

Cervical Cancer Awareness and Screening Practises Amongst Migrant Women Living in Sydney

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Abstract: Cervical cancer is the 4th most prevalent cancer among women worldwide. The incidence rate of cervical cancer is low in Australia. Despite the use of vaccinations and cervical screening programs in Australia, migrant women living in Sydney still face significant health disparities when accessing cervical cancer screening services. Overall, there are limited studies that explore the barriers and facilitators that migrant women are exposed to when accessing cervical screening tests. The aim of this study is to describe the attitudes, beliefs, knowledge and awareness of cervical cancer screening and screening practices amongst migrant women aged 25 and above living in Sydney, Australia for more than one year with no history of cervical cancer. Fifty-two women (30 South-East Asian, 12 Middle Eastern & 10 African) were recruited using two non-probabilistic sampling methods, convenience and snowball sampling. Data was collected through Focus Group Discussions (FGDs). In total, 5 FGDs were conducted in homogenous groups of 8-12 participants. Each FGD was audio-recorded and verbatim transcribed. The data were analysed using thematic analysis. Results show that average age of the participants were 38 years, majority were from South East Asia (58%), married (87%), unemployed (65%), had tertiary education (67%), were in low income categories (84%), and a third (35%) living in Australia for < 5 years. Results further show that migrant women living in Sydney displayed a lack of awareness and knowledge about cervical cancer and screening practices. Individual and system-level barriers and facilitators that influenced screening attendance were identified. Factors such as lack of knowledge, emotional barriers, cultural and religious barriers, psychological barriers, and organisational factors influence screening practices. Furthermore, results also revealed that African migrants were less likely to be aware of cervical cancer and screening compared to South-East Asian and Middle Eastern women. Our study also reported that short-term migrants had an overall lack of awareness about cervical screening and therefore, differences in migration status must be considered when administering health education programs. Understanding migrant women's experiences, facilitators, and barriers to accessing cervical screening is essential in assisting health care professionals and policy makers to provide culturally appropriate services. Provision of training or programs to increase culturally appropriate health services amongst health care providers is also recommended. To increase cervical cancer screening uptake of migrant women living in Sydney, culturally appropriate education programs and health promotion strategies targeted towards different ethnic groups need to be administered.

Keywords: Cervical Cancer Screening, Barriers, Facilitators, Migrant Women, Attitudes and Beliefs

1. Introduction

Cervical cancer is the 4th most prevalent women's cancer worldwide [1] and the 14th most common cancer among women in Australia [2]. In 2017, there were 839 diagnoses of cervical cancer in Australia and the incidence rate was 6.6

cases per 100, 000 females [2]. Furthermore, in Australia, 913 new cases of cervical cancer were expected to be diagnosed in 2021 [2]. Additionally, in 2021, a female's likelihood of being diagnosed with cervical cancer by the age of 85 was expected to be 1 in 185 [2]. The introduction of the National Cervical Screening Program (NCSP) in 1991 significantly decreased both the incidence and mortality rates

for cervical cancer [3]. It enabled early diagnosis of cervical cancer through routine screening practices such as the Pap smear test (PST) (also known as the *Papanicolaou test*), and in Australia, this decreased both incidence and mortality rates by 80% [2]. However, the use of cervical screening practices remains underutilised for specific population groups such as migrant women, leading to an increased risk of cervical cancer development in this population.

Human Papilloma Virus (HPV) infection is the leading risk factor for cervical cancer [4], and 80% of the female population are exposed to HPV at least once in their lifetime [5]. Primary preventative measures such as vaccinations help to reduce the risk of developing cervical cancer, and the two most common HPV vaccines include 'Cervarix' and 'Gardasil' [6]. However, vaccinations are usually administered through school-based vaccination programs, and for this reason, many migrant women have not received the HPV vaccination. Therefore, encouraging the use of secondary prevention methods such as PSTs are crucial.

The PST is a useful screening measure for cervical cancer, which makes it an effective preventative measure for the mortality of cervical cancer [1]. In Australia, it is recommended by the NCSP that females should attend their first pap smear at 25, then repeat it every 5 years. Currently, the NCSP uses a national 'call-recall' notification system, encouraging women to attend screening once they turn 25 and when they are due to screen [7, 8]. However, despite encouragement from the government, these available services remain underutilised, with almost half of Australian women (42%) not attending PSTs between 2013 and 2014 [9]. Where migrant populations stand within these statistics remains unknown; however, it is evident that migrant women in Australia are more likely to suffer screening related disparities to cervical cancer.

In developing countries, cervical cancer remains the most common cause of cancer-related deaths among women [10], and this is due to inadequate healthcare service availability. However, Cancer Australia (2019) reports that Australia is predicted to be the first country in the world to eradicate cervical cancer as a public health issue. Therefore, the availability of health services is not a major concern in Australia, but the reasons for low screening rates amongst migrant populations must be investigated. The risk factors for cervical cancer include smoking, the number of sexual partners, not attending routine cervical screening tests, sexually transmitted infections, long-term contraception use, early age of first full-term pregnancy and a weakened immune system [2]. The symptoms of cervical cancer include vaginal discharge, bleeding and persistent pelvic pain, however, if detected early, cervical cancer can be treated through chemotherapy, radiotherapy or surgery [2].

Cervical screening practices and awareness amongst migrant women living in Sydney have not yet been identified, specifically as a comparative study exploring the behaviours of Middle Eastern, South-East Asian and African ethnicities. This comparative study helps identify the need for tailored education programs, promotion strategies and improved

delivery of health care services for migrant women living in Sydney. Therefore, in this study, we explored the barriers and enablers of attending cervical screening tests among migrant women living in Sydney.

To address this gap in the literature, our study investigated the views, attitudes and beliefs about cervical cancer amongst migrant women living in Sydney and their screening practises. Focus Group Discussions (FGDs) were conducted amongst South-East Asian, African and Middle Eastern migrant women. The overall aim of this study was to understand why migrant women in Sydney have low screening rates and this study identified several individual and system-level barriers and facilitators that impact screening attendance. Furthermore, this study aims to investigate the following: 1) knowledge and beliefs of cervical cancer and screening, 2) differences in participation experience between groups, 3) factors that enhance or inhibit participation in screening and 4) acculturation impacts on knowledge of and participation in cervical cancer screening.

2. Literature Review

The factors that influence barriers and facilitators of cervical screening uptake have been categorised broadly into individual and system-level factors.

2.1. Individual-Level Factors

2.1.1. Lack of Knowledge

Lack of knowledge was the most commonly cited barrier to cervical screening uptake within the existing literature. For example, in a qualitative study conducted in England, it was stated that many women belonging to minority ethnic groups were not familiar with the terms 'cervical screening' or 'smear test' [10]. Misconceptions about the causes of cervical cancer were common within the African community where researchers found that African migrant women reported the causes of cervical cancer to be associated with abortion, lack of hygiene and the insertion of fingers into the vagina [11, 12]. In another study conducted in England, African migrant women reported that cervical cancer could be prevented using condoms, and that sperm was a risk factor associated with cervical cancer [13].

2.1.2. Emotional Barriers

Emotional barriers were a recurring theme in several studies, and these findings were consistent amongst women of all ethnic backgrounds. For example, in a study conducted in Australia, Asian migrant women reported embarrassment and modesty to be a barrier, and further described screening as 'awkward', due to the exposure of private body parts during the procedure [14, 15]. Within both these studies, the older generations reported embarrassment as their primary barrier because they felt their bodies were private [14, 15]. Previous negative experiences with pap smears causing pain or discomfort were also described as barriers amongst all ethnic backgrounds in the literature [10, 14, 16]. Fear of diagnosis

was both a barrier and facilitator of cervical screening uptake. Asian migrant women reported that fear of diagnosis was a motivator to attend screening services [14], whereas Middle Eastern migrant women stated that worrying about the test results delayed their screening attendance [10]. Muslim Middle Eastern migrants have also reported feelings of embarrassment during pap smear appointments [17].

2.1.3. Practical Factors

A recurring factor in previous studies was the availability of female doctors. Asian migrant women reported the importance of a female doctor conducting the PST [15]. Significantly, studies found that it was more common to report non-attendance where a female doctor was not available to conduct the PST [10, 14]. Another study reported that language barriers due to limited English proficiency make it difficult for migrant women to communicate with doctors during appointments, and medical centres when scheduling appointments [16, 17]. Furthermore, this study also reported that language and communication barriers were still evident amongst migrants who were well educated and spoke proficient English [16]. Middle Eastern and Asian migrants reported that the availability of interpretation services would benefit migrant women and increase their cervical screening uptake [10, 17]. Additionally, in a recent qualitative study conducted in Australia, African migrant women found it hard to attend appointments if they were single parents or working full-time [16].

2.1.4. Cognitive Barriers

Perceived risk of the diagnosis of cervical cancer was a common barrier that delayed screening attendance amongst all ethnic backgrounds. Relationship status and sexual activity were both critical reasons as to why Asian and Middle Eastern migrants perceived themselves at low risk of cervical cancer diagnosis and therefore did not seek screening services [15, 17]. The absence of cervical cancer symptoms during previous pap smear experiences was indeed a facilitator for screening. Asian migrant women reported that knowing the PST detects cancer cells in the absence of symptoms was a motivator to continue seeking screening services [14].

2.1.5. Cultural and Religious Beliefs and Attitudes

Most of the literature examining cervical screening practices comes from single religious groups, thus does not study variations between religions, and the cultural beliefs and attitudes that religion encompasses. For example, in a study conducted in England, it was reported that Muslim migrant women associated cervical cancer with extramarital sexual relations and therefore, this limited their cervical screening uptake [17]. Moreover, cultural beliefs and attitudes were also explored within the existing literature, and studies found that discussing sexual health and reproductive areas was a sensitive topic amongst Asian migrants, and therefore not openly discussed within their families and friend groups [14, 15]. In another study, it was found that

African migrant women reported female circumcision to be a barrier to cervical screening, as they feared being judged by health professionals during the screening procedure [18].

2.2. System-Level Factors

2.2.1. Healthcare Professional Experiences

The insensitivity of the doctor during previous pap smear experiences was a common barrier that was discussed amongst Middle Eastern and Asian migrants [15, 17]. Asian migrants reported a preference for female doctors from their own culture [14]. More importantly, recommendations from healthcare professionals were one of the primary motivators that increased cervical screening uptake within a range of studies [14, 19]. Asian migrant women often attributed their positive or negative screening experience to the healthcare professional involved [14, 20].

2.2.2. Organisational Factors

Organisational factors such as the reminder letter from the NCSP was a common motivator amongst Asian and Middle Eastern migrants [14, 22]. Access to free screening was a motivator to screening for Asian migrants [14]. However, African and Middle Eastern migrants both reported that logistical barriers such as transport and lack of childcare services affected their screening attendance [10, 12].

Overall, existing literature provides a general overview of the common barriers and facilitators amongst different ethnicities. However, relationships between specific sociodemographic variables were limited, and most studies were based in the USA, UK or Canada. There were limited studies conducted in Australia, let alone Sydney, and therefore this study aims to address this significant gap within the literature on this topic.

3. Materials and Methods

This study used a qualitative research design and Focus Group Discussions (FGDs) were used to collect data. The use of a qualitative method allows researchers to gather rich data and have an insightful understanding of the research topic [22] providing a better understanding of participant experiences and opinions.

3.1. Samples

In total, there were 5 FGDs undertaken among migrant women from South-East Asian, Middle Eastern and African communities residing in the Sydney Metropolitan area. Fifty-two migrant women participated in the FGDs. Community organisations and migrant resource centres were contacted through e-mail to explain the study and gain access to the communities. Both convenience and snowball sampling were used to recruit participants. These sampling methods involved the participants being told by the organisation leaders about the study, then further telling their friends or family to consider participating in the study. This enabled us to efficiently recruit participants from this population group in a systematic way. However, these sampling methods may

tend to recruit participants that share similar characteristics, and therefore, it can lead to bias when compared to random recruitment methods (Magnani et al., 2005). Due to the use of these sampling methods, the results of this study cannot be generalised to a large population.

The inclusion criteria for participant recruitment were: (1) women aged 25 and above, (2) from Middle Eastern, South-East Asian or African ethnicity, (3) living in Sydney for more than one year and (4) having no history of cervical cancer. The exclusion criteria included women who were unable to speak English and women who had a previous diagnosis of cervical cancer.

3.2. Ethics

The study was approved by the Sydney University Human Research Ethics Committee (Project number: [2019/396]). Participant Information Statement (PIS) sheets describing the study were given to participants. Participants were informed that participation in the study was voluntary and they could withdraw from the study anytime. Socio-demographic data collection forms were also given before conducting the research. Participant consent forms were provided and used to ensure the anonymity and confidentiality of the participants. To maintain anonymity, the participants were provided with an ID number, which was used to identify participants during the process of data collection and transcription. The FGDs were audio-recorded with consent from the study participants. All of the collected data, including socio-demographic data collection forms were stored and handled in secure repositories at the University of Sydney.

3.3. Equipment/Material

An audio recorder was used to record the focus group discussions (FGDs), which were conducted in homogenous groups of 8-12 and were held at local community/migrant resource centres. The FGD questions used for data collection were developed after a review of existing literature, and these questions were based on the Health Belief Model (HBM) [23]. The FGD questions consisted of three major sections: *section 1* asked general questions about cervical cancer and screening practices, *section 2* discussed attitudes and beliefs of cervical cancer, and *section 3* focuses on women's health service utilisation and recommendations.

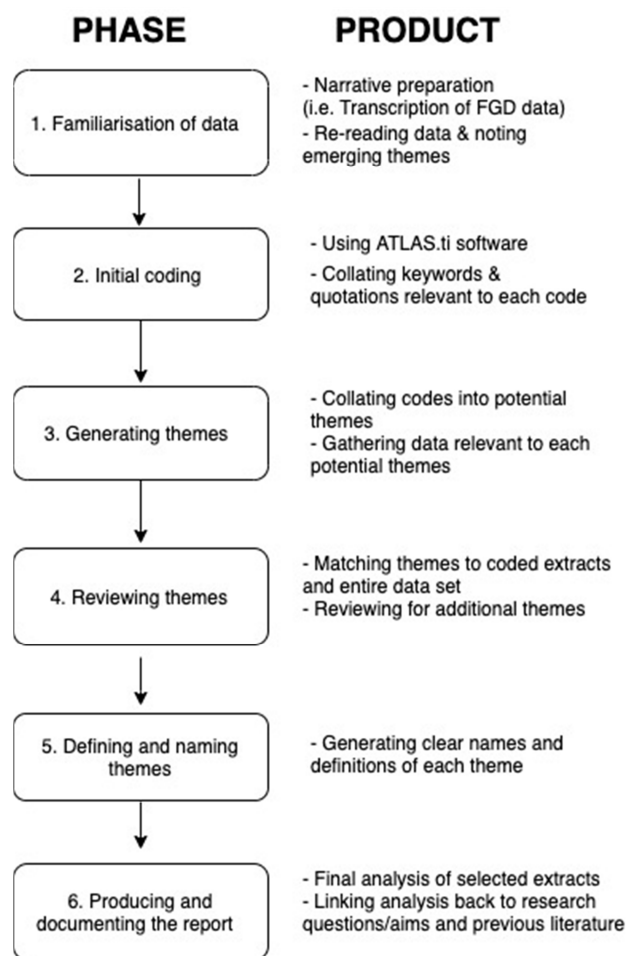
3.4. Procedure

The FGDs were conducted from the beginning of July to the end of August 2019. After the initial participant recruitment process, FGD locations were arranged through the contacted organisations. FGDs were chosen over interviews due to the preference of observing group dynamics and firsthand insights of participant beliefs and attitudes. The FGDs lasted approximately 40-45 minutes each. Each of the FGDs was presented with the same set of questions (with additional prompts if necessary). During each FGD, a brief introduction about the research team was

given, and the objectives of this study were discussed. Then, the moderator explained the PIS sheets, along with background information and the purpose of the research. The participants were also informed about the rules of the FGD, and that if they felt uncomfortable at any stage or did not want to be a part of the research, they were able to withdraw at any time.

Before conducting each FGD, informed consent, confidentiality and anonymity were assured and obtained through the use of consent forms. Socio-demographic data collection forms were filled in, and consent forms were signed. Then finally, the questions were asked. Once each FGD was completed, participants were given information sessions by the moderator because many participants wanted to know the answers to the questions asked during the FGDs.

The audio recording from the FGDs were transcribed and the observer also noted body language, relevant facial expressions and tones in voice. This was an essential part of the research as it displayed the level of awareness and attitudes of participants. The socio-demographic data collected was also entered in SPSS and descriptive statistics were computed.



(Extracted from Braun and Clarke (2006))

Figure 1. Flowchart of the thematic analysis conducted in our study.

3.5. Data Analysis and Analytical Methods

Verbatim transcriptions of the audio-recorded FGDs were utilised as the primary data for the analysis. The researcher listened to the voice recordings several times to ensure the credibility of the data. After the transcription of the FGDs, the analysis involved reading the transcribed text, highlighting significant passages and noting any emerging themes. Then, with the use of the ATLAS.ti software, a large number of codes were generated and then sorted into themes. Subsequently, major and sub-themes were defined and named. Once the themes were identified, quotations that revealed vital concepts and ideas were selected as representative of those themes. Once this was completed, a thematic analysis was used to analyse the data. The thematic analysis of our study uses the guidelines described by Braun and Clarke (2006) [24], and details specific to our thematic analysis are shown in Figure 1.

The socio-demographic data were analysed using SPSS V22.0. Both univariate and bivariate analysis were undertaken. The differences in the socio-demographic variables between ethnic groups were assessed using non-parametric tests (Chi-square tests).

4. Results

The results are presented in two sections. Section 1 will present the quantitative data; a frequency table showing the details of the socio-demographic characteristics of the participants within this study. These characteristics include age, country of birth, employment status, education level, income, language spoken at home and migration status. In order to find out the differences between the ethnic groups in the study, cross-tabulations of the ethnicity of the participants was conducted, showing their relationship with age, income, education level and migration status. Section 2 provides the findings from the qualitative study (FGDs) on the awareness and knowledge of screening practices, identifies the barriers and facilitators of cervical screening, followed by women's health service utilisation and recommendations of participants.

4.1. Section 1 – Socio-demographic Characteristics of Participants

Details about the socio-demographic background of participants are summarised in Table 1.

The participant's ages ranged from 25 to 72 (mean: 38 ± 9). The duration of residence in Australia ranged from 2 to 23 years (mean: 9 ± 7). Of the fifty-two participants, 58% were South-East Asian, 21% were African, and 21% were Middle Eastern. More than half of the participants were unemployed (65%), and 84% of participants had a low annual household income (\$20, 000-50, 000). A total of 87% of participants were married, and 67% of participants had received tertiary education.

Cross-tabulations of the socio-demographic background characteristics of the study population were used to find the

differences between ethnic groups. Both African and South-East Asian (SEA) women are in the middle age group (35-44) years, while Middle Eastern women are younger (25-34) years old. The proportion of participants with tertiary education was higher amongst all ethnic groups. Overall, there were more long-term migrants (10+ years) (44.9%), when compared to recent migrants (< 5 years) (34.7%). A total of 91% of African and 67% of Middle Eastern participants were long-term migrants, whereas more than half of SEA participants (59%) were recent migrants (Chi-Square = 19.454, $df = 4$ and $p = < .001$). The percentage of participants coming from a low-income household was high amongst all ethnic backgrounds (84.4%) when compared to the middle (13.6%) and high-income households (2.2%). The association between income, education and age range and ethnicity was not statistically significant.

Table 1. Socio-demographic Characteristics of Participants ($N = 52$).

| Variables | M \pm SD or % (n) |
|-------------------------------------------|---------------------|
| Age | 38 ± 9 |
| Country of birth | |
| South-East Asian | 58 (30) |
| African | 21 (11) |
| Middle-Eastern | 21 (11) |
| Employment status | |
| Unemployed | 65 (34) |
| Employed | 35 (18) |
| Education level | |
| Tertiary Education | 67 (34) |
| Less than or equal to secondary education | 33 (17) |
| Annual household income (\$) | |
| 20,000 – 50, 000 | 84 (38) |
| 50,000 – 100,000 | 14 (6) |
| 200, 000 + | 2 (1) |
| Relationship status | |
| Married | 87 (45) |
| Divorced/Separated | 6 (3) |
| Single | 6 (3) |
| Widowed | 2 (1) |
| Language spoken at home | |
| English | 2 (1) |
| Arabic | 42 (22) |
| Others | 56 (29) |
| Migration status | |
| Recent migrant (< 5 years) | 35 (17) |
| Short-term migrant (5 – 10 years) | 20 (10) |
| Long-term migrant (> 10 years) | 45 (22) |

4.2. Thematic Analysis Based on the FGDs

This section provides findings from the qualitative study. Throughout the process of the thematic analysis, two major themes were categorised (*individual-level* and *system-level factors*) and sub-themes were created identifying the barriers to and facilitators of cervical cancer screening. These two major themes, along with sub-themes that explore the barriers and facilitators of cervical screening are presented in Table 2.

Table 2. Factors associated with South-East Asian, Middle Eastern and African migrant women's cervical cancer screening behavior.

| Themes and sub-themes | Barriers | Facilitators |
|--------------------------------------------------------------|---------------------------------------------------------------------|--------------------------------------------------------------------------------|
| Individual level factors | | |
| Knowledge of cervical cancer causes, symptoms and prevention | 1) Lack of knowledge 2) Misconceptions | |
| Knowledge of cervical cancer screening practises | Low perceived risk of cervical cancer | Benefits and awareness of pap-smear test |
| Cultural and religious beliefs | Low perceived risk due to cultural practises | |
| Psychological barriers | 1) Fear of screening procedure 2) Embarrassment during screening | |
| System level factors | | |
| Healthcare providers | Language barriers | Health professional's recommendations Access to multilingual and female GPs |
| Organisational | | Reminder letter from NCSP |

Health service utilisation and recommendations of the participants are also reported.

4.2.1. Individual-Level Factors

i. Knowledge of cervical cancer causes, symptoms and prevention

One of the primary aims of this study was to investigate participants' knowledge of cervical cancer and screening. Amongst all FGDs, lack of knowledge was the most prominent theme and a barrier to cervical screening. Within their community, some participants were advised they should attend cervical screening without knowing the primary reason as to why they should attend. Despite screening attendance being high among the participants within this study, most did not know the reason for screening. Participants were asked about the causes, symptoms and prevention methods for cervical cancer. South-East Asian participants were quite shy when stating causes relating to sexual behaviour. Middle Eastern and South-East Asian women listed a few symptoms of cervical cancer; however, African migrant women did not know any of the symptoms.

"Heavy bleeding and... when you have a relation with your husband like there is some pain" (38, ME, Long-term migrant (LTM)).

Despite knowing what a 'pap smear' is, there were many misconceptions about the causes of cervical cancer. Some South-East Asian participants reported a lack of menstrual hygiene (i.e. not changing their 'tampon') and unsafe sex as causes.

"They don't use napkin, menstruation hygiene is not maintained, so they don't know about that. So, if menstruation hygiene is not maintained, it [cervical cancer] could happen" (38, SEA, Short-term migrant (STM)).

"If you don't have safe sex then it is very easy to get this disease" (37, SEA, LTM).

Middle Eastern participants listed genetics, hormones, unhealthy lifestyles, contraceptive pills and more than one sexual partner as causes of cervical cancer. Family background and hereditary factors were identified as causes amongst all participants.

None of the participants specifically mentioned the human papillomavirus (HPV), however 'infection' was mentioned by Middle Eastern and South-East Asian participants as risk factors. No participant had heard of the vaccination names

'Gardasil' or 'Cervarix'. Most South-East Asian participants did not know what the vaccinations were. Some Middle Eastern migrants had heard of the vaccinations and seen brochures about it at their general practitioner (GP)'s office, and only a few African migrants had about the vaccinations through the permission letters sent from their daughter's schools. For example, an African migrant stated,

"Because I have daughter... like I think she's like in year 10... in the school they gave some kind of vaccination for the student... But then they have it in the school so they can protect themselves from something like this [cervical cancer]" (37, African, LTM).

Overall, the level of knowledge of the participants was very low, specifically amongst short-term and African migrants. In most cases, many participants were unsure about their responses and admitted they had minimal understanding of cervical cancer.

ii. Knowledge of cervical cancer screening attendance

Knowledge of cervical cancer screening practises was also limited amongst participants. However, knowing the benefits of pap smears was a strong facilitator to attend cervical screening. Only African migrant women were aware of the primary purpose of pap-smears, which is to convey early detection and intervention.

"If you did the pap smear early... to discover the disease the cancer... before when we discover it [cervical cancer] in the early stage, we can control it... easy" (38, African, LTM).

Middle Eastern and South-East Asian participants used terms such as 'to protect ourselves' and 'to be safe' when asked why cervical screening is important. These statements imply that participants were somewhat adamant about pap-smears being a useful preventative measure for cervical cancer.

iii. Cultural and religious beliefs

All participants openly stated that their religious beliefs would not affect cervical cancer diagnosis and screening attendance. African participants stated that the cultural practise of female genital mutilation (FGM) (also known as *female circumcision*) and the prohibition of premarital sex prevents females from their community from being exposed to this disease. Despite female circumcision being common amongst African communities, only a few women were open to discuss the issue.

“Our culture, protects the women, like we have the FGM [female genital mutilation] or we have like the stuff to be physical [sexual intercourse]... until marriage” (37, African, LTM).

South-East Asian and Middle Eastern participants also stated that they would not need to worry about cervical cancer and screening until after marriage due to their religious beliefs of not having premarital relations. Some participants stated that females will only require pap-smears after marriage.

iv. Psychological barriers

Psychological barriers, such as embarrassment and fear, were prominent factors that affected cervical screening attendance. Previous negative experiences with pap-smears were also discussed.

“Very embarrassing, they wanted to do that test [pap-smear], embarrassing situation because I don’t have my husband with me” (44, SEA, LTM).

Despite all Middle Eastern participants attending at least one pap-smear within their lifetime, one Middle Eastern participant stated that she never attended because she was afraid of the procedure.

“I should... I have to... scared to do it [pap-smear]” (25, ME, STM).

4.2.2. System-Level Factors

i. Health Professional’s recommendations

Some participants were only aware of cervical cancer through the advice of their healthcare provider, usually a GP. Receiving letters from The National Cervical Screening Program (NCSP) was a major motivator to attend cervical screening.

“We are very lazy about our health, we are not conscious about our health... NCSP always send us messages... I did this test after my baby born” (37, SEA, STM).

African migrant women stated that they attend routine PSTs because of the recommendation and reminders from both their GP and the government letters.

“...I find the letter from the government, the letter says something like women’s health or something like that. After that I am going to the family doctor and do it [pap-smear] through appointment” (Age unknown, African, LTM).

Of note, the longer-term migrants were more confident in explaining their experiences with their GP and the reminders sent from the NCSP than the short-term migrants.

ii. Communication issues

Language barriers were a common factor that inhibited access to cervical screening. Some participants agreed that they struggled to communicate with health care providers due to language barriers.

“If I need to get a result and my English is not very good, then I take my husband” (35, SEA, STM).

iii. Access to multilingual GPs

Most African and some SEA migrants did not have any issues communicating with their providers due to the availability of GPs that speak their language. Access to GPs

who came from the same country or language background as the participant was a facilitator to accessing both general and women’s health services.

“Our doctors come from the same country, so we don’t need to go with husband” (25, SEA, LTM).

“We all know... like some of the GPs they speak Arabic we can go to them” (37, African, LTM).

4.2.3. Participants Recommendations

At the end of each FGD, participants were encouraged to discuss which health services they would like to see changes in. A demand for an increase in female GPs within the participant’s local communities was shared amongst all ethnic groups. A decrease in waiting times for both female GPs and specialist doctors were also addressed.

“...In my area especially, women go to the lady doctor so what happens is waiting period is so long... We need to improve the waiting period. Everyone sees the female doctor, so more female doctors” (37, SEA, LTM).

African migrants also reported that some people within their communities go to Africa to have FGM done for their daughters.

5. Discussion

One of the main aims of this study was to explore the knowledge and beliefs of cervical cancer and screening amongst migrant women. This study found that migrant women had limited awareness about cervical cancer and screening practices, and these findings were consistent with several studies [14, 18, 25-30]. Lack of hygiene was the most reported risk factor by participants in this study, and this was a similar finding within a study based on Asian migrant women [14]. Our study also found that African migrant women were less likely to be aware of screening and services when compared to South-East Asian and Middle Eastern migrants. These findings indicate that most migrant women have limited knowledge regarding the causes and risk factors associated with cervical cancer, and this is supported by several studies [4-7, 31, 32].

The results of this study show that cultural beliefs and attitudes are barriers to cervical screening uptake. Cultural practices such as FGM were discussed by African migrants within our study; however, due to the sensitivity of the topic, participants did not talk about how it may affect screening. However, Adegboyega & Hatcher (2017)’s study reported FGM as a barrier and stated that African women who have had FGM described feelings of discomfort during the screening procedure as they may be seen as different [21]. These findings suggest that there may be an underutilisation of screening services within the African population due to cultural beliefs.

Additionally, low perceived risk of cervical cancer due to the prohibition of premarital sex within migrant communities delayed screening. The association of screening with promiscuity was also evident within existing literature [14, 17, 31], and these findings suggest the requirement of

culturally appropriate education programs to help decrease the stigma of cervical cancer only being associated with sexual activity.

Psychological barriers such as fear and embarrassment were reported by Middle Eastern and South-East Asian migrants in our study. This finding was consistent with Kwok et al. (2011)'s study on Asian migrant women as they reported embarrassment and a lack of modesty during screening procedures [14]. Furthermore, non-attendance through fear of the procedure was reported within our study, and this was a common psychological barrier within previous studies [14, 18, 31, 32].

In our study, language barriers were not a major barrier to screening attendance. However, previous studies have shown language barriers were a significant factor affecting cervical screening uptake amongst migrant women [21, 19, 23-27, 33] and Middle Eastern and Asian migrants suggested that interpretation services would improve their cervical cancer screening attendance rates [15, 17]. Furthermore, our study showed long-term migrants had access to GPs that spoke the same language within their communities, and short-term migrants stated that they can bring their partners to assist with translating.

System-level factors were predominantly facilitators to seeking cervical cancer screening services. Our current study suggests that recommendations and reminders from GPs to attend screening was a strong motivator, as has been reported previously [14, 19]. Preference for a female doctor was a facilitator within our study, and this was consistent with other studies [14, 18]. In fact, Kwok et al (2011) concluded that migrant women prefer female doctors when conducting pap smears because they are more sympathetic to a female's health requirements [14], and this was consistent with several studies [17, 28, 30-32, 34]. Cervical screening reminder letters were a key facilitator to attending screening amongst the participants from our study, and these findings were consistent with previous studies [14, 15, 17, 19, 35-37].

Our findings also revealed that long-term migrants were more aware of the available health services, and more likely to have more knowledge and awareness during the FGDs, as opposed to recent/short-term migrants, who were mainly unsure about their responses. This suggests that acculturation, as a result of migration status, plays a significant role in the awareness of cervical cancer screening and practices. However, the proportion of participants with tertiary education (67%) was high amongst all ethnic groups; however, our findings did not identify a relationship between education and level of knowledge. Overall, it was found that system-level factors such as reminder letters for screening and relationships with healthcare providers have a positive impact on the cervical screening uptake of migrant women living in Sydney. Whereas individual-system factors identified within our study are the main barriers to cervical screening, and this suggests the need for health interventions targeted specifically toward migrant populations.

Despite the significant findings reported within this study, three main limitations could be addressed in future research.

Firstly, the use of FGDs could have possibly influenced participants to respond with answers perceived to be more acceptable within their cultures or society. Secondly, the sampling methods used were snowball and convenience sampling and not random recruitment. Therefore, the findings within this study cannot be generalised to all migrant women in Sydney, Australia. However, due to time restrictions, this was the most efficient way to recruit participants. Thirdly, only migrant women who spoke English were recruited for this study, therefore this excluded non-English speaking participants. Future research suggests recruiting non-English speaking migrant women and the use of interpretation services to further investigate screening barriers and facilitators within this population.

6. Conclusions

The findings from this study can contribute directly to health promotion, clinical implications and future policy decision making. Given the results of our research, psychological barriers such as fear and embarrassment can be reduced by ensuring privacy and reassurance provided by health providers. Effective communication between migrant women and health providers will also encourage cervical screening attendance. Cultural barriers may be targeted through the delivery of culturally appropriate education programs that reduce any stigmas associated with cervical cancer. Our study found that short-term migrants had an overall lack of awareness about cervical screening and therefore, differences in migration status must be considered when delivering health education programs. Provision of training or programs to increase culturally appropriate health services amongst health care providers is also recommended. This will help ensure privacy and reassurance when delivering health services. Lastly, the availability of printed material (i.e. pamphlets) and/or social media content providing basic cervical cancer and screening information may help raise awareness and knowledge within this population. Due to the language barriers identified in our study, providing multilingual health education materials to migrants is also recommended. Also, the barriers found in our study should be recognized by all health service providers including community organisations and mainstream services.

In conclusion, through addressing the different barriers and facilitators of screening uptake amongst the different ethnic backgrounds explored within our study, culturally appropriate health service and promotion strategies are required. Migrant women within our study did not have sufficient cervical cancer and screening knowledge and therefore tailored health interventions will have a significant impact on increasing cervical screening attendance within these migrant populations.

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