ambivalent thoughts on mixed groups versus single-language groups. The midwives thought mixed groups could contribute to integration. But they also thought it might be difficult, in reality, with mixed groups, that perhaps it would not attract Swedish women, or that it would be difficult if there was a mix of people who had very different pre-understanding of topics. The midwives believed it would be easier to tailor the information to the needs of the individuals in the group if the level of knowledge was more or less the same.

3.3 Study II: Language-supported gANC addressed knowledge gaps

Language-supported gANC was implemented for 18 months in one clinic. The control group were women attending the same clinic before the intervention started, who received standard care. During the total data collection period, 270 women were eligible (born in Somalia, <25 weeks pregnant), whereof 145 were recruited to the study (Figure 3). Of these, 81 women were recruited to the control group, and received standard care, and 63 were recruited to the intervention group. The number of women who declined to participate was 106 (39.3% of all eligible women), and 19 women did not meet the inclusion criteria (n =6) or were excluded for other reasons (n =13), such as moving or having a miscarriage.

The first questionnaire (Q1) was completed by 129 women (89% of all recruited women) (gANC: n =62; sANC: n =67). The second questionnaire (Q2) was completed by 80 women (55%) (gANC n=40; sANC n=40) and the third (Q3) was completed by 86 women (59%) (gANC: n =44; sANC: n =42). Of the women in gANC and sANC, 38 women (59.4%) and 32 women (39.5%) responded to all three questionnaires respectively.

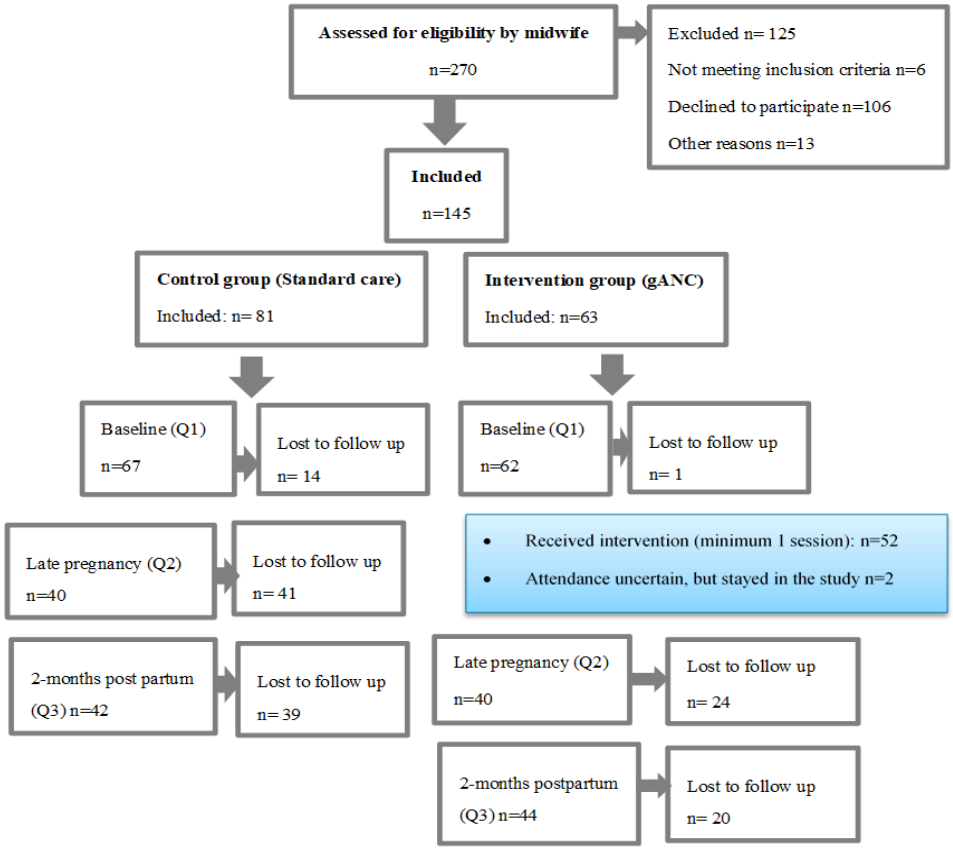

Figure 3. Flowchart of the number of women recruited to the intervention group and the control group

Baseline characteristics

In the gANC group 51% (n =32) of the women had less than six years of education, compared to 34% (n =25) of women in standard care. Of the women in gANC, 48% (n =30) were either on parental leave, unemployed, or stay-at-home mothers, compared to 32% (n =23) in the control group. Proficiency in both Somali and Swedish was reportedly higher in the gANC group, where 98% (n =62) reported speaking Somali well or fluently, and 65% (n =41) reported speaking Swedish well or fluently. In standard care, the proportion of women who reported speaking Somali well or fluently was 82% (n =60), and 56% (n =41) reported speaking Swedish well or fluently. Otherwise, the baseline characteristics of the two groups were similar. Both groups had a median length of residence in Sweden of seven years, and similar proportions of primiparous and multiparous women. The median age of the women in the gANC group was 31 years, and the median gestational age at first ANC visit was gwk 11 compared to 30 years and gwk 12 in standard care. The majority of women in both groups were married/engaged/in a relationship, and had permanent residency or were naturalised. No woman reported tobacco use.

Comparing language-supported group antenatal care (gANC) with standard antenatal care (sANC)

Overall ratings of antenatal care were similar in the gANC group and in sANC. The vast majority of women in both groups were *always* or *mostly* happy with the care they received. Very few women, and only in standard care, responded *sometimes* in late pregnancy (2/40) and two months postpartum (2/41) and there were no responses in the categories *rarely* and *never* (Figure 3). There were no statistical differences between the groups at either time point when responses were dichotomised into *always* versus *all other alternatives* (late pregnancy OR 1.42, CI 95% 0.50-4.16 and 6-8 weeks postpartum OR 2.71, CI 95% 0.88-9.41).

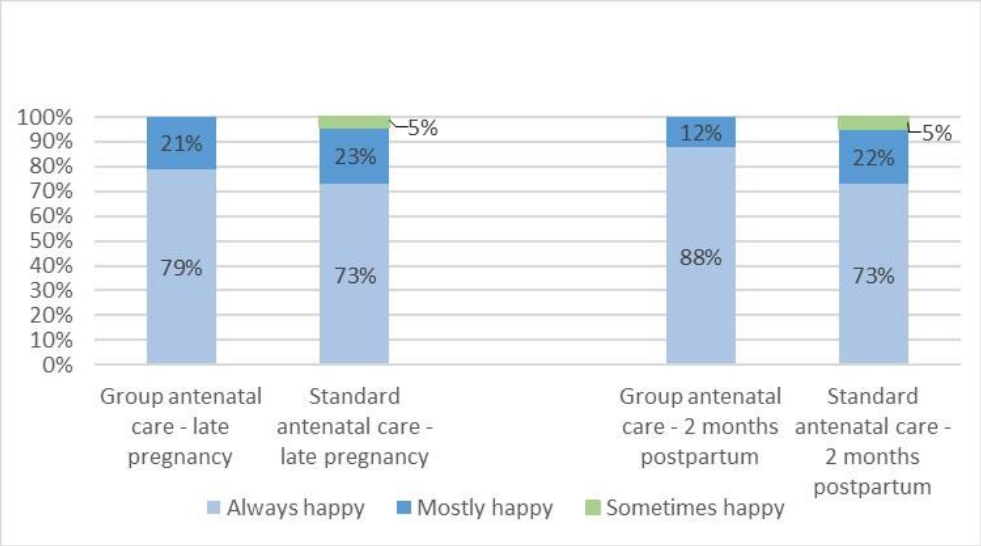

Figure 3. Women´s overall ratings of antenatal care—the proportion of women who were *always, mostly, or sometimes happy* with the care they received in gANC and standard care in late pregnancy and two months postpartum.

Mean EPDS scores were higher in women in gANC than in women in sANC at baseline (gANC 9.19; sANC 5.94; diff in means 3.26; CI 95% 1.56-4.96) and in late pregnancy (gANC 8.51; sANC 5.73; diff means 2.78; CI 95% 0.62-4.95). Two months postpartum, the mean EPDS score was similar between the groups (gANC 3.90; sANC 5.00; diff means -1.1; CI 95% -2.80-0.61). When adjusting for differences at baseline, the reduction in mean EPDS score was slightly greater in the intervention group (mean difference -1.89; CI 95% -3.73 – -0.07). This is illustrated in Figure 4 below.

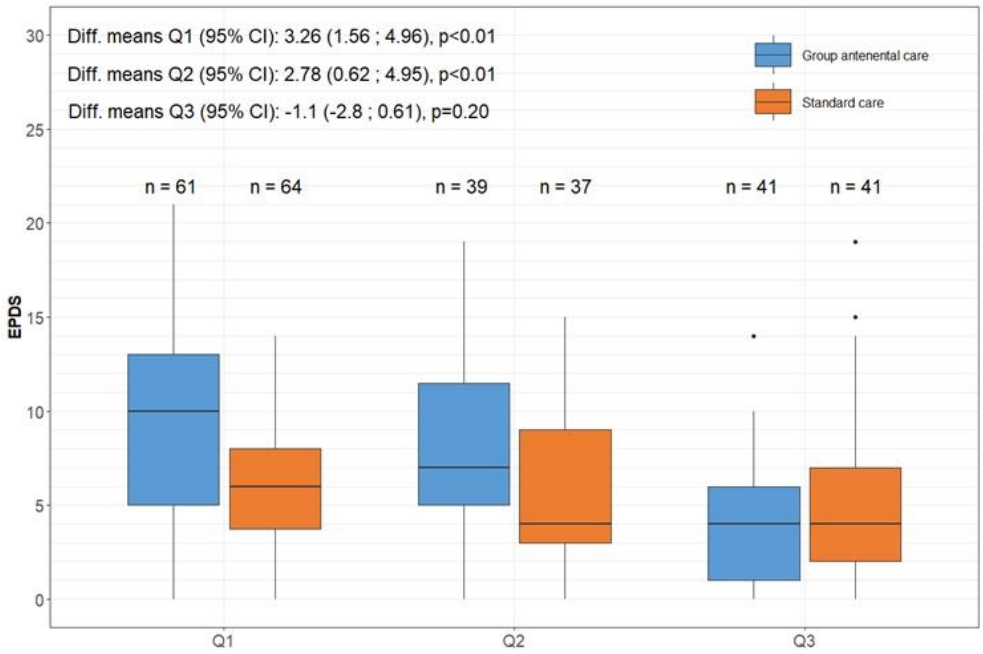

Figure 4. Median EPDS scores at baseline (Q1), late pregnancy (Q2), and 2 months postpartum (Q3), analysed by an ANCOVA test of differences. The boxplot shows minimum and maximum scores, the 1st and 3rd quartiles, and mean differences, with 95% CI at each timepoint.

Having received sufficient information about different aspects of pregnancy, labour and birth, breastfeeding, the care of the newborn baby, and physical and emotional changes was reported to a greater extent among women in gANC than among those in standard care. Women in language-supported gANC were generally happier with the information they had received both in late pregnancy and two months postpartum. For example, 95% (n =37) of women in late pregnancy in gANC were happy with the information they had received about caesarean sections, compared to 17.5% (n =7) of the women in standard care (p<0.001). Regarding management of FGM/C, 79.5% (n =31) of the women in gANC were happy with the information they had received, compared to 40% (n =16) of women in standard care (p=0.001) in late pregnancy. Information about father's/partner's role during labour and birth was sufficient to 94.6% (n =35) of the women in gANC, compared to 42.5% (n =17) of women in the standard care (p<0.001) in late pregnancy.

Ratings of social support in the groups were similar when assessed in late pregnancy. Two months postpartum, however, 97.6% (n =41) of women in gANC reported that they had made new friends through antenatal care, compared to 25% (n =10) of women in standard care

(p<0.001). Additionally, 95.2% (n =40) of women in gANC reported that they had somebody who could help them with a temporary place to live next year should they need it, compared to 43.9% (n =18) of women in standard care (p<0.001).

Knowledge of danger signs

Knowledge of danger signs and whom to contact if experiencing severe symptoms was assessed in late pregnancy. A significantly higher proportion of women in gANC responded that they would contact the delivery ward in case of vaginal bleeding (gANC 54.0%; sANC 28.8%; p=0.004), or leakage of amniotic fluid (gANC 55.6%; sANC 26.0%; p=0.003). For severe headaches and changes in vision, 46% of women in gANC said they would contact the emergency room, compared to 23.3% of women in standard care (p=0.037). Of women in gANC, 30.2% responded that they would contact the delivery ward if they were experiencing reduced foetal movements, compared to 17.8% of women in sANC (p=0.526).

Other outcomes

Women in gANC made more visits to the antenatal clinic and to specialist care compared with women in standard care. The other health parameters were similar between the groups. Labour and birth outcomes were also similar between the groups, such as induction of labour, pain relief, perineal injury, blood loss and length of stay. No differences could be detected.

3.4 Study III: Language-supported gANC – a platform for enhanced mutual cultural understanding and learning

Language-supported gANC was implemented in one clinic with overall fidelity to the initial design. The intervention was acceptable and feasible to participants, provided that it was voluntary and occurred in combination with adequate individual time with the midwives.

Participants in gANC

Of all eligible women who were offered gANC during the intervention period, 47% (n=63) accepted, and 52 women received at least one session. The mean number of sessions attended per woman was 3.8. Very few women attended all sessions. Seven series of gANC sessions (n =50 sessions in total) were arranged during an 18-month period, in a meeting room in the ANC clinic. On average, each session was attended by 4.2 women (range 1–8). The women's mean age was 31 years and the median length of stay in Sweden was 7 years. Both primiparous (n =11) and multiparous women (n =52) were recruited, and at baseline, 24% of the women were grand multiparous (≥5 births). Swedish-proficiency (self-reported) was 'well or fluent' in 65% of women. Half (50.8%) of the women had <6 years of education, 22.2% had 7–9 years and 22.2% had ≥10 years of education. The majority, 78.8%, were living with a partner.

Regarding reach, the midwives reported that their impression was that women with fluency in Swedish were less interested in attending gANC. Other motives for not participating in gANC that were suggested was that it was time-consuming; that some women may not have understood what gANC entailed; that some may have felt they were already sufficiently informed about pregnancy, labour, and birth; or they may have preferred not to discuss private matters in groups.

The intervention did not succeed in including more partners/fathers-to-be in ANC. Some groups decided not to invite partners, despite 58% (n =25) of female participants believing it would have been valuable for fathers to participate in the group sessions, and a minority, 42% (n =18) said that a male presence would have made them feel embarrassed. The midwives did not push the agenda that partners should attend. Some midwives were ambivalent and described how exclusive women's groups could provide "a sheltered zone", where women could be empowered through peer support.

The group sessions—how did they turn out?

The sessions typically started with the midwife/midwives talking about a topic; for example pregnancy, pain relief, or breastfeeding, and the interpreter translated. The atmosphere was generally open and positive in the group sessions, even though some groups were quieter and more difficult to 'get going'. The midwives were generally open-minded during the sessions,

and personal and creative when explaining things in the groups. There was a lot of humour in many of the groups. For example, when a midwife talked about contraceptives and how the IUD works and said that if the threads are too long, they can feel uncomfortable during intercourse for the man. A woman quickly replied, *"I don´t care, I don´t want to get pregnant"*, making everybody laugh.

Following each session, the midwives were to fill out a protocol[18] with basic information about each session (see Table 6). Children were present in seven sessions. Another support person (other than partner) was present only once. A midwifery student was present on one occasion.

Table 6. Summary of information from the session protocols

	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Group 8
Number of sessions	6	6	7	8	7	6	6	2
Follow-up session after birth[1]	1							
Mean number of women	5,1	3,3	6,1	4,9	3,6	3,7	2,6	
Number of men attending at least one session	3			1				

[1]One more group had a follow-up session, but no protocol was filled out.

Mechanism of impact

gANC provided more comprehensive antenatal care. The majority of women (91%) believed they had enough space in the groups to talk about what was important to them. Most women thought listening to other pregnant women was valuable (91%), felt comfortable in the group (98%), supported by the other women (79%), and said that gANC suited them (79%). Midwives felt that the gANC participants were happy to have gained more knowledge and information, and that the group format had improved women's agency. Over time, it became difficult to distinguish the gANC intervention from parental education. gANC was referred to by both midwives and participants as *"the course"*.

The midwives were ambivalent about to what extent person-centring was achieved in gANC. They thought it became both easier and more difficult to provide person-centred care. The intervention seemed to enhance knowledge and cultural understanding among midwives, thus contributing to more women-centred care. Both midwives and participants developed new

[18] "Checklista" in Swedish, see Appendix 1

insights and skills through gANC, and got to know each other better. The midwives, with few exceptions, believed communication with participants improved, one strong reason being that the sense of mutual understanding increased:

> ”Communication got much better because the women opened up more and revealed more in the group. One could understand more about their situation both in their home country and here in Sweden.” Midwife, open-ended questionnaire question

One initial assumption was that gANC would be less prejudice-prone and reduce bias because of the format and the changing power dynamics, and expressions of stereotypes were rarely observed in gANC.

Enabling factors

The midwives put a lot of effort into the development and implementation of gANC, and were flexible and pragmatic in carrying out the intervention. They were also available for interviews and other additional activities, such as meetings with the research team, filling out questionnaires, etc.

The intervention and the study were facilitated to a large extent by the bilingual research assistants. Two research assistants were employed during different periods, and they were instrumental in implementing the intervention and carrying out the study. Both had medical training as nurses/assistant nurses. The research assistants and interpreter/cultural broker played an important role in community outreach work promoting the intervention, and in disseminating information about the project to the local Somali community, for example at a community-based play group that many women frequented.

The research assistants had an office at the ANC clinic, so they were working closely with the midwives. They also served as a link between midwives, the women attending gANC, and the research team. They had regular contact with participants, sometimes phoning them before group sessions to confirm their attendance or reminding them to come. They also frequently served as informal interpreters for conversations between midwives and women, both participants in gANC and for those in standard care. The recruitment and retaining of participants in the study was challenging and time-consuming. The research assistants often phoned repeatedly, at different hours, and texted, to set up meetings for the interviews.

Chapter 4: Discussion

The need to address health inequalities for migrant women during pregnancy more efficiently was the point of departure for this project. Moreover, few interventions for migrant women in ANC in Sweden have been evaluated scientifically. gANC has showed promising results on satisfaction with care, in empowering women (1-3) and in improving reproductive outcomes (4-12) in other settings. Hence, language-supported gANC for Somali-born women was developed with a participatory approach, implemented for 18 months and evaluated.

4.1 Promising results on knowledge and information

The most promising results in the Hooyo-project were that women in gANC were more satisfied with the information they received about pregnancy and birth, and that the midwives expanded their understanding of the participants and their narratives. Language-supported gANC improved information provision and knowledge acquisition, which has been shown in other studies on gANC (163), including the evaluation of a group prenatal care model for Somali women in the US that showed that gANC had the potential to increase knowledge as well as to improve care satisfaction, and reduce stress during pregnancy and the postpartum period (3). In our study, both participating women and midwives gained new insights and got to know each other better. Similar findings are described in a qualitative study of maternity care providers' perspectives on the feasibility of group antenatal care in the UK, where the midwives derived accomplishment and job satisfaction from working in this new way, and it enabled midwives to build meaningful relationships with women (154).

4.2 More flexibility in ANC needed—but tailoring should be done with care

More flexibility in ANC is needed when diversity and inequality increases. For parent education, there is now a ‘smorgasbord’ of options for parents-to-be. ‘Specialised’ birth preparation and parenting groups are organised—at least in larger urban areas. Groups may be organised, for example, for single mothers (196), parents expecting twins, or for LBGTQ-families (197). Our study supports the idea that there is a need for different models of antenatal care, and that ‘one size fits all’ is not adequate. One of the midwives in this study used to say *“för att göra lika måste man göra olika”* which translates to “to have equity, you can´t do the same for everyone”—but is sounds better in Swedish. There must be enough time and resources allocated for the midwives to be able to provide care that meets diverse

needs. To what extent the primary health care choice reform[19] of the 2000s to increase patient choice has affected health equity has been debated, but the reform has made integrated care for those with complex needs more difficult (198).

At the same time, there are challenges with greater flexibility and more options in ANC. In this study we have identified benefits as well as drawbacks with targeting and tailoring; especially if tailoring is done to the perceived or identified needs of ethnic groups. Careful reflection is required in the formation of ethnicity-based groups to avoid potential unintended consequences, such as reducing privacy for individual women or reinforcing stereotypes by grouping people according to their country of birth.

Furthermore, the evaluation of the Hooyo-project also shows that there might be a trade-off in language-supported gANC with other important aspects of ANC, which needs to be considered. For example the inclusion of partners and integration/inclusion in regular birth preparation and parenting activities. The Hooyo gANC intervention did not engage fathers-to-be. In previous Swedish studies of satisfaction with antenatal care, the midwife's lack of attention to the partner's needs was a strong predictor of dissatisfaction (189, 199). In a study on Ethiopian–Australian fathers' involvement in perinatal healthcare in Australia, the results suggested that men may be missing out on the education provided during antenatal appointments and may benefit from alternative services that could utilise flexible delivery methods (such as phone-based and online platforms) to include fathers (91).

4.3 Person-centred, culturally-sensitive ANC key when tailoring care to minority groups

Language-supported gANC enhanced culturally sensitive person-centred care across language barriers and the position of women and their agency seemed to be strengthened in the groups. We believe that the person-centred approach of this gANC intervention provided a platform that contributed to a reduction of implicit bias and replication of stereotypes about Somali-born migrant women. Diverging values between healthcare providers and patients can challenge the provision of culturally-sensitive care, but a culture-sensitive person-centred approach can lead to improved mutual understanding. A culture-sensitive person-centred approach can be provided in individual care as well, but we believe that the group format in gANC added another dimension which gave the women more agency and provided greater mutual cultural understanding that also benefited the midwives more.

[19] Vårdvalsreformen

In a review of providing culturally-appropriate maternity care, the authors concluded that respectful, person-centred care should be at the core of interventions aiming at 'culturally appropriate maternity care'. Cohesiveness between culturally-appropriate services and other healthcare was raised as important, meaning that the goals for services such as the provision of high-quality, respectful care in general should be safe-guarded (200). This is in line with the findings from our study, where we could show that person-centring was possible and enhanced cultural sensitivity, and that cohesiveness with high standards of quality care is as important as tailoring of care to the needs of sub-groups.

Person-centred care has been suggested in various studies as a way to bypass or avoid generalisations, stereotypes, and implicit biases in healthcare (201), and is part of the Quality Maternal and Newborn Care Framework (72), and WHO´s recommendations for antenatal care (74, 75). To be seen as an individual in healthcare encounters has also been central in qualitative studies with Somali migrants in Sweden (202) and with other migrant groups (203). In a study on Roma migrants' encounters with Swedish healthcare, tailored interventions and increased cultural competence were not suggested, but rather greater perceptiveness to the needs of individual patients (204). A case study from the US suggests that group prenatal care is effective in addressing racial health inequalities through the increased quantity and quality of patient and practitioner time together, and communication that supports cross-cultural exposure and decreases clinicians' implicit biases, explicit biases, and racism (205). Another US study explores cultural tailoring and its relation to implicit bias (206). All groups of patients described positive experiences of patient-centred care, and cultural tailoring alone did not guarantee non-biased care (206).

4.4 Addressing health literacy

The Hooyo language-supported gANC intervention contributed to both enhanced personal and organisational health literacy. Health literacy is multidimensional and deals with both the health literacy of individuals and of organisations (207). Personal health literacy has been defined as the degree to which individuals can find, understand, and use information and services to inform health-related decisions and actions for themselves and others. Organisational health literacy has been defined as the degree to which organisations equitably enable individuals to find, understand, and use information and services to inform health-related decisions and actions for themselves and others (207, 208).

Low levels of health literacy and a lack of adequate knowledge about pregnancy and childbirth in some women was acknowledged by the midwives. But at the same time, the midwives sometimes tended to overlook this and assign a 'superior position' to Somali women in terms of their perceived natural approach to pregnancy, labour, birth, and motherhood. This notion—perceived, constructed or true—"preference for natural processes", for example expressed in a reluctance towards caesarean sections, is confirmed to some extent from findings in qualitative studies of Somali women in Western countries and maternity care (120, 122, 123, 209-211), even though these studies also describe experiences

of bad encounters, discrimination, and lack of information and trust in care providers. A recent qualitative study from the US looked at ways in which women of Somali background with a fear of medical interventions avoided obstetric interventions. The study found that the underlying factors in the hesitancy towards obstetric interventions were: 1) fear, 2) perceived lack of choice in care processes, 3) feeling judged or undervalued by service providers, and 4) a lack of privacy provided while receiving care. The conclusion was that Somali women, like all women, have a right to choose or refuse care, and that building trust, addressing fears and concerns, and respecting one's culture is a critical first step toward informed choices (121). The notion that Somali women 'prefer things to be natural' was a source of respect and appreciation from the midwives in the study. However, our findings do not support that Somali-born women favoured a natural birth per se or had fewer health problems. An implication of this is that healthcare providers and midwives should make sure that decisions about care are well-informed, perhaps particularly with some groups of migrant women, and are not based on misunderstanding, lack of knowledge, or fear.

4.5 Replication of the intervention

A key underpinning principle of this intervention was to develop a care model ready to continue or be replicated with only minor adjustments, and at the same time to have flexibility in study methods to respond to emerging issues and challenges as they arose. However, gANC and more specifically language-supported gANC are complex interventions that require local adaptation and constant adjustments, which also makes them difficult to standardise, replicate and compare.

In implementation science, there is a growing interest in the area of *alignment*, when replicating and implementing evidence-based interventions versus the extent of *adaptation* that is necessary. Adaptation might be needed for example to address diverse needs of populations and sub-groups, or when an intervention is replicated in a different context (212). Adaptions can be seen as crucial for sustainability and may be beneficial, but the core components that are effective and/or necessary should be preserved (212). To fully determine what the core components of gANC and language-supported gANC are remains to be done.

In the Hooyo project, we did not align to a fixed model, but were inspired by several gANC models. It is possible to argue that by not integrating the individual health check-ups in the group sessions, a core component of gANC was removed. However, we believe that it was necessary with a flexible approach to fidelity throughout the development and implementation of the intervention to meet diverse needs and adapt to context, while still trying to keep core components intact (213).

The Hooyo-project has not continued, partly because of the COVID-19 pandemic that started early in 2020, and no group activities were possible because of the recommendations and restrictions that were put in place. The midwives initially suggested to continue with an adapted model, with four sessions, but this has not yet been realized. More time might be also required to enable midwives to become fully confident in facilitating gANC. In a systematic

review of providers' experiences of facilitating group antenatal care, health care providers mostly enjoyed facilitating group antenatal care. They particularly appreciated the ability to give women the kind of care they felt women want and need. Health care providers also experienced some changes in their professional roles, in relation to both the women they serve and their colleagues and organizations. The authors suggest that more research is needed to determine if group antenatal care models are a satisfying and sustainable option for health care professionals in the long term (168).

4.6 Methodological discussion

The Hooyo project was the first intervention study on group antenatal care for migrant women in Sweden. The overall study design is deemed appropriate, as the intervention required development and testing for feasibility and acceptability with women and with their care providers. A randomised trial would have had difficulties in capturing all the different mechanisms at play. A limitation was that gANC could not be implemented at site 2, and only at one clinic. It would have been valuable to implement the second intervention arm, and when site 2 terminated their participation, it was too late to identify another clinic.

The participatory approach was a strength in this study. A participatory approach with community researchers in a Somali community in the UK led to capacity building, trust and more sustainable partnership with members of the Somali community (214). Having research assistants from the local Somali–Swedish community and including them in research opened doors, enhanced cultural sensitivity, and contributed to the interpretation of data (215). The initiative for the project came from midwives working clinically, which strengthens the clinical relevance. The research assistants and some of the midwives co-authored study I and the study protocol (which is included in this thesis as a related paper).

Focus groups can be a useful tool to expand knowledge about health service provision and the needs of patients/clients, particularly within multicultural populations (216). Moreover, focus groups can facilitate increased understanding of perspectives of culturally and linguistically diverse groups and thereby shape clinical practice to better meet the needs of these groups (216). When doing the focus group discussions with parents in study 1, the researchers tried to create an informal, relaxed atmosphere, with help from the facilitators. A varied selection of participants contributed to the credibility, and the data was rich. The focus group discussions with the midwives were done in the workplace, together by MA (nurse) and UB (midwife), and the fact that the researchers had different preunderstanding of the day-to-day work at the antenatal care clinic was good because it opened up for both general and more specific follow-up questions.

Study II was a historically controlled trial. Views of antenatal care among Somali-born women in Sweden had not been evaluated before, posing a problem for establishing accurate power and sample size calculations. The power calculation was based on a national population study of Swedish speaking women’s ratings of ANC (189). The overall rating of care proved to be higher in our sample of women than in the study used for the power

calculation, which meant that we did not have a large enough sample size to reliably detect differences.

A strength was the many different outcomes that were collected, which helped us to identify in which areas gANC were most promising. The study demonstrated feasibility of assessing relevant care and obstetric outcomes with Somali-born women, while noting the need for validation and possible improvement of the Somali version of the EPDS. An adequately powered randomised trial would be needed for the outcomes of language-supported gANC to be robustly assessed. Comparing overall ratings of care between groups of women receiving different types of care may be feasible in adequately powered intervention studies, but satisfaction should be measured as only one of several outcome measures. We could not detect differences in care satisfaction between women in the intervention group and women in standard care was detected in our study. A Canadian study comparing group antenatal care with standard care by looking at satisfaction scores did not detect any differences between the groups (217). The authors suggested that in a context where the quality of standard care is high, and the difference between the care models that are compared is quite small, it might be difficult to detect differences related to satisfaction. Low expectations of care and possible previous experiences of poor care pre-migration has been suggested to influence ratings of care post-migration (145). Respondents may be reluctant to reveal dissatisfaction or express critical comments about their care; for instance because of politeness or because of what has been referred to as ‘‘gratitude bias’’(218), and high ratings of care or high satisfaction scores may not always be associated with positive health outcomes (219, 220). Moreover, women tend to be in favour of what they already know and are familiar with, and they may not express dissatisfaction because of lack of knowledge about other options to the care they are currently receiving (221). In other studies, migrant women have been both more (222) and less satisfied with care (116, 223) compared to the majority population.

Some caution is required when interpreting the use of EPDS in Somali, in the absence of a validation., but EPDS in general is a robust tool to measure depressive symptoms in pregnancy and the postpartum period (185). A benefit with the EPDS is that it is widely used in antenatal care and well-known by midwives. Depressive symptoms, emotional wellbeing, and the EPDS have been used as outcomes in several other gANC interventions (1, 12, 164-166). In our study, the EPDS questions were translated to Somali and were asked by the bilingual research assistants face-to-face or over the phone. The questions were sometimes considered difficult by respondents. Asking the questions face-to-face meant that it is possible that some women did not want to respond honestly to the questions. But it also meant that the research assistant could explain in other words if the respondent did not fully understand the question.

The combination of qualitative and quantitative data sources in study III gave the process evaluation a comprehensive overview of the implementation process, and the MRC framework for evaluating complex interventions was useful in guiding the study. Ethnography is a useful research methodology to understand the experiences of patients and

the interaction with service providers (224) . In the observations, the main researcher was openly informing about the observation and its purpose, and gained consent from everyone, but at the same made an effort to behave like a legitimate member or the group by dressing in the same clothes as the midwives, and taking notes on paper, not using a computer or recording the sessions. Moreover, the main researcher was passive and did not interfere or ask questions during the sessions. It is possible that the midwives and the participants altered their behaviours due to being observed (224), but the fact the main researcher was well acquainted with the midwives probably made them less disturbed. Also the fact that the main researcher is a nurse, but not a midwife, might have contributed to the relaxed feeling. If it had been another midwife, than perhaps the situation could have felt more like being assessed or judged. The first sessions were not observed, in order not to interfere when the midwives and the participants were new to each other. We also aimed at observing two different sessions with the same midwives, so that they might feel more relaxed the second time.

Methodological reflections

Performing research across languages and cultures has challenges. I am a Swedish-born public health nurse with limited preunderstanding of the topics. I have worked with sexual and reproductive health and rights in different capacities, but I am not a midwife. I have worked in global health for many years which has given me the opportunity to do research in, work in and visit countries in the Horn of Africa, and to interact professionally with scholars, researchers, medical professionals and experts which has given me valuable and relevant insights. My family and extended family is diverse, and has provided me with some insights in the ways in which migration affects individuals, families and communities. Despite this, I have limited preunderstanding and insider perspective of the topics.

The participatory design of this project has tried to compensate for the shortcomings with the limited preunderstanding and outsider perspective of the main researcher, and the professional and cultural barriers that may have been present. Credibility has been strengthened through continuous dialogue with research colleagues within and outside the research team.

Chapter 5: Conclusions

This evaluation suggests potential for language-supported gANC to improve communication, information provision, knowledge acquisition, and social support for participating Somali–Swedish women during pregnancy (with residence in Sweden <10 years). The intervention was largely acceptable to participants and midwives but did not engage fathers-to-be. To be feasible in different settings, gANC requires adaptations to local context. The main mechanisms of impact were more comprehensive ANC and enhanced mutual cultural understanding. The position of women was strengthened in the groups, and the way in which the midwives expanded their understanding of the participants and their narratives were promising.

Language-supported gANC appears to be possible and relevant if there is an adequate number of pregnant migrant or minority women in an uptake area who share a common language. When forming groups, careful consideration and reflection is needed to avoid potential unintended consequences, such as reducing privacy for individual women or reinforcing stereotypes by grouping people according to their country of birth. The 'othering' of women in risk groups should be avoided.

ANC interventions, including gANC, targeting inequalities between migrants and non-migrants should adapt a culturally-sensitive person-centred approach, as a means of providing individually-tailored high-quality care that counteracts stereotypes and biases. Person-centring has been shown to be possible in gANC in this study. By applying a person-centred approach, ANC interventions that target inequalities between migrants and non-migrants—including group antenatal care—may be better equipped to counteract stereotypes, misunderstandings, and prejudice.

The feasibility of assessing relevant care and obstetric outcomes with Somali-born women in Sweden was demonstrated. Outcome measures should be selected carefully in future language-supported group antenatal care intervention studies to reflect what is expected to be achieved for that specific sub-group and for healthcare providers.

To reach the goal of closing the health equity gap in one generation (225) more needs to be done on all levels of the healthcare system and in society as a whole to address the unequal distribution of wealth and other social determinants of health. Despite the challenges, language-supported gANC was an effort to address health inequalities for pregnant women, in line with the concept of proportionate universalism (226).

More research is needed on the optimal number of group sessions in gANC and future gANC interventions should also try to find ways of including fathers-to-be in a better way.

Sammanfattning på svenska

Socioekonomiska faktorer som t.ex. utbildningsnivå, boende, arbete och inkomst påverkar kvinnors hälsa under graviditeten. Utrikesfödda kvinnor har sämre reproduktiv hälsa än kvinnor som är födda i Sverige. Det gäller särskilt kvinnor från låginkomstländer, och beror på en komplex kombination av olika faktorer, t.ex. skillnader när det gäller levnadsvillkor, utbildningsnivå, samsjuklighet, kommunikationssvårigheter och bemötande i vården.

Tidigare studier visar att utrikesfödda kvinnor deltar i lägre utsträckning på föräldrautbildning under graviditeten, och gör färre antal besök i mödrahälsovården. Kvinnor som är födda i Afrika söder om Sahara och som invandrat till Sverige är en relativt stor grupp på många orter, och som har visat sig ha sämre hälsa under graviditeten och i samband med förlossningen, t.ex. när det gäller olika graviditetskomplikationer, akuta kejsarsnitt, perinatal död och bristningar efter förlossningen.

Gruppmödravård är en vårdmodell som används i andra länder för att stärka kvinnor under graviditeten genom att flera gravida träffas i grupp. Gruppmödravård är en kombination av vanlig mödrahälsovård och föräldrautbildning. Syftet med det här forskningsprojektet har varit att utveckla och testa gruppmödravård med tolkstöd för svensk-somaliska kvinnor på en barnmorskemottagning i mellan-Sverige.

Tre del-studier har ingått i det här projektet. Först genomförde vi fokusgruppsintervjuer med föräldrar med somaliskt ursprung, både mammor och pappor, samt med barnmorskor. Syftet var att undersöka erfarenheter av möten mellan blivande föräldrar och barnmorskor i den vanliga mödrahälsovården, samt att få inspel på interventionen. Föräldrarna som blev intervjuade uttryckte att de önskade person-centrerad vård och vård utan förutfattade meningar om personer baserat på födelseland. Grupper med tolk ansågs som värdefullt för personer som delar samma språk och har bristfälliga kunskaper i svenska. Barnmorskorna som blev intervjuade uttryckte ett behov av att förbättra vården för gravida kvinnor med somaliskt ursprung, för att de bland annat upplevde brister i kommunikationen och i de gravida kvinnornas följsamhet med rekommendationer från barnmorskan.

Den andra studien var en interventionsstudie där vi jämförde en interventionsgrupp för gravida kvinnor som fick gruppmödravård med tolkstöd, med en kontrollgrupp med kvinnor som fick vanlig mödrahälsovård. Deltagarna i gruppmödravården erbjöds sju 60-minuters gruppträffar tillsammans med andra gravida kvinnor. Träffarna leddes av en eller två barnmorskor och tog upp frågor som brukar ingå i föräldrautbildningen som t.ex. fostrets utveckling i magen, kost och motion, smärtlindring, det nyfödda barnet osv. I anslutning till gruppträffen fick deltagarna göra sina individuella hälso-kontroller med sin barnmorska.

Datainsamlingen gjordes med enkäter vid tre tillfällen, en första enkät vid inskrivningen, en andra enkät i slutet av graviditeten och den tredje enkäten två månader efter förlossningen. Totalt rekryterades 145 kvinnor - 63 till interventionsgruppen (maj 2018 – december 2019) och 81 kvinnor till kontrollgruppen (oktober 2016 – maj 2017). Av de 63 kvinnor som

tackade ja till gruppmödravård deltog 52 kvinnor i något gruppvårdstillfälle och i genomsnitt deltog varje deltagare i 3,8 gruppträffar. Totalt genomfördes 50 gruppträffar under en 18-månaders period. I genomsnitt deltog 4,2 kvinnor vid varje grupptillfälle. Cirka 40 % av alla kvinnor som tillfrågades tackade nej till medverkan i studien. De primära utfallsmåtten var nöjdhet med vården under graviditeten och psykiskt välbefinnande. EPDS (Edinburgh Postnatal Depression Scale) är ett frågebatteri med tio frågor som kan användas som ett mått på psykiskt välbefinnande, som vi använde. Interventionsgruppen och kontrollgruppen var lika nöjda med vården under graviditeten. Kvinnorna som deltog i gruppmödravård förbättrade sitt psykiska välbefinnande i något högre grad än kvinnorna som fick standardvård. Men kvinnorna i gruppmödravårdsgruppen hade ett något sämre utgångsvärde, så resultatet skulle t.ex. kunna förklaras av att gruppmödravård tilltalade kvinnor med ett större behov av socialt stöd. Kvinnorna som fick gruppmödravård var mer nöjda med informationen som de fick under graviditeten, t.ex. information när det gäller kejsarsnitt där 94,9 % tyckte att de hade fått adekvat information i slutet av graviditeten jämfört med 17,5 % av de som fick vanlig mödrahälsovård ($p < 0,001$).

Den tredje studien var en processutvärdering som utvärderade hur genomförandet av projektet gick, om det blev som vi hade tänkt och vad deltagarna, barnmorskorna, tolken och forskningsassistenterna tyckte om genomförandet. Vi gjorde bland annat observationer av nio gruppträffar samt intervjuer med barnmorskor och deltagare. Barnmorskorna och deltagarna lärde känna varandra bättre. Modellen med gruppmödravård med tolk verkade stärka kvinnornas position i förhållande till barnmorskorna, till exempel så ställdes mycket frågor. Barnmorskorna verkade också utvidga sin förståelse för de enskilda kvinnornas personliga erfarenheter, vilket tyder på ökad personcentrering.

Blivande pappor bjöds också in, men det var få män som deltog. Grupperna fick komma överens om regler själva, och vissa deltagare föredrog att inte bjuda in män. Så trots att de flesta kvinnorna ville bjuda in partners så blev det inte så. Barnmorskorna tyckte också att det kunde finnas fördelar med att det bara var kvinnor närvarande, vilket också spelade in.

Studien visar att gruppmödravård med tolkstöd kan vara värdefullt för att nå ut med information om graviditet, förlossning och föräldraskap om det finns tillräckligt många gravida i ett upptagningsområde som är i behov av föräldrautbildning med tolk på ett visst språk. Det är samtidigt viktigt att säkerställa att gruppmödravården blir personcentrerad så att inte stereotypa bilder av personer med olika ursprungsländer cementeras och fortplantas. Det är också viktigt att identifiera hur blivande pappor ska inkluderas på bästa sätt så att man inte riskerar att det blir svårare i stället för lättare att involvera partners.

Kusoo koobida afsoomaali ahaan

Xaaladaha dhaqan iyo dhaqaale sida heerka waxbarashada, guriyeynta, shaqada iyo dakhliga ayaa saameeya caafimaadka haweenka xiliga uurka. Dumarka lagu dhalay wadanka kale ayaa caafimaadkooda taranka ka liita dumarka ku dhashay Sweden. Tani waxay si gaar ah run ugu tahay haweenka ka yimid wadamada dhaqaalahoodu hooseeyo waxaana u sabab ah sababo isbiirsaday oo isku dhafan, sida kala duwanaanshaha xaaladaha nololeed, heerarka waxbarashada, cuduro isbiirsaday, dhibaatooyinka isgaarsiinta iyo soo dhaweynta adeegyada daryeelka caafimaadka.

Daraasado hore ayaa muujinaya in dumarka lagu dhalay wadan kale ay aad ugu yar yihiin ka qayb qaadashada fasalada barbaarinta xilliga uurka iyo inay dhimaan booqashooyinka daryeelka hooyada. Haweenka ku dhashay dalalka Saxaraha ka hooseeya ee Afrika ee u soo haajiray Sweden ayaa ah koox aad u tiro badan oo meelo badan ku nool, waxaana la ogaaday inay caafimaadkoodu aad u liidato xilliga uurka iyo dhalmada, kuwaasoo ay ka mid yihiin dhibaatooyin kala duwan oo uurka, qaliin degdeg ah oo dhalmo ahaaneed, dhimashada dhalmada iyo isgoosiga umusha kadib.

Daryeelka hooyanimada kooxeed waa tusaale daryeel loo isticmaalo wadamada kale si loo xoojiyo haweenka xilliga uurka iyadoo la isu keenayo dhowr haween oo uur leh oo koox ah. Kooxda daryeelka hooyada waa isku-dhafka daryeelka caafimaadka hooyada iyo waxbarashada waalidka. Ujeedada mashruucan cilmi-baaristu waxay ahayd in la horumariyo oo la tijaabiyo daryeelka hooyooyinka ee kooxda uu caawiyo tarjumaanku ee haweenka Soomaali Swedish ka ah ee jooga xarumaha umulisada oo ku taal bartamaha Sweden.

Saddex daraasadood ayaa lagu soo daray mashruucan. Marka koobaad, waxaanu waraysiyo kooxeed la yeelanay waalidiinta, hooyooyinka iyo aabayaashaba, kasoo jeeda Soomaaliga yahay, iyo sidoo kale umulisooyinka. Ujeeddadu waxay ahayd in la baaro waayo-aragnimada ay u leeyihiin mudada u dhexeysa waalidiinta uurka leh iyo umulisooyinka ee daryeelka caafimaadka hooyada caadiga ah iyo in la helo fikrado wax ka qabasho ahaaneed. Waalidiinta la wareystay ayaa muujiyay inay rabaan daryeel iyo daryeel qof ahaaneed ku saleysan iyadoo aan fikrado hore laga haysan dadka ku saleysan wadanka ay u dhasheen. Kooxaha oo ay ku jiraan turjumaano ayaa loo arkayay inay qiimo badan u leeyihiin dadka isku luqadda yihiin oo aqoontoodu Iswidhishka hoosayso. Umulisooyinkii la wareystay ayaa muujiyay baahida loo qabo in la wanaajiyo daryeelka haweenka uurka leh ee asal ahaan ka soo jeeda Soomaaliya, sababtoo ah, waxaa ka mid ah, waxay dareemeen daldaloolo dhanka xiriirka ah iyo u hoggaansanaanta haweenka uurka ah talooyinka umulisada.

Daraasadda labaad waxay ahayd daraasad wax ka qabasho oo aan is barbar dhignay wax ka qabashada koox haweenka uurka leh ee helay daryeelka hooyada kooxeed oo taageero turjubaan ah oo leh koox xakameyn ah oo haween ah oo helay daryeelka hooyonimada joogtada ah. Ka qaybqaatayaasha daryeelka hooyada ee kooxda waxaa lasiiyay todobada kulan oo 60 daqiiqo ah oo lala yeeshay haweenka kale ee uurka leh. Kulamadan ayaa waxaa hogaaminayay hal ama labo umuliso waxaana looga hadlay mowduucyo inta badan ay kamid

ahaayeen waxbarashada waalidka sida koriinka uurjiifka, cuno isu dheeli tiran iyo jimicsiga, qandho jabinta, ilmaha dhalanaya, iwm. Kulanka kooxda kadib, ka qaybgalayaashu waxay baaristooda gaarka ah la yeesheen umulisadooda.

Xog ururinta ayaa lagu sameeyay su'aalo waraysiyo saddex kulan, su'aalaha waydiimaha koobaad ee diiwaangelinta, xog ururinta labaad ee dhammaadka uurka iyo su'aalaha saddexaad ee laba bilood ka dib dhalmada. Guud ahaan 145 haween ah ayaa la shaqaaleysiiyay - 63 waxay ku jireen kooxda wax ka qabshada (Maayo 2018 - Diseembar 2019) iyo 81 ee kooxda xakamaynta (Oktoobar 2016 - Maayo 2017). 63 haween ah ee aqbalay daryeelka kooxeedka hooyonimo, 52 haween ah ayaa ka qaybqaatay kulan kooxeedyo iyo celcelis ahaan ka qaybgale kasta waxa uu soo xaadiray 3.8 kulan kooxeed. Wadar ahaan 50 shirar kooxeed ayaa la qabtay muddo 18 bilood ah. Celcelis ahaan, 4.2 haween ah ayaa ka qaybqaatay kulan koox kasta. Ku dhawaad 40% dhammaan dumarka la waraystay ayaa diiday inay ka qaybqaataan daraasadda. Tallaabooyinka aasaasiga ee natiijada ka dhashay waxay ahaayeen ku qanacsanaanta daryeelka xilliga uurka iyo fayoobaanta nafsi ahaaneed. Heerka Niyad-jabka Dhalmada kadib ee Edinburgh (EPDS) waa xog-waraysi ka kooban toban su'aalood oo loo isticmaali karo cabiritaanka fayoobida nafsi ahaaneed. Wax ka qabashada iyo kooxaha xakamaynta ayaa si isku mid ah ugu qanacsanaa daryeelka ay heleen xilliga uurka. Haweenka helay daryeel kooxeedka hooyanimo waxay wanaajiyeen fayoobidooda nafsiyeed wax yar marka loo eego haweenka helay daryeelka caadiga ah. Si kastaba ha ahaatee, haweenka ku jira daryeel kooxeedka hooyonimo ee uurka leh waxay lahaayeen dhibco hooseeya, sidaas darteed natiijadu waxaa laga yaabaa in lagu sharaxo, tusaale ahaan, xaqiiqda ah in daryeel kooxda hooyonimo ay soo jiidatay haweenka baahida weyn u qaba taageerada niyadeed. Haweenka helay daryeelka hooyada ee kooxda waxay aad ugu qanacsan yihiin macluumaadka ay heleen xilliga uurka, tusaale ahaan ku saabsan qalliinka dhalmada, halkaasoo 94.9% ay dareemeen inay heleen macluumaad ku filan xilliga dambe ee uurka marka la barbardhigo 17.5% kuwa helay daryeelka hooyada ee joogtada ah ($p < 0.001$).).

Daraasada saddexaad waxay ahayd habraac qiimayn ahaaneed oo lagu qiimeeyay sida mashruuca loo fuliyay, haddii uu u fulay sidii aanu qorshaynay iyo waxa ka qaybgalayaashii, umulisooyinkii, turjubaannada iyo kaaliyayaasha cilmi-baarista ka fikireen hirgelinta. Tan waxa ku jiray indho-indhayn lagu sameeyay sagaal kulan kooxeed, iyo sidoo kale waraysiyo lala yeeshay umulisooyin iyo ka qaybgalayaasha. Umulisooyinkii iyo ka qaybgalayaashii si fiican ayay isu barteen. Qaabka daryeel kooxeedka hooyonimo oo uu joogo tarjumaan ayaa u muuqday mid xoojinaya booska haweenka ee la xiriira umulisooyinka, tusaale ahaan, su'aalo badan ayaa la weydiiyay. Umulisooyinku waxay sidoo kale u muuqdeen inay balaarinayaan fahamkooda ku saabsan khibradaha shakhsi ahaaneed ee haweenka, iyagoo soo jeedinaya kordhinta shakhsi ahaaneed.

Aabayaasha la filayi inay ilmo u dhashaan ayaa sidoo kale la casuumay, laakiin rag yar ayaa ka qaybqaatay. Kooxuhu waa inay ku heshiiyaan xeerarka dhexdoodu, ka qaybqaatayaasha qaarkood waxay door bideen inaan raga la casuumin. Markaa, in kasta oo dumarka

badankoodu ay rabeen inay martiqaadaan lamaanahoodu, ma aysan yeelin. Umulisooyinkii sidoo kale waxay dareemeen inay fiican tahay in haween kaliya ay joogaan, kuwaas oo iyaguna kaalin ka qaatay.

Daraasadu waxay muujinaysaa in daryeel kooxeedka hooyoonimo ee turjumaanku caawinayay ay noqon karto hab qiimo leh oo lagu gaarsiin karo macluumaadka ku saabsan uurka, dhalmada iyo waalidnimada haddii ay jiraan haween uur leh oo ku filan meel la qabsanayo oo u baahan waxbarasho waalidnimo oo leh turjumaan luqad gaar ah. Sidoo kale, waxaa muhiim ah in la hubiyo in daryeel kooxeedka hooyonimo ay tahay mid ku saleysan qofka si aan fikradaha khaldan ee dadka ka yimid dalal kala duwan oo asal ah aan loo sii adkeyn oo aan loo sii faafinin. Waxa kale oo muhiim ah in la ogaado sida ugu wanaagsan ee loogu daro aabayaasha mustaqbalka si aanay khatar ugu gelin inay sii adkaato halkii ay ka fududaan lahayd ka qaybgalka lamaane.

Acknowledgements

First, I would like to acknowledge all the participants in the Hooyo-project for being part of this intervention and research, and for sharing their thoughts so generously with us. I would also like to acknowledge our research assistants, Aisha Adan and Fardosa Hassan, for their friendship, hard work and invaluable input to this work, and the interpreters Hamdi Sheek Hussein and Ismehan Elmi Hussein. Without their help, this project would not have been possible.

I would also like to acknowledge all the outstanding midwives that have been involved in this project: Anna Åhman Berndtsson, Karin Tesser, Helene Borg, Barbro Haglöf, Annika Holten, Kia Larsson Hedlund, Anna Olsson, Anna Karin Palm, Anu Snellman, Ros-Mari Casselbrant (in memoriam), Yvonne Lidén and Monika Israelsson.

To my supervisors Erica Schytt, Ulrika Byrskog, Ewa Andersson, Birgitta Essén and Rhonda Small. We have done this together. This has truly been a team work. I really appreciate the unique expertise and experience of each and every one of you, and I want to thank all of you for your guidance and for all the hard work that you have put into this project. I have not been the easiest PhD-candidate to deal with. This was your project from the beginning, and I really hope that you are also happy now with what we have achieved.

I am also grateful to the reference group that was established to support this project. Special thanks to Bisharo Xaajixasan, Anne Nilsson and Khadijo Ali.

My gratitude also to the Doctoral School in Health Care Sciences and directors Lena Wettergren and Kay Sundberg, and to the Swedish Research Council and Forte for funding this research.

To all my colleagues at the Department of Women's and Children's Health, Karolinska Institutet – special thanks to Helena Lindgren, Head of the Department for the most part, and to Charlotte Ovesen who has provided invaluable support.

A big thank you to my fellow PhD-candidates and Post-Docs at the Department, Gunilla Lönnberg, Susanne Åhlund, Katarina Kornaros, Anna Wahlberg, Elin Ternström and Amani Eltayb – as well as other PhD-students at the Department and at the Doctoral School in Health Care Sciences. Other

colleagues at IMCH and other institutions, especially Eline Skirnisdottir Vik, Jonna Arousell, Camilla Larsson and Soorej Puthoopparambil.

Lots of gratitude and appreciation to my previous and present colleagues at the Public Health Agency, especially Anders, Asha, Fatima and Gabriella, who have inspired and supported me. Thank you also to everyone that I have had the pleasure of working closely with in 2019-2022, in projects both close to my heart and valuable to my research, especially the work on pregnancy and COVID-19, COVID-19 and country of birth, the collaboration with the National Institute of Health Somalia and the Joint Action Health Equity Europe.

I would also like to thank my mentor Helene Törnqvist – for support and being a role model. To my dear previous co-workers and friends Anna, Marlene and Olga – thank you for Trevlighetsgruppen. I am also blessed with a number of dear friends from different parts of my life whom I would like to take the opportunity to thank for being part of my life: Aina, Andrea, Anjana, Beatrice, Iina, Ingvild, Jeanette, Karoline, Katarina, Katja, Lena, Marie, Maria, Sanna, Tilde and many others – please forgive me for not being able to mention everyone dear to me – and for being too busy lately to be a good friend. Toby – thank you for being a loyal long-distance friend. My friends and neighbors in Knivsta whom have made my everyday life possible, meaningful and enjoyable – you know who you are – massive thank you.

Furthermore, I want to thank my children Malik, Mai and Makida – I love you more than words can say – and also to say sorry for being so busy... And I want to thank my close and extended family, my brother Johan and his wife Siti; Adam, Aisha, Lilly (love you so!) and special gratitude to Hodan with family – for being so much more than a sister-in-law. Thank you also to Ali for being part of the family and for being such an inspiration. And to H – thank you for reminding me about the many dimensions in life. I also want to acknowledge Jenny, our dear family friend who gave me a unique image of Somalia when I was growing up.

I am who I am because of the people who know me the best, and because of where I come from. Therefore, I am forever grateful to my childhood friends Tanya and Eden. Your friendship has made me who I am. Love u always.

Finally, I am extremely grateful to my parents. Words cannot express the sense of gratitude to which I owe them, and they are as always my role models and my greatest supporters.

References

1. Robertson B, Aycock DM, Darnell LA. Comparison of centering pregnancy to traditional care in Hispanic mothers. Matern Child Health J. 2009;13(3):407-14.

2. Tandon SD, Cluxton-Keller F, Colon L, Vega P, Alonso A. Improved adequacy of prenatal care and healthcare utilization among low-income Latinas receiving group prenatal care. J Womens Health (Larchmt). 2013;22(12):1056-61.

3. Madeira AD, Rangen CM, Avery MD. Design and Implementation of a Group Prenatal Care Model for Somali Women at a Low-Resource Health Clinic. Nurs Womens Health. 2019;23(3):224-33.

4. Abshire C, McDowell M, Crockett AH, Fleischer NL. The Impact of CenteringPregnancy Group Prenatal Care on Birth Outcomes in Medicaid Eligible Women. J Womens Health (Larchmt). 2019;28(7):919-28.

5. Crockett AH, Heberlein EC, Smith JC, Ozluk P, Covington-Kolb S, Willis C. Effects of a Multi-site Expansion of Group Prenatal Care on Birth Outcomes. Matern Child Health J. 2019;23(10):1424-33.

6. Cunningham SD, Lewis JB, Shebl FM, Boyd LM, Robinson MA, Grilo SA, et al. Group Prenatal Care Reduces Risk of Preterm Birth and Low Birth Weight: A Matched Cohort Study. J Womens Health (Larchmt). 2019;28(1):17-22.

7. Ickovics JR, Earnshaw V, Lewis JB, Kershaw TS, Magriples U, Stasko E, et al. Cluster Randomized Controlled Trial of Group Prenatal Care: Perinatal Outcomes Among Adolescents in New York City Health Centers. Am J Public Health. 2016;106(2):359-65.

8. Ruiz-Mirazo E, Lopez-Yarto M, McDonald SD. Group prenatal care versus individual prenatal care: a systematic review and meta-analyses. J Obstet Gynaecol Can. 2012;34(3):223-9.

9. Tanner-Smith EE, Steinka-Fry KT, Lipsey MW. The effects of CenteringPregnancy group prenatal care on gestational age, birth weight, and fetal demise. Matern Child Health J. 2014;18(4):801-9.

10. Trudnak TE, Arboleda E, Kirby RS, Perrin K. Outcomes of Latina women in CenteringPregnancy group prenatal care compared with individual prenatal care. J Midwifery Womens Health. 2013;58(4):396-403.

11. Carter EB, Temming LA, Akin J, Fowler S, Macones GA, Colditz GA, et al. Group Prenatal Care Compared With Traditional Prenatal Care: A Systematic Review and Meta-analysis. Obstet Gynecol. 2016;128(3):551-61.

12. Liu Y, Wang Y, Wu Y, Chen X, Bai J. Effectiveness of the CenteringPregnancy program on maternal and birth outcomes: A systematic review and meta-analysis. Int J Nurs Stud. 2021;120:103981.

13. World Health Organization. Closing the gap in a generation: health equity through action on the social determinants of health. Final report of the commission on social determinants of health. World Health Organization; 2008.

14. Kommissionen för jämlik hälsa (Swedish Commission for Equity in Health). Nästa steg på vägen mot en mer jämlik hälsa - slutbetänkande av Kommissionen för jämlik hälsa SOU 2017:47 2017.

15. Government of Sweden. God och jämlik hälsa – en utvecklad folkhälsopolitik (Good and equitable public health – an advanced public health policy) Prop. 2017/18:249. Swedish Parliment; 2017.

16. Public Health Agency Sweden (Folkhälsomyndigheten). Utrikesfödda och covid-19 – Konstaterade fall, IVA-vård och avlidna bland utrikesfödda i Sverige 13 mars 2020–15 februari 2021.; 2021.

17. Public Health Agency Sweden (Folkhälsomyndigheten). Folkhälsan i Sverige under covid-19-pandemin 2022 Available from: https://www.folkhalsomyndigheten.se/smittskydd-beredskap/utbrott/aktuella-utbrott/covid-19/covid-19-och-folkhalsan/.

18. Marmot M, Allen J, Goldblatt P, Herd E, Morrison J. Build Back Fairer: The COVID-19 Marmot Review. 2020.

19. Khanijahani A, Iezadi S, Gholipour K, Azami-Aghdash S, Naghibi D. A systematic review of racial/ethnic and socioeconomic disparities in COVID-19. Int J Equity Health. 2021;20(1):248.

20. Abidoye B, Felix J, Kapto S, Patterson L. Leaving No One Behind: Impact of COVID-19 on the Sustainable Development Goals (SDGs); 2021.

21. Hälso- och sjukvårdslag 2017:30 (Health Care Act)

22. Patientlag 2014:821 (Patient Act)

23. Evans L, Evans J, Pagliari C, Källander K. Exploring the Equity Impact of Current Digital Health Design Practices: Protocol for a Scoping Review. JMIR Res Protoc. 2022;11(5):e34013.

24. Sveriges Kommuner och Regioner (SKR) (Swedish Association of Local Authorities and Regions (SALAR)). (O)jämställdhet i hälsa och vård. 2019.

25. Socialstyrelsen (National Board of Health and Welfare). About the Swedish health care system Socialstyrelsen; 2020 Available from: https://www.socialstyrelsen.se/en/about-us/healthcare-for-visitors-to-sweden/about-the-swedish-healthcare-system/.

26. Public Health Agency Sweden. Om vaccinationer för dig som är gravid 2022 Available from: https://www.folkhalsomyndigheten.se/publikationer-och-material/publikationsarkiv/o/om-vaccinationer-for-dig-som-ar-gravid/.

27. Myndigheten för Vård- och omsorgsanalys (Swedish Agency for Health and Care Services Analysis). I väntans tider. En delrapport om satsningen på kvinnors hälsa 2018:2. 2018.

28. Smittskyddslag 2004:168 (Communicable Disease Act).

29. Swedish Migration Agency. Health care for asylum seekers 2021 Available from: https://www.migrationsverket.se/English/Private-individuals/Protection-and-asylum-in-Sweden/While-you-are-waiting-for-a-decision/Health-care.html.

30. World Migration Report 2022. International Organization for Migration (IOM); 2022.

31. Swedish Migration Agency. Historik 2021 Available from: https://www.migrationsverket.se/Om-Migrationsverket/Pressrum/Vanliga-fragor-fran-journalister/Historik.html.

32. The year of Europe's refugee crisis The UN Refugee Agency (UNHCR); 2015 Available from: https://www.unhcr.org/news/stories/2015/12/56ec1ebde/2015-year-europes-refugee-crisis.html.

33. World report on the health of refugees and migrants. World Health Organization (WHO); 2022.

34. Abubakar I, Aldridge RW, Devakumar D, Orcutt M, Burns R, Barreto ML, et al. The UCL-Lancet Commission on Migration and Health: the health of a world on the move. Lancet. 2018;392(10164):2606-54.

35. Juárez SP, Honkaniemi H, Dunlavy AC, Aldridge RW, Barreto ML, Katikireddi SV, et al. Effects of non-health-targeted policies on migrant health: a systematic review and meta-analysis. Lancet Glob Health. 2019;7(4):e420-e35.

36. Steel Z, Chey T, Silove D, Marnane C, Bryant RA, van Ommeren M. Association of torture and other potentially traumatic events with mental health outcomes among populations exposed to mass conflict and displacement: a systematic review and meta-analysis. JAMA. 2009;302(5):537-49.

37. Morina N, Akhtar A, Barth J, Schnyder U. Psychiatric Disorders in Refugees and Internally Displaced Persons After Forced Displacement: A Systematic Review. Frontiers in psychiatry. 2018;9:433.

38. Public Health Agency Sweden. Hälsa hos personer som är utrikes födda – skillnader i hälsa utifrån födelseland. Ett kunskapsunderlag om hälsa, livsvillkor och levnadsvanor bland utrikes födda personer boende i Sverige. https://www.folkhalsomyndigheten.se/publicerat-

material/publikationsarkiv/h/halsa-hos-personer-som-ar-utrikes-fodda--skillnader-i-halsa-utifran-fodelseland/?pub=61466 2019.

39. Brydsten A, Rostila M, Dunlavy A. Social integration and mental health - a decomposition approach to mental health inequalities between the foreign-born and native-born in Sweden. Int J Equity Health. 2019;18(1):48.

40. Löthberg K, Dahlstedt I, Emmelin M, Fernbrant C, Stafström Mr, Sundell-Lecerof S, et al. Forskningsrapport HELMI – Health, Migration and Integration. Somaliska och thailändska kvinnors hälsa och arbetsmarknadsanknytning i Sverige.; 2011.

41. Betancourt TS, Abdi S, Ito BS, Lilienthal GM, Agalab N, Ellis H. We left one war and came to another: resource loss, acculturative stress, and caregiver-child relationships in Somali refugee families. Cultural diversity & ethnic minority psychology. 2015;21(1):114-25.

42. Almeida LM, Caldas J, Ayres-de-Campos D, Salcedo-Barrientos D, Dias S. Maternal healthcare in migrants: a systematic review. Matern Child Health J. 2013;17(8):1346-54.

43. Delegationen mot segregation (Delegation Against Segregation). Segregation i Sverige – Årsrapport 2021 om den socioekonomiska boendesegregationens utveckling https://delmos.se/wp-content/uploads/2021/07/Segregation-i-Sverige.pdf; 2021.

44. Kulturdepartementet (Department of Culture). Regeringens långsiktiga strategi för att minska och motverka segregation (The governments longterm strategy to reduce and prevent segregation). https://www.regeringen.se/49feff/contentassets/a29a07890ec24acd900f5156fbf45f08/regeringens-langsiktiga-strategi-for-att-minska-och-motverka-segregation.pdf2018.

45. Statistiska centralbyrån (SCB) (Statistics Sweden). Leave no one behind (Lämna ingen utanför. Statistisk lägesbild av genomförandet av Agenda 2030 i Sverige). 2020.

46. Statistiska centralbyrån (SCB) (Statistics Sweden). Invandring till Sverige 2022 Available from: https://www.scb.se/hitta-statistik/sverige-i-siffror/manniskorna-i-sverige/invandring-till-sverige/.

47. Stiftelsen The Global Village (Glogal Village Foundation). Fakta för förändring. Så ser somaliernas livsförhållanden ut. . https://theglobalvillage.se/wp-content/uploads/2021/06/Uppdaterat-Rapport-Fakta-for-forandring_svensksomalierna_uppslag_lowres.pdf: 2021.

48. Framtidskommissionen (Commission on the Future of Sweden). Somalier på arbetsmarknaden – har Sverige något att lära? Underlagsrapport 2 till Framtidskommissionen. https://www.regeringen.se/contentassets/55f58b2bc8fd4f66842e37f54c38fc51/somalier-pa-arbetsmarknaden---har-sverige-nagot-att-lara; 2012.

49. De los Reyes P, Mulinari D. Intersektionalitet : kritiska reflektioner över (o)jämlikhetens landskap. 1. uppl. ed. Malmö: Liber; 2005.

50. Edling C, Liljeros F. Ett delat samhälle : makt, intersektionalitet och social skiktning Kapitel 8 Intersektionalitet G Ahrne. Stockholm: Liber; 2016.

51. Mulinari D, Melby K, Ravn A-B, Carlsson Wetterberg C. Gender equality and welfare politics in Scandinavia: The limits of political ambition? Nine: Women friendly? Understanding gendered racism in Sweden: Policy Press; 2009. p. 167-82.

52. Hamed S, Bradby H, Ahlberg BM, Thapar-Björkert S. Racism in healthcare: a scoping review. BMC Public Health. 2022;22(1):988.

53. Hamed S, Thapar-Björkert S, Bradby H, Ahlberg BM. Racism in European Health Care: Structural Violence and Beyond. Qual Health Res. 2020;30(11):1662-73.

54. Diskrimineringsombudsmannen (DO) (Equality Ombudsman). Rätten till sjukvård på lika villkor – rapport. https://www.do.se/download/18.277ff225178022473141e31/1618941270686/rapport-ratten-till-sjukvard-lika-villkor.pdf; 2012.

55. Origlia P, Jevitt C, Sayn-Wittgenstein FZ, Cignacco E. Experiences of Antenatal Care Among Women Who Are Socioeconomically Deprived in High-Income Industrialized Countries: An Integrative Review. J Midwifery Womens Health. 2017;62(5):589-98.

56. Yelland JS, Sutherland GA, Brown SJ. Women's experience of discrimination in Australian perinatal care: the double disadvantage of social adversity and unequal care. Birth. 2012;39(3):211-20.

57. Hall WJ, Chapman MV, Lee KM, Merino YM, Thomas TW, Payne BK, et al. Implicit Racial/Ethnic Bias Among Health Care Professionals and Its Influence on Health Care Outcomes: A Systematic Review. Am J Public Health. 2015;105(12):e60-76.

58. Saluja B, Bryant Z. How Implicit Bias Contributes to Racial Disparities in Maternal Morbidity and Mortality in the United States. J Womens Health (Larchmt). 2021;30(2):270-3.

59. International Organization for Migration (IOM). Social Determinants of Migrant Health 2020 Available from: https://www.iom.int/social-determinants-migrant-health.

60. Racine L. Examining the conflation of multiculturalism, sexism, and religious fundamentalism through Taylor and Bakhtin: expanding post-colonial feminist epistemology. Nurs Philos. 2009;10(1):14-25.

61. Arousell J. Sacred Ideals: Diversity and Equality in Swedish Reproductive Healthcare. http://urn.kb.se/resolve?urn=urn:nbn:se:uu:diva-392210

Uppsala University; 2019.

62. King L. Hiding in the Pub to Cutting the Cord? Men's Presence at Childbirth in Britain c.1940s-2000s. Soc Hist Med. 2017;30(2):389-407.

63. Bhugra D, Becker MA. Migration, cultural bereavement and cultural identity. World Psychiatry. 2005;4(1):18-24.

64. Byng M. Transnationalism among Second-Generation Muslim Americans: Being and Belonging in Their Transnational Social Field. Social Sciences. 2017;6(4):131.

65. Bardi A, Buchanan KE, Goodwin R, Slabu L, Robinson M. Value stability and change during self-chosen life transitions: Self-selection versus socialization effects. Journal of Personality and Social Psychology. 2014;106(1):131-47.

66. Bardi A, Lee JA, Hofmann-Towfigh N, Soutar G. The structure of intraindividual value change. J Pers Soc Psychol. 2009;97(5):913-29.

67. Wahlberg A. Continuity or Change? Improved Understanding of Attitudes Towards Female Genital Cutting after Migration from Somalia to Sweden. http://uu.diva-portal.org/smash/get/diva2:1160373/FULLTEXT01.pdf: Uppsala University; 2019.

68. Maternal mortality. World Health Organization (WHO); 2019 Available from: https://www.who.int/news-room/fact-sheets/detail/maternal-mortality.

69. Juntunen K, Kirkinen P, Kauppila A. The clinical outcome in pregnancies of grand grand multiparous women. Acta Obstet Gynecol Scand. 1997;76(8):755-9.

70. Al-Shaikh GK, Ibrahim GH, Fayed AA, Al-Mandeel H. Grand multiparity and the possible risk of adverse maternal and neonatal outcomes: a dilemma to be deciphered. BMC pregnancy and childbirth. 2017;17(1):310.

71. New guidelines on antenatal care for a positive pregnancy experience World Health Organization 2018 Available from: http://www.who.int/reproductivehealth/news/antenatal-care/en/

72. Renfrew MJ, McFadden A, Bastos MH, Campbell J, Channon AA, Cheung NF, et al. Midwifery and quality care: findings from a new evidence-informed framework for maternal and newborn care. Lancet. 2014;384(9948):1129-45.

73. QMNC Research Alliance Community. Framework for Quality Maternal and Newborn Care QMNC Research Alliance Community website; 2022 Available from: https://www.qmnc.org/about-qmnc/framework-for-quality-maternal-and-newborn-care/.

74. WHO Recommendations on Antenatal Care for a Positive Pregnancy Experience. https://www.who.int/news/item/07-11-2016-new-

guidelines-on-antenatal-care-for-a-positive-pregnancy-experience: World Health Organization; 2016.

75. de Masi S, Bucagu M, Tuncalp O, Pena-Rosas JP, Lawrie T, Oladapo OT, et al. Integrated Person-Centered Health Care for All Women During Pregnancy: Implementing World Health Organization Recommendations on Antenatal Care for a Positive Pregnancy Experience. Glob Health Sci Pract. 2017;5(2):197-201.

76. Socialstyrelsen (National Board of Health and Welfare). Fakta och statistik "Mer än bara mamma" 2020 Available from: https://www.socialstyrelsen.se/meranbaramamma/statistik/.

77. Socialstyrelsen (National Board of Health and Welfare). Statistik om graviditeter, förlossningar och nyfödda barn 2019. 2020.

78. Statistiska centralbyrån (SCB) (Statistics Sweden). Barnafödande i coronatider 2020—2021 jämfört med 2016-2019. Demografiska rapporter 2022:3. 2022.

79. Esscher A. Maternal Mortality in Sweden: Classification, Country of Birth, and Quality of Care: Uppsala University 2014.

80. Svenska barnmorskeförbundet (The Swedish Association of Midwives). Barnmorskans historia (History of midwives in Sweden) 2021 Available from: https://www.barnmorskeforbundet.se/barnmorskan/historia/.

81. Lindgren H, Bogren M, Osika Friberg I, Berg M, Hök G, Erlandsson K. The midwife's role in achieving the Sustainable Development Goals: protect and invest together - the Swedish example. Global health action. 2022;15(1):2051222.

82. Statistiska centralbyrån (SCB) (Statistics Sweden). Yrken i Sverige (Jobs in Sweden) 2022 Available from: https://www.scb.se/hitta-statistik/sverige-i-siffror/utbildning-jobb-och-pengar/yrken-i-sverige/.

83. Mödrahälsovård SoRH. ARG-rapport. SFOG (Svensk förening för Obstetrik och Gynekologi) och Svenska Barnmorskeförbundet; 2016.

84. Socialstyrelsen (National Board of Health and Welfare). Nytt kunskapsstöd ska bidra till en stärkt förlossningsvård; 2022 Available from: https://www.socialstyrelsen.se/om-socialstyrelsen/pressrum/press/nytt-kunskapsstod-ska-bidra-till-en-starkt-forlossningsvard/.

85. Sveriges kommuner och regioner (SKR) (Swedish Association of Local Authorities and Regions (SALAR)). Regionernas insatser för kvinnors hälsa 2021. Vården före, under och efter graviditet samt kvinnors hälsa i övrigt https://skr.se/download/18.140c498717fc1e452433e01c/1648804481656/regioners-insatser-kvinnors-halsa-21.pdf; 2021.

86. Graviditetsregistrets Årsrapport 2019 (Annual report 2019 of The Swedish Pregnancy Register).

https://www.medscinet.com/GR/uploads/hemsida/dokumentarkiv/Graviditetsregistrets%20%C3%85rsrapport%202019_2.0.pdf; 2019.

87. National strategy to strengthen parental support. Family Law and Parental Support Authority 2018.

88. Bond MJ. The missing link in MCH: paternal involvement in pregnancy outcomes. Am J Mens Health. 2010;4(4):285-6.

89. Johansson M, Fenwick J, Premberg A. A meta-synthesis of fathers' experiences of their partner's labour and the birth of their baby. Midwifery. 2015;31(1):9-18.

90. Asenhed L, Kilstam J, Alehagen S, Baggens C. Becoming a father is an emotional roller coaster - an analysis of first-time fathers' blogs. J Clin Nurs. 2014;23(9-10):1309-17.

91. Forbes F, Wynter K, Zeleke BM, Fisher J. Fathers' involvement in perinatal healthcare in Australia: experiences and reflections of Ethiopian-Australian men and women. BMC Health Serv Res. 2021;21(1):1029.

92. Fabian H, Rådestad I, Rodriguez A, Waldenström U. Women with non-Swedish speaking background and their children: a longitudinal study of uptake of care and maternal and child health. Acta Paediatr. 2008;97(12):1721-8.

93. Fabian HM, Rådestad IJ, Waldenström U. Characteristics of Swedish women who do not attend childbirth and parenthood education classes during pregnancy. Midwifery. 2004;20(3):226-35.

94. Heslehurst N, Brown H, Pemu A, Coleman H, Rankin J. Perinatal health outcomes and care among asylum seekers and refugees: a systematic review of systematic reviews. BMC Med. 2018;16(1):89.

95. Bollini P, Pampallona S, Wanner P, Kupelnick B. Pregnancy outcome of migrant women and integration policy: a systematic review of the international literature. Soc Sci Med. 2009;68(3):452-61.

96. Gagnon AJ, Zimbeck M, Zeitlin J, Alexander S, Blondel B, Buitendijk S, et al. Migration to western industrialised countries and perinatal health: a systematic review. Soc Sci Med. 2009;69(6):934-46.

97. Belihu FB, Davey MA, Small R. Perinatal health outcomes of East African immigrant populations in Victoria, Australia: a population based study. BMC pregnancy and childbirth. 2016;16:86.

98. Carolan M. Pregnancy health status of sub-Saharan refugee women who have resettled in developed countries: a review of the literature. Midwifery. 2010;26(4):407-14.

99. Rahman A, Thangaratinam S, Copas A, Zenner D, White PJ, Griffiths C, et al. A feasibility study evaluating the uptake, effectiveness and acceptability of routine screening of pregnant migrants for latent tuberculosis

infection in antenatal care: a research protocol. BMJ Open. 2022;12(4):e058734.

100. Llewelyn M, Cropley I, Wilkinson RJ, Davidson RN. Tuberculosis diagnosed during pregnancy: a prospective study from London. Thorax. 2000;55(2):129-32.

101. Bakken KS, Skjeldal OH, Stray-Pedersen B. Higher risk for adverse obstetric outcomes among immigrants of African and Asian descent: a comparison study at a low-risk maternity hospital in Norway. Birth. 2015;42(2):132-40.

102. Vik ES, Aasheim V, Schytt E, Small R, Moster D, Nilsen RM. Stillbirth in relation to maternal country of birth and other migration related factors: a population-based study in Norway. BMC pregnancy and childbirth. 2019;19(1):5.

103. Bastola K, Koponen P, Gissler M, Kinnunen TI. Differences in caesarean delivery and neonatal outcomes among women of migrant origin in Finland: A population-based study. Paediatr Perinat Epidemiol. 2020;34(1):12-20.

104. Malin M, Gissler M. Maternal care and birth outcomes among ethnic minority women in Finland. BMC Public Health. 2009;9:84.

105. Essén B, Hanson BS, Ostergren PO, Lindquist PG, Gudmundsson S. Increased perinatal mortality among sub-Saharan immigrants in a city-population in Sweden. Acta Obstet Gynecol Scand. 2000;79(9):737-43.

106. Essén B, Bödker B, Sjöberg NO, Langhoff-Roos J, Greisen G, Gudmundsson S, et al. Are some perinatal deaths in immigrant groups linked to suboptimal perinatal care services? Bjog. 2002;109(6):677-82.

107. Socialstyrelsen (National Board of Health and Welfare). Socioekonomiska faktorers påverkan på kvinnors och barns hälsa efter förlossning (The effects of socioeconomic factors on women´s and children´s health after birth). 2016. Report No.: 2016-12-14.

108. Socialstyrelsen (National Board of Health and Welfare). Gravida och nyförlösta kvinnors situation och behov. En enkätundersökning och fokusgruppssamtal om hälsofrågor, oro, information, uppföljning och stöd. https://www.socialstyrelsen.se/globalassets/sharepoint-dokument/artikelkatalog/ovrigt/2019-11-6436.pdf; 2019. Report No.: 2019-11-6436.

109. Liu C, Ahlberg M, Hjern A, Stephansson O. Perinatal health of refugee and asylum-seeking women in Sweden 2014-17: a register-based cohort study. Eur J Public Health. 2019;29(6):1048-55.

110. Khanolkar AR, Wedrén S, Essén B, Sparén P, Koupil I. Preterm and postterm birth in immigrant- and Swedish-born parents: a population register-based study. Eur J Epidemiol. 2015;30(5):435-47.

111. Small R, Gagnon A, Gissler M, Zeitlin J, Bennis M, Glazier R, et al. Somali women and their pregnancy outcomes postmigration: data from six receiving countries. Bjog. 2008;115(13):1630-40.

112. Henriksson P, Söderström E, Blomberg M, Nowicka P, Petersson K, Thomas K, et al. Self-Rated Health in Migrant and Non-Migrant Women before, during and after Pregnancy: A Population-Based Study of 0.5 Million Pregnancies from the Swedish Pregnancy Register. J Clin Med. 2020;9(6).

113. Small R, Roth C, Raval M, Shafiei T, Korfker D, Heaman M, et al. Immigrant and non-immigrant women's experiences of maternity care: a systematic and comparative review of studies in five countries. BMC pregnancy and childbirth. 2014;14:152.

114. Esscher A, Binder-Finnema P, Bodker B, Hogberg U, Mulic-Lutvica A, Essen B. Suboptimal care and maternal mortality among foreign-born women in Sweden: maternal death audit with application of the 'migration three delays' model. BMC pregnancy and childbirth. 2014;14:141.

115. Bains S, Skråning S, Sundby J, Vangen S, Sørbye IK, Lindskog BV. Challenges and barriers to optimal maternity care for recently migrated women - a mixed-method study in Norway. BMC pregnancy and childbirth. 2021;21(1):686.

116. Bains S, Sundby J, Lindskog BV, Vangen S, Diep LM, Owe KM, et al. Satisfaction with maternity care among recent migrants: an interview questionnaire-based study. BMJ Open. 2021;11(7):e048077.

117. Akselsson A, Lindgren H, Georgsson S, Pettersson K, Skokic V, Rådestad I. Pregnancy outcomes among women born in Somalia and Sweden giving birth in the Stockholm area - a population-based study. Global health action. 2020;13(1):1794107.

118. Råssjö EB, Byrskog U, Samir R, Klingberg-Allvin M. Somali women's use of maternity health services and the outcome of their pregnancies: a descriptive study comparing Somali immigrants with native-born Swedish women. Sex Reprod Healthc. 2013;4(3):99-106.

119. Saaf M, Fernell E, Kristiansson F, Barnevik Olsson M, Gustafsson SA, Bagenholm G. Severe vitamin D deficiency in pregnant women of Somali origin living in Sweden. Acta Paediatr. 2011;100(4):612-4.

120. Herrel N, Olevitch L, DuBois DK, Terry P, Thorp D, Kind E, et al. Somali refugee women speak out about their needs for care during pregnancy and delivery. J Midwifery Womens Health. 2004;49(4):345-9.

121. Agbemenu K, Banke-Thomas A, Ely G, Johnson-Agbakwu C. Avoiding obstetrical interventions among US-based Somali migrant women: a qualitative study. Ethn Health. 2021;26(7):1082-97.

122. Davies MM, Bath PA. The maternity information concerns of Somali women in the United Kingdom. J Adv Nurs. 2001;36(2):237-45.

123. Konje JK, Konje JC. Experiences of accessing maternity care in the UK: Perspectives from Somali migrant women in Leicester. Eur J Midwifery. 2021;5:56.

124. Essén B, Johnsdotter S, Hovelius B, Gudmundsson S, Sjöberg NO, Friedman J, et al. Qualitative study of pregnancy and childbirth experiences in Somalian women resident in Sweden. Bjog. 2000;107(12):1507-12.

125. Ahrne M, Schytt E, Andersson E, Small R, Adan A, Essén B, et al. Antenatal care for Somali-born women in Sweden: Perspectives from mothers, fathers and midwives. Midwifery. 2019;74:107-15.

126. Binder P, Borne Y, Johnsdotter S, Essen B. Shared Language Is Essential: Communication in a Multiethnic Obstetric Care Setting. J Health Commun. 2012;17(10):1171-86.

127. Binder P. The Maternal Migration Effect : Exploring Maternal Healthcare in Diaspora Using Qualitative Proxies for Medical Anthropology [Doctoral thesis, comprehensive summary]. Uppsala: Acta Universitatis Upsaliensis; 2012.

128. Byrskog U. 'Moving On' and Transitional Bridges : Studies on migration, violence and wellbeing in encounters with Somali-born women and the maternity health care in Sweden [Doctoral thesis, comprehensive summary]. Uppsala: Acta Universitatis Upsaliensis; 2015.

129. Andersson E, Nazanin S, Estefania O, Small R. Swedish and Australian midwives' experiences of providing antenatal care for Somali-born women: A qualitative study. Sex Reprod Healthc. 2021;28:100607.

130. Arousell J, Carlbom A, Johnsdotter S, Larsson EC, Essén B. Unintended Consequences of Gender Equality Promotion in Swedish Multicultural Contraceptive Counseling: A Discourse Analysis. Qual Health Res. 2017;27(10):1518-28.

131. Eriksson L, Tibajev A, Vartanova I, Strimling P, Essén B. The Liberal Social Values of Swedish Healthcare Providers in Women's Healthcare: Implications for Clinical Encounters in a Diversified Sexual and Reproductive Healthcare. Int J Public Health. 2022;67:1605000.

132. Bredström A GS. Language, Culture and Maternity Care : 'Troubling' Interpretation in an Institutional Context. . Nordic Journal of Migration Research [Internet] 2015;5(2):58–66 2015.

133. Oscarsson MG, Stevenson-Ågren J. Midwives experiences of caring for immigrant women at antenatal care. Sex Reprod Healthc. 2020;24:100505.

134. Socialstyrelsen (National Board of Health and Welfare). Könsstympning och omskärelse av flickor och kvinnor (Female genital mutilation/cutting of girls and women); 2019 Available from:

https://www.socialstyrelsen.se/kunskapsstod-och-regler/omraden/vald-och-brott/konsstympning/.

135. WHO guidelines on the management of health complications from female genital mutilation https://apps.who.int/iris/bitstream/handle/10665/206437/9789241549646_eng.pdf. World Health Organization; 2016.

136. Essén B, Sjöberg NO, Gudmundsson S, Ostergren PO, Lindqvist PG. No association between female circumcision and prolonged labour: a case control study of immigrant women giving birth in Sweden. Eur J Obstet Gynecol Reprod Biol. 2005;121(2):182-5.

137. Balachandran AA, Duvalla S, Sultan AH, Thakar R. Are obstetric outcomes affected by female genital mutilation? Int Urogynecol J. 2018;29(3):339-44.

138. Davis G, Jellins J. Female genital mutilation: Obstetric outcomes in metropolitan Sydney. Aust N Z J Obstet Gynaecol. 2019;59(2):312-6.

139. Varol N, Dawson A, Turkmani S, Hall JJ, Nanayakkara S, Jenkins G, et al. Obstetric outcomes for women with female genital mutilation at an Australian hospital, 2006-2012: a descriptive study. BMC pregnancy and childbirth. 2016;16(1):328.

140. Banks E, Meirik O, Farley T, Akande O, Bathija H, Ali M. Female genital mutilation and obstetric outcome: WHO collaborative prospective study in six African countries. Lancet. 2006;367(9525):1835-41.

141. Berg RC, Underland V. The obstetric consequences of female genital mutilation/cutting: a systematic review and meta-analysis. Obstet Gynecol Int. 2013;2013:496564.

142. Nyström ME, Larsson EC, Pukk Härenstam K, Tolf S. Improving care for immigrant women before, during, and after childbirth - what can we learn from regional interventions within a national program in Sweden? BMC Health Serv Res. 2022;22(1):662.

143. Schytt E, Wahlberg A, Small R, Eltayb A, Lindgren H. The community-based bilingual doula - A new actor filling gaps in labour care for migrant women. Findings from a qualitative study of midwives' and obstetricians' experiences. Sex Reprod Healthc. 2021;28:100614.

144. Byrskog U, Small R, Schytt E. Community-based bilingual doulas for migrant women in labour and birth - findings from a Swedish register-based cohort study. BMC pregnancy and childbirth. 2020;20(1):721.

145. Schytt E, Wahlberg A, Eltayb A, Tsekhmestruk N, Small R, Lindgren H. Community-based bilingual doula support during labour and birth to improve migrant women's intrapartum care experiences and emotional well-being-Findings from a randomised controlled trial in Stockholm, Sweden [NCT03461640]. PLoS One. 2022;17(11):e0277533.

146. Haugaard A, Tvedte SL, Severinsen MS, Henriksen L. Norwegian multicultural doulas' experiences of supporting newly-arrived migrant women during pregnancy and childbirth: A qualitative study. Sex Reprod Healthc. 2020;26:100540.

147. Akselsson A, Cabander L, Thorarinsdottir S, Small R, Ternström E. Language-supported labor ward visits for pregnant migrant women: Staff experiences in a Swedish hospital. Eur J Midwifery. 2022;6:42.

148. Bitar D, Oscarsson M. Arabic-speaking women's experiences of communication at antenatal care in Sweden using a tablet application-Part of development and feasibility study. Midwifery. 2020;84:102660.

149. Villadsen SF, Mortensen LH, Andersen AM. Care during pregnancy and childbirth for migrant women: How do we advance? Development of intervention studies--the case of the MAMAACT intervention in Denmark. Best Pract Res Clin Obstet Gynaecol. 2016;32:100-12.

150. Damsted Rasmussen T, Johnsen H, Smith Jervelund S, Christensen U, Nybo Andersen AM, Villadsen SF. Implementation, Mechanisms and Context of the MAMAACT Intervention to Reduce Ethnic and Social Disparity in Stillbirth and Infant Health. Int J Environ Res Public Health. 2021;18(16).

151. Catling CJ, Medley N, Foureur M, Ryan C, Leap N, Teate A, et al. Group versus conventional antenatal care for women. Cochrane Database Syst Rev. 2015;2015(2):Cd007622.

152. Cunningham SD, Grilo S, Lewis JB, Novick G, Rising SS, Tobin JN, et al. Group Prenatal Care Attendance: Determinants and Relationship with Care Satisfaction. Matern Child Health J. 2017;21(4):770-6.

153. Rijnders M, Jans S, Aalhuizen I, Detmar S, Crone M. Women-centered care: Implementation of CenteringPregnancy® in The Netherlands. Birth. 2019;46(3):450-60.

154. Hunter L, Da Motta G, McCourt C, Wiseman O, Rayment J, Haora P, et al. `It makes sense and it works': Maternity care providers' perspectives on the feasibility of a group antenatal care model (Pregnancy Circles). Midwifery. 2018;66:56-63.

155. Cunningham SD, Lewis JB, Thomas JL, Grilo SA, Ickovics JR. Expect With Me: development and evaluation design for an innovative model of group prenatal care to improve perinatal outcomes. BMC pregnancy and childbirth. 2017;17(1):147.

156. Kominiarek MA, Lewkowitz AK, Carter E, Fowler SA, Simon M. Gestational weight gain and group prenatal care: a systematic review and meta-analysis. BMC pregnancy and childbirth. 2019;19(1):18.

157. Byerley BM, Haas DM. A systematic overview of the literature regarding group prenatal care for high-risk pregnant women. BMC pregnancy and childbirth. 2017;17(1):329.

158. Carter EB, Barbier K, Sarabia R, Macones GA, Cahill AG, Tuuli MG. Group versus traditional prenatal care in low-risk women delivering at term: a retrospective cohort study. J Perinatol. 2017;37(7):769-71.

159. Felder JN, Epel E, Lewis JB, Cunningham SD, Tobin JN, Rising SS, et al. Depressive symptoms and gestational length among pregnant adolescents: Cluster randomized control trial of CenteringPregnancy® plus group prenatal care. J Consult Clin Psychol. 2017;85(6):574-84.

160. Riggs E, Muyeen S, Brown S, Dawson W, Petschel P, Tardiff W, et al. Cultural safety and belonging for refugee background women attending group pregnancy care: An Australian qualitative study. Birth. 2017;44(2):145-52.

161. Trotman G, Chhatre G, Darolia R, Tefera E, Damle L, Gomez-Lobo V. The Effect of Centering Pregnancy versus Traditional Prenatal Care Models on Improved Adolescent Health Behaviors in the Perinatal Period. J Pediatr Adolesc Gynecol. 2015;28(5):395-401.

162. Liu R, Chao MT, Jostad-Laswell A, Duncan LG. Does CenteringPregnancy Group Prenatal Care Affect the Birth Experience of Underserved Women? A Mixed Methods Analysis. J Immigr Minor Health. 2017;19(2):415-22.

163. Hetherington E, Tough S, McNeil D, Bayrampour H, Metcalfe A. Vulnerable Women's Perceptions of Individual Versus Group Prenatal Care: Results of a Cross-Sectional Survey. Matern Child Health J. 2018;22(11):1632-8.

164. Chae SY, Chae MH, Kandula S, Winter RO. Promoting improved social support and quality of life with the CenteringPregnancy(®) group model of prenatal care. Arch Womens Ment Health. 2017;20(1):209-20.

165. Heberlein EC, Picklesimer AH, Billings DL, Covington-Kolb S, Farber N, Frongillo EA. The comparative effects of group prenatal care on psychosocial outcomes. Arch Womens Ment Health. 2016;19(2):259-69.

166. Mazzoni S, Hill P, Briggs A, Barbier K, Cahill A, Macones G, et al. The effect of group prenatal care for women with diabetes on social support and depressive symptoms: a pilot randomized trial. J Matern Fetal Neonatal Med. 2020;33(9):1505-10.

167. Tanner-Smith EE, Steinka-Fry KT, Lipsey MW. Effects of CenteringPregnancy group prenatal care on breastfeeding outcomes. J Midwifery Womens Health. 2013;58(4):389-95.

168. Lazar J, Boned-Rico L, Olander EK, McCourt C. A systematic review of providers' experiences of facilitating group antenatal care. Reprod Health. 2021;18(1):180.

169. Andersson E, Christensson K, Hildingsson I. Mothers' satisfaction with group antenatal care versus individual antenatal care--a clinical trial. Sex Reprod Healthc. 2013;4(3):113-20.

170. Andersson E, Small R. Fathers' satisfaction with two different models of antenatal care in Sweden - Findings from a quasi-experimental study. Midwifery. 2017;50:201-7.

171. Andersson E. Group based antenatal care - expectations, attitudes and experiences from parents´ and midwives´ perspective. https://openarchive.ki.se/xmlui/handle/10616/42005: Karolinska Institutet; 2014.

172. Symon A, Pringle J, Downe S, Hundley V, Lee E, Lynn F, et al. Antenatal care trial interventions: a systematic scoping review and taxonomy development of care models. BMC pregnancy and childbirth. 2017;17(1):8.

173. Francis-Oliviero F, Cambon L, Wittwer J, Marmot M, Alla F. Theoretical and practical challenges of proportionate universalism: a review. Rev Panam Salud Publica. 2020;44:e110.

174. Swedish Society of Obstetrics and Gynecology (SFOG). Mödrahälsovård, Sexuell och Reproduktiv Hälsa (Prenatal Care, Sexual and Repriductive Health) (Published in 2008, updated as a web-version in 2016). https://www.sfog.se/natupplaga/ARG76web4a328b70-0d76-474e-840e-31f70a89eae9.pdf; 2016.

175. Statistiska centralbyrån (SCB) (Statistics Sweden). Folkmängd i riket, län och kommuner 31 mars 2022 och befolkningsförändringar 1 januari-31 mars 2022 2022 Available from: https://www.scb.se/hitta-statistik/statistik-efter-amne/befolkning/befolkningens-sammansattning/befolkningsstatistik/pong/tabell-och-diagram/kvartals--och-halvarsstatistik--kommun-lan-och-riket/kvartal-1-2022/.

176. Borlänge kommun. En multikulturell kommun 2020 Available from: https://www.borlange.se/kommun-och-politik/kommunfakta/en-multikulturell-kommun.

177. Byrskog U, Ahrne M, Small R, Andersson E, Essen B, Adan A, et al. Rationale, development and feasibility of group antenatal care for immigrant women in Sweden: a study protocol for the Hooyo Project. BMJ Open. 2019;9(7):e030314.

178. Ekman I, Swedberg K, Taft C, Lindseth A, Norberg A, Brink E, et al. Person-centered care--ready for prime time. Eur J Cardiovasc Nurs. 2011;10(4):248-51.

179. Wagner CC, Ingersoll, K. S., & Downey, S. S., Johnson, W. R., Velasquez, M. M., Stephens, N. S., Drenner, K. L., Jasiura, F., Hunt, W.,

Urquhart, C., Martino, S., Santa Ana, E. J., Lane, C., Butterworth, S., Speck, L., Dunn, E. C., Hecht, J., Krejci, J., Carden, A., Farrall, M., Prescott, D. S., Ross, M., Feldstein Ewing, S. W., Walters, S. T., & Baer, J. S. (Collaborators) Motivational interviewing in groups: Guilford Press. https://doi.org/10.1093/acrefore/9780199975839.013.252; 2013.

180. Lionis C, Papadakaki M, Saridaki A, Dowrick C, O'Donnell CA, Mair FS, et al. Engaging migrants and other stakeholders to improve communication in cross-cultural consultation in primary care: a theoretically informed participatory study. BMJ open. 2016;6(7):e010822.

181. Johnson CE, Ali SA, Shipp MP. Building community-based participatory research partnerships with a Somali refugee community. Am J Prev Med. 2009;37(6 Suppl 1):S230-6.

182. Attride-Stirling J. Thematic networks: an analytic tool for qualitative research. Qualitative research: QR. 2001;1(3):385-405.

183. Gagnon AJ, DeBruyn R, Essen B, Gissler M, Heaman M, Jeambey Z, et al. Development of the Migrant Friendly Maternity Care Questionnaire (MFMCQ) for migrants to Western societies: an international Delphi consensus process. BMC Pregnancy Childbirth. 2014;14:200.

184. Cox J. Thirty years with the Edinburgh Postnatal Depression Scale: voices from the past and recommendations for the future. Br J Psychiatry. 2019;214(3):127-9.

185. Rubertsson C, Börjesson K, Berglund A, Josefsson A, Sydsjö G. The Swedish validation of Edinburgh Postnatal Depression Scale (EPDS) during pregnancy. Nord J Psychiatry. 2011;65(6):414-8.

186. Cox J HJ, Henshaw C, et al. . The Edinburgh Postnatal Depression Scale (EPDS) Manual. 2 edn.: The Royal College of psychiatrists; 2012.

187. Morkved S, Bo K. Prevalence of urinary incontinence during pregnancy and postpartum. Int Urogynecol J Pelvic Floor Dysfunct. 1999;10(6):394-8.

188. Centers for Disease Control and Prevention (CDC). PRAMS Questionnaires (Pregnancy Risk Assessment Monitoring System) Phase 8 Standard Questions February 2017 2017 Available from: https://www.cdc.gov/prams/questionnaire.htm#current.

189. Hildingsson I, Rådestad I. Swedish women's satisfaction with medical and emotional aspects of antenatal care. J Adv Nurs. 2005;52(3):239-49.

190. Rubertsson C, Wickberg B, Gustavsson P, Rådestad I. Depressive symptoms in early pregnancy, two months and one year postpartum-prevalence and psychosocial risk factors in a national Swedish sample. Arch Womens Ment Health. 2005;8(2):97-104.

191. Gupta SK. Intention-to-treat concept: A review. Perspect Clin Res. 2011;2(3):109-12.

192. Moore GF, Audrey S, Barker M, Bond L, Bonell C, Hardeman W, et al. Process evaluation of complex interventions: Medical Research Council guidance. BMJ. 2015;350:h1258.

193. Graneheim UH, Lundman B. Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. Nurse Educ Today. 2004;24(2):105-12.

194. Lindgren BM, Lundman B, Graneheim UH. Abstraction and interpretation during the qualitative content analysis process. Int J Nurs Stud. 2020;108:103632.

195. Dykes F, Flacking R. Ethnographic Research in Maternal and Child Health. New York: Routledge; 2016.

196. BB Stockholm. Självstående mamma BB Stockholm; 2021 Available from: https://bbstockholm.se/content/sj%C3%A4lvst%C3%A5ende-mamma.

197. RFSL (The Swedish Federation for Lesbian G, Bisexual and Transgender Rights). Projektet Regnbågsfamiljer i väntan 2019 Available from: https://www.rfsl.se/verksamhet/regnbagsfamiljer-i-vantan/i-vantan/.

198. Burström B, Burström K, Nilsson G, Tomson G, Whitehead M, Winblad U. Equity aspects of the Primary Health Care Choice Reform in Sweden - a scoping review. Int J Equity Health. 2017;16(1):29.

199. Hildingsson I, Waldenström U, Rådestad I. Women's expectations on antenatal care as assessed in early pregnancy: number of visits, continuity of caregiver and general content. Acta Obstet Gynecol Scand. 2002;81(2):118-25.

200. Jones E, Lattof SR, Coast E. Interventions to provide culturally-appropriate maternity care services: factors affecting implementation. BMC pregnancy and childbirth. 2017;17(1):267.

201. Byrskog U, Olsson P, Essen B, Allvin MK. Being a bridge: Swedish antenatal care midwives' encounters with Somali-born women and questions of violence; a qualitative study. BMC pregnancy and childbirth. 2015;15:1.

202. Svenberg K. Mötet mellan patienten och läkaren. Erfarenheter hos somaliska flyktingar och läkare under utbildning: Göteborgs universitet; 2011.

203. Ny P, Plantin L, E DK, Dykes AK. Middle Eastern mothers in Sweden, their experiences of the maternal health service and their partner's involvement. Reprod Health. 2007;4:9.

204. Popoola M. Lyssna, förklara, förstå. Romska migranters möten med sjukvård i Sverige ("Listen, explain, understand". Roma migrants

encounters with Swedish health care.). Malmö University: Faculty of Health and Society; 2011.

205. Carter EB, Mazzoni SE. A paradigm shift to address racial inequities in perinatal healthcare. Am J Obstet Gynecol. 2021;224(4):359-61.

206. Cuevas AG, O'Brien K, Saha S. What is the key to culturally competent care: Reducing bias or cultural tailoring? Psychology & health. 2017;32(4):493-507.

207. Santana S, Brach C, Harris L, Ochiai E, Blakey C, Bevington F, et al. Updating Health Literacy for Healthy People 2030: Defining Its Importance for a New Decade in Public Health. J Public Health Manag Pract. 2021;27(Suppl 6):S258-s64.

208. Centers for Disease Prevention and Control (CDC). What is health literacy? 2022 Available from: https://www.cdc.gov/healthliteracy/learn/index.html.

209. Beine K, Fullerton J, Palinkas L, Anders B. Conceptions of prenatal care among Somali women in San Diego. J Nurse Midwifery. 1995;40(4):376-81.

210. Chalmers B, Hashi KO. 432 Somali women's birth experiences in Canada after earlier female genital mutilation. Birth. 2000;27(4):227-34.

211. Wojnar DM. Perinatal experiences of Somali couples in the United States. J Obstet Gynecol Neonatal Nurs. 2015;44(3):358-69.

212. Shelton RC, Cooper BR, Stirman SW. The Sustainability of Evidence-Based Interventions and Practices in Public Health and Health Care. Annu Rev Public Health. 2018;39:55-76.

213. Mazzucchelli TG, Sanders MR. Facilitating Practitioner Flexibility Within an Empirically Supported Intervention: Lessons From a System of Parenting Support. Clinical psychology (New York, NY). 2010;17(3):238-52.

214. Ismail MM, Gerrish K, Naisby A, Salway S, Chowbey P. Engaging minorities in researching sensitive health topics by using a participatory approach. Nurse Res. 2014;22(2):44-8.

215. Hearn F, Biggs L, Brown S, Tran L, Shwe S, Noe TMP, et al. Having a Say in Research Directions: The Role of Community Researchers in Participatory Research with Communities of Refugee and Migrant Background. Int J Environ Res Public Health. 2022;19(8).

216. Halcomb EJ, Gholizadeh L, DiGiacomo M, Phillips J, Davidson PM. Literature review: considerations in undertaking focus group research with culturally and linguistically diverse groups. J Clin Nurs. 2007;16(6):1000-11.

217. Hodgson ZG, Saxell L, Christians JK. An evaluation of Interprofessional group antenatal care: a prospective comparative study. BMC pregnancy and childbirth. 2017;17(1):297.

218. Øvretveit J. Health service quality : an introduction to quality methods for health services. Oxford: Blackwell Science; 1992.

219. Shirley ED, Sanders JO. Measuring Quality of Care with Patient Satisfaction Scores. J Bone Joint Surg Am. 2016;98(19):e83.

220. Day MS, Hutzler LH, Karia R, Vangsness K, Setia N, Bosco JA, 3rd. Hospital-acquired conditions after orthopedic surgery do not affect patient satisfaction scores. J Healthc Qual. 2014;36(6):33-40.

221. van Teijlingen ER, Hundley V, Rennie AM, Graham W, Fitzmaurice A. Maternity satisfaction studies and their limitations: "What is, must still be best". Birth. 2003;30(2):75-82.

222. Tocchioni V, Seghieri C, De Santis G, Nuti S. Socio-demographic determinants of women's satisfaction with prenatal and delivery care services in Italy. Int J Qual Health Care. 2018;30(8):594-601.

223. Higginbottom GM, Morgan M, Alexandre M, Chiu Y, Forgeron J, Kocay D, et al. Immigrant women's experiences of maternity-care services in Canada: a systematic review using a narrative synthesis. Syst Rev. 2015;4:13.

224. Strudwick RM. Ethnographic research in healthcare - patients and service users as participants. Disabil Rehabil. 2021;43(22):3271-5.

225. Ministry of Health and Social Affairs. God och jämlik hälsa – en utvecklad folkhälsopolitik Proposition 2017/18:249. 2017.

226. Marmot M, Bell R. Fair society, healthy lives. Public Health. 2012;126 Suppl 1:S4-s10.

Appendix 1 Protocol

Checklista gruppträffar Grupp nr_____ Träff nr_____

Datum:_____

Antal deltagare: ____ kvinnor: ____ partner: ____ annan medföljande: ____

Tolk, språk:_____ Antal barnmorskor: _____ Barn: ____

Annan medverkande_____

Dagens teman:

☐ Levnadsvanor

☐ Graviditet

☐ Förlossning

☐ Praktisk förlossningsförberedelse

☐ Det väntade och nyfödda barnet

☐ Amning och uppfödning

☐ Föräldraskap

☐ Relationer

☐ Annat: _____

Dagens samtal och upplägg:

☐ Mest enligt föreslaget tema ☐ Mest enligt gruppens önskemål

☐ Mest samtal/dialog ☐ Mest information

☐ Film:_____ ☐ Powerpoint

☐ Annat hjälpmedel: _____

I stort, är du nöjd med dagens träff? ☐ Ja ☐ Nej ☐ Vet ej

Kommentarer/övrigt:_____

_____

_____

_____

_____