SAPIENZA
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Disability among Refugees and Asylum Seekers in Italy

Results from a Global Health Perspective

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Kwa mke wangu na kwa maisha yetu, pamoja

Kwa wajukuu zangu, waweze kutambua thamani kwenye utofauti

DECLARATION

I confirm that the research presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

January 27, 2023

Signature
Marco Tofani

List of abbreviations

CBID	Community-Based Inclusive Development
CBR	Community-Based Rehabilitation
CPRs	Pre-removal detention Centers
DPOs	Disable People Organizations
EUFRA	European Union Fundamental Rights Agency
GCR	Global Compact on Refugees
ICD	International Classification of Diseases and health-related problems
ICF	International Classification of Functioning, Disability and Health
IOM	International Organization for Migration
NGOs	Non-Governmental Organizations
SAI	Reception and Integration System
SDGs	Sustainable Development Goals
UN	United Nations
UNCRPD	United Nations Convention on the Rights of Persons with Disabilities
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
WG	Washington Group
WHO	World Health Organization

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Abstract

Limited evidence exists on the proportion of refugees and asylum seekers with disabilities, and knowledges about this target population are lacking.

The objectives of the present investigation were a) mapping reception centers for hosting refugees and asylum seekers with disabilities; b) estimating the percentage of people with disabilities and examining the risks for specific migration routes; and c) highlighting the needs of refugees and asylum seekers using a global health perspective.

We used the Washington Group Short Set Enhanced for estimating prevalence of disability, while Community-Based Rehabilitation Indicators were used to investigate their global needs. A total of 483 refugees and asylum seekers were interviewed on the whole national territory. The percentage of people with disabilities was 23.81, with a high prevalence of mental health problems, namely anxiety (18.22%) and depression (9.94%). Migrants who travel across the central Mediterranean route showed a high risk for disability condition (OR 2.08), with higher prevalence of anxiety (OR 2.19), while people who travelled the Balkan route seem to be a higher risk for mobility limitations (OR 3.03). The availability for hosting migrants with disabilities in reception centers is limited: 2.03% of the total national availability, with different distribution among regions. Disparities for each component of community-based rehabilitation indicators were also found, namely in health, education, social, livelihood and empowerment. Differences in access to healthcare services among migrants were also observed, in particular Ukrainian group seems to be more likely to get medical assistance, probably due to specific norms and communication strategies adopted by EU and Italy. The "Ukrainian Model" for refugees could be used for the general migrant population, in order to guarantee protection and adequate reception in host countries.

Chapter 1

1.1 Disability concepts and models

The World Report on Disability estimates that 15% of the world's population live with a disability (1). According to the United Nations (UN) Convention on the Rights of Persons with Disabilities (UNCRPD) (2), people with disabilities include those who have long-term physical, mental, intellectual, or sensory impairments that may hinder their full, effective, and equal participation in society.

Nonetheless, there are different models that have influenced the conception of disability and, consequently, the approaches for service delivery. These models can be seen as an historical evolution. Some models were dominant in the past and they are no longer considered acceptable, but it is also important to see these models as different perspectives because some of these models, even if outdated, are no longer dominant can still be available. So, it is fundamental to acknowledge that these models have evolved over time. Those were dominant in the past might not be dominant anymore, but at the same time they might still be existing. There is a need to consider these models as parallel in one way or the other. So, we are going to be talking essentially about four models of disabilities.

The first model to acknowledge is the charity model of disability. This charity model is originated from the work of people and institutions with good intentions, but people with disability were seen as being people in need of assistance and support (3). This model was mostly dominant up to World War Two. Even with moved from good intentions, this led gradually to a sort of a stigmatization and segregation of individuals with disabilities because the moment these individuals were identified as an object of pity, they were labeled as being weak or needy, automatically. These lead to a stigmatization of the population of persons with disability. This model that had an historical context and was dominant in the past is still used today, and organizations that implement this model often do not consult individual with disabilities. They consider them as recipient, but they do not necessarily see them, or treat them, as on the same basis as rights holders, for instance, but more as a recipient, and this automatically imply some sort of a passive component (4). So, disability in this context is seen in terms of charity and benevolence, rather than in terms of social justice and equality (5). Persons with disabilities are seen as victims of circumstances as needing help care and protection and deserving pity. By doing so, there is a lack of a recognition of individuals with disabilities as being subject of rights and have capabilities to help themselves. This model also assumes that disability lies within the individual. There is an individual with certain characteristics, these characteristics made this individual needy and there are organizations and other people who can help these individuals. So, even with the best of intention, the consequence of this model is to be propagating the conception of persons with disabilities as sort of a target population limited that need help.

The second model is the biomedical model of disability. With the advent of modern medicine, disability has been defined at some point as a "state" or a "condition" and came increasingly under the direction of the medical profession (6). This biomedical model became more prominent after World War Two, when many veterans with injuries that were related to the war, needed medical care and rehabilitation. The principle of the biomedical model of disability is to divide the population in those who are seen as being normal (in terms of their physical and cognitive development) and those who are considered "abnormal", namely outside of the norm (5,7). So, the medical model focused on what a person can do or not, and there is a focus on identifying an impairment or conditions that needs to be treated.

Instead, the social model of disability is originated in the 1960 and was led by persons with disabilities and their relevant organizations (8). The intention is really to reshape legislation for children and adults with disabilities, and the role of organizations of persons with disabilities were really key in pushing a different way of looking at disability (9). In the social model, disability is conceptualized as the outcome of the interaction between a person with functional difficulty and the environment. So, the focus is placed on the environment, and what needs to be fixed, restore or rehabilitated, is the environment, not necessarily the individuals. So, the responsibilities shifted. The focus of the problem is no longer the individual, the focus is building an environment that is inclusive, where everybody has an opportunity to participate regardless of an individual impairments or condition (10).

Now, from the social model of disability originated what is called the bio-psycho-social model, which incorporates component of biomedical and social model together. Disability, as well health, is the result of the interaction between physical and personal characteristics and the environment. To better understand the bio-psycho-social model, it is crucial referring to the World Health Organization (WHO) International Classification of Functioning, Disability and Health (ICF) (11) that was developed to serve as a comprehensive framework for the components of functioning and disability for all health-related conditions. The ICF is designed to be used in combination with the International Classification of Diseases and health-related problems (ICD) (12). While the ICD maps health conditions to generic categories and views disability as a consequence of a health condition (biomedical model), the ICF is based on a bio-psycho-social model of functioning, which understands disability as a result of a health condition interacting with personal and environmental factors yielding certain levels and compositions of participation and activities. Disability is therefore not an attribute of the person, but rather the result of the interaction between biological, psychosocial and environmental contingencies.

The ICF provides detailed classifications of ability and disability in the areas of Body functions (i.e. physiological functions of body systems), Body structures (i.e. anatomical parts of the body), Activities (i.e. execution of tasks), Participation (i.e. involvement in life situations), and Environmental factors (i.e. physical, social, and attitudinal environment) (13). For each of these components, aspects of functioning are described in hierarchically structured categories with up to four levels of increasing detail. The ICF was approved at the 54° World Health Assembly in May 2001 and in 2007 the version for Children and Youth (ICF-CY) was adopted as well. Derived from the ICF in 2007, the ICF-CY (14) was designed to capture the particular situation of the developing child.

An important distinction of the ICF in contrast to the charity and biomedical models, is that the presence of a specific health condition is not to be considered as disability. This because the ICF reveals disability, and health, as a process, whereby the interactions between each component can result or not in a disability. In tandem with the formalization of the ICF, the activism of organizations of persons with disability produced a human rights-based approach for disability (8,15) that led the creation the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD).

The UNCRPD entered into force in 2006 and, whilst not explicitly stated, the ICF is also considered the underlying framework in the definition of disability incorporated within it. The UNCRPD ensures the full participation, non-discrimination and equality of opportunity for persons with disabilities in all domains of life, including health, education and livelihoods (2). No new rights are created in the UNCRPD, its purpose is to explicitly reaffirm and reinforce respect for the rights of persons with disabilities, given their continued widespread exclusion and oppression (16). This is further reinforced by the launch of Sustainable Development Goals from 2030 agenda (17). Ratificated by 181 countries (93.7 percent of the member countries of the United Nations), it now represents an international standard to be respected, not only in legal terms, but also in cultural and technical aspects. The Convention emphasizes that people with disabilities suffer from society, which has created barriers and obstacles to their participation, but also conditions of discrimination and lack of equal opportunity. The proposed definition of disability revolutionizes the traditional one, based on a medical/individual model, by assigning responsibility for a condition of disability to States and societies through a social model of disability based on the respect for human rights. This is particularly true in the field of humanitarian and emergency interventions. Indeed, Article 11 of the UNCRPD (Situations of risk and humanitarian emergencies) states, "States Parties shall take, in accordance with their obligations under international law, including international humanitarian law and international human rights law, all necessary measures to ensure the protection and safety of persons with disabilities in situations of risk, including situations of armed conflict, humanitarian emergencies and the occurrence of natural disasters." The UNCRPD (2)approach therefore recognizes that: persons with disabilities should enjoy all human rights on an equal basis with other citizens; the condition of persons with specific characteristics depends from bio-psycho-social factors, which are dynamic in nature and modifiable in both the social and individual aspects; removing or reducing the condition of disability is a responsibility of States and society; the condition of disability is removed by intervening in health and social factors; the condition of disability, being an ordinary condition of all humankind over a lifetime, affects all policies and paying adequate attention to it is a convenience for the whole society. These elements, applicated to the emergency conditions, in which migrants with disabilities also live, call for the reformulation of policies and technical and professional interventions, including in the field of humanitarian aid, because the rights of these migrants having been ignored (18).

1.2 Health and Disabilities among Migrant People

The concept of health over the past seven decades has undergone a radical change. From the World Health Organization's (WHO) classic definition of health as “a state of complete physical, mental, and social well-being, and not merely the absence of disease”, there has been a shift to recognizing health as a human right and modulated by an individual’s adaptive/coping capacity (19). The biomedical model, in which disease follows a mechanical cause-and-effect relationship, represented the dominant scientific thinking of the 19th and much of the 20th century. However, this model has been replaced by the bio-psycho-social model. Health is seen as a multifactorial condition determined by biological, mental, and socio-environmental contingencies. In this perspective, health is not only to be recovered, but is to be promoted proactively.

Within this view, the theoretical framework outlined by the WHO Commission on Social Determinants of Health (20) can be useful. Social, economic, and political mechanisms determine gradients of socioeconomic position that strongly influence an individual’s life, health, and access to health services. These socioeconomic positions reflect the living conditions of people within "social hierarchies". Lifestyles, education, working conditions, diet, psychosocial and biological factors, and level of social cohesion represent the so-called *intermediate determinants of health*. These can modify exposure to a given event and increase vulnerability to disease. In this view, the sociopolitical context plays a crucial role: employment, income, education, housing, and other cultural and social values have an important influence on health and quality of life. Contextual factors that strongly influence health include the welfare state and its redistributive policies (or the absence of such policies) (21). These aspects represent structural mechanisms that generate class divisions, influence access to resources, and determine individual socioeconomic position within society. The most common stratifications applied to structural mechanisms are: income, education, occupation, and gender. Structural mechanisms, contextual factors, and the resulting socioeconomic position of individuals represent the so-called *structural determinants of health inequalities*. The overall health outcome, according to this model, is thus determined by the relationship between structural social determinants and intermediate determinants. Thus, there are inequalities in health status between different socioeconomic groups within a population that are considered to be unfair because they are not justified from a biological point of view and are avoidable through appropriate health and social policies (22) .

What has been described so far provides an introduction to a new approach to health: global health. This approach combines the vision of health understood as a state of bio-psycho-social well-being with human rights and social justice. The interpretation of health and disease not only as the result of biological processes, but also of economic, social, political, cultural, and environmental factors, requires multidisciplinary analyses of bio-psycho-social risk factors and solutions through integrated intersectoral approaches (23).

Although these principles are universal, they are even more apparent when juxtaposed with migration and disability. One only has to think of the extent to which a migrant's legal status can affect his or her ability to access certain social and health services, obtain housing, attend job training programs, obtain regular employment (with the protections that come with it), and receive an income. All these elements have an intimate connection with health. This vulnerability is even more pronounced if migrants have any form of disability. Being a migrant with a disability therefore determines a greater level of fragility in both structural and adaptive terms.

In general, people with disabilities have the same health needs as other members of the population. They may have additional or more complex health needs because of a specific problem or a consequence of it, but having an impairment is not the same as having poor health, because these people can eat a balanced diet, exercise, maintain a healthy emotional state, and pursue other healthy behaviors. A person who has undergone an amputation, despite missing a limb, can feel perfectly healthy. Nevertheless, there is sufficient evidence that people with disabilities are more likely to have worse health than the general population due to a variety of possible mechanisms, which may be different for people with different disabilities (24,25). The first aspect to consider is that health may be naturally affected by the primary problem (e.g., degenerative diseases leading to progressive worsening). Second, some people with disabilities may have secondary issues that are directly related to the primary problem (as in the case of heart problems for people with Down's syndrome), or caused by iatrogenic harm (i.e., due to practices aimed at treating the primary problem). Finally, people with disabilities may have an increased risk of comorbidities (as in the case of people with mental health problems who, due to unhealthy behaviors such as increased exposure to smoking, medications, poor diet, and alcohol consumption, may experience increased cholesterol, liver problems, or obesity). In many cases, the development of comorbidities is instead associated with social determinants of health. Globally, people with disabilities are more likely to live in poverty, be excluded from higher education, and struggle to enter the world of work, all of which translate into a greater risk of social exclusion and poor quality of life (26).

In contrast, very little is known about the living conditions of migrants with disabilities, nor is there official data to plan appropriate public health actions. This lack of information is recognized by the United Nations High Commissioner for Refugees (UNHCR) and the European Union (E.U.) itself. As early as 2016, the E.U. Fundamental Rights Agency (EUFRA) reported a general lack of formal procedures to identify migrants and refugees with disabilities, which negatively affects the ability to provide support and assistance (E.U., 2016). The identification of people with disabilities is often based on self-report information or the presence of an obvious disability. In all other cases, recognition of a disability is strongly linked to the individual practitioner's knowledge and experience, but practitioners often lack adequate training. In the field of public health, in addition to welfare rights and access to services, elements that contribute to individual and organizational cultural competence, particularly staff training and continuing education, should not be neglected (28). As a purely illustrative example, we outline the usefulness of classifying migrant people with disabilities into three macrocategories based on the time of onset of the underlying pathology and subsequent disability.

The first category includes people who already had a disability before embarking on the migratory journey. This is presumably a minority portion of migrants because of the objective difficulties of undertaking the journey with a disability. In this case, arrivals usually take place due to the so-called "humanitarian corridors", and beneficiaries enjoy safeguards, protection, and support even prior to departure. The humanitarian corridors are a pilot project implemented by the Community of Sant'Egidio with the Federation of Evangelical Churches in Italy, the Tavola Valdese, and the Italian Episcopal Conference and Caritas, which is completely self-financed. The Memorandum of Understanding, signed with the Ministry of the Interior and the Ministry of Foreign Affairs and International Cooperation, has been active since 2015. The main objectives are to: 1) prevent travel by barges in the Mediterranean; 2) prevent exploitation by human traffickers, who profit from those fleeing wars; and 3) grant people in "vulnerable conditions" (which includes people with disabilities) legal entry to Italian territory with a humanitarian visa and the possibility of later applying for asylum. In 2019, 2,148 refugees had arrived in Italy through humanitarian corridors (Community of Sant'Egidio, 2019).

The second category includes people who acquired a disability during their migration. In 2018, 638,000 asylum seekers applied for international protection in E.U. member states, a 10% decrease from 2017 (EuroStat, 2019). Notwithstanding the recent Italian political debate, this trend has now been declining for several years. The reasons for this reversal are probably primarily due to recent international agreements between Europe and Turkey, but also to agreements between Italy and Libya that mandated the creation of detention camps to prevent the departure of migrants to the E.U.’s borders. Several non-governmental organizations have reported human rights violations in various detention camps: 84% of those surveyed said they had suffered inhumane treatment including brutal violence and torture; 74% said they had witnessed the murder or torture of a fellow traveler; 80% had suffered food and water deprivation; and 70% had been imprisoned in official or unofficial places of detention (Oxfam, Medu, and Bordeline Sicily 2017). Similar aspects portend disturbing scenarios about the health conditions of refugees and asylum seekers in Europe. Compounding this, the reception process in Italy and Greece, as well as the long detention of asylum seekers in other host states, does not alleviate health problems, but rather contributes to the aggravation of illness and trauma (28,30). Thus, this category also includes all those who have been victims of torture or violence, especially females who, in addition to obvious wounds and impairments, may also suffer from problems related to mental health and other invisible injuries that remain hidden to the untrained eye, and, in some cases, even to the eyes of the person suffering from them.

The third and final group includes people who acquired a disability in the host territory. It includes, for example, people who acquired a disability as a result of accidents at work or disease, e.g., chronic noncommunicable diseases (cardiovascular disease, respiratory disease, diabetes), or the elderly immigrant population. In Italy, occupational accidents increased by 7.85% in the last year compared to the previous year. Migrant workers have a higher accident risk than the native population, which may be due to having riskier jobs than Italian workers. In addition to the official data reported, disabilities as a result of injuries obtained in irregular working conditions, in which migrants are more exposed, need to be added. For the elderly population, it is important to consider the general risks associated with aging, which affect migrant and native populations equally. However, despite the fact that these populations live within the same "system", factors related to social and structural determinants result in different health outcomes (31). Migration should therefore be perceived as a process of social change that influences the general trajectory of aging and shapes overall experience through its effects on issues such as the ability to maintain functional abilities, health, quality of life, and access to health and long-term care services in old age (32).

Limited evidence exists on the prevalence of disability among refugees and asylum seekers, with estimated disability rates ranging from 3-10% (33,34). This is exacerbated by a lack of documentation (e.g., medical history data and previous treatment)(35) and specialized care so that services fail to adequately meet the needs of the migrant population. Indeed, health services in many parts of the world are lacking and are often outsourced to third sector or charitable organizations. Most physical health problems are caused by injuries, infectious diseases, and chronic noncommunicable diseases that are poorly managed from a strictly medical point of view (36,37). Studies report that 1 in 6 refugees has a physical health problem and that this has a serious impact on quality of life(38). Among the most frequent problems are musculoskeletal conditions (e.g., muscle tension, back pain, or as a result of trauma) and nonspecific pain. During health screenings for refugees, performed between 30 and 90 days after arrival, a high prevalence of chronic noncommunicable disease is reported. Cardiovascular disease, diabetes, and chronic respiratory disease are the most common (37) and are recognized as a major challenge in refugee health management (37,39). These diseases have significant health implications and deserve more interest from rehabilitation medicine in terms of primary, secondary, and tertiary prevention.

Refugees and asylum seekers are vulnerable to psychological disorders, mainly due to trauma experienced before, during, and after migration (40). Many face ongoing difficulties and/or are isolated in the host country. It is estimated that nearly two-thirds of refugees have mental health problems such as anxiety, depression, posttraumatic stress disorder, panic attacks, or agoraphobia (38,41). In addition, social isolation and/or poverty, hostility, discrimination, and racism can have further negative effects on their mental health (42,43). Insomnia, sleep and memory disturbances, and concentration problems are commonly reported to hinder learning and adaptability in host communities (40). Health problems, particularly mental health, can also be exacerbated by financial instability, unemployment, and lack of education. Concerns have been raised about the risk of sexual, domestic, and gender-based violence, especially in a context in which many refugees are separated from their families and have limited protection and community support (44).

Other health needs include: nutritional deficiencies, infectious diseases, poor vaccination coverage, poor oral and eye health, and delays in growth and child development milestones (44,45). Many migrants are unaware of available primary healthcare services, but even more are unaware of specific health services, such as rehabilitation or access to assistive technologies (e.g., wheelchairs, prosthetics, or communicators) (46,47). The healthcare system and, more generally, the rules that govern the country of origin are usually different from those of host countries. These differences may be pronounced with respect to the Italian system, where universal health coverage is in force and where important international conventions protecting the rights of people with disabilities, migrants, and children have been ratified. In order to promote health protection in migrants with disabilities, it is necessary to prepare a comprehensive migrant rights literacy program involving, at various levels, institutions, organizations, and communities (23).

Numerous experts in the field argue for improved service delivery models to address the health needs of refugees and asylum seekers and to fill gaps between identified needs and available services(48,49), including rehabilitation (50,51). There is no universal model for meeting refugee rehabilitation needs, and priorities can vary widely across population groups and contexts. A comprehensive assessment of individual needs and their prioritization should be undertaken in the field by qualified personnel (52). These data evidence the need to adopt a cross-cultural approach and strengthen the humanization of services and to ensure that human rights are always and indiscriminately respected and highlight how much is still needed in order to achieve the SDGs (23).

1.3 Country profile and legislation on reception centers for refugees in Italy

Considering the geographic location into the Mediterranean, Italy has become one of the main entry points for migrants and refugees to the European Union (EU) (53). Since 2011, the number of arrivals by sea has grown consistently, reaching a peak in 2016 (54) with more than 180 thousand arrivals (55). This situation led to the signing of a Memorandum of Understanding with the Libyan government in 2017 (renewed in 2020), aimed at reducing the number of departures from North African through the reinforcement of Libyan coast guards and Libyan detention camps' system (56). This context, together with the prevailing political orientation, created the grounds for a revision of the Italian reception system towards a more restrictive and administrative detention-oriented system. As a consequence, the number of new arrivals by sea has decreased consistently since 2016 as shown in Figure 1 (57).

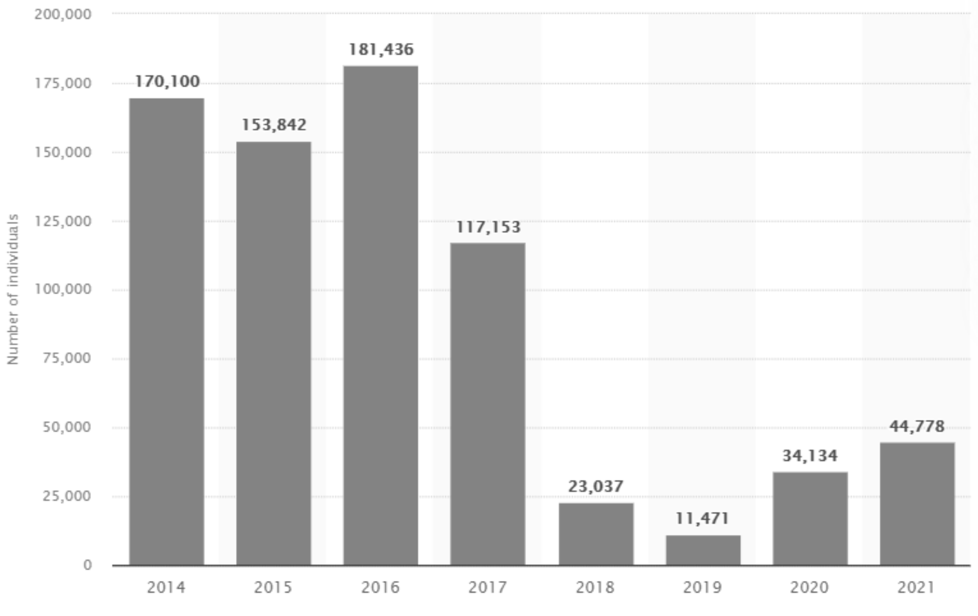

Figure 1: Number of immigrants who arrived by sea in Italy per year (2014-2021)

Administrative detention is a controversial form of deprivation of liberty, as it stands on a borderline between administrative and penal law. The legal bases of Italy's migrants' detention policies date back to 1998, when the country adopted its general law on immigration [Turco-Napolitano Law 40/1998] introducing administrative detention for migrants awaiting repatriation and leading to the opening of the country's first detention centers. To date the facilities used for this purpose are 'CPRs' (Centri di Permanenza per il Rimpatrio-Pre-removal Detention Centres) and 'Hotspots'. These last, however, are not specifically identified by the italian legislation as detention facilities leading to a de facto detention in Hotspots practised in a grey legal area (56)

The "hotspot approach" has been envisaged as a model of operational support by the EU agencies to Member States faced with disproportionate migratory pressure, with the aim to help them swiftly identify, register and fingerprint migrants, support the implementation of relocation and returns (58). Migrants may be holded for the time strictly necessary to determine or verify their identity or citizenship, but in any case not exceeding thirty days. [DL 142/2015]. The hotspot approach, however, has been also criticised for being engrained on practices that many deem unlawful, actively producing discrimination and condemning many migrants to an illegal status on the Italian soil (59).

The Italian system of migrants' reception – as defined by the country's laws and regulations – is complex. It involves a number of state and non-governmental actors and a multi-tier classification of services and centres, each one with a specific name or acronym – though not all of them underpinned by clear legal status. Over the years, regional variations, short-term changes of function, closures and re-openings have been the norm, rather than the exception. In Italy, there are two parallel systems for the reception and integration of asylum seekers. The first is the SPRAR/SIPROIMI system (now SAI), managed by municipalities and NGOs, and the second comprises the Extraordinary Reception Centres (CAS), coordinated by prefectures (the local branches of the Ministry of Interior). The CAS have unfortunately made headlines on several occasions due to their dysfunctional nature.

Reception centers' norms is rapidly change during the last few years. In 2001 ANCI (the National Association of Italian Municipalities), UNHCR (the UN Refugee Agency) and the Italian Ministry of the Interior signed a memorandum of understanding to set up the PNA, the National Asylum Programme. The PNA was the first public system for the reception of asylum seekers and refugees, throughout the Italian territory and instituted the sharing of responsibilities between the Ministry of the Interior and local authorities.

In 2002 SPRAR – Sistema di Protezione per Richiedenti Asilo e Rifugiati (Protection System for Asylum Seekers and Refugees) The Law no. 189 of 30 July 2002 institutionalized the PNA by setting up SPRAR, the Protection System for Asylum Seekers and Refugees. Subsequently the Ministry of the Interior established the Servizio Centrale, a central co-ordination office, and appointed ANCI to manage it.

In 2018, SPRAR was renamed SIPROIMI (Sistema di protezione per titolari di protezione internazionale e per minori stranieri non accompagnati) – Protection System for Beneficiaries of International Protection and for Unaccompanied Foreign Minors (Decree-Law no. 113 of 4 October 2018, enacted as Law no. 132 of 1 December 2018). The new legislation sets out that access to SIPROIMI's integrated reception services can also be provided to holders of a residence permit for special reasons: as victims of violence, trafficking, domestic violence, labour exploitation or calamities, or for poor health, or for acts of particular civic value.

In 2020, SIPROIMI was renamed SAI (Sistema di Accoglienza e Integrazione) – Reception and Integration System (Decree-Law no.130 of 21 October 2020, enacted as Law no.173 of 18 December 2020). The new legislation sets out that access to SAI's integrated reception services can be provided to refugees, asylum seekers, unaccompanied foreign minors, foreigners entrusted to the social services on reaching majority age. Moreover, SAI can also accommodate victims of disasters, migrants whose special civil value is recognized, holders of a residence permit for medical treatment, holders of a special- protection residence permit (recipients of social protection, victims of domestic violence, victims of labour exploitation).

The primary objective of SAI is to provide support for each individual in the reception system, through an individual programme designed to enable that person to regain a sense of independence, and thus enjoy effective involvement in life in Italy, in terms of employment, housing and access to local services and social interaction as well as scholastic integration for minors. The principal characteristics of SAI are: 1) the public nature of the system, funded and managed by public bodies (the Ministry of the Interior; ANCI and local authorities) according to a multi-level governance model; 2) the synergies between managing bodies (voluntary sector organisations and associations, NGOs, cooperatives) that make an essential contribution to the activities of SAI; 3) the decentralisation of the 'integrated reception' activities throughout Italy; 4) the promotion and development of stable, solid and interactive local networks, with the involvement of stakeholders and priority partners in order to ensure the success of the reception, protection and integration measures; 5) the voluntary participation of local institutions in the network of reception projects; 6) the reinforcement of local services, designed to profit the entire community, both indigenous and migrant.

Local institutions, in partnership with the non-governmental organizations, implement local reception projects, bringing together SAI's guidelines and standards with the characteristics and specific factors affecting the local area. Local institutions can choose the type of reception services to be provided and the recipients that can be best supported, depending on the aims, capacity and expertise of local stakeholders, and taking into account the available resources (professional, structural and economic), the welfare tools and the social policy strategies. Projects may therefore be focused on individual adults and nuclear families, or on single-parent families, single pregnant women, unaccompanied foreign minors, victims of torture, individuals needing continual care or those with psychiatric problems or physical disabilities. Specific projects are available for vulnerable individuals with mental health problems.

A fundamental element of SAI's services is the temporary nature of reception, which is intended in all cases to promote the independence and integration of recipients.

For what concern Italian National Health Service (NHS), on 23 December 1978, Law n. 833 established the Italian NHS, based on universality of healthcare, solidarity of financing through general taxation, and equitable access to services. Subsequent milestones included the establishment of the system of local health authorities to promote efficient and effective management and the establishment of the core benefits package (i.e., the LEA (essential levels of care)) to ensure uniformity of service delivery across the country. Universality, equity, and solidarity are the three guiding principles of the Italian NHS in order to achieve uniform levels of care throughout the territory, equitable access to services for all citizens, and fiscal solidarity as the fundamental way of financing the health system. This means that all services included in the benefits package must be equally accessible in all Italian regions. However, the NHS is a regionally-based health service and therefore regional governments are responsible for delivering a benefits package to the population. Healthcare facilities and services vary in terms of quality in different regions of Italy.

With respect to healthcare service and policies for refugees and asylum seekers, in 1995, the Dini decree contained norms that guaranteed health assistance to even nonregular immigrants. However, the decree was not converted into law, and in the end guaranteed assistance to only 200,000 regularized persons. In 1998, the "Napolitano-Turco" law attempted to regulate immigration by encouraging regular immigration. The regular immigrant is characterized by a series of steps towards the acquisition of the rights of the “pleno iure” citizen, including rights to family reunification, health, and education. The illegal immigrant, in contrast, is subject to expulsion from the State. In 2002, the Bossi-Fini law n.189/2002 determined a more restrictive policy. The residence permit was linked with the work contract and became more difficult to obtain. Expulsion was made easier and detention in centers of temporary stay was extended from 30 to 60 days. In April 2008, a national survey to ascertain the types of services provided in order to guarantee healthcare revealed considerable differences among regions and limited access to healthcare by the immigrant population. Moreover, within the same regional territory and between regions, there were different interpretations of the rules regarding healthcare access for migrant populations that undermined the principles of universal and equitable care. In December 2012, to guarantee immigrant populations on the national territory adequate access to treatment and healthcare, as provided for by the LEA, the permanent conference for relations between the State, regions, and the autonomous provinces of Trento and Bolzano stipulated guidelines for the correct application of healthcare regulations for the foreign population by Italian regions and autonomous provinces.

Chapter 2

2.1 The Community-Based Inclusive Development framework and its indicators

Community-based rehabilitation (CBR), also known as community-based inclusive development, is a community action to ensure that people with disabilities have the same rights and opportunities as all other community members. It was initiated by the World Health Organization (WHO) following the International Conference on Primary Health Care where the Alma-Ata Declaration was approved in 1978 (60). In 2003, an international meeting was held to define recommendations for CBR (61). Subsequently, the International Labor Organization (ILO), the United Nations Educational, Scientific, and Cultural Organization (UNESCO), and the WHO signed a joint "position paper" to propose CBR as a strategy for rehabilitation, equalization of opportunities, poverty reduction, and social inclusion of people with disabilities (62). In 2005, the WHO Assembly adopted a resolution for disability prevention and rehabilitation by urging Member States to promote and strengthen CBR programs (39). CBR was finally included in the Global Disability Action Plan 2014–2021 (63). The action plan was endorsed by WHO Member States in 2014 and calls for them to: (a) remove barriers and improve access to health services and programs; (b) strengthen and extend rehabilitation, assistive devices and support services, and community-based rehabilitation; (c) enhance collection of relevant and internationally comparable data on disability and conduct research on disability and related services. Achieving the objectives of the action plan better enables people with disabilities to fulfill their aspirations in all aspects of life (63). To date, CBR strategies have been developed in more than 90 countries. WHO has created a global database to map all CBR programs in the world. There is also a CBR Global Network that brings together other CBR networks and federations on different continents in order to capitalize on different experiences globally, share good practices, disseminate their work, and identify strategies to assess the impact of CBR programs in different countries. The CBR Global Network includes CBR Africa Network, CBR Americas Network, CBR Asia-

Pacific Network, International Disability Alliance (IDA), Disabled People's International (DPI), International Disability and Development Consortium (IDDC), World Health Organization (WHO), Asia-Pacific Development Centre on Disability (APCD).

When measuring effectiveness, qualitative approaches have taken the upper hand in CBR and remain highly relevant. However, there is also a call for the inclusion of quantitative indicators in order to capture the progress made by people participating in CBR programs (64). Moreover, CBR has a positive and significant impact on access to services, rights, and opportunities of people with disabilities(65)]. However, the methodological constraints of many of these studies limit the strength of their results. In order to build stronger evidence, future studies will need to adopt better study designs while also focusing on broader client groups and including economic evaluations (66,67).

The principles of CBR are based on the Convention on the Rights of Persons with Disabilities. To these are added two principles that are not included in the Convention: legitimacy-including advocacy for one's rights-and sustainability. CBR is a multi-sectoral and cross-cutting strategy that can ensure the implementation of the standards under the Convention. Activities are structured to meet the basic needs of people with disabilities and enable their access to health, education, livelihood, and social opportunities. CBR is therefore organized in five components: health, education, livelihood, social and empowerment. Each component is divided into as many elements that allow all program activities to be logically organized.

The Health component of the matrix aims to provide the highest attainable standard of health. It includes Health Promotion, disease prevention, medical assistance, rehabilitation and provision of assistive technologies and products.

The Education component aims at fostering access to formal and nonformal education and learning programs. It thus enables lifelong learning and training leading towards realizing people's potential, their sense of dignity and self-esteem, and their effective inclusion in society.

The Livelihood component of the CBR matrix aims to enable people with disabilities to obtain livelihoods, access to social protection measures, and gain adequate income to lead a decent life and contribute economically to their families and communities. It includes skill development, self-employment, employment, financial services and social protection.

The "Social" component aims for people to play and develop meaningful social roles and responsibilities and to be treated as equal members of society. It includes personal assistance, relationship support, marriage and family, inclusion in culture and arts, leisure and sports, and access to justice.

The Empowerment component is a cross-cutting theme of the program and aims to empower people with disabilities and their families to make their own decisions and take responsibility for changing their lives and improving their communities. It includes advocacy and communication, community mobilization, support for political participation, and the creation of self-help groups and organizations of people with disabilities.

Guidelines for implementing a CBR program were developed in 2010. These will be referred to to explain the basic principles that move and guide governments and Non-Governmental Organizations (NGOs) around the world. For further discussion, please refer to the specific WHO guidelines.

There is also a need for changes in CBR evaluation methodologies in response to the evolution of disability models from medical models to human rights models while also considering the diversity among persons with disabilities in interpreting life experiences and their quality of life (68). Therefore, in order to support the growth of CBR worldwide, there is also a need for a strong evidence on the effectiveness of the programs(1,69). The lack of data for supporting the effectiveness of CBR is due, in part, to the absence of standardized indicators (70). For this reason, the WHO and IDDC CBR Task Force decided to work together to develop indicators and questions to inform them. Indicators were developed in four steps: (1) analysis of all work pertaining to CBR; (2) reprogramming of desirable CBR results contained in the CBR Guidelines; (3) creation of an Alpha Version of CBR indicators; (4) feasibility and validity testing (70). The CBR

Indicators Manual proposes a simple and flexible data collection strategy that can be customized based on the desired indicators (71). The indicators correspond to the components of the CBR matrix (health, education, livelihood, social life, and empowerment) and each of their five subelements, and they have been outlined on the basis of the desirable outcomes of CBR set out in the CBR Guidelines (70)[15]. The CBR indicators (CBR-Is) can be used to register the differences between people who live with/without a condition of disability in each domain of the CBR matrix. The CBR-Is can be used by managers, community workers, volunteers, researchers, and other stakeholders interested in the implementation of CBR. Moreover, these indicators can be used to assess the current situation and monitor the differences that CBR is making in the lives of people with disabilities in the areas where it is implemented. It is also possible to use the indicators to monitor other action plans/interventions within communities. The CBR indicators (CBR-Is) are composed of 40 core and supplementary indicators. The 13 core CBR-Is are divided as follows: two for health, six for education, three for livelihood, one for social, and one for the empowerment component. The core CBR-Is are able to register differences between people with and without disabilities, regardless of individual CBR programs, as well as specific activities. The use of the core CBR-Is is recommended as a minimum set to assess the effectiveness and monitor the progress of CBR programs. Instead, the remaining 27 CBR-Is can be selected based on specific community needs according to each component of the CBR matrix. For more information, please see the CBR Indicators Manual available on the WHO website (71).

2.2 Measuring Disability using the Washington Group Tool

Migrants with disabilities represent an invisible group of individuals who are forced to leave their countries in particularly disadvantaged situations (72). The lack of data and formal procedures to identify migrants with disabilities is recognized by the European Union (EU) and the UN High Commissioner for Refugees (UNHCR), with a negative impact on assistance, support, and healthcare service provision (73). However, addressing the needs of persons with disabilities is fundamental to the achievement of the global sustainable development agenda (74), particularly Sustainable Development Goal 3: “good health and well-being”, which focuses on developing good practices and guaranteeing good health and well-being for everyone. Data on migration and disability must be evenly structured since they serve to correctly inform the health policies of individual countries. In order to monitor progress on the 2030 Agenda, the international community unfortunately relies on disaggregated data on both disability and migration status. The inclusion of data on migrants with disabilities in statistics is crucial for the full and equal participation of this population in society. Being “visible” in statistics can enable inclusive disability policies and practices, as well as programs that result in more appropriate accommodations and better access to critical services, while also reducing marginalization and discrimination.

In September 2020, the European Commission launched the New Pact on Migration and Asylum to much debate. The New Pact (75) does not fully consider the diversity of migrants and asylum seekers with disabilities. The EU proposal for a vulnerability assessment should be performed during the pre-entry screening process. Authorities should pay "particular attention (...) to vulnerable persons, such as (...) persons with an immediately identifiable physical or mental disability". Asking authorities to carry out examinations based on the observation of “immediately identifiable disability” ignores the complex needs related to disability and discriminates de facto people with disabilities. The proposed approach reintroduces a medical vision of disability and health, which conflicts with the United Nations Convention on the Rights of Persons with

Disabilities (UNCRPD)(2) and with the standards currently used at the international level.

In the last years, many organizations have proposed different approaches to measure disability among the migrant population. In 2017, the UNHCR, together with the non-governmental organization (NGO) Humanity & Inclusion (formerly Handicap International), proposed the Vulnerability Assessment Framework (VAF) (76), which includes a short set of questions from the Washington Group on Disability Statistics (WG). In 2020, the Access for Migrants with Disabilities (AMID) project funded by the European Union proposed the Needs Assessment Tool (NAT). The NAT allows both qualitative and quantitative analyses, thus reconciling the need to measure and obtain comparable data in different countries with the need to record the different experiences of migrants in a narrative dimension (77). The NAT includes the extended set of functioning developed by the WG. In 2021, the NGO Relief International, together with the International Centre for Evidence in Disability of the London School of Hygiene & Tropical Medicine, investigated disability among refugees in Turkey using the WG short set-enhanced tool, together with the child module of the WG and UNICEF (78). In 2021, a group of Italian researchers at Sapienza University of Rome, together with the Italian Society of Migration Medicine and the Rehabilitation & Outcome Measures Assessment (ROMA) association investigated disability within migrant populations using the WG short set-enhanced tool (79). The working group also used the community-based rehabilitation (CBR) indicators developed by the World Health Organization (WHO) to explore access to healthcare, social, and employment services (80). Preliminary results highlighted that refugees with disabilities faced challenges in each domain of the CBR matrix, namely health, education, social, employment, and empowerment domains (81).

Limited evidence exists on the proportion of disability among migrant people, though it is acknowledged that migrant people have poor health outcomes, a greater risk of functioning and activity limitations, and restricted participation in society (81–83). Refugees in particular have a significant risk of injury, abuse, and torture during the journey to the host country (84). The most common diseases and issues are related to mental health, while 1 in 6 migrants experiences physical health problems (38). At an international level, limited evidence exists regarding the prevalence of disability, with an estimated prevalence of 3–10% (33), while a recent study in Turkey revealed a higher prevalence of disability (24.7%) (78). This variability may vary depending on the instruments used, context, and targeted population. In fact, the complexity of the concept has resulted in the proliferation of statistics on disability that are neither comparable nor easy to interpret. Furthermore, disability data are collected for different purposes such as to estimate the prevalence of physical/mental impairments or to verify access to specific health or social services. Each purpose elicits a different statistic and even when the intention is to measure the same concept, the actual questions used differ in ways that severely limit comparability.

At an international level, the most prevalent approach to estimate the proportion of people with disabilities is that proposed by the Washington Group (WG) on Disability Statistics (85). The WG questions were designed to provide comparable data cross-nationally for populations living in a variety of cultures with varying economic resources. Domains were selected using the criteria of simplicity, brevity, universality and comparability. It is expected that the information that results from the use of these questions will: (a) represent the majority of, but not all, persons with limitation in basic actions; (b) represent the most commonly occurring limitations in basic actions; and (c) be able to capture persons with similar problems across countries (86).

The UN Statistical Commission and the UN Economic Commission for Europe's Council of European Statistics have recommended the WG tool to collect disability information (87,88), and tools developed by the WG are now used in around 100 countries worldwide(89). However, the WG developed different tools for measuring people at a greater risk of disability, namely the WG Short Set (WG-SS) (90), the WG Short Set Enhanced (WG-SS-E) (91) WG Extended Set on Functioning (WG-ES) (92). These tools are self-report measures that investigate the main aspects of functioning. The WG, together with the UN International Children's Emergency Fund (UNICEF), has also developed two specific proxy measures to estimate the proportion of children aged 2–4 years and 5–17 years with disabilities, respectively. The Child Functioning Module (CFM) (93) is currently available in 12 languages and used in different countries.

The WG tools are not medical tools; the focus is on measuring functioning in core domains, and it is in contrast to approaches that are based on impairments or loss in various body functions and structures, such as in the medical model of disability. WG questions were designed to provide comparable data cross-nationally for populations of various cultures with varying economic resources. The questions reflect advances in the conceptualization of disability and the use of the International Classification of Functioning, Disability and Health (ICF) (11) as a conceptual framework. In a break from the biomedical approach to disability, the ICF presents a bio-psycho-social model that considers disability as the interaction between a person’s capabilities (functional limitations) and environmental barriers (physical, social, cultural, or legislative) that may limit their participation in society. WG tools use the ICF framework, focusing on activity limitations. Different tools have been developed over the last years to reflect the need and complexity of purpose, target population, and context.

The WG-SS is intended for use in censuses and surveys. It is composed of six questions and the brevity of the module makes it useful for larger surveys and for disaggregating outcome indicators by disability status. A single question per functional domain is included, including difficulties in seeing, hearing, walking or climbing stairs, remembering or concentrating, self-care, and communication (expressive and receptive). The WG-SS can be used to gather information on the population aged 5 years and above, with a knowledgeable proxy respondent providing information for children. However, the tool was not specifically designed for use in children and does not include specific childhood issues, therefore the CFM should be used to study disabilities in children.

The WG-SS-E obtains information on difficulties a person may have in undertaking basic functioning activities, including seeing, hearing, walking, or climbing stairs, remembering or concentrating, self-care, communication (expressive and receptive), upper body functioning, and affect (depression and anxiety). The WG-SS-E is comprised of 12 questions in the eight domains of functioning described above. The six WG-SS questions are included in the WG-SS-E.

The WG-ES expands upon the WG-SS by asking about more functional domains and by asking more questions within each domain. The WG-ES includes questions in the following domains: vision, hearing, mobility, cognition, self-care, communication, affect (anxiety & depression), upper body, pain, and fatigue. The WG-ES also includes additional questions in domains covered by the WG-SS-E, as well as questions on functioning with and without the use of devices/aids where applicable.

A previous study of Tofani and colleagues (79) revealed that WG tools capture different functional limitations in people with disabilities, showing a ratio of 1.2:1 using both the WG-SS and the WG-ES, while the proportion was higher with the WG-SS-E (1.5:1). However, while the WG-SS-E can identify more functional limitations than the other WG tools, the WG-ES can identify more people with disabilities. The proportion of persons with disabilities identified was 13.7% (CI 95%: 8.7–19.9) with the WG-SS, 21.7% (CI 95% 15.6–28.9) with the WG-SS-E, and 31.6% (CI 95% 24.6–39.5) with the WG-ES. These variabilities reflect theoretical constructs of the instruments because they analyze different domains of human functioning. Disability represents a complex process and is not a single static state. Developing statistics of disability is a challenge and addressing all aspects related to disability, given the complex relationships among them and the varying social and cultural contexts that can affect how questions are interpreted, is a daunting task (88) . WG tools were designed to provide comparable data cross-nationally for populations living in a variety of cultures with varying economic resources (86). However, questions should be tailored to capture differences according to specific needs and contexts. The choice of which questions to select should therefore reflect the research objectives and the target population.

Global refugee populations have been exposed to protracted psychological trauma, and the collective effect of these events on physical, emotional, and mental wellness is of great concern(94). Kahn and colleagues reported that 16% of refugees present with musculoskeletal dysfunction alone, and over 60% live with mental health challenges (52). Therefore, it is fundamental to use a tool that investigates mental health and psychosocial issues in this population. In fact a recent study in Syrian refugees in Turkey a high prevalence of anxiety and depression was found, as may be expected in a conflict-affected, displaced population (78). Therefore, the WG-SS could lead to a significant underestimation of the proportion of people with disabilities. In particular, mental health conditions are not only common, but can also be more stigmatizing, resulting in greater barriers to participation or implications on wellbeing (95,96). It is important to point out that WG tools are not designed for medical queries but were developed as set of questions on functioning for use in censuses and surveys. Functioning can be measured through different approaches and here were basically divided in self-reporting measures and clinicians-based measurement or clinical assessment (77,97). Self-reporting measures are questionnaire based, low cost, rapid to administer and provide information on activity limitations and participation restriction, while clinicians-based measurement are typically impairment focused and often focuses on impairment assessment. They are time consuming, require trained clinicians and are expensive [42]. The WG tools can be used as first-stage screening for disability in migrant population. To identify specific health conditions, the use of clinical tools or evaluations are recommended.

With regard to methodological issues, a higher proportion of persons with disabilities were found across our analysis using the WG-SS-E and the WG-ES compared to the WG-SS. This finding is consistent with Mactaggart and colleagues (98), who analyzed the prevalence of disability in low- and middle-income countries and stated that this variability is to be expected considering the spectrum of functioning and functional limitations as described in the ICF, and due to the additional domains captured in the WG-SS-E and WG-ES. In a previous study (79), we found questions on anxiety and depression, together with those on pain and fatigue, useful to detect more people with functional limitations. In fact, there is evidence of a high prevalence of chronic pain or fatigue and their association with functional limitations and participation restrictions (99,100). However, the WG-ES, which includes pain and fatigue, is probably too long to use in a census, though it can be used by non-governmental organizations as a special module for a more detailed analysis of disability (101). Some authors recommend that alternate combinations of the domains seeing, hearing, mobility, cognition, anxiety, and depression, plus pain and fatigue, should be tested to capture a greater proportion of people with functional limitations without substantially increasing the WG module length (98). Different stakeholders should consider this aspect when working with migrants with disability and their specific context.

In conclusion, WG tools can capture different proportions of people with disabilities. The WG-SS may underestimate disabilities in migrants because it does not consider mental health issues(79). We suggest using the WG-SS-E or the WG-ES, depending on the objectives and specific context, since these tools provide a more comprehensive overview of disability. In some cases, it may also be useful to include pain and fatigue questions on the WG-SS-E to ensure no one is left behind.

2.3 Procedures, analyses, and objectives

The research group was formed by professionals affiliated with Sapienza University of Rome and Rehabilitation & Outcome Measures Assessment Association, a non-profit organization with a great deal of experience in outcome measures and disability studies.

Tools

To measure disability among migrant population, the research group decided to use the WG-SS-E. The WG-SS- E was developed, tested and adopted by the Washington Group on Disability Statistics (WG). The questions reflect advances in the conceptualization of disability and use the World Health Organization's International Classification of Functioning, Disability, and Health (ICF) as a conceptual framework. The WG-SS-E is intended in population-based health surveys, as well as surveys that focus specifically on disability. It may also be included in surveys that focus on other topics where the survey design is such that: a) extensive information is collected on selected adult family members; and b) information is collected directly from the respondent, rather than a proxy, unless the respondent is unable to participate due to a health problem or functional limitation. To maximize international comparability, the WG-SS-E obtains information on difficulties a person may have in undertaking basic functioning activities, including seeing, hearing, walking or climbing stairs, remembering or concentrating, self-care, communication (expressive and receptive), upper body activities, and affect (depression and anxiety). The WG-SS-E is comprised of 12 questions in these eight domains of functioning. The six WG Short Set on Functioning questions are embedded in the WG-SS-E. The reason to use this tool is described in previous paragraph. To have a more detailed vision on the WG-SS-E, please see Annex 1.

To obtain data on a Community-Based Inclusive Development perspective, the research group decided to use the Community-Based Rehabilitation Indicators (CBR-Is) developed by the WHO [21]. The CBR-IS are available in different languages, such as English, French, Spanish, Arabic. An Italian version is also available, thanks to a previous translation and cross-cultural adaptation process of the same research group [22]. The survey consists of an introductory part containing personal details and socio-demographic information. There are 13 base CBR indicators: health (2); education (6); livelihood (3); social (1); and empowerment (1). Base CBR indicators are broad enough to capture the difference CBR makes in the lives of people with disability. For comparability among settings, countries, and over time, WHO recommends these 13 base CBR indicators be consistently included in all monitoring and evaluation procedures. There are 27 supplementary CBR indicators that provide more specific coverage of the elements of the CBR components. From these, users may select those that match their own specific goals and strategies. Considering the objective of the study, the working group included some questions related to the five components of the CBR matrix: health, social, education, livelihood and empowerment, excluding those questions related to developmental age (please see Annex 2). For more information on CBR Indicators, please see information on WHO CBR-Is Manual [23].

Sampling and Procedures

To recruit participants, an initial email was sent explaining the objectives of the project to different stakeholders. Since SAI centers are directly appointed by a specific agency of the Italian government called Servizio Centrale (Central Service), an official communication was sent to request permission to proceed with the interviews. Once permission was obtained from the Central Service, migrants were interviewed.

Sociodemographic characteristics were collected during the interviews, together with legal status. Legal status was defined as follows: asylum seeker: someone whose request for sanctuary has yet to be processed; refugee: a third-country national who, owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, political opinion, or membership in a particular social group, is outside the country of nationality and is unable or, owing to such fear, unwilling to avail himself or herself of the protection of that country, or a stateless person, who, being outside the country of former habitual residence for the same reasons as mentioned above, is unable or, owing to such fear, unwilling to return to it; subsidiary protection: an additional form of international protection that is complementary to refugee status and should only be granted if the requirements for refugee status are not satisfied [28].

The sample population was selected in order to respect the following criteria: women and men, healthy or disabled people, age 18 or more. The only exclusion criterion was the refusal to participate in the study. Considering that the number of refugees in Italy is about 165.000, and the estimated percentage of people living with a disability condition is about 15%, to obtain a representative sample for the present investigation the minimum number of people to reach is estimated on 460 individuals. Calculations assumed 80% power ($1-\beta$) and significance of $\alpha = 0.05$.

Hypothesis and objectives

In this section, the hypotheses that have driven the rationale and the objectives are described.

Hypothesis 1. Reception centers is a local-based service and municipalities are responsible for delivering a benefits package to the population**.** Reception centers are sparsely distributed throughout the country. The availability for hosting refugees and asylum seekers may vary among regions, and the needs of migrants with disabilities may not be met.

Aim 1. To map availability for hosting refugees and asylum seekers, investigating differences among Italian regions and highlighting specific services for individuals with disabilities.

Hypothesis 2 Wars, climatic changes and economic issues are leading to a marked increase in prevalence of population who leave their country and people with disabilities is necessarily included in this process. Therefore, it might be expected that more migrant individuals will seek (and are seeking) help for different health conditions, with important public health and societal implications. In the absence of specific recommendations to evaluate disability among migrant individuals, it is likely that substantial discrepancies exist across in the clinical approach to disability in such populations. Investigate the percentage of migrant population living with a disability condition is the first step to identifying potentially standardized and common strategies to guarantee access to health and related services.

Aim 2. To estimate and describe the proportion and characteristics of migrants with disabilities in Italy.

Hypothesis 3. Socio-demographic data collected in both SAI and other reception centers could be used to monitor and explain the prevalence of disability among the target population. In particular, we hypothesis that migration route and the experiences encountered along the journey to reach the host country, may affect the risk of disability among migrants.

Aim 3. To verify if a relationship among migratory routes and prevalence of disability exists.

Data analysis

All analyses were then performed using Statistical Package for the Social Sciences (SPSS) version 20.0 (Chicago, IL, USA). 2.6. Sociodemographic characteristics were analyzed using frequency tables, mean, and standard deviation (SD).

To measure disability, a standard threshold for the WG-SS-E was used. For the WG-SS-E, we considered the threshold to be 'a lot of difficulty' or 'cannot do at all' in any domain and for upper body functioning, and 'daily' and 'a lot' in either domain for anxiety and depression. For data analysis, we used the recommended syntax of SPSS provided by the WG website for the WG-SS-E [32].

In order to obtain preliminary evidence on how the CBR-Is can properly capture the differences between migrants with and without disability, an independent sample t-test was applied for those questions in which it was possible to transform categorial variables into continuous, as provided in the original manual produced by WHO. For dichotomic answers, we used contingency tables, and we calculated Odds Ratio (OR) for specific variables. Significance was set for a $p<0.05$ with 95% confidence intervals. All data were collected on android tablets using a mobile application and transferred daily to a secure cloud-based server.

Risks of bias

As already mentioned, both WG-SS-E and CBR-Is are available in several languages. However, to minimize comprehension problems – even where respondents did not have a very good command of the available languages – the research team made use of language mediators when necessary. These, prior to the interview, attended a one-day training and were able to view the tools.

Ethical Considerations

Ethical approval was obtained from the Department of Human Neurosciences, Sapienza University of Rome. Informed written consent was sought from participants aged 18 years and above. Participants identified as having specific health needs, including rehabilitation and mental health services, were referred to local health authorities. Furthermore, those participants having a disability were provided information about the services available and how obtain access at the local level.

Chapter 3

3.1 Mapping reception centers for refugees and asylum seekers with disability in Italy

To date there are four active Hotspots in Italy located in Taranto (Apulia), Lampedusa, Pozzallo and Messina (Sicily), with a total capacity of 890 persons (102). CPRs are administrative detention facilities where irregular migrants are detained, while waiting for removal, for a maximum of 90 days extendable for another 15 days in cases of complexity. The number of CPRs has increased from five in 2017 to ten in 2020. The centres are located in Rome (Lazio), Milan (Lombardy), Turin (Piedmont), Palazzo San Gervasio (Basilicata), Gradisca d'Isonzo (Friuli Venezia Giulia), Macomer (Sardinia), Brindisi and Bari (Apulia), Caltanissetta and Trapani (Sicily) as shown in Figure 2. The total official capacity of the centres was 1,425 places at the end of 2020; in 2020, 4,387 people were detained in CPRs, while the number of people held in Hotspots was 24,884. (103).

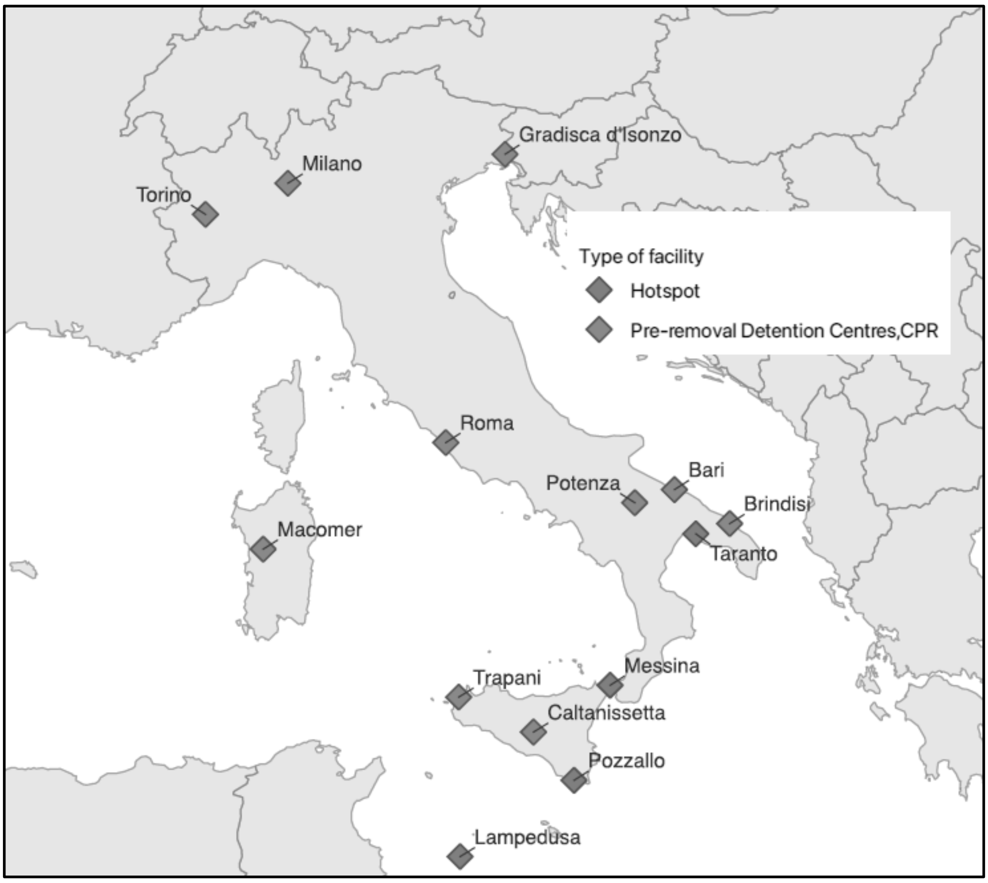

Figure 2: Location of CPRs and Hotsposts in Italy and total number of detainees from 2018 to 2020
Source: Ministery of the Interior, Italy

For what concern SAI reception centers, the latest available data from SAI (Sistema Accoglienza e Integrazione (SAI), 2021) revealed large disparities in services for refugees with disability between Italian regions. Only 10 regions have specific services for people with disabilities. The center area has the best distribution of services, with all four regions providing services dedicated to people with disabilities. The region with the most capacity to assist refugees with disabilities is the Apulia region: 5.06% of total availability is dedicated to people with disabilities. Overall, the SAI can accommodate a total of 39,418people, but only 2.03% of available posts are reserved for people with disabilities. Table 1 reports the total available posts for hosting refugees and asylum seekers and the posts reserved for people with disabilities.

Map	Macroregion	Region	Total Availability for Hosting Refugees	Availability for People with Disability N (%)
	North-West	Aosta Valley Liguria Lombardy Piedmont	37 1148 3388 2454	0 (0) 0 (0) 40 (1.18) 46 (1.87)
	North-East	Emilia-Romagna Friuli Venezia Giulia Trentino-South Tyrol Veneto	3683 324 237 654	123 (3.33) 0 (0) 0 (0) 0 (0)
	Centre	Lazio Marche Tuscany Umbria	3080 1571 1862 459	38 (1.23) 13 (0.82) 43 (2.30) 6 (1.30)
	South	Abruzzo Apulia Basilicata Calabria Campania Molise	832 4004 751 3502 3809 948	0 (0) 203 (5.06) 0 (0) 63 (1.79) 0 (0) 0 (0)
	Islands	Sardinia Sicily	288 6221	0 (0) 228 (3.66)
TOTAL		20	39418	803 (2.03)

Table 1. Availability for hosting refugees with and without disability in Italy

3.2 Functioning profile and proportion of disability

The sample consisted of 483 people with a mean (SD) age of 30.12 (8.45) years. Majority of people did not attend school or had not completed any grade of school (21.55%), following by people who attended college (21.12%) and vocational education (19.05%). Most of individuals traveled across the central Mediterranean route (55.89%), following by people who arrived in Italy trough the western Mediterranean route (20.08%). Sociodemographic characteristics of participants are summarized in Table 2

Table 2
Sociodemographic characteristics of the sample (total 483)

Age Mean (SD)	30.12 (8.45)	
Sex	N	%
Female	202	41.82
Male	281	58.18
Education	N	%
No schooling or never completed any grade	104	21.53
Primary school	65	13.46
Vocational Education	92	19.05
Professional training	22	4.55
Secondary school	91	18.84
College	102	21.12
University	7	1.45
Migration Routes	N	%
Western Mediterranean route	97	20.08
Central Mediterranean route	268	55.49
Eastern Mediterranean route	16	3.31
Balkan route	36	7.45
Humanitarian corridors	5	1.04
From Ukraine*	60	12.63

Table 3 shows the prevalence estimates for disability overall and separately by self-reported functional limitations. The overall prevalence of disability according to the study definition, (reporting a lot of difficulty/cannot do in any WG-SS Enhanced and/or symptomatic anxiety, depression) was estimated to be 23.81% (95% CI 20.01–27.61). The main weight for functioning limitation is related to anxiety and depression, with 18.22% (95% CI 14.78–21.66) and 9.94% (95% CI 7.27–12.60), respectively.

Table 3
Proportion of people with disability and functional limitations

	N	%	95% CI
Vision	17	3.52	2.06-5-58
Hearing	6	1.24	0.04-2.68
Mobility	40	8.28	5.98-11.1
Communication	24	4.97	3.03-7.30
Self-care	12	2.48	1.19-4.30
Cognition	23	4.76	2.86-6.66
Upper Body	20	4.14	2.36-5.92
Anxiety	88	18.22	14.78-21.66
Depression	48	9.94	7.27-12-6
Overall	115	23.81	20.01-27.61

According to some specific characteristics, we tried to explore if some variables can influence the proportion of disability, in particular gender and migration route. Furthermore, considering that anxiety and depression, together with mobility were the domains that most contributed for determining the proportion of disability, we opted to investigate its relationship with migration route. Results are summarized in Table 4.

Table 4
Individual level characteristics and risk across migration routes

	With Disability	%	Without Disability	%	OR (95% CI)
Libya Route	79	68.69	189	51.35	2.08
Other routes	36	31.31	179	48.65	(1.33-3.24)

	With Disability	%	Without Disability	%	OR (95% CI)
Women	55	47.82	147	39.94	1.38
Men	60	52.18	221	60.06	(0.9-2.1)

	Anxiety Yes	%	Anxiety No	%	OR (95% CI)
Libya Route	62	70.45	206	52.15	2.19
Other routes	26	29.55	189	47.85	(1.33-3.6)

	Depression Yes	%	Depression No	%	OR (95% CI)
Libya Route	26	54.16	242	55.63	0.94
Other Routes	22	45.84	193	44.37	0.52-1.71

	Mobility Yes	%	Mobility No	%	OR (95%CI)
Balkan Route	7	17.50	29	6.54	3.03
Other Routes	33	82.50	414	93.46	(1.23-7.44)

3.3 Reading disability throughout the lens of CBID perspectives

The five components of CBR matrix were investigated according to the reference manual of the indicators. Table 5 reports main differences for selected variables and OR with 95% CI were calculated.

In particular, migrant individuals with disabilities received their education into special education facilities or in family members (OR 8.84, 95% CI 5.33-14.64), and overall, adults with disabilities were significantly less likely to work or to be in paid work (OR 1.80, 95% CI 1.06-3.06) and they do not know how to access to justice system (OR 1.73 95% CI 1.06-2.80).
Results were summarized in Table 5.

Table 5
Odds-ratio for selected community-based rehabilitation indicators

	Overall	With Disability	%	Without Disability	%	OR (95% CI)
E02 Where did/do you receive your education? (Subtotal 419)						
Other school	99	62	54.86	37	12.09	8.84
Ordinary school	320	51	45.17	269	87.91	(5.33-14.64)
L01 What is your current working situation? (Subtotal 403)						
Not work	229	92	80.70	202	69.89	
Unpaid work	65					1.80
Part/full-time	99	22	19.30	87	30.11	(1.06-3.06)
Self-employee	10					
H03 Has your (doctor, CBR worker, or any other health professional) ever discussed with you the benefits of eating a healthy diet, engaging in regular physical exercise, or not smoking? (Sub 483)						
Si	262	64	55.65	198	52.51	1.13
No	221	51	44.33	179	47.49	(0.75-1.73)
H04 When was the last time you had a regular health check-up? (Subtotal 476)						
1 year	380					
2 years	76	112	97.39	344	95.29	1.84
2-5 years	10					(0.53-6.41)
>5 years	10	3	2.61	17	4.71	
H05 In the last 12 months, has there been a time when you needed health care but did not get that care? (Sub total 483)						
No access	113	32	27.82	81	25.87	1.1
Got access	315	83	72.18	232	74.13	(0.68-1.78)
No need	55			55		

H08 In the last 12 months, has there been a time when you needed rehabilitation services, such as physical, occupational, or speech therapy, but did not get those services? (Subtotal 399)						
No access	51	11	12.50	40	80.00	0.04
Got access	87	77	87.50	10	20.00	(0.01-0.09)
No need	261	27		234		
E04 Do you participate in learning opportunities to improve your skills for everyday life or work? (subtotal 472)						
No	301	76	67.25	225	62.67	1.22
Yes	171	37	32.75	134	37.33	(0.78-1.91)
S07 Do you know how to access the justice system? (subtotal 455)						
No	308	86	76.10	222	66.86	1.72
Yes	147	27	23.9	120	33.14	(1.06-2.8)

Furthermore, we evaluate differences in access to medical assistance according to migration route/country of origin. In table 6 we reported the possibility to get medical assistance in both individuals with and without disabilities, using as reference Ukrainian nationality.

Table 6			
People without disabilities (subtotal 313)			
	Got medical assistance	No	OR 95% CI
Ukrainian	1	22	0.28
Others	41	249	(0.04-2.10)
People with disabilities (subtotal115)			
	Got medical assistance	No	OR 95% CI
Ukrainian	14	23	0.21
Others	58	20	(0.09-0.48)

Significant differences between migrants with and without disability were found: one for health, one for education, three for social. However, both groups showed poor outcomes in each component of the CBR matrix. Table 7 reports mean scores, differences between two groups and reference values considered as good, for each selected question.

Table 7	**Overall Mean**	**SD**	**Without Disability**	**SD**	**With Disability**	**SD**	**p**	**Positive Outcome**
H01 In general, how would you rate your health today?	1.99	0.68	1.86	0.666	2.39°	0.55	>0.01**	<2
H02 On your last visit to a health-care provider, to what extent were you satisfied with the level of respect you were treated with?	3.60	1.05	3.63°	1.028	3.50°	1.14	0.29	>4
L02 Do you have enough money to meet your needs?	1.79	0.79	1.95°	0.76	1.83°	0.76	0.15	>4
S01 Do you feel that other people respect you? For example, do you feel that others value you as a person and listen to what you have to say?	3.37	1.08	3.25°	1.04	3.64°	0.99	>0.01**	>4
H07 On your last visit to a health-care provider, to what extent were you involved in making decisions for your treatment?	2.88	1.54	2.99°	1.46	2.79°	1.45	0.04	>4
E05 To what extent [training course] does it fit your needs?	3.02	0.91	3.07°	0.97	2.72°	0.61	>0.05*	>4
L03. Do you get to decide how to use your money?	4.34	1.61	4.52	1.08	4.30	1.25	0.75	>4
S02. Do you get to make decisions about the personal assistance that you need (who assists you, what type of assistance, when to get assistance)?	4.10	1.10	4.39	1.36	2.27°	1.50	>0.01**	>4
S03. Do you get to make your own decisions about your personal relationships, such as friends and family?	.33	1.33	4.39	1.18	3.28°	0.40	>0.01**	>4
S04 Do you get to participate in artistic, cultural or religious activities?	2.68	1.32	3.28°	1.36	2.50°	1.20	>0.01**	>4
S05 Do you get to participate in community recreational, leisure and sports activities?	2.32	1.26	2.73°	1.30	2.53°	1.37	0.17	>4
S06. To what extent do you know your legal rights?	2.28	0.46	2.37°	1.30	2.17°	1.10	0.10	>4

* p<0.05; **p<0.01; °mean score below references values considered as good.

Chapter 4

4.1 General considerations

The number of people migrating within countries is over 30 million annually, and the number of refugees now exceeds 22 million. If we take into consideration that the WHO estimates that 15 percent of the world's population lives with a disability condition, we can consider with some approximation that, out of 271 million migrants, 40.65 million are people with disabilities; out of 30 million people who migrate each year, 4.5 million have that condition; and out of 22 million refugees, 3.3 million are refugees with disabilities (18).

The International Organization for Migration (IOM) pointed out that migration is a complex phenomenon that touches on a multiplicity of economic, social and security issues in a world interconnected by globalization. In recent years, negative factors such as conflict, persecution and violence, and extreme climate change have resulted in a lack of security and worsening of life condition of a vast proportion of population.

Central African countries called for establishing a general guidance document on refugees in September 2016, at the UN international summit on migration. Central African countries are affected by large refugee flows due to wars, famine, and natural and human disasters. Among these countries, Kenya hosts 470,000 refugees in one camp alone and has adopted a virtuous approach by including the issue related to refugee camps in its national development strategy.

In the recent years, the *Global Compact on Refugees (GCR)* (104) was approved. Building on the predicament of global sustainability and the 2030 agenda for sustainable development, the GCR is a framework based on four strategic objectives: to (1) ease pressures on host countries, (2) enhance refugee self-reliance, (3) expand access to third-country solutions, and (4) support conditions in countries of origin for return in safety and dignity. The GCR urges the international community to respond comprehensively and innovatively to the plight of refugees, and to make a paradigm shift in global humanitarian aid to emphasize refugee self-reliance and livelihoods. Solutions should be country specific to avoid tensions between displaced populations and host communities, and should enhance refugees' self-reliance, particularly in situations of protracted displacement. The GCR's success will also depend on a comprehensive response that involves a multiplicity of actors, states, and organizations at the regional level (105).

The GCR addresses the topic of persons with disabilities explicitly, mentioning the issues related to: human rights, discrimination and abuse (9); fostering the participation of Disabled Persons Organization (DPOs) (13 and 106); engaging civil society organizations to contribute in community development and to design inclusive and accessible societies (40); fostering inclusive sports and cultural activities (44); collecting, analyzing, and sharing disaggregated data on disability (46); addressing the specific needs of persons with disabilities (59) including education (69), employment (70 and 71) and health (72).

The GCR seems to privilege and promote a community-based inclusive development framework. However, the approach of the EU, whose Parliament approved the Global Compact of Refugees (that Italy has not ratified yet), is different from the UN approach, due to the resistance of several EU countries (18). In fact, rather than reception, European policies are oriented toward reducing the flows of migrant people. To this aim, the EU first funded Turkey and Libya to limit migration flows from Asia and the Middle East, then approved funding programs in countries of origin through NGO projects. EU Member States may also enter informal agreements to collaborate on migration issues with private actors, groups or organizations(106). Under the current migration governance of the EU, state sovereignty is manifested in migrant interdiction, interception and detention policies. While reinforcement of the Schengen region's external borders is a key aim of the EU's internal migration politics, in the last decade, collaboration with third countries regarding migration control has become a key feature of its external migration policy (107). In close collaboration with third countries, the EU has managed to curb the outflux of migrants from transit and sending countries. In effect, irregular migrants are prevented from exiting as well as from entering. Finally, the EU has pledged to build a common European asylum system based on the full and complete application of the 1951

Geneva Refugee Convention. At present, this project has reached a deadlock and even the call for a balanced redistribution of migrants still finds much resistance in some member countries. The Valletta agreement (12) between some countries (France, Germany, Italy, Malta, and Finland and other available countries such as Ireland, Luxembourg, and Portugal) for the equitable redistribution of migrants is a timid step forward, but the Dublin Convention that binds countries of entry to host migrants still remains in place. A common EU response based on equal solidarity and clear legally binding commitments for all EU member states in line with Treaty-decision making procedures should be prioritized instead; this is the key recipe for strengthening the Union's legitimacy and credibility in asylum and migration policies, both internally and with regard to relations with third countries (108).

The attention to migrants with disabilities has certainly grown in recent years. The international debate has produced a series of tools and policy guidelines to implement appropriate protection of human rights. When it comes to national practices, the fallout is still far from satisfactory in terms of accessibility of relief, reception, respect for specific needs/rights, equality, discrimination and support for full inclusion.

The present research project reports one of the first attempts to estimate the proportion of migrant people living with a disability condition in Italy and to understand the mechanism that affects their quality of life and inclusion in society.

We tried to explore the differences, on regional basis, regarding reception centers in Italy, highlighting their distribution and availability for hosting refugees with disability. This can be a proxy indicator to guarantee satisfactory pathways of care. However, there are several limitations to the successful implementation of specific services. First, the NHS is regionally-based and healthcare services vary in terms of both quantity and quality in different regions. A link between reception centers and the healthcare system is therefore highly recommended, because only 10 out of 20 regions have specific services for refugees and asylum seekers with disabilities. Second, only 2% of the total available posts for hosting refugees is reserved for people with disabilities. The lack of a standardized vulnerability assessment represents the main barrier to the organization of specific services for migrants within the community. There are no consistent and systematic national initiatives in Italy to organize or improve healthcare services for refugees and asylum seekers with disabilities. Italy, together with Greece and Spain, is the first gateway to Europe and therefore a specific vulnerability assessment should be considered in reception centers and during the identification process.

Although there are national policies guaranteeing access to rehabilitation and assistive technology, people are not aware of these possibilities, and regional differences in services for refugees and asylum seekers with disabilities are evident. Furthermore, healthcare costs, barriers in communication and a complex maze of service systems were found to be the main barriers operating at systems, provider, and individual levels (109). Disabled refugee participants experienced several unmet disability-related needs and limited access to resettlement resources on account of their disability. These findings were associated with refugee service providers having limited awareness of disability rights and resources and a narrow biomedical perspective of disability (110).

4.2 Proportion of People with Disabilities

Disability was common among refugees living in Italy with a proportion of 23.81 (20.05-27.61 95% CI). Women were more likely prone to live with a disability condition (OR 1.38). This finding is in line with our previous study (79) revealing a high proportion of women with disability respect to men. This may be explained by the higher risk of physical and sexual violence in refugee women (111,112) and was confirmed to scientific literature. Regarding the domains related to disability, we found a high prevalence of anxiety (18.22%) and depression (9.94%) disorders, followed by mobility limitations (8.28%). The percentage is different from the study of Doocy and colleagues (113) who revealed a high proportion of musculoskeletal diseases and, therefore, a higher proportion of disability for mobility domain. Differences can be explained by different approach used for determining prevalence of disability; in fact, they use the biomedical model for disability, identifying health disorders most related to body function and structures of the ICF. Therefore, the proposed approach may have underestimated the proportion of disability related to mental health. Instead, the WG-SS-E focuses on activity domain of the ICF and investigates also mental health functions. This represents a critical issue for migrants' health (79,114). It is well recognized that populations affected by armed conflict are frequently exposed to traumatic events and daily stressors and at risk of elevated levels of mental health disorders (115,116). Data on mental health of adult internal displaced person in Georgia (117), revealed levels of presumed depression and anxiety of 14.0%, and 10.4%, respectively. A recent study on Syrian refugees in Turkey (78), also revealed a high prevalence of anxiety and depression, as may be expected in a conflict affected, displaced population.

Important novelty of our research project was trying to determine the risk to develop a disability condition according to the migration routes/country of origin. At the beginning of our study, we divided migration routes according to the classification provided by Frontex (118), however with the outbreak of Ukraine war the need to consider these group strongly emerged. In the first month of the War (March 21, 2022), 59.589 people had arrived in Italy from

Ukraine, including 30.499 women, 5.213 men, and 23.877 children. By April, these numbers had nearly doubled: to date, nearly 100,000 Ukrainians fleeing the war have reached Italy (119). Therefore, we inserted a specific category from Ukrainian people.

Our study revealed a different risk for developing disabilities according to migration routes. In general, people who arrived in Italy via Central Mediterranean route have two-time risk to develop disability (OR 2.2). In fact, the Central Mediterranean Route, passing through Libya, is one of the most dangerous for migrants, and episodes of violence have been documented (119). The vast majority of migrants reported having been victims of violence during their transit through Libya. Women were at particular risk of sexual violence and access to health care services in Libya was almost non-existent (120). Psychosocial support for this population is urgent. Women seem to be more prone to develop disability (OR 1.38), as documented in our previous study (79). This can be explained because refugee women have a higher risk of experiencing violence (112,120). Considering that anxiety and depression, together with mobility represented the main weight on functional limitation, we tried to explore the relationship of migration routes on functioning. We find that central migration route represents a high risk to develop anxiety disorders (OR 2.19) while no substantial differences were found for depression (OR 0.94). Migrants with previous exposure to violence had a high prevalence of mental disorders, particularly post- traumatic stress disorder and major depressive disorder (121). A high prevalence of anxiety disorders was also found in different studies (78,121) due to high levels of violence experienced or for conflict and disasters.

Concerning mobility limitations, we found that people who have travelled the Balkan route are three times more likely to develop functional mobility limitations (OR 3.03). Border closures in Balkan countries were associated with a considerable decline in arrivals but, conversely, with an increase in violence. In fact, nearly one-in-three migrants/refugees experienced violent events including physical trauma along their journey(122).

4.3 Global needs of refugees and asylum seekers

According to the CBID framework, our study revealed that migrants – regardless of disability condition – experiment poor outcome in each domain of the CBID matrix, namely Health, Education, Livelihood, Social and Empowerment. However, some characteristics features between people with and without disability were observed.

For "Health" component, migrants with disabilities do not perceive their health as good, with a significant difference with migrants without disabilities ($p<0.05$), while both groups are not satisfied to the respect with which they are treated during healthcare visit (mean scores 3.63 and 3.50, positive outcome >4) and they report poor involvement in decision-making for their health (mean scores 2.99 and 2.79, positive outcome >4). These findings are in line with our previous study (81) and with the World Report on Disability (1). Low levels of health can be attributed to the role of social determinants of health, which make the migrant population more vulnerable than the native population. Migrants appear to have worsen health status when compared with natives(123). Adverse effects on health determinants such as unemployment, income and working conditions, especially concentrated among the poor and vulnerable members of society, including immigrants (124,125). Besides this greater exposure to detrimental determinants of health, austerity and exclusionist policies have also undermined immigrants' access to social and health services (126).

Refugees and asylum seekers with disabilities received education in special schools or in-house education. Furthermore, they have a higher risk to not participate in learning opportunities to improve their skills for everyday life or work (OR 1.22). It is important to point out that although migrants participate in learning opportunities, both groups perceived that these training courses do not fit their own needs (mean scores 3.07 and 2.72, positive outcome >4), with a significant difference for individuals with disabilities ($p<0.05$). Migrants with disabilities are more likely prone to not work or to be unpaid (OR 1.80) respect to migrants without disabilities. These aspects contribute to reinforce the perpetual cycle of disability and poverty (1), with significant implications for emancipation and economic independence of this target population. In fact, they do not have sufficient money to meet their actual needs (mean scores 1.95 and 1.83, positive outcome >4). The impact of income on health is well noted for both native and migrant population (127–129). However, it is important to point out the role of occupational role for this target population. The concept of occupational deprivation involves disparities in the opportunity for people to participate in activities that hold personal, social and cultural meaning (130). Occupational deprivation remains an important issue for refugee populations; addressing occupational deprivation and helping refugees engage in meaningful activities are all goals that can be achieved (131).

Regard to "Social" component, both groups do not feel respected as person, with significant differences for individuals with disabilities (p>0.01) and the same trend was found to question related to make decisions about their personal assistance and personal relationship: both groups report scores lower than it was considered positive outcome, with higher differences for people with disabilities (p>0.01). Migrants also experience barriers that limit their participation in cultural or religious activities (mean scores 3.28 and 2.50, positive outcome >4), as well as for the opportunities for recreational, leisure and sport activities (mean scores 2.73 and 2.53, positive outcome >4). These findings are in line with our previous study (81). Furthermore, it was observed that spirituality aids positive coping and promotes mental health of refugees (132), and can be of great help for psychosocial and emotional support. At the end, participating in leisure and recreational activities such as the universal language of sport, dance, games and recreation, but also through other non-physical leisure activities, such as arts and craft, play a fundamental role for people well-being, also in migrants ' communities and refugees(133)

Furthermore, migrants with disabilities do not know how to get access to justice system (OR 1.72), and both groups do not know how to get legal assistance for their rights (mean scores 2. 37 and 2.17, positive outcome >4). This finding is in line with our previous study (81) reporting also that migrants do not know much about their legal rights, when they need substantial legal support.

At the end, we observed that Ukrainian people – regardless of disability condition – they can get medical assistance easier than other migrants (OR 0.28 and 0.21). EU governments showed more proximity to Ukrainian refugees than others (134); for instance, in Italy both national and regional governments offered more information and communication into Ukrainian language – and communication was seen as main barrier to navigating health and social systems, other than norms and permission who facilitate work and other critical issues (135). In fact, on 4 March 2022, the Council of the European Union unanimously voted in favor of the European Commission's proposal to activate the Temporary Protection Directive (136). This directive is designed to give guidance to Member States on managing a mass arrival of refugees into the EU. Through this directive, refugees have the right to temporary protection for one year, which can be extended for up to three years, without the need to go through lengthy asylum procedures. In addition to a residency permit, refugees from Ukraine have access to social protection, healthcare, education, banking services and the labor market. It also enables families to reunite in their host country and allows refugees to move freely to other Member States under specific circumstances.

The scale of support for refugees from Ukraine is unprecedented, but the preferential rights they have been granted compared to refugees from other countries, who must undergo the established asylum procedures, has already sparked criticism from some NGOs and the media(137). However, the "Ukrainian model" for refugees should be considered as virtuous approach to be extended to the entire migrant population, regardless of nationality or origin. Migrating is a right, just as swallows can fly by crossing borders, the same should be guaranteed for people, supporting safe humanitarian corridors and ensuring a dignified life for all.

4.4 Limitations

Despite these encouraging results, the present investigation has several limitations. First, the study did not include refugees or asylum seekers hosted by relatives or friends or living independently away from the formal and informal settlements. In particular, migrants of Ukrainian nationality could be hosted by community members who live permanently in Italy. In fact, the Ukrainian community in Italy is one of the largest; the Ukrainian population resident in Italy has 230,639 presences, equivalent to 6.4 % of non-EU citizens legally residing in the country, confirming as the fourth non-EU community for the number of residents.

Second, we did not investigate disability in children and/or in non-accompanied minors, who represent a vulnerable population in need of specific physical and mental health services as well as inclusive education (138,139). A specific investigation involving this target population is recommended, using UNICEF Child Functioning Modules (93) and selecting specific CBID indicators.

Third, we used the WG-SS-E and the CBR-Indicators, developed by the Washington Group on Disability Statistics and by the World Health Organization, respectively. Although for CBR-Indicators we measured psychometric properties (80), we have not done a psychometric study on WG-SS-E. Nevertheless, we performed a comparative study using the three tools developed by the WG (79) to find the best questionnaire to use in this research project. However, in the future a study investigating reliability and validity of the WG tools should be addressed.

At the end, we did not investigate specific needs for assistive devices and technologies, although these questions were present among the CBR indicators. We acknowledge that there are unmet needs for assistive devices especially for refugees and asylum seekers, further research could be addressed on this topic.

4.5 Further directions

The present work is probably one of the first attempts to systematize data collection on disability in refugees and asylum seekers in Italy. The objective of the study has aroused great interest among national stakeholders. Indeed, we registered the endorsement of several NGOs and civil society organizations.

The Central Service of SAI itself, a government agency that coordinates the reception of refugees and asylum seekers, responded enthusiastically to the call to action, providing support to project implementation. In fact, we organized specific training for reception centers' workers at national level, thanks to the support of SAI, but also with the involvement of the Italian Society of Migration Medicine and, of course, with the contribution of Sapienza University of Rome. The hope is that this methodological framework, albeit simplified, can become a common practice to be applied in all reception centers of the whole national territory.

Thanks to the collaboration of the expanded research group, which boasts an inter-departmental research group within the University, we found financial support to reach other countries and other communities. We are working on an inter-university cooperation project between Sapienza University of Rome, the University of Tunis, Morocco's Hassan II University and the UNESCO Rights and Migration Center in Rabat, in Morocco. Convinced of the need for a strong and genuine cooperation within Mediterranean countries, we hope that this initiative can become an incubator for broader projects. Indeed, we are collaborating with universities in the Gaza Strip and Iraqi Kurdistan. The assumptions seem encouraging.

Finally, working and discussion are opening with governmental and supra-national agencies. We have been in contact with the Italian Agency for Development Cooperation, Beirut office, to assess health and disability in refugees and internally displaced persons in Lebanon. At the same time, we are starting fruitful debate with the WHO Regional Office for Europe on Ukraine emergency and trying to narrow the gap between refugees with disability and health and social services, often still invisible to most.

4.6 Conclusion

There are no consistent and systematic national initiatives in Italy to organize or improve services for refugees and asylum seekers. Italy, together with Greece and Spain, is the first gateway to Europe and therefore a specific vulnerability assessment should be considered in reception centers and during the identification process. We found that 23.81% of refugees and asylum seekers lived with a disability conditions, and the main functional limitations were related to mental health. Gender differences were observed, and women seem to be more prone to have a disability. Central Mediterranean Route represents higher risk to have mental health disorders, while migrants who travel through the Balkan Route seem to have high risk for mobility impairment.

Although there are national policies guaranteeing access to health and related services, people are not aware of these possibilities and regional differences in services for refugees and asylum seekers with disabilities are evident. Ukrainian people can more easily access to healthcare services, and this could be due to the massive national information campaign other than special legislative permits and procedures. The "Ukrainian model" could then be taken as an example to use for the general migrant population.

Health needs were observed, however issues on social, livelihood and education domains strongly emerged. Therefore, training healthcare professionals and social and community workers on these specific aspects is strongly recommended.

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