



# Barriers to Sexual and Reproductive Wellbeing Among Saudi Women: a Qualitative Study

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## Abstract

**Introduction** In Saudi Arabia, sexual and reproductive health education is not offered in any formal setting, and there is a significant lack of knowledge amongst Saudi women. This study aimed to explore barriers to Saudi women's sexual and reproductive wellbeing.

**Methods** The study employed qualitative methods using semi-structured interviews with women in Riyadh, Saudi Arabia in 2019. The data were analysed using thematic analysis.

**Results** Twenty-eight women were interviewed. Sexual and reproductive wellbeing is a complex matter affected by personal, familial, environmental, socio-cultural, religious, and institutional factors. Being unmarried is a significant barrier to accessing sexual and reproductive information and services, with ignorance signifying modesty and purity. Parental control acted as a barrier to acquiring knowledge and accessing essential healthcare services. Schools contribute to lack of awareness, with teachers omitting sexual and reproductive health-related subjects and evading answering questions.

**Conclusions** There are multiple factors that restrict Saudi women's access to sexual and reproductive health information and services, impacting their overall wellbeing. Research and policy efforts should be directed towards overcoming the complex barriers to Saudi women's sexual and reproductive wellbeing. Public health initiatives are needed to improve youth, parents, and teacher's knowledge, and improve public perceptions towards sexual and reproductive health education.

**Keywords** Sexual health · Reproductive health · Muslim women · Saudi Arabia · Sex education · Qualitative research

## Introduction

Sexual and reproductive health services are basic human rights (World Health Organization, 2017). However, there are huge disparities in sexual and reproductive health services amongst countries worldwide, which particularly impacts women (World Health Organization, 2020). The differences in sexual and reproductive health services can be attributed to a number of factors such as unavailability of skilled staff in sexual health, lack of specialised health services, religious beliefs, and societal norms (Amado, 2004). Socio-cultural and religious factors can have a

negative impact on women's sexual and reproductive wellbeing (Abdolsalehi-Najafi & Beckman, 2013; Alomair et al., 2021).

Sexual health is not openly discussed in Muslim communities, and discussions around sex and sexuality are regarded as taboo and irreligious (Metusela et al., 2017; Ussher et al., 2017; Wray et al., 2014). Unmarried Muslim women in conservative communities are more likely to be uninformed about their sexual and reproductive health (Alomair et al., 2020a), less likely to be referred to reproductive health services and are less likely to seek reproductive healthcare than married women (Matin & LeBaron, 2004; Sabarwal & Santhya, 2012).

There is a complex set of factors influencing Muslim women's sexual and reproductive wellbeing including personal perceptions, values and beliefs, and external factors including family and community influences, available healthcare services, and policies and regulation (Alomair et al., 2020a). Many Muslims view sexual health knowledge negatively and believe that sex education is against Islamic

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beliefs (Alomair et al., 2020a). This hinders women, both married and unmarried, from openly discussing sexual and reproductive issues or seeking medical care when needed (Tackett et al., 2018).

Accessing information and acquiring sexual and reproductive knowledge is challenging for many Muslim women (Alomair et al., 2020a). Sexual health information and education is believed to be encouraging promiscuity and premarital sexual relations (Bazarganipour et al., 2013; Meldrum et al., 2016). Those beliefs can influence unmarried women's perceptions of sexual and reproductive health knowledge and their perceptions of their own knowledge needs.

The majority of Islamic countries do not offer formal sexual health education (DeJong & El-Khoury, 2006; DeJong et al., 2007). However, even in countries where sex education is formally provided in schools, Muslim girls are still less likely to be knowledgeable about sexual health topics compared to their non-Muslim peers (Coleman & Testa, 2008a; Tackett et al., 2018). As such, many Muslim youth depend on other sources for sexual health information such as the internet, media, and friends (Alquaiz et al., 2013; Alomair et al., 2020a). Many of these sources of information can be unreliable and inaccurate, leading to misconceptions, insufficient knowledge, poor practices, and ill health (Morris & Rushwan, 2015).

There is currently no formal sexual and reproductive health education in Saudi Arabia. This is an urgent public health matter since there is an alarming lack of sexual health knowledge amongst Saudi women (Alquaiz et al., 2012; El-Tholoth et al., 2018), with poor sexual health knowledge linked to increased risk of sexually transmitted infections, unplanned pregnancy, and unsafe abortions (Glasier et al., 2006). In addition to poor health outcomes, lack of sexual and reproductive health knowledge contributes greatly to negative sexual and reproductive experiences, and has been linked with emotional distress and psychological issues for Saudi women (Alomair et al., 2021).

The 'Saudi Vision 2030' aims to facilitate access to healthcare services for all and promote preventive health behaviours including improving access to sexual and reproductive healthcare services and education (Ministry of Health 'Vision 2030'). Recent changes in Saudi Arabia aim towards improving and developing public service sectors including health and education, but gaps in sexual and reproductive health knowledge and poor health behaviours still remain (Al-Zahrani, 2011; Alquaiz et al., 2012; Balbeesi & Mohizea, 2017; El-Tholoth et al., 2018; Alsubaie, 2019). Therefore, this study aimed to explore factors affecting Saudi women's sexual and reproductive health knowledge, and explore the personal, social, cultural, and structural barriers to sexual and reproductive health and access to healthcare services.

## Methods

### Study Design

Qualitative research methods are appropriate for exploring attitudes, perceptions, and experiences and gaining an in-depth understanding of social settings (Ritchie et al., 2013). Most of the research done on sexual health topics in Saudi Arabia is quantitative (Alquaiz et al., 2013; Malki, 2014; El-Tholoth et al., 2018). This can be insufficient when exploring a sensitive and complex topic such as sexual and reproductive health. Therefore, this study employed qualitative research methods using semi-structured interviews.

### Sample

Purposive sampling was used to recruit Saudi women aged 18–50, sampling by age group, marital status, educational level, and employment. The recruitment took place in a public hospital in Riyadh, Saudi Arabia from January 2019 over 12 weeks. Potential participants were approached by the primary investigator (NA) in waiting areas in hospitals' outpatient clinics and invited to take part in the study. Information sheets were explained verbally and handed to each participant before the interview.

### Data Collection

Interviews took place in Riyadh, the capital city of Saudi Arabia, in a private room in the women's health clinic of a public hospital and written consent was obtained before the start of each interview. With participants' permission, interviews were audio-recorded and recorded verbal confirmation of consent was obtained. All interviews were conducted by (NA), face-to-face, and averaged 40 min. Recruitment continued until there were no further emerging themes and data saturation was reached. A topic guide was developed based on the results of a systematic review of the complex set of factors influencing Muslim women's sexual and reproductive health (Alomair et al., 2020a). These barriers are interrelated and include personal, community, cultural, and religious factors and existing policies and regulations. The topic guide was used to structure the interviews focusing on the broad theme of women's sexual and reproductive health. Participants were asked about their personal perceptions of sexual and reproductive health, any internal (personal values, beliefs, and perceptions) and external (family, socio-cultural, and institutional) barriers and facilitators to sexual and reproductive health education and information, and barriers to accessing sexual health services. The guide was then piloted with a few participants and questions were

rearranged and rephrased based on their comments. The piloted interviews were not included in the analysis as the purpose was to improve the topic guide. A demographic questionnaire was handed to each participant to obtain data on age, marital status, parity, educational level, and employment (Table 1).

## Data Analysis

The audio-recorded interviews were transcribed verbatim to allow for thematic analysis of the data (Braun & Clarke, 2006). The analysis followed the stages of thematic analysis outlined by Bruan and Clarke (2006). All interviews were conducted in Arabic, and findings were translated to English for non-Arabic speaking researchers to contribute to the analysis. A random sample of interviews was translated back to Arabic to check accuracy of translation. Having co-investigators from different disciplines and cultural backgrounds provided varied perspectives (Gale et al., 2013). Interviews were coded line-by-line by the lead author (NA) using ATLAS.ti software. A random sample of interviews was coded by another member of the research team (SA). Codes from each transcript were revised, then compared, discussed, and amendments were made, where appropriate, until agreement was reached. Codes were grouped together producing an analytical framework and the preliminary themes were created. The analytical framework was refined

in an iterative way throughout analysis via discussions with all authors.

## Ethical Approval

The study was approved by UCL ethics committee (Reference no. 10157/001). Ethical approval from the hosting hospital in Riyadh was obtained on 30/01/2019, Reference no. FWA00018774.

## Results

Twenty-eight married and unmarried Saudi women aged 20 to 50 years were interviewed. The majority of women were college educated and employed (Table 1). Access to sexual and reproductive health information and services was controlled by two forces: internal factors, where women controlled their own access to sexual and reproductive health knowledge and information and external factors with access to sexual and reproductive health information and services being restricted by their family and their teachers which are all influenced by social, cultural, religious, and institutional barriers.

### Internal Factors: Personal Barriers to Sexual and Reproductive Health Information

#### Perceptions of Sexual and Reproductive Health

There was a general sense of uncertainty amongst women speaking about their sexual and reproductive health, many particularly using phrases like *I don't know if what I am about to tell you is true or false* or *I'm sure I'm wrong* and *I'm sure I failed to mention something*. The meaning of sexual and reproductive health had many different interpretations amongst women in the sample. For most, the term exclusively pertained to pregnancy and delivery, whilst others mentioned puberty and menstruation.

*Pregnancy, health of the unborn baby, and women's health during pregnancy... This is what comes to mind (P10, Married, 35 years old)*

Most participants felt that they should not be concerned with sexual and reproductive health and felt that it is irrelevant to them unless they are married. Unmarried women were less likely to speak confidently and freely about the subject.

*Mainly related to marriage for me, I don't think anyone would care about these things [sexual and repro-*

**Table 1** Key characteristics of study participants

	N
Marital status	
Married	16
Single	9
Divorced	3
Age	
20–25	7
26–30	3
31–35	8
36–40	7
41–50	3
Number of children	
0	14
1–2	2
3–5	12
+6	1
Education	
College education	26
Diploma	2
Employment	
Employed	18
Unemployed	5
Student	5

ductive health] if they are not married. So it's related to marital relations, pregnancy, delivery and reproductive diseases. (P11, Divorced, 30 years old)

Participants often avoided specific terms for sexual intercourse, and female and male genitalia, instead making indirect references such as *you know* or *these things*. The negative connotation of sex and sexuality was mainly because they are regarded as indecent and immodest topics. The terms are not normally heard or uttered openly in any formal or informal setting. Participants, particularly married women, were more comfortable and willing to discuss their sexual and reproductive health; it was merely the use of the terms that were avoided.

**P21:** *I think the title itself [sexual health] is sensitive in our culture. It's not acceptable for you to talk about publicly. We have reservations. Even though it's purely medical, just like any other organ in the body. I think it's difficult to talk about it freely. I think because it's the female area, there is shyness and modesty. Society is sensitive when it comes to this area.*

**NA:** *So, you think the term itself is a barrier?*

**P21:** *These organs? Of course, it's taboo. When you say reproductive health in general, that's enough we will understand what you mean. But when you mention the area specifically it will be a shock. You know our society is not open like that. (P21, Single, 34 years old)*

### Ignorance Signifying Modesty and Purity

Some women were proud of the fact that they maintained their naivety and “purity” before marriage. Women also reported engaging in self-regulating behaviour, where they controlled their own access to sexual and reproductive information. For example, this participant aged 30 years old explained that she tried to preserve her purity by controlling her intake of sexual health information:

*When I was in college, we had a course on medical terminology, but I was extremely uncomfortable and shy from anything related to these topics. To that extent that I skipped the whole chapter, I did not attend all the lectures. Even when I was studying for the exam, I did not read this chapter, I didn't want to know anything.... When we were at a young age, we were extremely shy and reserved. (P11, Divorced, 30 years old)*

Ignorance in all matters sexual in nature is viewed as normative and expected. Some women even said it is better not knowing what sex is before marriage because *people will scare you*. Women linked ignorance in this area to modesty and purity, hoping for positive sexual and reproductive experiences unaffected by potential external negative views

or experiences. For example, when this participant, who did not know anything about sexual intercourse before marriage, was asked if she wanted to know more about it prior to getting married she explained:

**P2:** *No, it's better this way. You maintain your purity and genuine feminine self; you have shyness and modesty. Better than how girls are nowadays. Immodest and indecent and already know everything.*

**NA:** *Was it scary not knowing anything about sex before marriage?*

**P2:** *No, I wasn't scared because as I told you I had no knowledge about anything [sex] ... You can't be afraid of what you don't know... And like that when you enter marriage with no scary stories or previous knowledge, it's something vague to you... And that's how I feel about certain things in life... ignorance is bliss... (P2, Married, 37 years old)*

## External Factors: Family, Socio-Cultural, and Institutional Barriers to Sexual and Reproductive Wellbeing

### Family Control over Unmarried Women

Some women said that their mothers did not want them to learn sexual and reproductive health topics from external sources and were upset when they were exposed to information at school. Parents controlled the amount of sexual and reproductive health information their daughters consumed and tended to shut down questions or concerns girls had regarding their own sexual and reproductive health using terms like *shameful* and *immodest* when this subject was brought up.

*I once had an incident. When I was in secondary school, there was an awareness campaign about puberty and menstruation. They gave us sanitary pads, and my mom saw it in my bag, and she shouted at me: 'What is this! Why do you have this!!' I told her it's from school. She said: 'Don't lie to me, why would they give it to you?' I told her: 'I swear to God, they gave it to me.' And she got really upset that the school did that. So, yeah, I do believe that parents in the past didn't want their daughters to learn. (P17, Single, 27 years old)*

Discussions about sexuality were viewed as taboo and are socially unacceptable. Parents controlled young women's sexual and reproductive health knowledge with sexual information withheld until marriage. However, women regretted lacking awareness before their wedding night and wished they had learned more before getting married.

*When I got married, my mom had passed away. But even if she was alive, I doubt she would have said anything... Mothers don't usually discuss such things. But even if we saw something on TV, a scene [intimate scene], they [parents] would make you feel like you did something wrong because you are not supposed to see this, sometimes you could be beaten up for this [caught watching an intimate scene], even if you weren't really watching and you just happen to be in the room while it was on TV. This parental control existed 100%. You could be beaten up for this, even though you didn't choose the channel, you are not the one doing this [intimate scene], it's out of your control. There was this extreme intimidation, these topics were taboo and not even up for discussion. (P19, Married, 38 years old)*

### Unmarried Women's Access to Sexual and Reproductive Health Information

Marital status affected women's perceptions of their information needs and influenced their desire to learn and acquire sexual and reproductive health information. Societal expectation of unmarried women's ignorance also acted as a barrier to women's sexual and reproductive health knowledge, even when personally, women did not view sexual and reproductive health knowledge negatively.

The desire to learn about sexual and reproductive health was often linked with marital status. Unmarried women said that they do not want nor need to learn about sexual and reproductive health whilst single. Instead, they wanted to wait until engagement or marriage to learn about sexual and reproductive health topics.

*P13: I am sure there are plenty of things I don't know about yet, but my knowledge isn't bad.*

*NA: Would you want to learn more?*

*P13: About this subject [sexual health]? Maybe when I'm getting married, I might want to learn, but not now. (P13, Single, 23 years old)*

### Unmarried Women's Access to Sexual and Reproductive Health Services

Unmarried women faced difficulties seeking care for any reproductive health-related issues such as urinary tract infections (UTI) and issues with menstrual cycle. For example, it is believed that unmarried women cannot have any reproductive health issues, and that UTIs are linked to sexual activity.

*Before I got married, if I told my mom I booked an appointment with an OBGYN she would freak out and say why?? What's wrong with you?? But now that I*

*am married it's fine, but before marriage, yeah they get scared and freak out. (P26, Married, 22 years old)*

Mothers' education and attitudes seemed to play a major role on whether unmarried women sought help when needed.

*Some mothers are still not very educated and have some negative views. If her unmarried daughter had an infection [UTI], she would be angry. She wouldn't accept that her daughter has infections. Mothers think that infections are associated with either being married or having sexual relations. That's how they think. They would think she's doing something wrong. (P3, Married, 33 years old)*

Many women called for a change in society's views that sexual and reproductive health services are only for married women. Since most unmarried women's access to sexual and reproductive health services is controlled by their parents, women called for educating the community, particularly parents, to facilitate unmarried women's access to sexual and reproductive health services.

*When I experience any symptoms [of a UTI] or something like that, they [her family] will be like 'how did you get this?' They need to encourage young girls to seek treatment, because naturally you would be hesitant to seek help, they should change society's views to encourage unmarried girls to seek help. It should be normal, if you believe that this is normal and it is your right to get checked, you will go with confidence and won't be afraid. (P16, Single, 36 years old)*

*In her mind, she thinks if I tell my mom, I have a UTI she will kill me. Especially young girls. They need to know it's okay to go to the doctor if you have an issue, it's not Eib [immodest] nor Haram [forbidden]. (P3, Married, 33 years old)*

### Experiences of Sexual and Reproductive Health Education at School

According to research participants, schools acted as a barrier to sexual and reproductive health knowledge. Women mentioned teachers evading answering sexual and reproductive health questions and telling them to ask their mothers for answers. Women also recalled their teachers seeming uncomfortable when they asked them about sexual and reproductive health, and oftentimes shutting down any discussions related to that area. Some teachers omitted sexual and reproductive health-related subjects, referring to these topics as socially unacceptable.

*In college, we wanted to conduct research about these topics [sexual and reproductive health], we wanted to be brave and daring, they told us: 'No. Society won't*



*accept it. Don't come near these topics. You will open a can of worms. This subject is taboo.'.... We wanted to be daring, but we had no support. (P8, Single, 22 years old)*

One participant was asked if she learned about sexual and reproductive health in schools, she explained:

*P25: No, not in school. They actually used to skip these topics in schools. Even in the biology and anatomy course this wasn't taught. Whether it was the female or male anatomy, they used to skip it.*

*NA: Do you know why?*

*P25: Because we are in Saudi [laugh]. I don't know if it was the teacher herself who decided to skip it, or it came from someone above and told them not to discuss this, I honestly don't know. (P25, Divorced, 32 years old)*

### Experiences with Healthcare Providers

Healthcare providers sometimes proved to be a barrier to women's sexual and reproductive health knowledge, access, and use of services. Women expressed that they could sense physicians feeling uncomfortable with sexual health discussions, which prevented them from seeking medical help or advice.

*I am personally comfortable with asking questions, but I feel like physicians are not comfortable discussing these topics. I wouldn't mind asking questions, especially if I am alone. Even if my husband was with me and I was not comfortable during the consultation, I could ask him to leave the room. But I feel like male physicians are not comfortable, thinking I am a woman he can't talk to me about these things. Even if I went to a female physician, she wouldn't discuss it scientifically. She will mainly be reassuring rather than educating and explaining the issue. I would rather she would be honest and tell me if I did something wrong and I need to be careful. It would be useful if I was educated rather than just reassured. (P23, Married, 29 years old)*

*I mean sometimes women may be shy or uncomfortable talking about these topics. Gynaecologists play a major role, they need to know how to deal with patients, how to make them feel comfortable. (P28, Married, 49 years old)*

Physicians rarely provided advice on sexual and reproductive issues; they would mainly prescribe treatment without explaining the illness, its causes, treatment, or prevention. Women felt that healthcare providers did not give them the time or opportunity to address their issues or concerns. Due to the huge demand on governmental hospitals, they often

have long waiting times, and women could wait months for a simple appointment. Women mentioned that physicians are always in a rush to finish consultations because of the high number of patients waiting to be seen. For women who are able to afford private healthcare, it was the easier, more accessible solution. However, women raised the issue of not trusting the advice of some healthcare providers, especially in private hospitals, and often spoke negatively about their experience with private hospitals.

*P3: I only go to the doctor if I have a problem and she just prescribes the treatment.*

*NA: Does she give you any advice? If you ask, does she give you sufficient answers?*

*P3: No not really. Especially in private hospitals. She just says take this or use this. Without offering any information. (P3, Married, 33 years old)*

*I feel like most doctors in private clinics don't know what they are talking about. I really don't want to underestimate their competence, but he would be a general doctor, and he gives the woman advice in a topic outside his area of expertise, and the woman would take his words as facts because she doesn't know any better. (P14, Married, 38 years old)*

### Discussion

Access to sexual and reproductive health information and services is a complex matter controlled by internal and external forces. Saudi women's access to sexual and reproductive health information and services is restricted by internal factors such as personal perceptions of sexual and reproductive knowledge, and external factors including family, socio-cultural, religious, and institutional factors. Being unmarried is a significant barrier to sexual and reproductive information and access to healthcare services. Schools have contributed to lack of awareness where it was revealed that teachers omitted sexual and reproductive health-related subjects and avoided answering any sexual or reproductive health-related question. Some healthcare providers' attitudes and conduct, such as poor communication and rushed delivery, acted as barriers to Saudi women's sexual and reproductive wellbeing.

Schools have a significant role in shaping young people's sexual and reproductive knowledge and attitudes. However, schools in Saudi Arabia contribute to poor sexual health knowledge where school curriculums offer incomplete or irrelevant information (Alquaiz et al., 2013). The provision of sexual health information in schools is restricted to selected topics covered in science and Islamic jurisprudence books, focusing primarily on the anatomical, pathological, and religious aspects of sexual health.

Teachers in Saudi Arabia have expressed uneasiness and ‘awkwardness’ discussing sexual health information with their students (Horanieh et al., 2020). Teachers are also currently viewed as ‘ill-equipped’ to deliver sex education in schools. These views are shared by teachers themselves and by other stakeholder groups in Saudi Arabia (Horanieh et al., 2020). Lack of teacher training in the area of sexual health and teachers’ negative attitudes towards sexual health topics also act as a barrier to sexual and reproductive health education (Barbour & Salameh, 2009; UNICEF, 2011; Alquaiz et al., 2012; Javadnoori et al., 2012; Population Council, 2017). Reported teacher-related barriers in Arab and Islamic countries (Saudi Arabia, Egypt, Iran, Lebanon, and Palestine) included teachers’ negative attitudes, rushed delivery, and teachers seeming uncomfortable when students attempted to ask sexual health-related questions (Barbour & Salameh, 2009; UNICEF, 2011; Alquaiz et al., 2012; Javadnoori et al., 2012; Population Council, 2017).

Healthcare providers’ bias and discrimination against unmarried women, poor communication, rushed delivery, and long clinic waiting times have been consistently reported in the literature as barriers to accessing sexual and reproductive health services (Mohammed Alomair et al., 2020a; Memon et al., 2016; Shariati et al., 2014a, 2014b). Facing judgement and discrimination from healthcare providers makes it challenging for unmarried women to seek medical care when needed. Some Muslim healthcare providers share the belief that gynaecological issues are experienced only by married women. For example, in a study from Iran, a midwife stated that it is not possible for unmarried women to have reproductive health issues, as they are caused by genital infections that are caused by sexual intercourse (Mohammadi et al., 2016).

Strong family ties and patriarchal structures are common in many Muslim communities. Patriarchal cultures where male family members are the primary decision-makers, even when it comes to women’s healthcare needs, negatively impacts women’s sexual and reproductive wellbeing (George et al., 2014; Ussher et al., 2017). Patriarchal control from family, partners, and religious leaders influences women’s autonomy and restricts their access to information (Ali & Ushijima, 2005; Padela et al., 2011). Family control over unmarried Muslim women of all ages means that they are unable to access healthcare services when needed (Alomair et al., 2020a).

Unmarried women’s reproductive health concerns are often overlooked, and in some cases, they are prevented from seeking medical care (Alomair et al., 2020a). Social constructions of disease aetiology and the impact of specific tests or interventions can inhibit unmarried women from seeking healthcare services (Gagnon et al., 2002; Manderson & Allotey, 2003). For example, reproductive services are commonly linked with sexual activity and certain examinations or

medical procedures are believed to affect virginity (Alomair et al., 2020a). Unmarried women feared being judged as having premarital sex or viewed as flawed women when seen accessing sexual or reproductive health services, ultimately affecting future marriage prospects (Alomair et al., 2020a; Mohammadi et al., 2016).

Socio-cultural taboos create a major obstacle to discussions around sexual and reproductive topics, particularly with regards to unmarried women. Socio-cultural control of sexual discussions and practices can act as a barrier to preventive health behaviours, possibly leading to high-risk sexual activities (Arousell & Carlbom, 2016; Ussher et al., 2017). Literature suggests that cultural factors are key barriers contributing to the suppression of discussing sexual and reproductive health issues amongst Muslim women (Abedian & Shahhosseini, 2014; M. Shariati et al., 2014a, 2014b; Yari et al., 2015). Women and girls may experience opposition from family members when attempting to seek answers on sexual and reproductive health topics, mainly because sexual and reproductive health information and discussions are perceived as encouraging promiscuity and premarital sex (Kirby et al., 2007; Alomair et al., 2020a, 2020b).

Our results show that irrespective of external barriers, many Muslim women view ignorance in sexual and reproductive matters positively, with sexual ignorance often signifying purity, modesty, and femininity (Ussher et al., 2017). It is a common belief in Islamic cultures that unmarried women do not need to be knowledgeable about sexual and reproductive health topics, to preserve their modesty and chastity (Alomair et al., 2020a; Ussher et al., 2017). This influences a woman’s perceptions of her knowledge needs, and negatively impacts how sexual and reproductive knowledge is perceived. Literature suggests that many women avoided sexual health information in order to maintain their image as sexually inexperienced, thus deemed of a good marriageable quality (Rahman, 2018). Sexual and reproductive health education for unmarried women is believed to be against Islamic religious beliefs since religious practices provide protection against sexually transmitted infections (Alomair et al., 2020a, 2020b). However, religious leaders have supporting views towards sexual and reproductive health education, with emphasis on tailored and religiously sensitive educational content (Mohammed Shariati et al., 2014a, 2014b). A study conducted in Nigeria showed that exposure to messages about family planning from religious leaders increased contraceptives use amongst Muslim women (Adedini et al., 2018). Therefore, having the support of religious leaders when developing sex education programs has the potential to improve its acceptability and success in conservative Muslim cultures.

Much of the evidence exploring Muslim women’s sexual health addresses migrant populations in non-Muslim

countries (Coleman & Adrienne, 2008b; Abdolsalehi-Najafi & Beckman, 2013; Meldrum et al., 2016). Yet, many similarities in sexual health experiences were observed amongst Muslim women residing in Muslim and non-Muslim countries. Muslims living in non-Muslim countries tend to hold on to Islamic values and traditions, with migrant Muslim women unlikely to identify with non-Muslim Western cultures (Abdolsalehi-Najafi & Beckman, 2013). This highlights the strong influence of culture and religion over the influence of the environment and available services.

### Strengths and Limitations

A key strength of our study is the diversity of the sample in terms of age, marital status, education, and employment. In sexual and reproductive health research, it is uncommon to interview or survey unmarried women, particularly in Islamic countries. Interviews were conducted in Arabic, the participants' native language. This can encourage participants to express their views with confidence and use local idioms, euphemisms, and expressions that were natural to them. It can also help participants identify with the researcher, building trust and rapport, and allowed the researcher to understand the nuances and subtleties in their answers. Although some of the meanings might be lost in the translation, the translation process can be an analytically productive process that can add to the interpretations (Phillips, 1959; Regmi et al., 2010).

Face-to-face interviews allow the interviewer to be aware of non-verbal cues and establish a good rapport with the participant. However, face-to-face interviews have the potential to introduce social desirability bias, especially when discussing a sensitive topic such as sexual and reproductive health. Several measures were taken to reduce social desirability bias, including careful wording of questions as not to reflect the preferred direction of the answers and avoiding showing judgement or emotional reactions towards participants' responses or views.

### Implications for Research, Policy, and Practice

Our results confirmed that taboos around sexual health topics act as a barrier to accessing information and services. As such, future research needs to explore ways to overcome those barriers in Muslim societies to provide recommendations on how to change societal views towards sexual and reproductive health information and discussions. Facilitating sexual and reproductive health discussions through well-developed programs may improve Muslim women's awareness of sexual and reproductive topics and encourage health-seeking behaviours.

It should be emphasised, in any future program directed towards both parents and youth, that the purpose of open

sexual and reproductive health discussions is to promote knowledge and understanding rather than promoting sexual activity. Comprehensive sex education can lead to delayed first intercourse, consistent contraceptive use, and safer sexual practices (Kirby et al., 2007; Lindberg & Maddow-Zimet, 2012). It should also be highlighted that facilitating open sexual and reproductive health discussions with young girls improves autonomy and self-confidence. Freeing women from social inhibitions and stigma associated with sexual and reproductive discussions has the potential to improve their sexual and reproductive experiences and overall wellbeing (Abdolsalehi-Najafi & Beckman, 2013).

Future research should focus on exploring teachers' views towards delivering sexual and reproductive health education, understanding the barriers and facilitators to providing students with sexual and reproductive health information. It is our recommendation that strategies to improve teachers' knowledge and their attitudes towards providing sexual and reproductive health education are needed. This has the potential to facilitate the introduction of sexual and reproductive health educational programs at schools consequently leading to overall improvements to young women's sexual and reproductive knowledge and experiences.

Many healthcare providers avoid initiating sexual health discussions out of fear of offending their patients, particularly in conservative Muslim communities, out of respect to their patients' socio-cultural norms (Al-Zahrani, 2011; Clark et al., 2017). Further research is needed to explore facilitators to healthcare providers offering sexual health advice for Muslim women. Likewise, ensuring that healthcare providers working in the area of women's health are equipped with the proper training and skills is essential for effective sexual health consultations. It is critical to establish national policies and guidelines describing the standard of care in the area of sexual health and clarify providers' roles in offering sexual health advice.

### Conclusion

Personal, familial, environmental, socio-cultural, and religious factors all contribute to restricting Saudi women's access to sexual and reproductive health information and services. Efforts should be directed towards overcoming the complex barriers to sexual and reproductive health information and services in Saudi Arabia. It is important to establish national policies for standards of care in the area of sexual health, as well as developing strategies to improve women's, parents', and teachers' sexual and reproductive health knowledge. Reducing stigma around sexual health is critical in addressing barriers and facilitating Saudi women's access to sexual and reproductive health information and services.



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## Declarations

**Conflict of Interest** The authors declare no competing interests.

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