## Understanding sexual health literacy, gender egalitarian perspectives, and access to SRHRcare among migrants in Sweden

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Pia Svensson



### DOCTORAL DISSERTATION

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Abstract Improving access to SRHR-information and care among refugees and migrants remain a central issue. Countries with strong integration policies have significant reductions in the inequities in sexual and reproductive health outcomes. Securing access to SRHR is linked to the extent to which gender equality is fulfilled, including equal rights for men and women to learn the language and participate in society. Sexual health literacy is based on the concept of health literacy. The conceptualization of sexual health is closely related to sexual agency. Lack of contact with the mainstream population distort opportunities for inter-cultural dialogue and opportunities for negotiating cultural norms regarding sexuality. Intercultural mediation may be a useful tool for reaching migrants with SRHR-information early during resettlement. The aim of this doctoral thesis was to conceptualise sexual health literacy among migrants resettling in Sweden, and to further our understanding concerning cultural, social, and contextual factors that influence the direct and indirect access to information on sexual and reproductive health and rights, to prevention, and care. A multifaceted approach was employed, including qualitative studies and quantitative cross-sectional studies. Data was obtained from four sources: in-depth interviews with newly arrived refugee women (Paper I); in-depth interviews with intercultural mediators (Paper II); Migration World Values Survey 2018 (MWVS) on non-European migrants (Paper III); MILSA 2.5 survey 2018 on Syrian and Iraqi migrants (Paper IV). The findings revealed that the conceptualisation of sexuality among refugee women reflected a discourse of shame and taboo, and hindered uptake of SRHR-information. Sexual health literacy was achieved by facilitating critical discussions about the influence of culture, gender, and power on SRHR, placed in the context to assure sustainability in activities and take advantage of the potential embedded in the role (Paper I, II). Trust wa			
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### Abstract

Improving access to SRHR-information and care among refugees and migrants remain a central issue. Countries with strong integration policies have significant reductions in the inequities in sexual and reproductive health outcomes. Securing access to SRHR is linked to the extent to which gender equality is fulfilled, including equal rights for men and women to learn the language and participate in society. Sexual health literacy is based on the concept of health literacy. The conceptualization of sexual health is closely related to sexual agency. Lack of contact with the mainstream population distort opportunities for inter-cultural dialogue and opportunities for negotiating cultural norms regarding sexuality. Intercultural mediation may be a useful tool for reaching migrants with SRHRinformation early during resettlement. The aim of this doctoral thesis was to conceptualise sexual health literacy among migrants resettling in Sweden, and to further our understanding concerning cultural, social, and contextual factors that influence the direct and indirect access to information on sexual and reproductive health and rights, to prevention, and care. A multifaceted approach was employed, including qualitative studies and quantitative cross-sectional studies. Data was obtained from four sources: in-depth interviews with newly arrived refugee women (Paper I); in-depth interviews with intercultural mediators (Paper II); Migration World Values Survey 2018 (MWVS) on non-European migrants (Paper III); MILSA 2.5 survey 2018 on Syrian and Iraqi migrants (Paper IV). The findings revealed that the conceptualisation of sexuality among refugee women was reflected in a discourse of shame, and hindered uptake of SRHR-information. Sexual health literacy was achieved by facilitating critical discussions about the influence of culture, gender, and power on SRHR, placed in the context of migration and integration. The findings acknowledged the need for investing in training of the intercultural mediators to assure sustainability in activities and take advantage of the potential embedded in the role (Paper I, II). Trust was closely related with gender egalitarian attitudes among migrants in Scania and increased with higher education. The influence of trust was more important for men's attitudes, suggesting that men may be more sensitive to the perception of the social environment for their approach towards gender equality (Paper III). Education was also directly associated with a higher probability of STI/HIV testing among migrants. This pathway was partially mediated by language skills. The pathways between other predisposing variables (age, marital status, sexuality) were mediated by the indirect effect of exposure to sexual coercion and alcohol consumption, indicating a risk awareness (Paper IV). The findings from this thesis can contribute to improving the quality of implementation of activities aiming at reaching migrants with SRHR-information, to build sexual health literacy, and promote sexual agency. Interventions needs to be placed in a broader framework of gender equality, participation, and integration, with specific approaches for reaching vulnerable migrant subgroups.

## List of papers

This thesis is based on following papers:

- I. Svensson, P., Carlzén, K., Agardh A. Exposure to sexual health information and impact on health literacy: a qualitative study among newly arrived refugee women in Sweden. *Culture, Health & Sexuality* 19(7):752-766, 2017
- II. Svensson, P., Asamoah, B.O, Agardh A. Facilitating an encounter with a new sexuality discourse: the role of civic communicators in building sexual health literacy among newly arrived migrants. *Culture, Health & Sexuality* 21, 1-16, 2021
- III. Exploring the relationship between trust and gender egalitarian attitudes among migrant men and women residing in southern Sweden: analysis of Migration World Values Survey data (*Manuscript*)
- IV. Investigating pathways for predisposing, enabling, and need factors in predicting the use of STI/HIV testing services among Syrian and Iraqi migrants in Scania, Sweden- a cross-sectional study with directed acyclic graphs for modelling causal pathways. (*Manuscript*)

## Abbreviations

HIV	Human Immunodeficiency Virus
HSU	Health Service Utilization
ICPD	International Conference on Population and Development
MWVS	Migration World Values Survey
SFI	Svenska För Invandrare (Swedish For Immigrants)
SGBV	Sexual and Gender-Based Violence
SMA	Swedish Migration Agency
SRHR	Sexual and Reproductive Health and Rights
SHL	Sexual Health Literacy
STI	Sexually Transmitted Infections

## Introduction

**Universal** access to sexual and reproductive health and rights (SRHR) is a fundamental human right. This implies that the right of access to information, education, and services, that support all individuals' capacity to make informed decisions regarding their sexual and reproductive health, free from discrimination, should be protected through national legal frameworks and policies (1, 2).

Universal access to SRHR has been recognized as a critical factor for the achievement of an economic, social, and environmentally sustainable development (3). Securing access to SRHR is closely linked with the extent to which gender equality and human rights are fulfilled, including equal opportunities for women and men to participate in and influence in matters that concern them, and the overall social, and economic development (1, 2).

This conceptualization of SRHR was established during the International Conference on Population and Development (ICPD) in Cairo in 1994 (4) and following Forth conference on women in Beijing in 1995 (5). Since then, many nations have made commitments towards the implementation of activities in different areas, such as to improve access to maternal health, contraceptives, sexeducation, and to counteract sexual- and gender-based violence (SGBV). Much work remains, however, not the least to protect and promote SRHR among vulnerable migrant and refugee populations (6-8).

At the end of 2020, an estimated 26.4 million individuals were refugees, escaping war, conflict, persecution, and fragile institutions. More than four million were asylum seekers (9). Women and children comprise almost half of all refugees and asylum seekers (10). Women and young persons in refugee situation are among the world's most vulnerable groups. During the migration process, they are exposed to an increased risk of acquiring sexually transmitted infections (STI) including human immunodeficiency virus (HIV), as well as increased risk towards unintended pregnancies, unsafe abortions, and exposure to SGBV, and other forms of sexual exploitation (1, 7, 11-13). Limited access to sex-education before migration and disrupted schooling due to the migration, make refugees ill-equipped to articulate their sexual rights and make informed decisions regarding their sexual and reproductive wellbeing (7, 14).

In 2020, 19,7% of the Swedish population of 10,2 million were foreign born. Many migrants have come to Sweden as refugees from countries outside of Europe (15,

16). Many migrants originate from patriarchally organized societies, characterized by large gender inequalities and low interpersonal trust. This stands in contrast with the Swedish society, which is one of the most gender equal countries in the world, founded on democratic values, and with a population who tend to trust governmental institutions (17-19).

Despite having migrated to a country that promotes a rights-based SRHR agenda and offers an increased availability of SRHR-information and care, access continues to be hindered by barriers on multiple levels. These barriers include language, cultural norms, gender beliefs, health system navigation, a lack of awareness of rights, discrimination, limited social and economic resources, and marginalization (11, 20-23). Unequal distribution of risk exposures, and access to prevention and treatment, contributes to poorer SRH outcomes among migrants and refugees compared to the general population in a host country in Europe (8, 11).

The ability of people to access, appraise, and act on health information is theorized under the term health literacy (24). Improving health literacy among migrants is crucial for the achievement of equitable public health (25). Sexual health literacy needs to be understood beyond knowledge achievement, to the conceptualization of sexual and reproductive health and rights in relation to the political, economic, cultural, and social context (26, 27).

The implementation of sexual health promoting programs as a component of early resettlement has been emphasized for building sexual health literacy based on rights-based approaches (8, 20, 28). Intercultural mediation may be an important operating tool for reducing cultural barriers, promoting inter-cultural dialogue, and bridging socio-cultural understandings about sexuality and gender (29).

This dissertation aims to understand the potential for building sexual health literacy among migrant men and women in a resettlement context in Sweden. The findings will contribute with a comprehensive understanding of factors that influence the possibilities for newly arrived refugees, to receive, negotiate, and internalize new rights-based conceptualizations of SRHR. The thesis specifically explores the impact of trust and gender egalitarian attitudes, and social determinants related to resettlement, on the direct and indirect access to SRHR-information, care, and prevention, and discusses implications for sexual health promotion and future studies.

# Aim and objectives

The overall aim of this thesis is to conceptualise sexual health literacy among migrants in a resettlement context in Sweden, moreover, to further our understanding concerning cultural, social, and contextual factors that influence the direct and indirect access to information on sexual and reproductive health and rights, prevention, and care among migrants in Sweden.

The specific objectives are:

- To explore the experiences of newly arrived refugee women with regards to exposure to sexual and reproductive health education provided by civicand health communicators, and to analyse implications concerning sexual and reproductive health literacy.
- To explore the role of civic communicators in increasing access to SRHRinformation among migrants resettling in Sweden and to examine the competencies and conditions needed for such activities to be effective.
- To investigate the relationship between trust and gender egalitarian attitudes among migrants residing in Scania, and to examine differences in this association between men and women and how this relationship is influenced by time spent in the host country.
- To investigate general and migrant specific predictors of HIV/STI testing among migrants from Syria and Iraq who have recently resettled in Scania, Sweden.

# Definition of migrant and migration

There are many reasons to why people migrate. Definitions of a migrant vary by reason for migration and there is no universally agreed on definition. The concept has different meanings depending on the legal framework in a host country, and this can affect issues such as entitlements to health care (30). Only refugees are entitled to international protection defined by international refugee law (31).

International migration concerns movement across nation borders, regardless of the persons legal status, whether the movement is voluntary or forced, or if its temporary or permanent. Most people who migrate internationally do so for reasons related to employment, education, and family. Resettlement is a challenging process for most migrants, however for refugees there is often an added burden of traumatic pre-migration events and post-migration stressors (30).

Armed conflict and economic crises are major drivers of migration. In 2017, about 10% of all international migrants were refugees and asylum seekers, escaping war, conflict, and persecution (32). Political migration denotes persons who cannot return to their countries of origin due to armed conflict and a well-founded fear for his or her life. An asylum seeker has sought protection as a refugee, but is awaiting assessment of the claim, which is defined as follows:

"A person, who, owing to a well-founded fear of persecution for reasons of race, religion, nationality, membership of a particular social group or political opinions, is outside the country of his nationality and is unable or, owing to such fear, is unwilling to avail himself of the protection of that country" (33)

A quota refugee is a person who has been selected by UNHCR to be resettled in third country, which offers them protection, and where they receive a residence permit based on refugee status (34). Since 2018, Sweden has received 5000 quota refugees every year, with the exception of 2020 due to Covid-19 (35).

In Sweden, a newly arrived migrant is someone who has been granted residence permit based on asylum reasons, quota, or due to family reunification, and has been registered in a municipality according to Act (2017:584) on the responsibility for establishment contributions for newly arrived migrants (36). A person is typically regarded as newly arrived for two years, based on the time provided for the introduction activities given by the state. According to the Establishment act

(2010:197), the process of becoming established into the Swedish society should not take more than two years (37).

In this dissertation, "migrants and refugees" are primarily defined as persons who were born outside of Europe, and who have been granted a permanent or temporary residence permit in Sweden based on asylum reasons, quota refugees, or family reunification.

## Immigration to Sweden over time

At the end of 2020, 19.7% of Sweden's population of 10.2 million were foreign born<sup>1</sup> (38). In the same year, almost 23% of the population in Scania (the southernmost region of Sweden) of 1.38 million inhabitants were foreign born (39).

Sweden has a long tradition of immigration and has been known as one of the most welcoming countries with regards to the reception of refugees. The demographics of the immigrant populations has changed over time, from mainly Scandinavian, southern, and south-eastern European labour migrants, to primarily refugees and cases of family reunion from outside of Europe, escaping war, conflicts, and persecution from outside of Europe (40).

Since the 1990s, around 70 000 Somalis and over 50 000 Eritreans have migrated to Sweden, escaping civil unrest and oppression (39, 41, 42). During the 2000s and following the Arab Spring and related conflicts in 2011, there was an increase in asylum applications from, Iraq, Afghanistan, and Syria, with a peak between 2015 and 2016 mainly due to the Syrian conflict. Over 160 000 persons applied for asylum in Sweden, and Sweden was one of the countries in the EU with the largest reception of asylum seekers relative to population size (43). Today, some of the largest migrant groups in Sweden originate from Syria, Iraq, Iran, Afghanistan, Somalia and Eritrea (Figure 1) (39). In 2020, migrants from Syria, Iraq, and Afghanistan constituted 1.8%, 1.4%, and 0.58% of the Swedish population, respectively (39).

<sup>&</sup>lt;sup>1</sup> A person who is born in another country and registered in Sweden, regardless of the birthplace of the parents or citizenship. Source: Statistics Sweden (38).



Figure 1. Foreign-born population in Sweden Number of foreign-born by sex and country of birth as of 2020, Sweden. Source: Statistics Sweden (39).

The large numbers of asylum seekers arriving during the peak period challenged the capacity of the reception system. The asylum process became associated with long waiting times, which delayed individuals' possibilities to participate in integration promoting activities, settle, and start anew (44). As a response, a temporary law was implemented in 2016 (2016:752) with restrictions on the possibility of obtaining a residence permit in Sweden to the minimum standard required by EU-law. Temporary residence permits were introduced and stricter rules for family reunification were enforced (45). Today temporary residence permits are the standard (2020/21: SfU28) (46).

# Sexual and reproductive health and rights

The Guttmacher commission have provided an integrated definition of sexual health, reproductive health, sexual rights, and reproductive rights. The definition recognises individuals' rights to access resources to be able to make autonomous decisions concerning their bodies, free from stigma, discrimination, and coercion, and to freely define their own sexuality, sexual orientation, gender identity and expression. The commission has stated that to achieve universal access to SRHR, barriers embedded in laws, economic, and social norms and values need to be addressed, and attention given to answer to the specific needs of migrants and refugee populations, and other marginalised groups (1).

The work for achieving universal access to SRHR has moved forward since the concept was established during the ICPD in Cairo 1994 (4), and reaffirmed in Beijing in 1995, events that resulted in the adoption of the Beijing Declaration and Platform for Action (5). This has not been without opposition, specifically regarding women's abilities to freely decide over their bodies, abortion rights, and the recognition of sexual rights (6). However, it is now well established that SRHR policies, programmes and practices must be based on a broader framework of gender equality and human rights (1, 2) (6).

SRHR has been acknowledged as critical factor in the achievement of the Sustainable Development Goals (SDG), which have ratified by all member states of the United Nations (UN) member states. Two targets explicitly concern sexual and reproductive health and reproductive rights, and are in line with the Cairo and Beijing agreements:

- Target 3.7, under the health goal: "by 2030, ensure universal access to SRHcare services, including family planning, information, and education, and the integration of reproductive health into national strategies and programs"
- Target 5.6, under the gender equality goal, "to ensure universal access to sexual and reproductive health and reproductive rights" (3).

The implementation of Agenda 2030 and the SDGs is incorporated in Sweden's SRHR strategy. Accordingly, the right to comprehensive and scientifically accurate information and education necessary for maintaining SRH, and access to sexual and

reproductive health services, should be guaranteed by law. In the action plan, refugees and migrants have been underlined, especially in regard to securing girls and women's equal opportunities throughout a life course (3, 47).

## Migration-specific determinants of access to SRHRinformation and care

Migration and health refer to the theory and practice of assessing and addressing migration associated factors before, during, and after migration, that may affect the physical, social, and psychologic wellbeing of migrants, and the public health of the host country (48). Sexual and reproductive health outcomes need to be analyzed in a broader framework of resettlement, and in relation to the migrant subgroup, and possibilities for social participation and integration of migrant communities (8, 23, 49).

Migrants and refugees are an heterogenous group with large individual differences. Migrants have different experiences, are exposed to different risks, and have different needs. They have access to different social and economic resources, and different human capital to reinvest in their new home country. Nonetheless, as a group, migrants and refugees are faced with similar barriers in accessing SRHRinformation, utilizing of health care services, and participating in preventive activities. These barriers include poor proficiency in the new language, lack of SRHknowledge or misunderstandings about the health issue, unawareness of entitlements related to health, difficulties with navigating a new health system, social stigma, and lack of confidentiality towards health care providers, perception of culturally inappropriate and gender insensitive communication, materials and care, perceived discrimination, and distrust in western medicine (11, 20-23, 28, 50-61). Compared to the mainstream population, migrants, and refugees as a group, have higher levels of non-adherence to screening for cervical cancer (54, 57), lower uptake of STI/HIV testing (56), lower contraceptive use (50), and poorer utilization of reproductive care (60), which contributes to inequities in SRH-outcomes.

The way a country receives, welcomes, accepts, and interacts with migrants influence how easy or hard it is for migrants to participate, stay healthy and access the health care system in the host country (62, 63). Insecurity related to the asylum process and restricted access to services increase the vulnerability of asylum seekers with the risk of sexual exploitation, abuse, and poor sexual health (8, 51, 64). Inclusive integration policies encompass the implementation of activities aimed at promoting participation and reducing social exclusion, such as language and labour market training, civic orientation, non-discriminative access to health care, and culturally and linguistically adjusted services, and have shown to have an impact on the mental health and overall wellbeing of migrants and refugees (51, 63, 65).

Countries with strong integration policies, such as Sweden, have significant reductions in the inequities in sexual and reproductive health outcomes (49).

Creating supportive physical and social environments is fundamental for tackling some of the key social determinants of migrant health, for promoting health, social participation, and integration (66). Social interaction is believed to increase when interpersonal trust is high, which facilitates the dissemination of health information and the formation of healthy behaviours and social norms. Access to a social network can facilitate contact with available services, and support people in how to use them (67-69). Limited social networks among migrants have been linked to lower access to SRHR- knowledge (70) a lack of awareness of services (50) lower participation in prevention activities (cervical cancer screening) (54), poor mental wellbeing, substance use, risk-taking behaviours (65) and an increased exposure to sexual violence (13).

Trust in others is related to the conditions under which people live. Negative experiences are likely to influence perceptions of the local environment and relationships (71). Many migrants in Sweden reside in segregated areas, characterised by inferior socioeconomic conditions and high unemployment rates, and often with little contact with the general population even after years of residence (72). Marginalisation constrains migrants' opportunities to participate in the host country community, to access information, and to influence their situation (11, 73). Lack of contact with the mainstream population may lead to alienation and distort opportunities for inter-cultural dialogue and integration (74, 75), and for negotiating cultural norms and values regarding issues such as gender equality and sexuality (70, 76).

### Migration, gender, and SRHR

Gender is an important factor for the experience of migration. Men and women enter migration with different risks and possibilities (77). During the migration process, women have an increased risk of poor sexual and reproductive health (1, 7, 11-13, 20). Residence in the host country may depend on a relationship with an employed partner, which can lead to an increased vulnerability for interpersonal violence and sexual abuse (64).

Gender equality is a powerful determinant of SRHR (1, 20). Many migrants and refugees have been socialized into patriarchally organized societies, with expectations on both men and women to comply with the gendered group norms of femininity and masculinity (78). Access to SRHR-information may have been strictly regulated in the country of origin, and women's sexual autonomy controlled through the embodiment of a social stigma and a sexuality discourse of shame and taboo (27, 76). Thus, although SRHR-information and care are available post-

migration, it often continues to be restricted through a system of self-regulation of intake of information to keep a position of 'respectability', and through social policing of in-group members behaviours (27, 70, 76, 78, 79). Men may also act as a gatekeeper for women's sexual health help seeking (20, 80). The fear of the social consequences for breaking group-norms may have an additional meaning in a resettlement context, as many refugees have been separated from family members and depend on support from their ethnic communities while feeling excluded from the mainstream society in the host country (28).

Migration also offers opportunities to re-arrange gender relations and new sexuality discourses (78, 81). For many women migration can be empowering and allow for a repositioning of gendered roles characterised by male dominance, to more equality in relationship, increased access to economic resources, opportunities for social participation, influence, and ability to exercise their rights (77, 78, 81, 82). Migration to a country with strong gender equality policies, that promote a rights-based sexual and reproductive health, and with a legal framework that protect these values, can increase men and women's access to culturally appropriate SRHR-education and services, and opportunities to re-negotiate harmful gender norms and cultural concepts of sexuality (20, 27, 70, 76, 79, 81, 82).

Women are more likely to benefit from the health system if they speak the language of the host country and understand the culture (8, 20). Culturally prescribed gender roles that assign women to be homemakers and caretakers may force women into social isolation and hamper their involvement in integration promoting activities, to interact with people from the host community, or get employment. Leaving them with few opportunities for building skills to navigate in the new home country, integrate in the local culture, learning the language, participate in social activities, and accessing information and care (44, 54, 78, 81).

## Cultural appropriateness in health promotion

Ideas about health are cultural and vary across societies. Culture is learned, shared, and transmitted across generations. Cultural health beliefs largely determine people's knowledge, values, and attitudes to health, how information is perceived, self-assessed, and acted on (83). Cultural barriers in access to health information and care include language, religious beliefs, family relations, gender norms, misconception about western medicine or different conceptualisations about health, and modes of interaction and communication (83). To reduce cultural barriers, the impact of cultural systems of values on health outcomes, the construction of gender, and how culture determines an individual's agency in health matters needs to be better understood (78, 84). Conceptualisations of sexuality and sexual health is shaped by culture and society and the conditions under which people live (27, 52),

and intersect with other social determinants such as age, gender, marital status, socioeconomic status, and educational attainment (83, 84).

Targeted interventions build on the assumption that there is enough homogeneity within a specific subgroup for using one common approach (85). Different strategies can be applied to make a health intervention culturally appropriate. Linguistic translation is the most basic application of cultural sensitivity. However, direct linguistic translation is often not enough to capture conceptual meanings of the health issue (83). Sociocultural and constituent-involving strategies are two examples of strategies that can support linguistic translation. A sociocultural strategy recognises the cultural conceptualisation of the health issue. It involves placing the health message in the context of the broader social and cultural context of the target group. A constituent-involving strategy entails the involvements of members from the target group in the design and implementation of an intervention, to make it more relevant, meaningful, and reliable for the group they serve (85).

The value of engaging members from the target group in the design, development, implementation, and evaluation of programmes to ensure cultural appropriateness, responsive language, and communication, have been emphasised (86). Trusted representatives can increase support for accepting the intervention (23, 86) and use their position in the community for acting as a bridge between the communities and the health system (87).

### Intercultural communication and cultural mediation

Intercultural mediation is a critical operating tool for facilitating health communication targeting migrant populations (29). Intercultural communication contains different components:

- Cultural competence: The capacity to respond to the unique needs of populations whose cultures are different from the mainstream.
- Cultural sensitivity: Being aware of the existence of cultural differences and similarities, without making judgements or value either as right or wrong.
- Cultural awareness: Consciousness of one's personal reactions to people who are different, and to be open and flexible to understand another cultural group.
- Cultural knowledge: Being familiar with cultural characteristics, history, values, belief systems, and behaviours.
- Cultural pruriency: Advanced abilities to interact effectively with people of a different culture. Necessitates that cross-cultural skills are incorporated into ones interactions with others (88).

High levels of cultural sensitivity are needed when working with migrants, to increase the acceptability of the information or services, improve the quality of encounters, and facilitate dialogue about SRHR issues (51, 89). In relation to migration, culturally competence includes being familiar with the health, social, cultural, religious, and gender-related aspects of the subgroup (89).

Intercultural mediators have a potentially important role in enabling access to sexual health information and care by bridging sociocultural conceptualisations (29, 89). An intercultural mediator should preferably be both bi-cultural and bi-lingual, have knowledge about the topic, understand the associated values with both cultures, and be trained in how to use those skills in their communication with the target group (90, 91).

Although recognising the value of intercultural mediators for enhancing migrants' access to information and care, their role is often unclear and the conditions under which they work vary (29). Intercultural mediators are often recruited based on language skills, and in some cases lack of organisational support, limited training in intercultural communication on sensitive topics such as SRHR, and challenges in coping with his/her own cultural biases has been reported (23, 86, 92, 93).

# Policies and strategies related to SRHR and migrants in Sweden

Migrants who have been granted a residence permit in Sweden have the same right to health care, including sexual and reproductive health care, as Swedish citizens (1982:763) (94). Asylum seekers are entitled to necessary medical and emergency care (2008:344) (95). This includes the right to maternal and obstetric care, access to contraceptives, counselling, and abortion care, as well as access to HIV/STI testing, and treatment according to the Communicable Disease Act (96). The Swedish Migration Agency (SMA) is responsible for informing asylum seekers that they have a right to an interpreter in health care situations (97).

Migrants originating from high endemic areas are identified as a key population in the national strategy for combating HIV/AIDS and other infections (Prop. 2005/06:60) (98). To increase the possibilities for early detection of an infection, STI/HIV test should be offered as part of the health examination that is offered to asylum seekers and their family members, in accordance with the Act (2008:344) on health care for asylum seekers etc (95).

Comprehensive age-appropriate sex-education has been part of the Swedish publicschool education since 1955 (99). Sweden's national strategy for SRHR is in line with Sweden's implementation of Agenda 2030 (47) and the Discrimination Act (2008:567) (100). It has a clear public health approach and underlines the need for addressing underlying social and economic determinants of SRHR, and a strategic approach specifically for reaching vulnerable migrant groups (101). The national SRHR strategy is closely connected to Sweden's gender equality policy and the work against men's violence against women (Skr. 2016/17:10) and that aims for equal access to power and influence for both men and women (102).

# Sexual health promotion and prevention during resettlement

In Sweden, persons aged 20-64 years, who have been granted temporary or permanent residence permit based on asylum reasons, or due to family reunification, are covered by the Establishment Act (2010:197) (37). The Establishment Act gives

newly arrived migrants the right to access labour market training, Swedish language courses, and civic orientation (2017:820) (103). Civic orientation (2010:1138) should be offered by the municipality upon reception of the residence permit. The aim is to provide a basic understanding of Swedish society, organisation, and systems, including health system navigation and rights in relation to health care (104). Information is provided in the mother tongue of the target group, by communicators/intercultural mediators (*samhällskommuniatörer*), who commonly share a cultural background and migratory experience with the target group. There are no formalised criteria for the educational or professional background of the communicators, and the conditions under which the civic orientation is implemented varies across the country, which contributes to unequal quality in provision and access to information.

In 2020, the civic orientation was expanded from 60-80 to 100 hours, whereby many municipalities integrated more health communication in the programme (105). The civic orientation has been identified as a platform with potential for reaching newly arrived refugees and migrants with SRHR-information early during the resettlement through the application of culturally sensitive and dialogue-based methods, and by putting the information in the context of the migration process, the wider society, and social norms of behaviour (106). Evaluations have also pointed at the need for the program and communication to be better adjusted to individual differences in needs and pre-existing knowledge within the target group (106).

Asylum seekers are legally entitled to a voluntary health examination, which should be performed as soon as possible after arrival, in accordance with Act (2008:344) on health care for asylum seekers etc (95). The health examination is often the first encounter with the Swedish health care system. Thus, it has the potential of being a critical point for early detection, treatment, and prevention, and for establishing an initial contact between the newcomer and health care (107, 108). The health examination is also an opportunity for identifying poor sexual health, unwanted pregnancies, experiences of sexual violence, or other forms of sexual abuse (107).

It is noteworthy that only about half of all asylum seekers participate in the health examination. One study showed that one third of the respondents never received the invitation, and reported shortcomings regarding the way the information, procedures, and services are provided (109). In particular, asylum seekers with inadequate health literacy have reported lower uptake of health advice and information about rights in relation to health care in Sweden (110). Lack of cultural competence among health care providers, shortage in professional interpreters, and caregivers with insufficient training in working with translators, are some of the factors that have been identified as contributing to the shortcomings of the health examination (107). This is a missed opportunity for early detection of HIV (111).

# Conceptual framework/Theoretical framework

## Rights-based approach to access

Universal access to sexual and reproductive health and rights (SRHR) is a fundamental human right. The right to access information and services that support an individual's ability to make informed decisions regarding their sexual health and wellbeing, free from discrimination, should be protected through national policies and strategies. Barriers to access, that are embedded in policies, economy, social norms, and values should be addressed (1).

A universal right to health can be ensured by an accessibility framework, which identifies factors on different levels that facilitate or hinder health care utilization, and participation in prevention activities. A rights-based framework for access to health is usually referred to the acronym AAAQ, which stands for: *Availability, Acceptability, Appropriateness*, and *Quality*. Within each category are factors to consider to secure access to health.

- Availability: The availability of facilities, services, and programmes.
- Accessibility: Non-discrimination, physical accessibility
- Acceptability: Respectful, culturally appropriate, gender- and age-sensitive
- Quality: Scientifically and medically appropriate

In relation to migrants, *Availability* includes the preparedness and capacity of the system to respond to different needs and epidemiologic characteristics of the population, and that services can be reached physically and in a timely manner. *Accessibility* stresses non-discriminative entitlements to health care, which is particularly concerning for asylum seekers and undocumented persons. Accessibility includes efforts to make health information accessible by tailoring it to the target group's needs, knowledge, and preferences. *Acceptability* refers to migrant, - gender, - and culturally sensitive and respectful care. It encompasses access to interpreters, cultural mediators and translated materials. Asides from goods and facilities of good quality, the *Quality* aspect includes trained health professionals, and refers to the way services are provided (65).

*Approachability* has been suggested as a complementary factor to the model. It indicates people's ability to identify a health need, and knowledge and skills to approach it. Previous experiences of health care, trust and expectations, health literacy, and awareness of available services influence approachability. Outreach activities and targeted interventions can make services more approachable (112).

According to Levesque et al (2013) access can be seen as a process starting with the possibility for individuals to identify health care needs, seek care, reach resources, and receive appropriate services. Barriers or enablers can be identified in the interaction between individuals' abilities and the health care systems ability to respond. Thus, variations in the utilization, which Levesque and colleagues refer to as "realisation of access", is found within these steps and can be used as markers for inequalities in access to needed health care (112).

### Migration-specific framework for health service utilization

Yang and Hwang (2016) (113) have proposed a migrant-specific theoretical framework, to understand general and migrant-specific factors on predisposing, enabling, and need- levels, that influence migrants' health service utilization (HSU). The theoretical framework has been inspired by Anderson's health behaviour model (114) (Table 1).

Levels	General factors	Migrant-specific factors
Predisposing	Demographic factors, socioeconomic factors, health belief, genetics	Immigration statys, ackulturation/assimilation, cultural distance
Enabling	Financial respurces, social resources, access to health care	Homeland-based financial and social resources, access to health care in the home country, language
Need	Self-assessed health, clinically evaluated health	Epidemiologic profile in the country of origin

#### Table 1. Framework for health service utilization (HSU)

General and migration-specific predictor for health service utilization (HSU), on predisposing, enabling, and need level.

Modifyed from Yang and Hwang (2016) (113)

Migrant-specific factors interplay with, and are mediated by, general factors and need to be incorporated into a wider political and socioeconomic environment, health system organisation, and people's living conditions. Migrant-specific factors on a macro level include context of emigration, context of reception, and previous experiences of HSU in the country or origin.

The migration and integration laws in a host country have a direct effect on migrants' entitlements to health, as well as the implementation of activities that aim at facilitating access to health care and other societal resources. Acculturation strategies are guided by public policies directing immigrant integration and influencing participation in the mainstream culture (115). Assimilation is regarded a migrant-specific predisposing factor. Assimilation is enabled by understanding the culture, speaking the language, and having an ability to navigate the system. According to Yang and Hwang (113), a migrants' level of adaptation to the local community and culture partly accounts for variations in HSU. Length of time in the new country also determines access to enabling resources.

Gender, age, ethnicity, marital status, and socioeconomic status are predisposing factors on a general level. However, these factors may have different meanings for a person in a migration situation, or for persons with cultural conceptualisations of health and traditions that differ from the mainstream culture. Women are usually more likely to seek health care than men due to social learning (113). Women are often more health literate due to their role as primary caregivers and are more likely to access health information through the informal social network (33). Education is a strong indicator for seeking health care in a timely fashion and engaging in preventive care due to better health awareness and is also mediated through access to other enabling resources (113).

Social resources include family, friends, and communities that facilitate peoples access to health information and services and influence healthy behaviours. Access to social resources is a strong predictor for how and when individuals seek- or do not seek- health care. The availability of an ethnic community may be crucial for newly arrived refugees and migrants' socialisation into health seeking behaviours and for creating an initial contact with available services (113). Isolated migrant communities may distrust western medicine and rely on alternative sources for health care or prefer to utilize health care in the home country (83). At the enabling level are also means for a system to facilitate access to HSU, such as availability of professional interpreters, translated materials, culturally appropriate and gender sensitive care (85).

Migrant specific needs correspond to the epidemiologic characteristics of the country of origin, age, and gender. However, cultural health beliefs and autonomy in decision making are crucial for the perception of needs and risk awareness, and influence health seeking behaviours on the predisposing level (112, 113).

## Health literacy

The concept of Health Literacy (HL) refers to people's ability to obtain, process, and understand health information provided in the context of the everyday life, and to make appropriate decisions regarding their health. HL is essential for people's ability to know when, where and how to seek care, to be able to communicate their health needs, and manage their health (24). To educate migrants to be more health literate is therefore considered a critical empowerment strategy to increase

migrants' agency over their health, and crucial for the achievement of equitable public health (66, 116).

Inadequate health literacy among migrants has been associated with lower access to health information and care, unequal quality of care provision, miscommunication and difficulties with understanding and adhering to instructions, delayed treatment, poorer health outcomes, higher societal costs, and health inequities (117). HL has a social gradient, with inadequate HL levels more commonly distributed in groups with lower education and socioeconomic status (118).

Importantly, HL is contextual, and a change in the medical, social, cultural, and linguistic context can influence people's capacity to receive, comprehend, and act on health information, and to communicate their health needs (89, 117). Thus, poor health outcomes among migrants can in part be attributed to lower levels of HL explained by the migration situation (89, 119). However, HL is also determined by the capacity of the health care system to meet the needs of a culturally diverse population, and to make it less demanding for individuals to approach (120).

### Health literacy levels, skills, and benefits

According to the health literacy framework proposed by Nutbeam, HL can be categorised through three levels, *functional*, *interactive*, and *critical*, reflecting a process of moving from basic knowledge about protective and risky health behaviours and health system knowledge, to increasing communicative and critical skills, greater autonomy in decision making and personal engagement in health promotion activities that address social determinants of health. Conceptually, HL can be distinguished as an understanding from a medical, and a public health context, yielding different functions and skills. The outcome of HL has both individual and social benefits (24).

Educational activities have different focuses depending on HL function and related skills that are aimed at being developed. Functional HL includes factual knowledge about health risks and about the health system, interactive HL involves the development of skills for adopting healthy behaviours. Critical HL implies more advanced cognitive abilities, critical awareness, and individual skills and collective action for addressing social determinants of health (24). Educational activities for the achievement of critical HL involves participatory learning, problem solving, and critically evaluation of information (121). The different levels of HL, associated skills, and benefits are shown in Table 2.

#### Table 2. Health literacy framework

Functional, interactive, and critical health literacy, skills, functions, educational components, and individual and community benefits.

Levels	Skills and function	Education	Benefits
Functional health literacy	Basic reading and writing skills to function in everyday situations	Factual knowledge of health risks, healthy behaviours and health systems	Individual: improved knowledge of risks and health services, compliance. <i>Community</i> : Increased participation in screening immunization, and health promoting programs
Interactive health literacy	Advanced cognitive skills to actively participate in everyday health, access, and source different forms of information, and apply it to changing contexts and circumstances.	Skills, confidence and motivation to act independently on health knowledge.	Individual: improved capacaty and automomy in decision making, motivation, self-confidence <i>Community</i> : influence of social and healthy norms through increased interaction
Critical health literacy	Advanced cognitive skills, and social skills to critically analyse information and use it to exert control of life events and situations.	Communication and skill development. Participatory learning, critical appraisal, problem solving	Individual: improved resilience to social and economic disparaties. Community empowerment and capacity to act on social, economic and environmental determinants of health, health equity

Source: Nutbeam (2000, 2008) (24,122), and Sykes and Willis (2018) (121).

Individual HL primarily aims to influence healthy behaviours with improvements in individual health, which in aggregated terms contributes to population health. A public health perspective implies an understanding of HL in relation to social determinants that determine people's opportunities to participate in society and influence factors that affect health in the everyday life (24).

Sorensen et al (2012) have proposed a definition of HL that integrate the medical and public health perspectives:

"Health literacy is linked to literacy and entails people's knowledge, motivation and competences to access, understand, appraise and apply health information in order to make judgements and take decisions in everyday life concerning health care, disease prevention and health promotion to maintain or improve quality of life during the life course" (120).

The integrated model proposed by Sørensen et al (120) is illustrated in Figure 2. It reflects the main dimensions of HL, and how it links to health outcomes on individual and population levels. Further, the model illustrates factors that influence HL over a life course, regarding societal and environmental determinants (culture, language, politics, systems), personal determinants (age, gender, education, employment, income), and situational determinants (social support, family and peer influence, media use, and the physical environment).

In the integrated model, four competencies have been defined. The competencies can be applied in three domains of health: *healthcare*, *disease prevention*, and *health promotion*, which correspond to the functional, interactive, and critical levels of HL.

- 1) Access: the ability to seek, find, and obtain health information.
- 2) Understand: the ability to understand the health information.
- 3) Appraise: the ability to interpret, filter, and evaluate the health information.
- 4) Apply: the ability to communicate and use the information to make an appropriate health decision (120).



Figure 2. Health literacy model Integrated model of health literacy. Source: Sørensen et al 2012 (120)

### Sexual health literacy

Sexual health literacy (SHL) is based on the concept of health literacy. The conceptualisation of sexual health and sexuality is closely related to the ability to exert agency in SRH matters (11, 26, 28).

Restricted access to sex-education before migration and disrupted schooling due to migration contributes to SRHR knowledge among refugees and migrants settling in a third country being generally low. This makes them ill-equipped to make informed decisions regarding their sexual and reproductive wellbeing and articulate their sexual rights (7, 14). High reliance on informal social sources for information may contribute to decisions that are based on misunderstandings or harmful cultural concepts (27, 33).

SHL among migrants must be understood in relation to the social, cultural, religious, and environmental context and conceptual meanings of sexuality and health, the transition between contexts, and the self-perceived ability to access, comprehend, and value information, into making an informed decision it the new context (26, 27, 83). Thus, according to Ingelby (2012) (123), HL among migrants has to do with a process of re-conceptualization and acculturation. This process requires not only information and knowledge, but opportunities for inter-cultural dialogue, and understandings of differences in health beliefs.

### Public health literacy and social change

A broader public health understanding of HL has received increased attention recently. From a public health perspective, HL is a driver for social justice. It is understood in relation to the macrostructural context, the availability of public health policies, the social and cultural environment, and distribution of power, that determine people's opportunities and capacity to access education, to participate in the society, and influence factors that affect their own and the community health (25, 122, 124). Public health literacy includes activities that focus on civil engagement, dialogue, and the development of policies targeting structural barriers to health, and that reinforce supporting environments (24, 124).

Researchers have proposed an integration of the concepts of HL and social capital to form a public health agenda and collective action for health equity. This is based on the premise that interpersonal trust, as an integral part of social capital, contributes to increased social participation that enable the dissemination and uptake of health information, which, in combination with educational activities for building HL, can contribute to community empowerment and community health literacy with the capacity to address social determinants of health (126). Edwards et al (125) used the term *health literacy mediators*, to explain how an individual's HL skills were shared within a social network, by assisting others in interpreting and analysing information. Health literacy mediators can facilitate the development of community HL.

# Materials and methods

## Overall design of the studies

The studies included in this thesis represent a multi-faceted approach towards conceptualising SRH-literacy among refugees and migrants settling in Sweden. This is achieved by gaining knowledge about how structural, social, and cultural factors directly or indirectly influence access to sexual health information and care in relation to different domains, *health promotion, disease prevention,* and *health care*.

The studies are explorative. They investigate different perceptions, correlates, and determinants of access to sexual health information, and care. It was therefore considered important to use a variety of study participants, data sources, and analytic methods.

Two studies used qualitative study designs, to gain deeper understanding of how SRHR is perceived, interpreted, and negotiated, among migrants and refugees and to explore the role of intercultural mediators for facilitating the process of building sexual health literacy. Two studies used a quantitative study design, to explore gender egalitarian attitudes as an overall determinant of SRHR, and different pathways to STI/HIV-testing among migrants.

Table 3 provides an overview of the study design, data source, participants, and data analysis.

#### Table 3. Overview of the studies included in the thesis

Paper	Study design	Data source	Participants	Data analysis
I	Qualitative	In-depth interviews	9 refugee women, taking part of the civic orientation program for newly arrived migrants, Scania, Sweden	Qualitative content analysis
11	Qualitative	In-depth interviews	20 persons with migration background, working as intercultural communicators within the civic orientation program for newly arrived migrants in Sweden	Qualitative content analysis
III	Quantitative Cross-sectional	Self-administered questionnaire	2074 non-European migrants, residing in Scania, Sweden, who had migrated to Sweden between 2007- 2018	Univariable and Multivariable logistic regression analysis
IV	Quantitative Cross-sectional	Self-administered questionnaire	3226 migrants originating from Syria and Iraq, after the establishment phase (>2 years), Scania, Sweden	Univariable and Multivariable logistic regression analysis, bootstrap analysis and decomposing method

Study design, data source/data collection, participants, and analysis.

### Study populations and study setting

Paper I, III, and IV was conducted on migrants residing in Scania, Sweden. In 2020, almost 23% of the population in Scania of 1.38 million, were foreign born (16), and 179 different nationalities represented (127). People from Syria and Iraq account for 2.1% (30 076) and 1.8% (24 973) of the total population in Scania, respectively (16). Civic orientation is offered to all migrants with residence permits and who have been registered in a municipality.

The civic orientation is part of the establishment program offered by law to all migrants who have been granted residency due to asylum reasons or family reunification. The civic orientation is organized differently across the country, and the conditions under which the information is provided also differ. This variation can include, for example, the extent to which health communication is included, and the educational background and training of the communicators (105). In Scania, the communicators have received specific training in providing SRHR-information, which is covered through three thematic modules, men's health, women's health and HIV/STI (128).

The study participants in the different papers included four subgroups of migrants: newly arrived refugee women who had been in Sweden for less than two years (Paper I), non-European migrants, whereof a majority have migrated based on asylum reasons, and had resided in Sweden for a year or less up to 11 years (Paper III), and migrants who had come to Sweden based on asylum reasons, and who had recently finished the establishment phase (Paper IV). Paper II was based on a
national sample of men and women with migration backgrounds, who worked professionally as communicators/intercultural mediators, within the civic orientation program for newly arrived migrants. They had been in Sweden between 6 and 28 years.

Overall, the study participants in the four studies represent the largest migrant groups in Sweden. The study participants in Paper I originated from six different countries: Afghanistan, Iran, Iraq Jordan, Somalia, and Syria (Paper I). Participants from study II originated from Afghanistan, Eritrea, Iraq, Somalia, and Syria (Paper II). The majority of the non-European study participants in Paper III originated from Afghanistan, Eritrea, Iraq, Somalia, and Syria (Paper II). The majority of the non-European study participants in Paper III originated from Afghanistan, Eritrea, Iraq, Somalia, and Syria (Paper II). Study participants in Paper IV originated from Iraq and Syria (Paper IV).

Paper I and II applied a qualitative study design. Both studies were conducted within the wider context of the civic orientation program, which is a part of the establishment for newly arrived migrants (103). Paper III and IV used quantitative study designs, based on two different data sources on migrant populations in Scania, Migration World Values Survey (MWVS) (Paper III) and MILSA 2.5 (Study IV).

Paper I was a qualitative content analysis study, using in-depth interviews to understand newly arrived refugee women's experience of receiving, perceiving, and accepting SRHR-information provided to them by communicators, and implications in terms of SHL. The women were purposively recruited from the civic- and health orientation classes provided to newly arrived migrants. Women from the three largest language groups were targeted, Arabic, Dari/Pashto, and Somali speaking. Eligible study participants had taken part in three education modules about SRHR. Nine women consented to participate.

Paper II was a qualitative content analysis study that aimed to explore the experiences of communicators of providing SRHR-information to newly arrived migrants, and their potential role in facilitating access to information and building SHL. The study investigated the communicators' self-perceived need for competences, qualities, and working conditions. The study participants were purposively recruited from a web-based education program targeting communicators working with civic orientation (129). The study participants were invited to participate if they had experiences of providing information on SRHR within civic orientation for newly arrived migrants. Data was collected through indepth interviews. Twenty communicators consented to participate in the study.

Paper III was a cross-sectional survey based on a sub-set of MWVS data of the Scania region. WVS is a survey that since 1981 has collected data on values and social norms (19). The national MWVS was carried during out by the institute for future studies (IFF) during 2018 as part of the 7<sup>th</sup> wave of the general WVS. The purpose was to compensate for the underrepresentation of migrants in population-based studies. The survey targeted non-European migrants residing in Sweden, who had migrated to Sweden between 2007 and 2018 (17, 130).

Paper IV was a cross-sectional study based on MILSA 2.5 survey data on Syrian and Iraqi residents in Scania. The survey was conducted during fall 2018 as part of MILSA, a research platform for migration and health, led in collaboration by Malmö University and the County Administrative Board of Scania. The survey included respondents aged 20-64, from Syria and Iraq who had come to Sweden as refugees, and who had received their residence permit between 2012 and 2016. The survey targeted persons who had completed the establishment-phase (according to the Establishment act (2010:197).

## Data collection and procedure

### Paper I

This qualitative content analysis study used a HL-framework based on Nutbeams (2000) conceptualisation of functional, interactive, and critical HL (24).

Study participants were purposively recruited from the civic- and health orientation program provided to newly arrived migrants. Eligible study participants had taken part in the three education modules containing SRHR-information: men's health, women's health, and HIV/STI. Women from the three largest language groups were targeted, Arabic, Dari/Pashto and Somali. Data was collected through in-depth interviews with nine refugee women who gave their informed consent to participate in the study. Four of the study participants represented the Arabic group, three the Dari/Pashto group, and two the Somali group. Their ages ranged between 24 and 38 years, eight had basic level of education, and the majority identified themselves as Muslim.

Interviews were conducted in the mother tongue of the study participant, with assistance from professional interpreters. Prior to the interviews, the interpreters were given instructions about how to carry out the translation-process related to the research interview. Efforts were made to ensure that the study participants were comfortable with the researcher and the interpreter. All interviews were held in a place that ensured privacy. The interviews lasted between 24 to 48 minutes and were audio-recorded with the study participant's permission.

### Paper II

This qualitative content analysis study used in-depth semi-structured interviews to collect data from communicators working professionally within the civic orientation as part of the establishment for newly arrived migrants. Study participants were recruited via email retrieved from a list of enrolled participants in a web-based

education platform targeting communicators. Eligible study participants had experiences of providing SRHR-information to migrants within the civic orientation for newly arrived migrants. Data was collected from 20 communicators who gave their informed consent to participate in the study. The interviews were conducted in Swedish, seven face-to-face, and eight digitally via Zoom. Five interviews were conducted via telephone. The interviews lasted between 35 and 70 minutes and were audio-recorded with the study participants permission.

### Paper III

This cross-sectional study was conducted based on data from the MWVS (130), which was collected during autumn 2018. The questions in the MWVS are the same as the traditional WVS but has also included specific additional questions to capture how social norms and values may change in relation to migration. The purpose was also to investigate migrants' views on integration, and how subjective indicators for integration differ depending on country of origin, and other sociodemographic factors (17).

Data was collected from 54 different municipalities. A stratified non-probability sampling method was used based on the census registers distribution of age, sex, education, and place of residence. Respondents were recruited from three different selection groups: SFI (Swedish for immigrants), a secondary school course in Swedish language, and through a special invitation. The special invitation was sent by post to the respondents' home addresses and complemented the sample by reaching respondents who had lived in Sweden for longer time and who were older. In the other two selection groups, the survey was distributed on-site by the research team. The respondents used reading-tablets with user-login to access the questionnaire, which was answered anonymously. The questionnaire was administered in English and translated into Arabic, Dari, Somali, Tigrinya, and Turkish. Research assistants and language support were available to assist the respondents (17). The national sample had a responds rate of 89% (n=6516). The Scania sub-set used in this study consisted of 2074 study participants (31,5% of the national sample).

### Paper IV

The MILSA 2.5 survey was collected during autumn 2018. MILSA 2.5 is a comprehensive survey with questions about different health related areas, including sexuality and sexual health, health care needs and utilization. The survey includes questions about resettlement, about social life in Sweden, about living conditions, trust, and participation. Prior to administration of the survey, the questions were piloted on persons from the study-population.

The survey was distributed to a randomly selected sample of 10 000 persons with home addresses in Scania. The survey was administered in Arabic and could be answered online or on paper. Five mailings were sent out. The first was administered online only, and the rest were paper based, with the possibility to answer online with a personal log-in (response rate 31% and 69%, for the paper-based and online-based surveys, respectively).

The final sample consisted of 3266 respondents, which corresponds to a response rate of 32,3%. A larger proportion of men than women (32,7% and 31,5%); older than younger (44,3% and 22,3%); Syrians than Iraqis (35,4% and 18,8%), and high-income than low-income (41,2% and 29%), returned the survey. Data was calibrated with register data to adjust for skewness in the non-responses. Selection bias was mitigated by weighting the data according to population distribution of gender, age, birth country, income, and municipality (131).

## Measurements

### Paper I

A semi-structured interview guide was constructed, inspired by the HL-framework. The questions were organised thematically to capture the women's experiences of receiving SRHR-information provided by the communicators as part of the civic orientation programme for newly arrived migrants. One pilot interview was conducted with an Arabic speaking woman, to assess the appropriateness and comprehensiveness of the interview guide. Table 4 presents thematic areas and examples of the probing areas from the interview guide.

#### Table 4. Thematic areas (Paper I)

Thematic areas and examples of probing areas from the interview guide.

Experiences of receiving SRHR information, in relation to previous experiences and life situation - Accessibility of information and how it was provided						
New knowledge and understandings						
- Added and corrections of previous knowledge						
- Reconceptualization's of previous understandings						
Application of knowledge						
- Usefulness in everyday life						
Need of SRHR knowledge among newly arrived refugees						
- Engagement in spreading the information to others						

Based on the women's reflections regarding their experiences of receiving the information, perceived in the wider spectrum of resettlement, culture, and need of

information, potential knowledge gains and application of knowledge in everyday life was interpreted in terms of SHL.

## Paper II

A semi-structured interview guide was designed to capture the experiences of communicators of providing SRHR-information within the civic orientation for newly arrived migrants. The interviews also captured their self-perceived role in facilitating access to information and their expressed needs regarding competences, skills, and working conditions. The semi-structured interview guide was structured thematically around the overall research question under investigation: *The self-perceived role of the communicator in providing SRHR-information; Challenges, and potential for providing SRHR-information within the civic orientation; response from the target group; Necessary competences, and skills; and internal and external recourses for coping with challenges regarding intercultural mediation of SRHR.* 

The questions about SRHR were placed in the wider perception of the role as communicator. Challenges and potential were connected to the self-perceived preparedness of the communicators to execute their assignment. Competences and skills related to the overall conditions under which the communicators operate, and their thoughts on the quality of implementation of culturally sensitive information. Prior to the interviews, the interview guide was piloted with an Arabic speaking man from the study population, to assess clarity of the questions.

### Paper III

This cross-sectional study explored the association between interpersonal trust and gender egalitarian attitudes among migrant men and women residing in Scania, and the differences in this association between men and women. It also investigated whether length of time in Sweden influenced the association between trust and gender egalitarian attitudes.

### Outcome variable

The outcome measure in Paper III was "low" or "high" gender egalitarian attitudes, reflecting more gender traditionality or gender sensitivity. The variable was created from seven questions to which respondents could state their answers on a scale from "strongly agree", "agree", "disagree", to "strongly disagree". The answer to each question was dichotomised as "agree" and "disagree". The outcome was measured as a "low" or "high" score based on the median of the total score of the index consisting of the dichotomised answers to the seven questions. Sub-categories of two aspects of gender egalitarian attitudes were explored. The "male breadwinner" (question 1-4) and "female caretaker" (question 5-7). (Table 5).

#### Table 5. Outcome variable, Paper III

Seven questions from the MWVS used for the index consitutiong the outcome: gender egalitarian attitudes, and subcategories: Male breadwinner (variable 1-4) and female care taker (variable 5-7).

1)	When jobs are scarce, men should have more right to a job than women
2)	A university education is more important for a boy than for a girl
3)	On the whole, men make better business executives than women do
4)	On the whole, men make better political leaders than women do
5)	If a woman earns more money than her husband, it's almost certain to cause problems
6)	When a mother works for pay, the children suffer
7)	Being a housewife is just as fulfilling as working for pay

The seven questions are included in the standard WVS. The subcategories were developed to reflect attitudes regarding equal opportunities for men and women (male breadwinner), and attitudes to traditionally gendered family roles (female caretaker).

### Explanatory variable

The explanatory variable in this study was "low" "medium" or "high" trust. The variable was created by aggregating the answers to six questions corresponding to out-group and in-group trust (132). Respondents were asked to answer on a scale from "trust completely", "trust somewhat", do not trust very much", and "do not trust at all", regarding: Your family, your neighbours, people you know personally (in-group trust), and people you met for the first time, people of another religion, and people from another nationality (out-group trust). The answers to each statement were recoded into a scale, which was summarised. A categorical variable representing "low", "medium" and "high" trust was created based on the third percentile of the total score. Two sub-categories of trust were used for the sub-analysis, corresponding to "low" or "high" in-group trust and "low" or "high" out-group trust.

### *Covariates*

Several covariates were included in the analysis. The categorisations of the covariates are presented in Table 6.

#### Table 6. Explanatory variables, Paper III

Covariates and categorisations for the analysis.

Variable	Categories
Gender	Male/women
Age	<20, 21-30, 31-40, 40+ years
Marital status	Married/cohabiting, divorced/separated, widowed, and single
Religious denomination	Muslim, Christian, no denomination, and other
Education level	Low, medium, high
Employment	Fulltime, part time, housewife, student, unemployed, other
Length of time in Sweden	< 1 year, 2-3 years, 4-5 years, > 6 years
Reason for migration: because of war or violence	Yes/no

Gender was dichotomised as men and women. Age was recoded from a continuous scale into four age groups: <20, 21-30, 31-40, >40 years. Marital status was categorised as married/cohabiting, divorced/separated, widowed, and singe. Religious denomination was categorised as Muslim, Christian, no denomination, and other. Education and employment are typical indicators for socioeconomic position. Both were included in this study, based on the reasoning that the concepts may have different meanings for persons in a migration situation.

Education is general related to both gender equality and trust (18, 73, 81). Education as human capital may not be possible to reinvest in the new home country due to the need for validation or language barriers. Having employment, depending on the employment, may be a good indicator for integration (133). Education level were coded according to International Standard Classification of Education (ISCED) (134), based on which categories of low, medium, and high education levels was created (ref). Employment was categorised as fulltime (more than 30 hours a week), housewife, student, unemployed, and other.

Length of time in Sweden is commonly used for measuring acculturation or integration in a country (135). In this study it was re-grouped from a continuous scale into one year or less, 2-3 years, 4-5 years, and six years or more. Reason for migration because of war or violence was dichotomised as yes or no. The variable is useful for understanding people's capacity, motivation, and strategies for adapting to a new country (74) (Table 6).

### Paper IV

This cross-sectional study explored general and migrant-specific predictors for STI/HIV-testing, on predisposing, enabling and need levels, and investigated direct and indirect causal pathways to STI/HIV testing, among Syrian and Iraqi migrants residing in Scania.

### Outcome variable

The outcome variable was STI/HIV-testing the past 12 months and was dichotomised as "no" or "yes" (coded as 0 and 1). The option to answer "don't remember" was coded as missing.

### Explanatory variables

Covariates were selected and structured in accordance with a migrant-specific framework for health service utilization (HSU) (113). Predictor variables were categorised as general and migrant-specific, and placed into predisposing, enabling and need levels.

*Predictors on the predisposing level:* Gender, age, marital status, sexuality, education, and waiting time for residence permit. Self-assessed sexuality was indicated by "heterosexual", "homosexual" or "bi-sexual", where the two latter were merged into one category in the analysis.

*Predictors on the enabling level:* Financial situation, emotional social support and practical social support, language skills, trust in health care, and trust in interpreters. Financial situation was measured as experiences of financial difficulties in the past year and was grouped as: "often" (merging "every month" and "half of the months"), "occasionally", or "never".

Waiting time for residence permit, was considered a migrant-specific variable on the predisposing level, and language skills, trust in health care, and trust in interpreters were considered migrant-specific predictors on the enabling level. Insecurity related to the waiting time during the asylum process has been associated with sexual risk behaviours and sexual risk exposures (8, 51, 64). It may postpone the possibilities for integration, and for securing economic and social stability (44). However, general predictor variables should be interpreted on the basis of the migration-related context, and the significance that various social and economic factors may have for persons who have recently resettled.

*Need variables:* Exposure to sexual coercion (ever), exposure to sexual harassment, drug-use, and alcohol-consumption (during the past 12 months). Sexual coercion was indicated by the question: "*It happens that people are drawn into sexual acts without wanting to. Have you ever without wanting to, been forced into such act*"? whereby the respondents answered "yes, one time", "yes, several times", and "no". In the analysis this was dichotomized as "yes" and "no". The variable sexual harassment was omitted due to multicollinearity with sexual coercion.

Table 7 show the categorisations of the outcome variable, and the explanatory variables on predisposing, enabling, and need level, that were included in the final analysis.

#### Table 7. Outcome variable and explanatory variables, Paper IV

General and migrant-specific predictor variables on predisposing, enabling, and need/risk levels.

Variables	Categories				
Outcome variable					
STI/HIV-testing (past 12 months)	No/ yes				
Predictor variables					
Predisp	posing level				
General factors					
Sex	Male/female				
Age	18-34, 34-44, +45 years				
Marital status	Married, unmarried, divorced/widow/widower				
Sexual orientation	Heterosexual, homosexual/bi-sexual				
Education	Pre-/high school (0-9 years), upper secondary school (10-12 years), post-secondary (13+ years, and university degree)				
Migrant -specific factors					
Waiting-time for residence permit "	0-6 months, 7-12 months, 13-18 months, + 18 months				
Enab	ling level				
General factors					
Financial situation "how often have you had difficulties paying your bills the past 12 months"?	Often, occationally, never				
Social support (practical) " Can you get help from somebody if you get sick or have practival problems (borrow things, reperations, receive information or advice)?	No/ yes				
Migrant-specific factors					
Trust in health care	No/yes				
Language skills "how far have you come in learning the Swedish language"?	Can communicate in Swedish, Can make myself understood, cannot speak swedish				
Need level					
Sexual coercion (ever)	No/yes				
Drug-use (past 12 months)	Never, one time or more				
Alcohol consumption (past 12 months)	Never, 1-4 times/month, 2 times or more a week				

## Data analysis

### Qualitative data (Paper I, II)

Both Paper II and Paper III used qualitative content analysis (136). This analytical approach seeks to explore variations of meanings and subjective, multifaceted, and contextual experiences and perceptions. The process of qualitative content analysis is guided by several steps, moving from the descriptive (manifest) to higher abstraction levels and exploration of latent interpretations of underlying meanings. Through the whole process there is an awareness of the context in which the phenomena or content is to be understood, and the persons characteristics in that context (136).

The basic outline of the different steps in a content analysis are (1) data collection, (2) transcription, (3) identifying content areas, (4) dividing text into meaning units, (5) condensing meaning units, (6) coding condensed meaning units, (7) making categories, (8) creating themes, (9) integration and comparison.

Both Paper II and Paper III applied a latent level of analysis, and the two studies followed the same process. The transcriptions of recorded interviews served as the unit of analysis. The process started with reading though the transcripts several times whereby the text was bracketed into meaning units. A meaning unit refers to a part of a text that relates to the same content and context. The meaning units were condensed and assigned codes. To condense mean to shortening the text, while preserving its central meaning. Due to differences in Swedish language skills amongst the interpreters in Paper I and the interview persons in Paper II, the condensation step was helpful to clarify the meaning unit. Codes were refined and aggregated based on similarities to form categories. Prior to forming categories in both Paper II and III, the codes had been divided into content areas. The content areas typically correspond to the sub-questions of the research question and facilitate the organisation of the analysis process. Categories were generated by identifying the underlying meaning that runs across them.



An example of the coding process is illustrated in Figure 3.

#### Figure 3. Coding process, Paper I

Example of the coding process, moving from meaning unit, condensation of meaning unit, codes, and sub-theme.

In Paper I, five content areas were formed by clustering the codes that had been assessed to the CMU: *cultural influence on perception, influences of context, the role of the civic-and health communicators, new insights,* and *health literacy.* Two overall themes emerged from identifying the underlying meaning of the sub-themes. The first theme was based on four sub-themes, and the second theme was based on three sub-themes. The analysis was performed using the software programme Open Code (ICT 2009)

In Paper II, five main content areas were formed based on the aggregated codes: *strengths and limitations, strategies, challenges, resources,* and *potential*. In Paper II, categories were merged to create nine sub-themes. These constituted the base for the four themes, and finally one overarching theme. The analysis was performed using Excel (version 16.38) and Nvivo 12 (version 12.6.0).

### Quantitative data (Paper III, IV)

Both Paper III and IV used Univariable and Multiple variable logistic regression analysis. Statistical analyses were conducted using SPSS version 25.0. In Paper IV, bootstrap analysis was carried out with Stata/SE 17.0 for Mac.

In Paper III, frequencies were calculated, and potential confounders were explored in correlation matrices. Goodness of fit was estimated with Pearson chi<sup>2</sup> test. Frequencies and chi<sup>2</sup> tests were conducted for men and women separately, to assess gendered patterns. Significance level was set at p<0.05. Univariable logistic regression analyses were performed to calculate the odds ratios (OR) with 95% confidence intervals (CI). Multivariable logistic analysis was performed in a stepwise manner, whereby covariates were introduced through three clusters of variables.

For Paper III the three clusters of variables were entered together with the explanatory variable (trust) in three steps. The final model controlled for all covariates. The clusters of variables represented following categories:

- Model I: Background variables (sex, age, marital status, religious denomination).
- Model II: Model I + human capital (education and employment).
- Model III: Model I + Model II+ migration specific variables (length of time in Sweden and reason for migration war and violence).

Adjusted odds ratios (AOR) and 95% confidence intervals (CI) were calculated to assess significant associations after controlling for other covariates.

Effect modification and synergy effects were explored for education and trust combined on the effect of gender egalitarian attitudes. Synergy effects was assessed by creating a new variable based on a combination of the three levels of trust, and the three levels of trust.

Sub-analyses were carried out by exploring the two aspects of gender egalitarian attitudes (male breadwinner and female caretaker) as outcomes. Sub- analyses were also carried out by using out-group trust and in-group trust as explanatory variables. All analysis were stratified by gender and length of time in Sweden. The sub-analyses and stratified analyses adjusted for age, marital status, education (and sex and length of time in Sweden), all covariates were entered simultaneously.

**Paper IV** analyzed direct and indirect pathways for the uptake of STI/HIV testing among migrants from Syria and Iraq with residence in Scania. The analysis was informed with a migrant-specific framework for health care utilization (HSU), where variables were placed into predisposing, enabling and need level-factors (113).

Directed acyclic graphs (DAGs) were used to model causal assumptions on the pathways between independent predictor variables on the different levels, and the outcome. The DAG is a useful tool for identifying confounding and mediating variables on the predictor-outcome relationship (137). The study investigated potential pathways to STI/HIV testing, thus, predictors could be both exposures and confounders, and covariates could mediate or modify the predictor-outcome relationship.

Based on the DAG, assumptions were made regarding a direct causal relationship between education and STI/HIV-testing. This relationship was also assumed to be mediated by sexual coercion via financial situation, in another pathway. Other independent pathways were between age, marital status, and sexuality, and STI/HIV-testing, via sexual coercion. Furthermore, language skills and trust in health care were seen as indicators for access to health care (unobserved) and was assumed to mediate the pathway between waiting time for residence permit and the outcome.

Frequencies were calculated, and multicollinearity was explored in correlation matrices, whereby the variable sexual harassment was omitted. Goodness of fit was assessed with Pearson chi<sup>2</sup> test with statistical significance set at two-tailed with  $\alpha$  of 0.05 and 95% confidence intervals (CI). Univariable logistic regression analyses were performed to calculate the odds ratios (OR) with 95% CI to investigate the effect of independent predictors on the outcome. Variables with p-value  $\leq 0.2$  were included in the next step of the analysis.

One main multivariable logistic analysis was performed to assess the relationship between predictors and the outcome, while adjusting for other covariates. Three blocks with variables categorised as predisposing, enabling, and need, were introduced in a stepwise manner. The fully adjusted model consisted of all variables. To verify some of the results found from the main analysis, another multivariable logistic analysis was performed with sexual coercion as the outcome-variable.

Bootstrap analysis was used to estimate the proportion of the indirect effect (IE) of the total effect (TE) of the mediating variable on the predictor-outcome relationship, by decomposing the total effect into direct and indirect effect of categorical variables (138).

The "migrant-specific" pathway was further explored by estimating the indirect effect of language skills and trust in health care on the pathway between waiting

time for residence permit and STI/HIV-testing. Analysis of the indirect effect were estimated using Stata/SE 17.0 for Mac.

## Ethical considerations

Ethical approval for Paper I and II was granted by the Ethical Review Board at Lund university. The data used in Paper III abide to ethical norms in line with the mission of the World Values Survey Association. The data for Paper IV was approved by the Regional Ethics Board in Lund.

Paper I have several different ethical considerations. The women were recruited in connection to their participation in the civic orientation for newly arrived migrants. Considerations needed to be taken as to the fact that the women were in a vulnerable situation. They were new in a country and system and were asked to talk about a topic that is perceived as very sensitive. Furthermore, they were asked by a researcher who may be perceived to be an authority. Great efforts were made to ensure that the women understood the information in the information letter, including the purpose of the interview, how their confidentiality was protected, that they could refuse to participate, and that they could withdraw their participation an any point without any negative consequences. The information letter was translated in the mother tongue of the study participants. A time and place for the interview was scheduled for those who were interested in participating in the study.

Prior to the interviews, the information letter was read to the study participant orally by the interpreter. It was clarified to the participants that the interpreter was under professional secrecy and the interpreter was asked to sign a confidentiality letter in the presence of the study participant, whereby the study participant gave their written consent. The interviews were recorded following permission from the study participants and deleted after the transcripts were completed. Contact information to health services was prepared in case support was needed. The study participants could contact the researcher if they had any questions or thoughts after the interviews. The interviews contained questions regarding their experiences of receiving SRHR-information, and their preferences in relation to this. The experience of the researcher was that the women expressed their appreciation to have been given the opportunity to share their point of view. Prior to the interviews, information was given to the interpreter about the role of the interpreter in research interviewing and it was clarified to them that they were under professional secrecy. Great care was taken not to reveal the identity of the study participants in the presentation of the results, and not to risk stigmatising a group in the way the results were presented.

For Paper II, the ethical review board committee judged that approval was not needed if the procedures for the research process were applied as described in the

application (Dnr 2018/768). The participants were contacted via email, with the information letter attached. Those who were interested in participating were asked to return the email, whereby a time for an interview was scheduled. The interviews were conducted either in person or digitally via video calls, as preferred by the study participants. Prior to the interviews, the purpose of the study was explained again, as well as the confidentiality and the possibility of the study participants to withdraw. Great efforts were made to ensure that what was revealed would not in any way affect their work situation or their participation in the training program. The interviews were audio recorded or videorecorded on permission of the study participants. Prior to the interview, the study participants gave oral informed consent.

Paper III is based on a sub-set of national MVWS data covering Scania. MWVS is part of the 7<sup>th</sup> wave of the collection of WVS data. This study is based on secondary data, and the author has not been part of the design of the survey, the recruitment of participants, or the data collection. MWVS was conducted to address the problem of underrepresentation of migrants in population-based studies (17). Many questions can be regarded as sensitive, which perhaps is evidenced by the number of missing data on some of the questions regarding gender equality and other. Language assistants were present during data collection to make sure that the questions were understood correctly. There is still a possibility that some of the concepts are difficult to understand, especially among persons with lower education levels, or who have problems with reading comprehension.

There are ethical aspects to be considered regarding the analysis of data, and presentation of results. Researchers have an ethical responsibility not to risk stigmatising specific subgroups. The analysis should be understood from its social and economic context. Gender equality was explored due to its importance as a determinant for SRHR. Trust may be a critical component for access to opportunities for inter-cultural dialogue and for participation in health promoting activities. Growing issues with residential segregation in Scania is a foundation for marginalisation and alienation, which demands attention and prevention.

Paper IV was approved by the Regional Ethics Board in Lund (Dnr 2018/255). The researcher had no part in designing the survey or collecting the data. Attached to the survey was an information letter which clarified the purpose of the study, what data was collected, how it was stored, and that data were treated with confidentiality. The information letter also informed that participation was voluntary. Data analysis was performed on a computer without internet connection. For some persons, the questions about sexuality, STI/HIV and sexual risk exposure may be perceived as very sensitive. The survey was sent to the respondents' homes, which may have affected the possibilities to answer the questions privately, or at all (131).

## Main results

How can a rights-based sexual and reproductive health be promoted in the context of resettlement?

### The influence of cultural conceptualisation of sexual health and sexuality on the perceived access to SRHR-information, and potential for building SHL (Paper I)

Paper I aimed to explore the ability of refugee women to access SRHR-information provided to them by communicators, as part of the civic orientation for newly arrived migrants. The findings were represented through two overall themes "opening the door to new understandings of SRHR" and "planting a seed for engagement in SRHR issues". The themes were founded on four and three sub-themes, for the first and second theme, respectively (Figure 4).



#### Figure 4. Themes and sub-themes, Paper I

Two overall themes and seven sub-themes illustrating the experience of newly arrived refugee women in receiving SRHR information from civic- and health communicators in Scania.

Paper I was based on interviews with nine women who were newly arrived in Sweden. The themes reflect how the women's access, interpretation, negotiation, and internalisation of the SRHR-information received, was influenced by gender norms based on patriarchal systems. The ability to accept the information and start the process of re-conceptualising SRHR was also determined by the intercultural communication skills, on the part of the communicator, and the group-composition in the classroom.

The results revealed that much of the SRHR-information, and the way it was provided and discussed, was new to the women. Sex education in the home country had been limited and mainly presented from a biological perspective. For some women, education had been disrupted by the migration. Sexual health was associated with a taboo, and HIV was deeply stigmatised. The rights aspect of sexual and reproductive health had not been covered in the information they had been provided with previously.

"...that here in Sweden you are a person, and you can live with AIDS, he will get medication, and he will get help, he will get the right information...you can also not infect others. This is a big difference.... if someone has this disease in the home country, you run, no one greets him, no one talks to him, no one sees him, he becomes very isolated." (Woman, Somali group)

The women were aware that much of their knowledge was based on myths and misinformation and were aware of the social stigma. They appreciated the opportunity to access information that could deconstruct these myths. Although the communicators were seen as a trustworthy source of information, to provide sensitive information as part of the civic orientation was not straightforward. Cultural barriers were reinforced in the classroom where the groups were mixed in terms of gender, age, and education. This influenced the acceptability regarding how and where the information was provided and limited uptake of information and possibilities to participate in the discussions.

"The problem is not the information, but it is the people, and the persons who listen to it. They are shy and it is embarrassing to listen to this kind of things in our home country". (Woman, Arabic group)

"Because it was a male communicator...and it was mixed with men, then you get information, but you would like to ask questions, and want answers to those questions, but you never get it, you can't do it" (Woman, Arabic group).

Paper I presented the perspective of the women receiving SRHR-information. They noticed that the mixed group challenged the communicator to provide SRHR-information in an acceptable manner. Some women noticed that the information at times was censured by the communicator to cope with his or her own discomfort and to accommodate the tensions in the classroom. But also, that some communicators more smoothly managed to balance the information in a culturally appropriate way and mediate the different cultural and contextual understandings.

"Since it is taboo in the home country, and here as well- it is the same people that are here in the classroom, I still think that it was not completely open information" (Woman, Dari group)

The women appreciated that the new context was more allowing for these discussions. They perceived that the information had contributed with new knowledge and understandings about SRHR, which allowed for them to reconceptualise their way of relating to the subject. This had led to positive changes in their everyday lives.

"There it was better with a female teacher...considering the culture and the women... it was good, it was appropriate, but here I think it was positive that it was a male teacher because you get used to it, the women get used to it, that it is normal and that everyone talks about it". (Woman, Dari group)

They had also received tools for information retrieval and sources to go to for further readings. This would be beneficial for them and their families, as well as for other migrant women in similar situations. To secure access to information for all women, especially vulnerable groups, a gender- and culture sensitive approach was necessary.

# The potential role of intercultural mediators for increasing access to information, dialogue, and re-negotiate conceptualisations of SRHR (Paper II)

Paper II investigated the potential role of the communicator for increasing access to SRHR-information among migrants resettling in Sweden, and examine what competencies and conditions are needed for such activities to be effective. It was based on interviews from twenty communicators, who were employed within the civic orientation for newly arrived migrants.

The findings were presented through one overarching theme: *facilitating an encounter with a new sexuality discourse*. This was founded on four main themes, and nine sub-themes (Figure 5). It reflected how the communicators, if equipped with the right training, could take advantage of the potential embedded in their roles, for facilitating a space for dialogue regarding culturally different, sensitive, and often politicised topics. Training in terms of intercultural communication about SRHR, adult pedagogy, and leadership skills was desired.



Figure 5. Overall theme, themes, and sub-themes, Paper II

One overall theme, two themes, and nine sub-themes illustrating the self-perceived role of communicators, and their experiences of providing SRHR information to newly arrived migrants in Sweden.

The self-perceived role of the communicators was to create links between newly arrived migrants and the Swedish society. Removing communication barriers to access to information, correct misconceptions, build trust and bridge socio-cultural understandings were perceived as main tasks. To create a space for dialogue about SRHR, building trust was essential. Both between the participants, and between the communicator and the participants. The interviews revealed that the components for building interpersonal trust were representativeness (culture, gender, migrant); language and cultural competence (understanding meaning systems); and contextual understandings (migration experience).

"You need to build trust so they can open up to you...and trust between each other in the classroom... when you have reached a level of trust where they can discuss without interruption and without conflicts, then we can discuss anything...that process takes time" (Male communicator, Arabic group).

Communicators own migration experiences helped them to relate to the migrant's process of resettling and contributed to building bi-cultural skills that were helpful when bridging cultural differences, specifically regarding subjects like SRHR and gender equality, where the distances were large. The shared cultural identity was relatable to the migrants, which made them trusted. However, the communicators cultural duality could also reduce the trust that was based on cultural affinity. This was especially expressed regarding SRHR, which is perceived as a controversial topic. To balance this in a constructive way demanded introspective reflection about their own process of acculturating to new SRHR norms and managing their cultural barriers.

The communicators needed to be skilled in balancing differences in the groups and be attentive to power dynamics in the classroom that influenced the uptake of SRHR-information and be able to mitigate eventual risks that the information could give rise to. The extent to which the communicators had received training in intercultural mediation regarding SRHR-information varied, and many reported their own and their colleagues' shortcomings in doing this in an appropriate way. Special attention needed to be given to individuals with lower education.

"We need training in how to teach...methods, what tools to use...we must be competent to provide this information. If we do not have the right sources, if we are not knowledgeable, we will not be trustworthy" (Female, Arabic group)

They stressed the need to put SRHR in a wider context of social determinants, power, human rights, legislations, science, gender equality, and integration. They helped the participants to reflect though dialogue and hoped to stimulate critical discussions about the cultural influence on perceptions and behaviour related to SRHR, which could counteract intergenerational conflicts and benefit future generations.

# Is interpersonal trust important for concepts about gender equality?

### The relationship with trust and gender egalitarian attitudes (Paper III)

Paper III explored the relationship between interpersonal trust and gender egalitarian attitudes among migrant men and women in Scania. It investigated the

difference between men and women, and in what way the association between trust and gender egalitarian attitudes was influenced by length of time in the country.

The sample consisted of 921 men and 1137 women. More than half of the study participants had migrated to Sweden due to war and violence. Most study participants were new in Sweden. Seventy- three percent had lived in Sweden three years or less, and 30% had resided in Sweden for less than a year. Trust was equally distributed over low, medium, and high levels. Both in-group trust and out-group trust were high (~70%). Gender egalitarian attitudes was equally distributed over high and low, where high indicated more gender equality.

The results from the univariable analysis indicated a strong relationship between high trust and gender egalitarian attitudes (OR 1.93, 95%CI 1.50-2.49). The association between trust and gender egalitarian attitudes remained in the fully adjusted model. Those with high levels of trust, compared to low, were almost two times more likely to score high on gender egalitarian attitudes (AOR 1.71, 95%CI 1.20-2.44), regardless of sociodemographic background, religious denomination, socioeconomic status, length of time in the country, or that the reason for migration was due to war and violence.

Trust levels seemed to be more important for men than for women's navigation towards gender equality. Men with high trust were almost three times more likely to have high score on gender egalitarian attitudes (AOR: 3.42, 95%CI 1.93-6.06), while this was not significant among women. Furthermore, the association between high in-group trust and gender egalitarian attitudes was significant among men only in the stratified analysis (AOR 1.78, 95%CI 1.12-2.85). There were no significant associations between out-group trust and gender egalitarian attitudes.

Both out-group trust and in-group trust were significantly associated with both subcategories of gender egalitarian attitudes "male breadwinner" (AOR: 1.32, 95%CI 1.99-1.74 for both categories of trust). Again, the stratified analyses indicated that this relationship was only significant for men (AOR 1.65 and AOR 1.89 for in-group and out-group respectively). High in-group trust was associated with a high score on the "female caretaker" model (AOR 1.34, 95% CI 1.00-1.79), but this was not seen in the analysis stratified by gender (Table 8). The probability of having a higher score on gender egalitarian attitudes was higher among those who had lived in Sweden for 4-5 years compared to those who had recently arrived, and who had high trust compared to low trust (3.73, 95% CI 1.21-11.47).

		<b>GENDER EGALITARIAN ATTITUDE</b>	IAN ATTITUDE			
A.TRUST		Total		Male	Female	1
	Crude	Adjusted <sup>a</sup>	Crude	Adjusted <sup>b</sup>	Crude	Adjusted <sup>b</sup>
High trust	1.93 (1.50-2.49) **	1.95 (1.39-2.74) *	2.75 (1.88-4.02)**	3.42 (1.93-6.06)**	1.62 (1.14-2.30) *	1.37 (0.89-2.12)
High in-group	1.78 (1.38-2.30) **	1.50 (1.14-1.97) *	2.30 (1.56-3.40)**	1.78 (1.12-2.85)*	1.59 (1.12-2.24) *	1.35 (0.95-1.91)
High out-group	1.24 (0.96-1.61)	1.12 (0.92-1.59)	1.44 (0.96-2.15)	1.44 (0.91-2.28)	0.90-1.75)	1.10 (0.77-1.55)
		MAI F BRFADWINNFR	~			
						1
B.TRUST		Total		Male	Fe	Female
	Crude	Adjusted <sup>a</sup>	Crude	Adjusted <sup>b</sup>	Crude	Adjusted <sup>b</sup>
High trust	1.77 (1.39-2.28)**	1.80 (1.28-2.53) *	2.62 (1.78-3.84)**	3.74 (2.08-6.72)**	1.45 (1.02-2.06) *	1.18 (0.76-1.83)
High in-group	1.71 (1.32-2.20)**	1.32 (1.00-1.74) *	1.83 (1.33-2.50)**	1.65 (1.03-2.64)*	1.20 (0.91-1.58)	1.16 (0.82-1.64)
High out-group	1.29 (1.00-1.66)	1.32 (1.00-1.74) *	1.47 (1.06-2.02)*	(1.19-3.01) *	(0.99-1.72)	1.09 (0.77-1.55)
		FEMALE CARETAKER	R			
C.TRUST		Total		Male	Fe	Female
	Crude	Adjusted <sup>a</sup>	Crude	Adjusted <sup>b</sup>	Crude	Adjusted <sup>b</sup>
High trust	1.60 (1.22-2.08)**	1.42 (1.00-2.02) *	1.75 (1.17-2.61) *	1.76 (0.98-3.14)	1.55 (1.08-2.23) *	1.23 (0.78-1.95)
High in-group	1.35 (1.09-1.67)*	1.34 (1.00-1.79) *	1.54 (1.10-2.14) *	1.47 (0.90-2.39)	1.31 (0.98-1.75)	1.27 (0.88-1.82)
High out-group	1.11 (0.90-1.38)	1.00 (0.75-1.33)	0.98 (0.70-1.36)	(0.53-1.36)	1.29 (0.97-1.73)	1.07 (0.75-1.54)

A synergy effect was found in the relationship between education and trust combined on an additive scale. The probability of having more gender egalitarian attitudes increased with increased educational levels, together with both medium or high trust (Table 9)

LEVELS			Gender egalitarian attitudes		
Education ·	– Trus	t	Crude odds ratio (OR)	Adjusted odds ratio (AOR	
Low	-	Low (ref)			
Medium	-	Low	1.50 (0.90-2.50)	1.45 (0.84-2.48)	
High	-	Low	2.06 (1.12-3.77) *	1.88 (0.98-3.61)	
Low	-	Medium	1.60 (0.96-2.67)	1.94 (1.12-3.36) *	
Medium	-	Medium	2.14 (1.29-3.55) *	1.98 (1.15-3.39) *	
High	-	Medium	2.78 (1.54-5.01) *	2.02 (1.08-3.78) *	
Low	-	High	1.65 (0.96-2.81)	1.62 (0.92-2.86)	
Medium	-	High	2.50 (1.50-4.18) **	2.33 (1.33-4.07) *	
High	-	High	5.66 (3.05-10.51) **	4.28 (2.18-8.40) **	

Table 9. Effect of education and trust on gender egalitarian attitudes, Paper III

Effect modification analysis on an additive scale showing the synergies effect of level of education on association between levels of trust and gender egalitarian attitudes. N=2074.

Adjusted Odds Ratios (AOR) and 95% Confidence Intercals (CI). Adjusted for sex, age, marital status.

# What is the general and migrant-specific pathways to SRHR-care?

## What causal pathways link predisposing, enabling, and need-factors to STI/HIV testing? (Paper IV)

Paper IV investigated the pathways between predisposing, enabling, and need factors in predicting the uptake of STI/HIV testing among Syrian and Iraqi migrants residing in in Scania, Sweden. The study used directed acyclic graphs (DAGs) to model causal assumptions about the pathways, which guided the focus of the analysis.

The final sample consisted of 1234 (38,3%) women and 1992 (62,7%) men, with a mean and median age of 36 and 38 years, respectively. The majority of the respondents were married and heterosexual. Forty-one percent had completed higher education, and 35% had lower education. Most respondents had received their residence permit within 6 months after migration, however 7.5% had needed to wait for more than 1.5 years. Regarding the enabling variables, almost one third (28%) of the respondents revealed that they often had difficulties with paying their rent during the past year. A majority had access to practical social support (85,2%). More than half of the respondents could communicate well in Swedish (52.2%) and

one third could make themselves understood (34.8%), while 13 % could not speak Swedish. About half of the study sample trusted the health care in Sweden. Regarding the need/risk factors, 3 % of the respondents had experiences of sexual coercion, 2% had taken any drugs, and 2.5% of the respondents had consumed alcohol on a weekly basis, during the past year. Four percent of the study sample had taken a STI/HIV test during the past 12 months.

The result from the bi-variate analysis indicated that younger age, unmarried marital status, self-identified bi-or homosexual, and higher education, was associated with a higher probability of having tested for STI/HIV the past year. Respondents who had waited a longer time for their residence permit were more likely to have tested. However, respondents with access to social support, and who trusted the health care were less likely to have tested.

Those who had been exposed to sexual coercion were more than eight times more likely to have taken a STI/HIV-test, compared to persons without this experience (OR:8.46, 95% CI 4.97-14.38). The odds of STI/HIV testing were also higher among those who had used drugs and increased with alcohol consumption.

The results from the main multivariable regression analysis are shown in Table 10. The results indicated that the pathway between age, marital status, sexuality, education, and the outcome was partially mediated by the enabling variables (financial situation, social support, language skills, trust in health care), and fully mediated by the need/risk variables. Suggesting that the pathway between the predisposing variables mainly operated indirectly, via the exposure to sexual coercion and risk-behaviours related to alcohol consumption. The odds of having tested for STI/HIV was more than three times higher among those with experiences of sexual coercion, after adjusting for all predisposing and enabling factors (AOR 3.75, 95% CI 1.84-7.63).

The result from the main analysis showed a direct relationship between higher education and the probability of having tested (AOR 1.93, 95% CI 1.14-4.09), confirming the assumptions made in the DAG. The bootstrap analysis indicated that language skills accounted for almost a third of the indirect effect (IE) of the total effect (TE) of the pathway between education and STI/HIV-testing (OR<sub>IE</sub> 1.23, 95% CI 1.02-1.48).

With regards to the migration-specific pathway, language skills and trust in health care seemed to have a protective mediating effect on the relationship between longer waiting time for residence permit and testing, by reducing the total effect of the exposure on the outcome (IE -9,9% and IE -3,4%, for the indirect effect of language and trust, respectively). A possible explanation is that for those with longer waiting time, language achievements and trust in health care, may act as protectors for other risk behaviours or risk exposures.

## Table 10. Multivariable llogistic regression analysis of predictor-outcome relationship, on predisposing, enabling, and need/risk levels, and STI/HIV testing

Adjusted through thee blocks in a stepwise manner, predisposing (Model I), enabling (Model II), and need/risk factors (Model III). N=3226. Adjusted Odds Ratios (AOR) and 95% confidence intervals (95%CI).

	Model I		Model	Model II		Model III	
	n	AOR (95%CI)	n	AOR (95%CI)	n	AOR (95%CI)	
Sex							
Female (ref)	817		756		713		
Male	1623	1.07 (0.67-1.71)	1477	1.15 (0.70-1.91)	1407	1.10 (0.65-1.86)	
Age							
18-34 years	883	2.55 (1.25-5.21) *	807	2.27 (1.09-4.71) *	771	1.88 (0.89-3.95)	
35-44 years	801	2.14 (1.03-4.46) *	729	1.77 (0.83-3.77)	694	1.67 (0.78-3.58)	
45+ years (ref)	756		697		655		
Marital status							
Married (ref)	1874		1734		1639		
Unmarried	404	2.65(1.65-4.25) **	353	2.06 (1.23-3.43) *	342	1.52 (0.88-2.62)	
Divorced/widow Sexuality	162	1.64 (0.71-3.78)	146	1.90 (0.81-4.45)	139	1.43 (0.60-3.40)	
Heterosexual (ref)	2256		2053		1948		
Bi/homosexual	76	3.68(1.83-7.41) **	69	3.04 (1.39-6.62) *	65	2.18 (0.92-5.13)	
Other	129	0.91 (0.33-2.48)	111	0.60 (0.14-2.50)	107	0.58 (0.13-2.41)	
Education		. ,		. ,		. /	
0-9 years (ref)	675		598		556		
10-12 years	537	1.10 (0.56-2.13)	487	1.38(0.66-2.87)	464	1.31 (0.61-2.80)	
13+ years	1228	2.24 (1.32-3.80) *	1148	2.16 (1.14-4.09) *	1100	1.93 (1.00-3.72)	
Waiting for		· · · · ·					
residence permit							
0-6 months	953	0.51 (0.23-1.13)	1019	0.58 (0.26-1.26)	968	0.55 (0.24-1.21)	
7-12 months	762	0.56 (0.25-1.25)	812	0.58 (0.26-1.28)	772	0.57 (0.25-1.27)	
13-18 months	265	0.50 (0.19-1.27)	286	0.67 (0.28-1.63)	272	0.64 (0.26-1.59)	
18+ months (ref)	106		116		108		
Financial							
difficulties			620		587		
Often (ref)			442	0.62 (0.33-1.17)	417	0.69 (0.32-1.24)	
Occasionally			1171	0.71 (0.44-1.15)	1116	0.83 (0.50-1.37)	
Never							
Language			235		219		
Cannot speak (ref)			733	1.05 (0.36-3.02)	694	1.14 (0.38-3.37)	
Can manage			1265	1.70 (0.62-4.66)	655	1.77 (0.62-5.00)	
Can communicate							
Trust health care							
No (ref)			1121		1056		
Yes			1112	0.74 (0.48-1.16)	1064	0.77 (0.48-1.22)	
Social support							
No (ref)			315		301		
Yes			1918	0.85 (0.48-1.16)	1819	0.92 (0.50-1.67)	
Sexual coercion							
Yes					60		
No (ref)					2060	3.75(1.84-7.63) **	
Drug use							
Never (ref)							
≥1 time					2075	2.06 (0.92-4.64)	
Alcohol					45		
consumption							
Never (ref)						2.34 (1.41-3.91) *	
1-4 times/month					1767	2.67 (1.09-6.55) *	
≥2 times/week					298		
					55		

## In what way is the experience of sexual coercion relevant for the pathway to STI/HIV testing? (Paper IV)

Paper VI found a direct pathway between experiences of sexual coercion and having tested for STI/HIV during the past year (OR 8.46, 95% CI 4.97-14.38). The significant relationship remained after adjusting for all predisposing (age, marital status, sexuality, education), enabling (financial situation, social support, language skills and trust in health care) and need/risk variables (alcohol consumption, druguse) (AOR 3.75, 95% CI 1.84-7.63) (Table 10).

The need/risk variables were proxies for actual needs in terms of symptoms or known risk exposure. The results indicated that the causal pathway between predisposing and enabling factors and the outcome mainly went via the experience of sexual coercion. These results were verified in a multivariable regression analysis with sexual coercion as the outcome variable. The results showed that those who were unmarried, who self-identified as bi- or homosexual, who reported financial difficulties, and with low access to social support were 2 to 3 times more likely to have experiences of sexual coercion.

Bootstrap analysis indicated that the indirect effect (IE) of sexual coercion and alcohol consumption of the total effect (TE) of the pathway between unmarried marital status and STI/HIV testing accounted for 13.1% (OR<sub>IE</sub> 1.21, 95% CI 1.08-1.36) and 15.9% (OR<sub>IE</sub> 1.23, 95% CI 1.07-1.43), respectively. Being able to communicate in Swedish increased the probability of having taken an STI/HIV test among unmarried persons, with an indirect effect (IE) of 6.7% of the total effect (OR<sub>IE</sub> 1.09, 95% CI 1.03-1.15). The results also showed that experiences of sexual coercion accounted for 46.4% of the total effect of the pathway between sexuality and STI/HIV testing (OR<sub>IE</sub> 1.33).

## General discussion

## Summary of main findings and general discussion

Improving access to SRHR-information and care among refugees and migrants remain a central issue (1, 6). As a group, migrants are faced with numerous barriers to SRHR-information and care, which hinder their possibilities to exert their sexual and reproductive rights (11, 20, 23). Researchers have emphasised the need for culturally sensitive sexual health promotion as part of early resettlement programs, with a focus on raising awareness of sexual and reproductive health rights and obligations (8, 20, 28, 76).

The papers included in this thesis have explored various perspectives and areas for understanding SHL related to a migration context, and access to SRHR-care and prevention among migrants who have resettled in Sweden. This thesis can mainly be discussed from two domains of health literacy: health promotion (Paper I, II, III), and prevention (Paper IV) (Figure 2) (120).

### Conceptualisation of SRHR and SHL

The conceptualisation of sexuality is strongly related to the ability to exert agency in sexual and reproductive health matters, and influences autonomy in sexual health help seeking (11, 26, 28). Paper I showed that the conceptualisation of SRHR among the newly arrived refugee women was strongly associated with a discourse of shame and taboo, which influenced their perception of the provided information, and their ability to receive it. The women's ability to receive the information was also affected by situational determinants under which the information was provided (e.g., men and women together). The SRHR knowledge among the women was generally low, and largely built on informal sources. The women expressed an awareness about the cultural bias in the knowledge they possessed and were grateful for the opportunity to correct misunderstandings and build knowledge that would be useful in the new home country. Although the availability of SRHR-information increases as a result of migration, access often continues to be restricted through internalised cultural stigma (27, 76, 79). The sexual discourse of shame and taboo hindering uptake of information and possibilities for building SHL has been found in several studies investigating access to sexual health information and services among refugee women in a western resettlement context (27, 28, 52, 76, 79).

Activities that aim to improve health literacy but fail to take into account cultural health beliefs will likely not succeed in meeting the needs of migrants. Thus, programs targeting migrants need to be designed to address language barriers, cultural barriers, and health literacy concurrently (83). Paper I showed that by providing culturally sensitive SRHR-information in the mother tongue could reduce some of the barriers and facilitate the uptake of SRHR-information. Paper II showed that intercultural communication about sensitive subjects required complex bilingual and bi-cultural skills among communicators. They needed skills to be able to re-code and translate cultural concepts and convey SRHR-information in a culturally appropriate manner (90). Representation in terms of cultural background and experience of migration were important components for building trust, which was a prerequisite for dialogue-based learning. It also contributed to the communicators abilities to understand cultural meanings related to SRHR and place it in the context of integration. This corresponds to sociocultural and constituent-involving strategies for cultural appropriate interventions (85).

### The role of the intercultural mediator

The availability of public health policies and integration policies have a direct effect on migrants' opportunities to; participate, learn the language, and access information, and have been shown to have an impact on the psychological health and general wellbeing of migrants (63). The quality of the implementation of activities has a bearing on the possibilities for migrants to fully benefit from integration- and health promoting activities (139).

Targeted interventions implies that there is enough homogeneity regarding certain characteristics in a subgroup for using one common approach. The civic orientation target newly arrived migrants, which is a heterogenous group. The composition of the groups is based on shared characteristics in terms of language, i.e., the lowest common denominator of a culturally sensitive approach (85). Paper I and II showed that the uptake of SRHR-information in groups of men and women, of different ages, and with different education, and different levels of cultural barriers, was strongly dependent on the communicators' capacity to adjust the information to the needs and abilities. Another study that evaluated the implementation of health communication within standard civic orientation have underlined the need for the program to better adjust the information to individual differences and previous knowledge (106).

This thesis showed that, given the right conditions, civic orientation can constitute a suitable platform for facilitating increased SRHR knowledge among newly arrived migrants, through the application of culturally sensitive and dialogue-based methods. However, there were large variations in the preparedness of the communicators to be able to teach SRHR. Communicators with organisational support, and clear role definitions, who had received training in pedagogy, intercultural communication, and leadership, and who had reflected about their own acculturation towards new conceptualisations of SRHR and gender equality, were more confident in their professional roles. Other studies have stressed the need for ensuring the sustainability of the profession of cultural mediators, or similar occupation, and securing the quality of the implementation by investing in capacity building, training, and secure employment (23, 29, 86, 92).

### Educational components for building SHL

In relation to migration, sexual health literacy must be understood in relation to the transition to a new political, social, and cultural context, and a person's ability to, access, comprehend, and evaluate information into making an informed decision in the new context. This process is influenced by previous knowledge, experiences, and health beliefs, and distance between the two contexts in terms of culture and system (26, 27, 52). These results are in line with Ingelby (2012), who stated that health literacy in relation to migration is a process of adaptation, acculturation, and reconceptualization of health in relation to new social structures and cultural meaning systems (123).

Paper I and II investigated the potential for building SHL as an outcome of sexual health education, as part of the resettlement program for newly arrived migrants in Sweden. In doing so they also identified critical organisational and educational components involved in this process. According to the HL framework proposed by Nutbeam (2000), different educational components can be applied depending on what HL levels, *functional, interactive*, or *critical*, are the target for improvement (24).

Interactive and dialogue-based methods were shown to be well suited for facilitating discussions on normative aspects of SRHR and gender, for developing communication skills, and independent decision-making in SRHR matters. This can be connected to educational components for interactive SHL (24). Skilled communicators aimed at building critical awareness about SRHR by putting the topic in the context of social determinants related to migration, integration, gender equality and power (85). They applied methods to stimulate reflection through discussions and problem solving (Paper I, II). This can be related to educational components for building critical SHL (121).

Having a higher level of education was not related to having more SRHR knowledge. However, higher education seemed to be related to an increased ability among the women to critically appraise the influence of cultural and gender related norms on perceptions of SRHR and abilities to re-negotiate cultural concepts (70). For some women, the new knowledge started a process of re-conceptualising cultural concepts of sexuality and gender, which was expressed in increased sexual agency. The new knowledge empowered them with the ability and confidence to communicate more openly about SRHR in their personal relationships. Other qualitative studies have shown that migration contributed to increased access to

SRHR knowledge and possibilities for building SHL based on rights-based concepts (27, 76, 79). According to Kickbusch et al (2001), SHL is an important tool for enabling women's empowerment by developing individual capacity and reducing gender and health inequalities regarding SRHR (25).

Women with lower education, with strongly internalised social stigma, and who perceived large cultural distances, desired factual knowledge that could correct misunderstandings and deconstruct misconceptions. Furthermore, they requested sources of translated information about evidence based SRHR, and needed to develop skills to independently search, sort, and critically review the information. This can be related to functional health literacy, which demands a different pedagogic model. These women were less prepared to participate in interactive learning with members from the same ethnic community and may have experienced an unmet need of SRHR-information (24).

### Supporting environments and gender equality

Raztan et al (2001) proposed a public health model based on an integration of the concepts of social capital and health literacy, for the achievement of community health literacy with the capacity to address social determinants of health (126). SHL can be discussed in terms of this conceptual integration. The practice of SHL takes place in people's everyday life, in family relations, and in the interplay with the social environment. Access to social support in a resettlement situation influences if, and when individuals seek care and is an important predictor for HSU at the enabling level. Trust is believed to facilitate the spread of health information, influence healthy behaviours, and mitigate risky behaviours (67-69). A trusted social network can facilitate contact with services and provide support in how to use them (113). Paper IV showed that access to practical social support was indirectly associated with HSU, by acting protectively against exposure to social coercion and other risk behaviours. Limited social network due to migration was associated with lower access to informal sources for SRHR-information among the refugee women in Paper I and have been associated with a lower awareness of where to go for contraceptives counselling and HIV testing (50). The women in Paper I expressed a will to forward the SRHR they had received in the program to family members and others in the social network. This may be connected the concept "health literacy mediators", proposed by Edwards et al (2015) (125). The social milieu can also restrict access to SRHR information if the ethnic community is isolated and adhere to strict traditional gender roles (78). Disinformation may be spread in the social networks that influences trust in western medicine and health care system (83). Lack of contact with the mainstream society can distort migrants' opportunities for intercultural dialogue, for accessing information, and negotiating cultural norms and values regarding sexuality and gender equality (70, 75).

Migration is a gendered and gendering process in terms of differences between men and women in risk exposure, and opportunities, and in terms of possibilities for a

repositioning of gendered roles (78, 81, 82). Studies have shown that migrants acculturate towards the gender norms of the host country over time (17, 81, 140, 141). Acculturation is guided by available opportunities a society provide for participating in the local community (90, 115). Migration to a country that promotes gender equality can contribute to opportunities for women to participate in social life and the workforce and increase access to sexual health information and awareness of rights (54, 81). Reason for migration, cultural distance, motivation, and perceived discrimination are other factors that influence migrants' strategies for adapting to a new society (74). Perceived marginalisation from the host society influences trust and may led to alienation and a will to hold on to traditional gender beliefs and practices (54, 73, 78, 142). Paper III indicated that trust was particularly important for men's attitudes towards gender equality. It suggests that men may be more sensitive to perceptions of marginalisation and the social environment for approaching new gender beliefs (78, 81). Paper III also showed that trust was more related to aspects of gender equality that regarded equal opportunities in education and employment, but it was not correlated with sub-categories of gender equality related to traditional gendered family roles. Upholding of traditional gender beliefs that assign women to be caretakers and homemakers may force women in resettlement situations into social isolation (44). This has consequences on their autonomy in seeking sexual health care (20, 80). The women in Kaneoka and Spence's (2020) study perceived that they had fewer opportunities to integrate with the host community compared to the men and felt forced to obey traditional gender roles, which limited their possibilities for building SHL (70).

### Access to prevention and care

Access to sexual health information and services is not only determined by individual SHL, but also the capacity of the public health system to respond to the needs of a culturally diverse population and increase the approachability by making the system less demanding (120). According to Levensque et al (2013) barriers or enablers to HSU can be found in the interaction between individuals' abilities and the health care systems ability to respond. Thus, variations in the utilization, which Levenque and colleagues refer to as "realisation of access" can be used as markers for inequalities in unmet need of health care (112).

Access to health information and services have a different meaning for a person who is new in a country and is unfamiliar to the system and culture (113). Health literacy is contextual and changes in medical, social, cultural, and linguistic context influence people's ability to receive, comprehend, and act on health information, and communicate health needs (89, 117). Poor sexual health outcomes among migrants can in part be attributed to lower levels of SHL, explained by the migration situation (89, 119). Crucially, differences in access to education, economic and social resources limit migrant communities' opportunities to participate in society

and to build capacity to address and advocate for changes in the social and physical environmental that affect their own and community health (117, 122, 124).

Paper IV can be placed in the overall disease prevention domain according to the HL framework (120). It investigated, in a way, the outcome of SHL in terms of HSU related to STI/HIV testing among migrants and applied a migrant-specific accessibility framework to guide the analysis (113). On group level, migrants have lower access to disease preventive and health promoting activities that target the general population (113). Migrants have a lower uptake of STI/HIV-testing and have a higher risk of late presentation (56, 111, 143). The asylum process is a particularly vulnerable period with an increased risk for sexual exploitation. Asylum seekers have limited access to health care, and to social and economic resources (13, 64).

Education is related to participation in preventive activities. Asides from having more opportunities for increased health knowledge, persons with higher education typically have more access to enabling resources such as social support and employment (113). Paper IV showed a direct predictor-outcome relationship between education and uptake of STI/HIV testing. This pathway was partly mediated by language skills, which accounted for almost a third of the indirect effect of the total effect of this relationship. Studies have also linked higher education to HIV-testing, regardless of sex or migrant populations. Studies have also linked lack of ability to communicate in the host country language to adverse testing behaviours (144).

Paper IV found that risk exposure and risk-behaviours had a direct effect on the uptake of STI/HIV testing and mediated other pathways between predisposing variables and testing. This indicates a risk awareness. It also indicated that services were available for risk groups within the migrant population. Risk awareness has been liked to higher likelihood of testing and timely presentation. Exposure to other risk behaviours, such as alcohol and drugs have also been linked to a higher uptake of testing services, due to risk awareness (144). Paper IV also suggested that language skills and trust in health care mitigated the potentially negative effect of a delayed asylum process, in terms of exposure to sexual coercion and related risk-behaviours. This underlines the need for preventive activities targeting persons awaiting a decision on their asylum application, to reduce the uncertainties associated with the process, and strengthen protective factors such as language skills, social and economic capital (8)(144).

### Implications for sexual health promotion targeting migrants

Interventions that target migrants with the aim of building SHL, need to be developed based on knowledge about the target group's needs, abilities, and preferences, incorporated in an understanding of the cultural, social, and economic context in which they live and exist (83, 84).

The results from this thesis contribute with valuable insights about critical components and factors on individual, inter-personal, organisational, and community levels, that influence the implementation and uptake of SRHR information. The results can be used for program development and to improve the quality of implementation of SRHR-interventions targeting newly arrived refugees and migrants, as well as migrants with longer residency in Sweden (139).

Trained communicators can teach basic knowledge about sexual health, STI/HIV, and build awareness about rights. They can increase functional and interactive health literacy, and stimulate critical health literacy, by providing information about available services and develop skills in how to use them. Through their unique position, the communicators can facilitate access to societal resources and networks in the local community, build trust to the health care and other institutions, and motivate action for health (68, 145). Other activities may be needed to reach women and men with lower levels of education and inadequate health literacy.

Civic orientation can constitute a safe space for dialogue about sensitive topics regarding sexuality, gender equality, and relationships in a migration situation, at an early stage in the resettlement process. To ensure quality and equality in implementation, and to ensure the sustainability of activities, investment need to be made in terms of education and skill development among the communicators, as well as organisational support, good working conditions and employment (139).

These results emphasise SHL from a public health perspective, and the need for health interventions that focus on community empowerment, local leadership, and activities for creating a supportive social and physical environment and reduce social exclusion. This may be more important for men's experience of trust and sense of belonging, and for their navigation towards more equality in relationships. The pathways leading trust to gender egalitarian attitudes needs further exploration. Activities should promote inter-cultural dialogue and strengthen links to other organisations and people, promote civic engagement and participation in social- and work life, with incentives for both men and women to participate, and with a focus on building critical SHL and mobilise action for social change (25, 66, 122, 124, 146). Outreach activities that target vulnerable migrant subgroups with increased risk of sexual exposure and other risk-behaviours, are needed. Here civil organisations may have an important role to play (44).

## A multifaceted approach to understand SHL among migrants resettling in Sweden

This thesis explored different perspectives and aspects to understand SHL and access to SRHR-care among migrants resettling in Sweden. A multi-faceted

approach was therefore employed, with both qualitative and quantitative methods, drawn from different data sources.

A qualitative study design and content analysis is suitable when investigating perceptions and experiences. Qualitative interviews are useful for exploring conceptual understandings. In-depth data allow for an exploration of perceptions and experiences, that can provide an increased understanding of a phenomenon (136, 147). The quantitative studies allowed us to investigate and assess patterns and relationships between the concepts trust and gender equality (Paper III) as well as analyse pathways to HSU in terms of STI/HIV testing (Paper IV).

Paper I and II complement each other with data that provide deeper understanding regarding newly arrived refugee women's experiences of receiving (Paper I) and communicators experiences of providing (Paper II) culturally sensitive SRHR-information within the resettlement programs for newly arrived migrants, and potential for building SHL.

A quantitative approach was applied in an explorative manner to investigate the relationship between the two concepts, trust, and gender egalitarian attitudes, related to an overall health promoting context and social interactions in the everyday life in a migration context in Sweden (126). Paper IV was also explorative and applied a method for understanding the pathways to STI/HIV testing among a sample of recently arrived adult migrant population in Scania. Aside from identifying factors on predisposing, enabling, and need/risk levels that are associated with an increased probability of STI/HIV testing, this study applied a method for investigating the pathways though which these factors operate, and what mediate the predictor-outcome relationship, which has been less investigated (113).

## Methodological considerations

Methodological considerations are discussed for each of the four papers included in this thesis. As a whole, this thesis has used a multi-method approach, with both qualitative and quantitative study designs, different datasets and analytic approaches, to explore SHL and access to SRHR-care related in a resettlement context. This should be considered a strength of this thesis.

Validity and reliability are related to quantitative study design, and concern how certain we can be that we are measuring what we set out to measure. Culture, population, and sample size are factors that can influence the validity and reliability of questionnaires. Construct validity entails the degree in which a test measures the theoretical construct that is intended (148).

Paper III and IV are quantitative cross-sectional studies that are based on secondary survey data collected through MWVS (130) and MILSA 2.5 (131), on adult migrants from outside of Europe, who have resettled in Scania. Both surveys include validated questions. MWVS-data was collected as part of the 7<sup>th</sup> wave of the WVS-survey (19). The questions about gender equality and trust that was used for Paper III are validated items from the standard WVS-survey. The six items for measuring in-group and out-group trust are regarded as appropriate and reliable for comparative and cross-cultural studies (149, 150).

In the analysis of Paper III, the items have been coded and indexed differently, which may have implications for the interpretations and comparisons of results across studies. Reliability tests were performed to assess the scales and sub-scales by testing internal consistency-reliability, and construct validity. The tests provide information on how each factor on a scale relates to all other factors, and based on this information, which factors should remain in the scale (148). The result indicated some conceptual differences regarding the item "trust in family" in relation to the other items (for the trust scale). It is possible that the importance of close social network is altered in a resettlement situation (28). Furthermore, the sub-scales for gender equality had few items and reduced sample size due to missing values, which may explain the weaker internal consistency of these sub-scales, and thus the results should be interpreted with caution (148).

It is essential to incorporate an awareness of cultural differences in perceptions and conceptualisations in the design of surveys targeting culturally diverse populations. Qualitative studies, such as Paper I, are useful for gaining in-depth understandings

about cultural concepts that can inform the design of a quantitative survey. To secure comprehension and cultural appropriateness, the questionnaire used in Paper IV was piloted on persons from the study population. Both surveys were translated into the native language of the respondents, which has been shown in other studies to increase participation (151).

Trust is a complex construct, and we need to acknowledge that the people relate to the concept in different ways depending on their cultural and social context and previous experiences (142, 149). Alternative measures of trust, such as community trust may be useful for measuring perceptions and manifestation of trust in relation to the immediate social environment, which may be relevant for studies on migrants in a resettlement context (71). Differences in conceptualisations of sexual coercion may have contributed to underreporting in Paper IV. Sexual coercion may have a different meaning for a person who have been socialised into a patriarchal society. Sexual relationships that in some societies are a natural part of the "marital duty", may in other contexts be regarded as "inter-marital rape" (76).

Length of time in the country and host country language skills are common measures of acculturation (135). Acculturation/assimilation is related to how well migrants understand the health system and health culture, and influence HSU (113). Paper III used length of time as an indicator for acculturation, and Paper IV investigated language skills as an enabling factor for the uptake of STI/HIV testing. Considering that many migrants may live in a host country for years with little contact with the mainstream population, language skills may be a more suitable indicator for behavioural acculturation, and a better predictor for HSU (54, 152). This may be particularly relevant for capturing barriers among women who due to traditional gender roles may be more socially isolated, with fewer opportunities to participate in activities such as language training or the workforce (44, 54, 70, 152).

External validity concerns the extent to which the results can be generalised to other contexts and populations. External validity is sensitive to selection bias (153). The MWVS survey that was used for Paper III applied different recruitment strategies to reach respondents who were older and who had lived in Sweden longer time. However, less well integrated migrants may be less willing to participate in surveys. These individuals may also have lower trust and adhere to more traditional gender beliefs. MILSA 2.5 (Paper IV) was almost a total sampling, that is, almost all eligible persons from the study population were invited to participate, up to 10 000 respondents. Skewness in the non-responses was managed by weighting the data according to population distribution of gender, age, country of origin, income, and municipality (131). The survey was sent to respondent's home addresses. Thus, there is no certainty that the survey has been answered independently, which may contribute to response bias (154). It is possible that the response rate would have been higher if the administration of the survey had been better with securing respondents' privacy.
Both Paper III and IV are based on self-reported measures. Thus, the information is of subjective nature, with risks of both under- and overreporting. Social desirability occurs when questions are perceived as sensitive and stigmatised. Consequently, these questions may have more non-responses or misreporting (155). Social desirability may be present in both Paper III and IV. The large number of missing values in the questions used for Paper III may be explained by social desirability regarding the gender-equality related questions, and response bias cannot be excluded. In Paper IV, the questions about STI/HIV, sexuality, sexual coercion, and sexual harassment, may have been perceived as sensitive and the answers to these questions are likely to have been underreported. Migrants may hesitate to reveal such information about STI/HIV testing due to stigma and fear of disclosure (144). Furthermore, more than 5% had ticked the box "don't remember" on the question about STI/HIV testing. This may be an indication of communication problems in the interaction with the health care provider (144). Missing data affects the effect size and precision, due to reduced sample size. Broad confidence intervals also leave some uncertainty in the result.

Both Paper III and IV are based on a cross-sectional study design. A limitation of the cross-sectional study design is that the direction of causality between factors cannot be assessed. However, Paper IV applied a method for exploring pathways for STI/HIV testing, and modelled predictor-outcome relationships using Bootstrap analysis and a method for decomposing the total effect to estimate the proportion of direct effect of factors on the probability of STI/HIV-testing, and the indirect effect of mediating factors. The use of sexual risk exposure and risk behaviour as a proxy for need contributed to more understanding of indirect pathways to testing (113).

Qualitative study designs are suitable when the aim is to get a deeper understanding of a certain phenomenon or experience. Paper I and II complemented each other by generating in-depth understandings of the experiences of refugee women in receiving (Paper I) and the communicators' experiences of providing (Paper II) SRHR-information as part of the resettlement program for newly arrived migrants. Using a sample of recently arrived women and communicators with variations in background characteristics, enhance the credibility of the study by capturing multiple perspectives (136). Women who were more hesitant to discuss sensitive issues may be underrepresented in the study.

In Paper I, a health literacy framework was used to guide the data collection, which may have probed for certain answers. However, using the framework for interpreting the results according to functional, interactive, and critical health literacy, contributed to a better understanding of how the concept can be related to sexual health (24). Both Paper I and II used individual interviews to collect data. Indepth individual interviews are appropriate when discussing topics that may be perceived as sensitive (136). In Paper II, data was collected with three different methods, face to face-, video-, and phone interviews. Using video interviews facilitate geographic spread and, as such, increases equality in data collection by

reaching persons who otherwise would not participate. Video interviews do not reduce the quality of data collection (156, 157). Member checks of transcripts and preliminary results were used to ensure the credibility of the data (136).

In Paper I, an interpreter was used for conducting the interviews. This require well thought out methodological and ethical considerations. Studies have shown that migrants have low trust in interpreters (131). This may be especially marked in interviews about sensitive topics, where both the interpreter and the interview person may experience cultural barriers. Using an interpreter can disturb the flow in the interviews and generate less rich data (147). There is also a risk that some words or underlying meanings are lost in the translation process (90). Thus, using interpreters may have an impact on the trustworthiness of the study in terms of credibility (136). Edwards (1998) argues that rather than carrying out studies *through* interpreters, interviews are carried out *with* interpreters, which require critical attention and reflection. The match between the interview person, interpreter, and researcher must be considered. It is critical to make clear the different roles of the interpreter and the researcher (158).

To increase credibility, only professional interpreters with training in interpreting in medical contexts were hired, and only female interpreters were used. However, the interpreters were not trained in research interviewing, and it was not always possible to use the same interpreter. Importantly, it is equally crucial that the researcher is trained in using interpreters when conducting research interviews (158). The procedure for the interviews was carefully described to the interpreter prior to the interviews and the experiences debriefed after the interviews. The interpreter also signed a confidentiality letter in the presence of the interview person, and the meaning of professional secrecy was carefully explained.

Throughout the research process, the researchers' pre-conceptions that may have influenced the process were addressed through peer-debriefing. The analysis process was discussed together with the co-authors, which increases the dependability of data and reduce the potential for investigator-bias (136).

Lastly, the results of this thesis must be interpreted in relation to the characteristics of the target group and the local context. The results may be applicable to similar resettlement contexts in Europe, with comparable policies and implementation of integration-and health promoting activities.

## Conclusions

- Culture sensitive SRHR-information provided by trained communicators/ intercultural mediators can contribute to building sexual health literacy corresponding to functional and interactive levels, among newly arrived refugee women, and stimulate critical awareness regarding determinants of SRHR.
- Organisational support, investments in training, and working conditions for the communicators affect the quality of implementation and sustainability of activities related SRHR-promotion within the civic orientation.
- Sexual health literacy is practiced in everyday life, in family relations and social interactions.
- Trust and gender egalitarian attitudes are closely interrelated and influenced by the education level. Migrant men may be more sensitive to perceptions of trust for their attitude towards gender equality.
- Sexual risk exposure and risk behaviours are directly related to a higher probability of STI/HIV-testing among migrants. Migrants who are unmarried, bi-or homosexual, who have economic difficulties, and those who have limited access to social support, are at greater risk for STI/HIV.
- Higher level of education is related to participation in preventive activities on a predisposing level. Language skills mediate the pathway between education and STI/HIV testing, by enabling the uptake of services.

## Implications for future studies

- Future studies may develop and pilot a tool for quantitative assessment of sexual health literacy and measure the effect of education programs on sexual health literacy among migrant men and women. A qualitative study can be applied to explore how sexual health literacy is "shared" in the social network through social interaction.
- Future studies can analyse the influence of social and environmental determinants, such as access to social network, participation, and neighbourhood characteristics, on the development of critical sexual health literacy. Such study may apply a participatory design.
- Future studies can investigate the gendered experience of resettlement in relation to the perception of sexual health and gender equality, and implications for building sexual health literacy.
- Future studies can investigate migrant-specific pathways to STI/HIV testing based on actual need, such as symptoms and known exposure, and investigate factors related to unmet need among migrants.

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