



A missed opportunity? Lack of knowledge about sexual and reproductive health services among immigrant women in Sweden

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ABSTRACT

Objective: Poor sexual and reproductive health (SRH) among immigrant women is often related to limited access, or suboptimal use of healthcare services. This study investigates the knowledge about and use of sexual and reproductive healthcare services among immigrant women in Sweden.

Method: A cross-sectional study of 288 immigrant women. A structured questionnaire was distributed among immigrants speaking Arabic, Dari, Somali or English registered at Swedish language schools for immigrants. Data collection took place in 19 strategically selected schools in Sweden. Descriptive statistics, chi-square tests, and logistic regressions were used for the analysis.

Results: About one-third of the immigrant women reported lack of knowledge of where to go for contraceptive counselling. Experiencing lack of emotional social support and not having had children was associated with this lack of knowledge. An even higher proportion (56%) lacked knowledge of where to go to be HIV tested, and this was associated with not having participated in a health examination. Almost 25% stated that their culture kept them back from using contraception.

Conclusion: Lack of knowledge of where to turn for contraceptive counselling and HIV testing among immigrant women participating in Swedish language schools for immigrants could be considered as a missed opportunity, as all citizens in Sweden have free access to these services. New health policies and strategies should aim to increase knowledge of SRH services among immigrants. Swedish language schools could play an important role in increasing knowledge of SRH-related information as many new immigrants become students during their first years in Sweden.

Introduction

Since 2012 the influx of asylum seekers to Europe has increased steadily as a consequence of conflicts and war. During 2016, Sweden was the most generous country in the EU to grant protection to asylum seekers in relation to the country's population size, with more than 7000 per million people living there [1]. In 2016 Sweden's population was estimated at 9.9 million, of which about 18% were immigrants [2]. As in other high-income countries, immigrants in Sweden seems to be more vulnerable to poor sexual and reproductive health (SRH) than the majority population. International and Swedish studies report that immigrant women from low-income countries living in Western settings have increased risk of maternal and perinatal mortality [3–7]. Moreover, immigrant women have lower rates of participation in cervical cancer screening programs and contraceptive counselling [8–9]. Little

is known about use of contraceptive counselling among immigrant women in Sweden. To our knowledge, the only study in Sweden from 2003 showed that immigrant women requesting induced abortions have less experience of contraceptive uptake and contraceptive counselling, than Swedish born women [10]. Nevertheless, Sweden has the highest abortion rate among young women in Europe [11]. Further, in comparison to other European countries, Sweden has a high proportion of migrants among those living, or newly diagnosed, with HIV [12]. This might seem paradoxical, due to Sweden's universal healthcare system, free access to contraceptive counselling, and HIV testing for all citizens, and in light of the main goal of the Swedish healthcare system being good health and healthcare on equal terms for the entire population (1982:763). Further, the concept of “sexual and reproductive health and rights” (SRHR) based on a human rights perspective, is a fundamental value of the Swedish political ideology. Every individual has a

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right to make their own choices regarding their sexuality and reproductive health, and SRHR highlights equal rights to access accurate information about safe, effective, affordable and acceptable contraceptive methods and access to prevention and treatment for sexually transmitted infections [13]. Furthermore, SRHR is essential to sustainable development goals due to their links to gender equality and women's health and survival, their impact on maternal, newborn, child, and adolescent health, and economic development.

However, some explanations for poor SRH are low socioeconomic status, suboptimal healthcare use and limited access to healthcare due to language barriers, miscommunication and unfamiliar of the health system [14–16]. Further, it's hypothesised that social capital (trust and networks) develops channels for the distribution of information and knowledge, and may result in higher participation of health-promoting programs [17]. The influx of non-Western immigrants to Sweden highlights the issue of equal access to services regarding SRH. Immigrants are a very heterogeneous group, with different socio-cultural backgrounds, and bring different beliefs, attitudes and behaviours regarding contraceptive and HIV testing, which may challenge healthcare access in the new country.

The main purpose of this study was to investigate immigrant women's knowledge of where to turn for contraceptive counselling and HIV testing, and to assess if differences in the use of contraceptive counselling and attitudes towards contraceptives could be explained by socio-demographic factors and social capital factors.

Methods

Study design and setting

Data from this cross-sectional study, based on a self-reported questionnaire, were collected during spring 2013 among immigrants studying at language school for immigrants (SFI) in four counties situated in different geographic areas of Sweden: Norrbotten, Stockholm, Östergötland and Skåne. SFI schools were considered to be the most appropriate place to reach immigrants regarding their permit residence status. In Sweden, refugees with a residence permit have to attend the SFI schools according to Swedish law, but SFI schools also attract immigrants other than refugees.

Data collection and study participants

Due to the aim of this study, we included only female participants in our analysis, which consisted of 288 women out of a total 606 participants who completed the questionnaire.

The study group are immigrant women, comprising both non-refugee women and refugee women. Non-refugee women are those who have been granted residence permit in Sweden due to family-reunification or other purpose of residence permit. Refugee women are those who have been granted asylum. This study was part of a larger project that investigated experiences and views on health examinations among refugees and other immigrants that have undergone a health examination or have been invited to participate [18]. A strategic sample was applied to reach the study project target group; the selection of SFI schools was therefore based on number of immigrants who had received asylum in 2012 in respectively municipality and county. In total, 19 schools agreed to take part in the study, which consisted of 170 SFI classes. Only schools with more than 30 students were selected; if a municipality had more than one SFI school, a school was randomly chosen. A consecutive enrolment was used, meaning that all students attending the classes when the questionnaire was distributed and fulfilling the inclusion criteria were eligible to participate. Eligibility criteria were: participants aged over 18 years born outside the EU; Arabic, Somali, Dari or English speakers. Language selection was based on the most common languages spoken among refugees in Sweden in 2012.

A team comprising researcher and language supporters visited the

schools and each class to collect data. The language supporters were people who spoke the same languages as the project target groups with different occupational background, such as interpreter, research assistant and social work. What they all had in common was that they spoke the same languages and had the same cultural background as the target population and had excellent skills in Swedish or English languages. Beside this, being familiar with subjects in the questionnaires, i.e. the Swedish health system and Swedish society, was an important criteria to qualify as language supporters. The language supporters were all trained by the researchers before collecting data. Together with the researcher they informed (in native language) the participants about the research project, distributed the questionnaires and gave instruction about how to fill in the questionnaire. Further, their role was to assist participants who needed help to understand the questionnaire and/or to fill in the questionnaire. In total, 13 percent received help from language supporters with reading and filling in the questionnaire and 14 percent received help with only reading. Participants with low education and illiterate participants were more likely to receive help from language supporter, as well as women in the oldest age group and women born in Afghanistan.

Questionnaire

The questionnaire contained 60 questions covering socio-demographic information, use of healthcare services, perceived knowledge of contraception and HIV prevention, attitudes towards contraceptive, social support and trust factors. Most questions were based on items used in previous studies and some were developed from a pilot study based on four explorative individual interviews and nine explorative focus group interviews about health examinations, with a total of 50 participants (Åkerman and Wängdahl, 2012, unpublished observations). The developed items were tested through 19 cognitive individual interviews in respective languages before being finalised. The questionnaire was translated into Arabic, Dari, Somali and English according to guidelines for the translation of instruments, which included translation, back translation and cognitive interview [19]. The translation of the questionnaire was done by language supporters. They were trained by the research team in order to produce translations of questionnaires that are appropriate for the target country/culture and are easily read, in terms of using natural and acceptable language and phrasing. Back translation was done by another independent language supporter.

Outcome variables

Main outcome variables were [20]:

“Do you know where to go if you want advice on contraception (yes or no)?” and “Do you know where you should go if you want to take an HIV/AIDS test (yes or no)?”

Secondary outcome variables

In order to describe knowledge of SRHR and accessibility to SRH-care services, further questions were analysed descriptively: “Have you ever been in contact with healthcare services to get advice on contraception (yes or no)?”

“Do you think that your culture stops you from using contraceptive in case you would want to do that (yes, no or don't know)?”

“Do you know how to protect yourself or your partner from an unwanted pregnancy (yes or no)?”

“Do you know how to protect yourself against different sexually transmitted diseases (e.g. HIV/AIDS, chlamydia, gonorrhoea) (yes or no)?”

“Can birth control pills protect you from getting HIV/AIDS (yes or no)?”

Explanatory variables

Explanatory demographic variables were: age, country of birth, education level, marital status, years of residency in Sweden, having children, religion, and reason for coming to Sweden. Other explanatory variables were social capital factors and participation in health examination.

Social capital factors were measured in terms of trust and social support [21]. Trust was measured by asking: “What confidence do you have, in general, in healthcare services (no confidence, little confidence or a lot of confidence)?”

Social support was measured by asking “What kind of social support did you have when you were waiting for the residence permit?” followed by two questions:

- (1) “Do you have someone you can share your innermost feelings with and feel confident in (yes, no, or don’t remember)?”, named as *emotional social support*;
- (2) “Was there someone nearby that you could easily ask for help with things (for example, help collecting your mail, watering your flowers, or translating Swedish text) (yes, no or don’t remember)?”, named as *instrumental social support*.

“Have you participated in a free health examination for asylum seekers (yes, before I got my residence permit; yes, after I got my residence permit; yes, but I don’t remember when; no or don’t know)?”

Data analysis

The data were analysed using SPSS version 22. Descriptive analyses were performed and associations were tested using chi-squared tests. All outcome variables were cross-tabulated with the demographic variables and explanatory variables. Statistical significance was set to a p value of > 0.05 . Bivariate and multivariate logistic regression analyses were used to calculate odds ratios, with 95% confidence intervals for the main outcome measure: knowledge of where to turn for contraceptive counselling/HIV testing. Analyses were performed stepwise, including the explanatory sociodemographic and social capital variables, as well as potential mediating factors; Views on the role of culture for contraceptive use and participation in health examination. Model 1 included sociodemographic variables. Model 2 included the same variables as model 1, plus other variables where significance was found in bivariate analysis. Due to few observations in some variables, we could not include all other variables in Model 2.

Ethical consideration

Ethical approval was sought at the Regional Ethical Review Board of Uppsala, Sweden (registration number 2012:506), but according to Swedish law a committee judgment was not considered applicable or relevant, since data collection was performed anonymously and individual identification was not possible. However, all eligible SFI students were informed about the research project and that participation was voluntary. SFI students consenting to participate were given the questionnaire in a separate classroom, which they completed on site.

Results

Socio-demographic characteristics

All socio-demographic details are presented in Table 1.

Knowledge of where to turn for contraceptive counselling

About two-thirds of the women reported having knowledge of where to turn if they need contraceptive counselling (Table 2). In the

Table 1

Information on socio-demographic factors, social support and trust among respondents ($n = 288$).

	N (%)
<i>Age (mean: 36)</i>	
18–30 years	89 (35.9)
31–45 years	115 (46.4)
> 46 +	44 (17.7)
<i>Country of birth</i>	
Somalia	73 (29.0)
Iraq	67 (26.6)
Syria	28 (11.1)
Afghanistan	27 (10.7)
Another country	57 (22.6)
<i>Religion</i>	
Muslim	191 (72.1)
Christian	51 (19.2)
I have a different religion	20 (7.5)
Not religious	3 (1.1)
<i>Reason for migration</i>	
Seeking asylum	203 (72.5)
Marriage to a Swedish/Nordic citizen	29 (10.4)
Family lived in Sweden	24 (8.6)
Labour/another reason	24 (8.6)
<i>Total years in Sweden</i>	
Less than 2 years	71 (28.4)
3–4 years	87 (34.8)
More than 5 years	92 (36.8)
<i>Married/Cohabiting</i>	
Yes	180 (65.2)
No	96 (34.8)
<i>Having children below 18 years</i>	
Yes	145 (54.3)
No	122 (45.7)
<i>Highest education level completed</i>	
None	43 (15.1)
1–6 years	70 (24.6)
7–12 years	102 (35.8)
More than 12 years	70 (24.6)
<i>Participated in health examination</i>	
Yes	237 (89.4)
No	28 (10.6)
<i>Report having emotional social support</i>	
Yes	114 (54.3)
No	96 (45.7)
<i>Report having instrumental social support</i>	
Yes	154 (62.1)
No	94 (37.9)
<i>Report having trust in healthcare services</i>	
High	85 (32.2)
Low	179 (67.8)

fully adjusted model (Table 3), women reporting no emotional social support and women having no children had increased odds of lack of knowledge about where to go for contraceptive counselling. In the univariate analysis, stating that culture prevented women from using contraception was associated with lack of knowledge of where to go for contraceptive counselling, but this association disappeared in the fully adjusted model.

Knowledge of where to turn for HIV testing in Sweden

Only one-third reported having been HIV tested, and just over half did not know where to turn for HIV testing (Table 2). Lack of knowledge was associated with country of birth. Women born in Afghanistan, Iraq and Syria had increased odds of lack of knowledge (Table 4). Women who hadn’t attended a health examination had higher odds for lack of knowledge. After adjustment for all demographic factors, the

Table 2
Respondents' knowledge about and experiences of sexual and reproductive health and related healthcare services.

	N (%)
<i>Do you know where to go if you need contraception counselling?</i>	
Yes	173 (69.2)
No	77 (30.8)
<i>Have you ever been in contact with healthcare services in Sweden to get advice on contraception?</i>	
Yes	79 (32.0)
No	166 (68.0)
<i>Do you think that your culture keeps you back from you from using contraception in case you would what to do that?</i>	
Yes	65 (26.6)
Don't know	21 (8.6)
No	158 (64.8)
<i>Do you know how to avoid/prevent an unwanted pregnancy?</i>	
Yes	182 (69.5)
No	80 (30.5)
<i>Do you know where to go if you need to take an HIV- test?</i>	
Yes	106 (43.8)
No	136 (56.2)
<i>Have you ever been HIV tested?</i>	
Yes	85 (34.8)
Don't know	21 (8.6)
No	138 (56.6)
<i>Do you know how to protect yourself against STD (HIV/AIDS, chlamydia, gonorrhoea)</i>	
Yes	177 (67.0)
No	87 (33.0)
<i>Do you know if birth control pills protect you from getting HIV/AIDS?</i>	
Yes	91 (36.8)
No	156 (63.2)

association with participation in health examination remained significant.

Use of contraceptive counselling

Most women (68%) had never participated in contraceptive counselling in Sweden (Table 2). Chi-square test showed that a higher proportion of women with more than five years' residence in Sweden have received contraceptive counselling, compared to those women with less than two years (Supplementary Materials, Table 5). Use of contraceptive counselling was also more common among women living with a partner and having children.

My culture keeps me back from using contraceptive

About one-quarter of respondents perceived that their own cultural beliefs prevented them from using contraceptives, and an additional 9% reported "did not know" (Supplementary Materials, Table 5). Chi-square test showed that among those who had lived in Sweden for more than five years, a higher proportion reported that culture prevents them from using contraception, as compared to women who have lived in Sweden for less than five years. Somali born women showed the highest proportion stating that their culture prevents them from using contraceptives (50%).

Self-perceived contraceptive knowledge and awareness

Most women stated that they knew how to avoid getting pregnant (70%) and how to prevent STDs (67%). In the group with the lowest education level, more women had insufficient knowledge of how to avoid getting pregnant (51%) and to prevent sexually transmitted infections (48%), compared to those with higher education levels (Supplementary Materials, Table 6). Slightly more than one-third (37%)

believed that birth control pills protect against HIV/AIDS (Table 2).

Discussion

This study found that one-third of immigrant women reported lack of knowledge of where to go for contraceptive counselling, and an even higher proportion lacked knowledge of where to go to be HIV tested. The study suggests that having no social emotional support and no children was associated with lack of knowledge regarding where to turn for contraceptive counselling. No comparable studies have been found regarding the role of social emotional support for knowledge of contraceptive access. However, the findings seem highly reasonable for migrant women, as issues regarding contraceptive use and reproduction are related to personal values and beliefs shaped by culture and religion [22]. In some cultures, women might prefer to discuss this type of issue with those they have close relationships with. Previous systematic review demonstrated that the importance of bonding social capital for healthcare access depends on the quality of the relationships, and the norms or beliefs of the members within the network [23].

Further, in this study one-quarter of the women perceived that their own culture keeps back them from using contraceptive, confirming the role of culture and personal values. As the literature demonstrates, there are differences between ethnic groups regarding contraceptive use, probably due to different cultural, socioeconomic and educational factors [22,24,25]. Differences between ethnic groups regarding contraceptive use, could probably be explained by different cultural, socioeconomic and educational factors. Interestingly, those women who have been in Sweden longer were more likely to think that culture prevents them from using contraceptive counselling. This could be explained by women with longer residence being more aware of the cultural differences between their own culture and the Swedish culture. More research is needed to understand this finding. The result of women without children having higher odds of limited knowledge about contraceptive counselling could be explained by the fact that they might have less contact with maternity care compared to women with children. In Sweden, all pregnant women are offered free routine health checks at maternity care during pregnancy, and contraceptive counselling after childbirth.

Participation in health examination is associated with knowledge about where to turn for HIV testing, which could be explained by the fact that immigrants coming to Sweden as refugees are HIV tested when attending health examination. However, despite most women having undergone health examination, it is surprising that more of them don't know where to go for HIV testing. Findings also showed that two-thirds of women knew how to avoid an unwanted pregnancy and sexually transmitted diseases. However, compared to a previous study among Thai immigrant women in Sweden [20], the women in this study had less knowledge, which might be explained by the sociodemographic background factors. A worrisome finding is that slightly more than one-third of the women believed that birth control pills can prevent HIV/AIDS. Misconception related to HIV/AIDS has been found in a previous study in Sweden with a similar population as this study [26].

Strengths and limitations

A strength of this study is the strategic sample that reaches out to a wide range of newly arrived immigrants, as immigrants coming to Sweden as refugees are legally required to attend Swedish Language School. A further strength is that the questionnaire was translated into several languages, enabling more immigrants to take part in the study. Furthermore, the involvement of language supporters in collecting data made it possible to include illiterate respondents. Without these strategies it would not have been possible to include illiterate immigrants or those with insufficient Swedish language. An additional strength might be the possibility to control for important potentially mediating factors, such as views on the role of culture for contraceptive use and

Table 3

Associations (Odds Ratio) between lack of knowledge of contraceptive counselling and background factors.

	Crude OR	(95% CI)	Model 1		Model 2	
			OR	(95% CI)	OR	(95% CI)
<i>Age</i>						
18–30 years	1		1		1	
31–45 years	0.53	(0.28–1.02)	1.11	(0.46–2.68)	3.13	(0.99–9.92)
> 46 +	0.84	(0.38–1.86)	0.66	(0.20–2.13)	2.57	(0.59–11.20)
<i>Country of birth</i>						
Other	1		1		1	
Somalia	0.56	(0.25–1.25)	0.84	(0.24–2.94)	0.67	(0.14–3.10)
Afghanistan	1.02	(0.39–2.68)	2.13	(0.51–8.94)	3.38	(0.53–21.67)
Iraq	0.71	(0.33–1.53)	1.53	(0.51–4.64)	1.87	(0.46–7.55)
Syria	0.56	(0.20–1.57)	1.22	(0.30–5.03)	1.53	(0.29–8.05)
<i>Total years in Sweden</i>						
More than 5 years	1		1		1	
3–4 years	2.23	(1.04–4.8)*	1.55	(0.56–4.29)	2.84	(0.75–10.85)
Less than 2 years	3.56	(1.63–7.75)***	1.88	(0.63–5.60)	3.22	(0.78–13.35)
<i>Highest education level completed</i>						
More than 12 years	1		1		1	
7–12 years	0.57	(0.28–1.17)	0.64	(0.23–1.78)	0.47	(0.14–1.63)
1–6 years	0.87	(0.41–1.83)	1.03	(0.32–3.34)	0.87	(0.21–3.56)
None	0.93	(0.39–2.21)	1.34	(0.32–5.57)	0.45	(0.07–2.84)
<i>Married/Cohabiting</i>						
Yes	1		1		1	
No	1.50	(0.85–2.64)	0.84	(0.37–1.90)	0.95	(0.35–2.61)
<i>Having children below 18 years</i>						
Yes	1		1		1	
No	3.14	(1.75–5.63)***	5.73	(2.25–12.84)***	6.97	(2.33–20.85)***
<i>My culture keeps me back from using contraceptive</i>						
No	1				1	
Don't	3.54	(1.39–8.98)**			0.99	(0.15–6.39)
Yes	1.12	(0.60–2.13)			2.68	(0.89–8.09)
<i>Report having emotional social support</i>						
Yes	1				1	
No	3.19	(1.68–6.07)***			2.94	(1.09–7.94)*
<i>Report having instrumental social support</i>						
Yes	1					
No	0.93	(0.93–2.96)				
<i>Report having trust in healthcare</i>						
High	1					
Low	0.90	(0.49–1.64)				
<i>Participated in health examination</i>						
Yes	1					
No	2.25	(0.97–5.2)				

Crude OR for considered explanatory factors. Model 1 Adj. OR for sociodemographic factors: age, country of birth, years in Sweden, education, marital status, children. Model 2 Adj. OR factors included in Model + culture and emotional social support.

OR = Odds Ratio, CI = Confidence Interval.

* $P < 0.05$.

** $P < 0.01$.

*** $P < 0.001$.

participation in health examination. However, the study has several limitations that need to be mentioned when interpreting the results. Conclusions on causal relationships could not be drawn due to the cross-sectional study design. Furthermore, random sampling was not applied, and the lack of representativeness may limit the possibility to generalise to other immigrant groups. Since the data from this study is derived from a larger project using strategic sample in order to reach those with experiences of health examination, there might be an overrepresentation of immigrant women with refugee status.

The exposures and outcomes are based on self-reported measurements so the data reported are subjective. When using self-reported knowledge, there is a risk of overestimation of knowledge or overconfidence about incorrect knowledge. Studies have showed that self-reported sexual behaviour and HIV/STI testing have been under-reported in relation to actual HIV/STI testing [27,28] limited by a social

desirability bias [29]. Some of the missing data related to questions about sexual and reproductive issues may be explained by social desirability; in some cultures these are sensitive topics. The fact that some participants received help from language supporters with reading and filling in the questionnaire, could lead to increased misreporting due to response bias as well as social desirability bias. For example, participants might have under-reported their use of SRH care services, or over-reported their knowledge about SRH care services because of embarrassment. However, previous research shows that the measure used for self-reported use of healthcare offers a reasonably valid estimate of differences between socioeconomic groups [30], and similar measurements have been used in research and various health surveys. Selection bias should also be considered as the sample of participants was not randomized. That 17 percent of the women were over 47 years might lead to overestimation of knowledge about SRH care services, due to

Table 4
Associations (Odds Ratio) between lack of knowledge of where to go for HIV testing and background factors.

	Crude OR	(95% CI)	Model 1		Model 2	
			OR	(95% CI)	OR	(95% CI)
<i>Age</i>						
18–30 years	1		1		1	
31–45 years	1.00	(0.54–1.85)	0.71	(0.32–1.59)	0.71	(0.31–1.63)
> 46 +	0.86	(0.40–1.87)	0.54	(0.18–1.56)	0.58	(0.19–1.78)
<i>Country of birth</i>						
Other	1		1		1	
Somalia	1.20	(0.56–2.58)	1.82	(0.61–5.40)	1.82	(0.55–6.0)
Afghanistan	5.87	(1.72–19.99)**	7.61	(1.77–32.78)**	7.99	(1.74–36.75)**
Iraq	2.55	(1.17–5.58)*	2.68	(0.96–7.52)	3.39	(1.11–10.32)*
Syria	4.37	(1.49–12.83)**	4.38	(1.16–16.54)*	4.95	(1.21–20.26)*
<i>Total years in Sweden</i>						
More than 5 years	1		1		1	
3–4 years	0.81	(0.42–1.57)	0.49	(0.20–1.22)	0.52	(0.21–1.33)
Less than 2 years	0.78	(0.39–1.55)	0.45	(0.17–1.22)	0.42	(0.15–1.20)
<i>Highest education level completed</i>						
More than 12 years	1		1		1	
7–12 years	0.72	(0.37–1.40)	0.59	(0.23–1.51)	0.73	(0.27–2.0)
1–6 years	0.62	(0.30–1.29)	0.58	(0.18–1.82)	0.84	(0.24–2.85)
None	0.76	(0.33–1.77)	0.75	(0.21–2.71)	1.28	(0.33–5.02)
<i>Married/Cohabiting</i>						
Yes	1		1		1	
No	0.79	(0.46–1.35)	0.84	(0.40–1.77)	0.81	(0.37–1.75)
<i>Having children below 18 years</i>						
Yes	1		1		1	
No	0.98	(0.58–1.65)	1.21	(0.57–2.56)	1.29	(0.58–2.89)
<i>Report having emotional social support</i>						
Yes	1					
No	1.03	(0.57–1.86)				
<i>Report having instrumental social support</i>						
Yes	1					
No	0.88	(0.50–1.54)				
<i>Participated in health examination</i>						
Yes	1				1	
No	6.86	(1.98–23.74)**			7.91	(1.39–45.22)*
<i>Report having trust in healthcare</i>						
High	1					
Low	1.38	(0.80–2.41)				

Crude OR for considered explanatory factors. Model 1 Adj. OR for sociodemographic factors: age, country of birth, years in Sweden, education, marital status, children. Model 2 Adj. OR factors included in Model + health examination.

OR = Odds Ratio, CI = Confidence Interval.

* $P < 0.05$.

** $P < 0.01$.

that their experience of reproduction and previous contact with health services might differ from women below 18 years. If women below 18 years had been included, the result of knowledge might differ from the present study. Since this study was part of a larger project that investigated experiences and views on health examination, participant under 18 years were excluded, as they do not receive their own invitation to participate in the health examination. Further, immigrants under 18 years in general do not attend the Swedish Language schools for immigrants, instead they are recommended to attend schools where also Swedish youth are studying. Nevertheless, this study does not measure respondents' actual perceived need for contraceptive counselling, and it may therefore be difficult to interpret the results of this measurement. That some odds ratios in the statistical models have wide confidence intervals because of few observations is another limitation. Despite that some category were uncommon in this study and for these the CI were broad, but still significant, indicating a sufficient sample size for testing. Further, the sample size has been tested in previous studies and found to be appropriate in general [18,31].

Implications and future research

This is the first study investigating knowledge of SRH services among females who are mostly refugees residing in Sweden. The lack of knowledge among these women about where to turn for contraceptive counselling and HIV testing should be considered a missed opportunity, as all citizens in Sweden have free access to these services. This study shows that the Swedish government's values around SRHR as a human rights concern are not meeting their intended vision of everyone having the right to access knowledge regarding SRH services and information. Also, the misconception around birth control pills implies a lack of adequate knowledge. Nevertheless, Swedish language schools could play an important role in increasing knowledge of SRH-related information, as many new immigrants are students during their first years in Sweden. Further research is recommended to explore contraceptive use, and the need for services and information related to SRH and rights. Increased knowledge of immigrant women's need of SRH services could enlighten policymakers and other organisations in developing relevant strategies and interventions.

Conclusion

A considerable proportion of the immigrant women reported lacked knowledge of where to turn for contraceptive counselling. Even more lacked knowledge of where to go for HIV testing. This should be considered as a missed opportunity for immigrant women, as all citizens in Sweden have free access to these services. Improved health policies and strategies should aim to increase knowledge of SRH care services and information among immigrants.

Declarations of interest

The authors declare that they have no competing interest.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.srh.2018.12.005>.

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