Med & Health Jan 2025; 20(1): 314-327 https://doi.org/10.17576/MH.2025.2001.19

ORIGINAL ARTICLE

Exploring Reasons Women Aged 50 to 65 Did Not Attend Regular Pap Smear Screening

ARPUTAJULIE A[1,4], SYAHNAZ MH[1,3]*, ZUHRA H[1,3], AZMAWATI MN[2,3]

[1]Department of Family Medicine, [2]Department of Public Health Medicine, Faculty of Medicine, Universiti Kebangsaan Malaysia, Jalan Yaacob Latif, Bandar Tun Razak, 56000 Cheras, Kuala Lumpur, Malaysia.

[3]Hospital Canselor Tuanku Muhriz, Jalan Yaacob Latif, Bandar Tun Razak, 56000 Cheras, Kuala Lumpur, Malaysia

[4]Batu Arang Health Clinic, 48100 Gombak, Selangor, Ministry of Health, Malaysia

Received: 02 Aug 2024 / Accepted: 19 Sept 2024

ABSTRAK

Prevalen kanser pangkal rahim semakin meningkat di seluruh dunia dan di Malaysia, terutamanya dalam kalangan wanita berusia 50 hingga 60 tahun. Saringan pap smear secara berkala adalah disarankan untuk mengesan tanda awal kanser pangkal rahim, namun kebanyakan wanita tidak mematuhi saranan ini. Tujuan kajian ini adalah untuk mengkaji punca ketidakpatuhan ini dalam kalangan wanita berumur 50 hingga 60 tahun. Satu kajian kualitatif telah dijalankan dari bulan Jun hingga Ogos 2022 di klinik penjagaan primer awam, Klinik Primer Hospital Canselor Tuanku Muhriz (HCTM). Dua belas wanita yang tidak melakukan saringan pap smear secara berkala dipilih secara persampelan bertujuan. Temubual secara mendalam telah dijalankan. Data dianalisis dengan menggunakan analisis tematik. Tujuh tema dengan empat subtema telah dihasilkan dan dikategorikan kepada faktor dalaman dan luaran. Terdapat lima tema dan dua subtema di bawah faktor dalaman: (i) beranggapan tidak berisiko menghidapi kanser pangkal rahim (subtema: salah faham mengenai faktor risiko kanser pangkal rahim dan berasa terlindung dari menghidapi kanser); (ii) salah faham tentang tujuan pap smear dan jadual yang disarankan; (iii) mengutamakan komitmen hidup yang lain; (iv) kepercayaan fatalistik; dan (v) pengalaman negatif dengan prosedur pap smear. Dua tema dan dua subtema di bawah faktor luaran: (i) kekurangan fasiliti dan perkhidmatan kesihatan (subtema: persekitaran yang tidak kondusif dan kurangnya peringatan dari kakitangan kesihatan); dan (ii) beranggapan bahawa pap smear adalah mahal. Penemuan kami mendedahkan salah tanggapan yang meluas tentang kanser pangkal rahim serta saringan pap smear. Ketidakpatuhan juga dikaitkan dengan perkhidmatan kesihatan yang kurang memuaskan dan beranggapan kos pap smear adalah tinggi. Usaha harus dilakukan untuk membetulkan persepsi wanita dan memperbaiki perkhidmatan kesihatan untuk saringan pap smear.

Address for correspondence and reprint requests: Dr. Syahnaz Mohd Hashim. Department of Family Medicine, 14th floor, Preclinical Block, Faculty of Medicine, Universiti Kebangsaan Malaysia Medical Centre, Jalan Yaacob Latiff, Bandar Tun Razak, 56000 Cheras, Kuala Lumpur, Malaysia. Tel: 603-9149459 Email: syahnaz@ukm.edu.my / syahnaz@hctm.ukm.edu.my

Kata kunci: Kanser pangkal rahim; kualitatif; pap smear; saringan; wanita

ABSTRACT

Cervical cancer (CC) prevalence is increasing worldwide and in Malaysia, especially among women between 50 and 65 years old. Regular pap smear screening is advocated for early detection of CC, but many women do not adhere to its recommended schedule. The objective of this study was to explore the reasons behind this non-adherence among women aged 50 to 65 years old. A qualitative study was conducted from June until August 2022 in a public primary care clinic, Klinik Primer Hospital Canselor Tuanku Muhriz (HCTM). Twelve women who did not have regular pap smear screening were purposively sampled. In-depth interviews were performed. Data were analysed using thematic analysis. Seven themes with four subthemes were generated and categorised into internal and external factors. There are five themes and two subthemes under internal factors: (i) perceived not being at risk of CC (subthemes: wrong understanding of CC risk factors and felt protected from having CC); (ii) misconception about the purpose of pap smear and its recommended schedule; (iii) prioritise other life commitments; (iv) fatalistic belief; and (v) negative experiences with pap smear procedure. Two themes and two subthemes under external factors: (i) poor healthcare facilities and services (subthemes: a non-conducive environment and lack of reminders from healthcare providers; and (ii) felt pap smear was costly. Our findings uncovered widespread misconceptions about CC and pap smears. Non-adherence was also related to less satisfactory healthcare services and perceiving that pap smears were costly. Efforts should be made to correct women's perceptions and improve healthcare services for pap smear screening.

Keywords: Cervical cancer; pap smear; qualitative; screening; women

INTRODUCTION

Cervical cancer (CC) ranks as the fourth most common cancer among women (WHO 2018), and in Malaysia, is the third leading cancer among females (Azizah et al. 2019). CC is a slow-growing disease in which the progression from precancerous to cancerous lesions may occur over many years and women often are asymptomatic and early-stage cancer can be missed (Cohen et al. 2019; Smith et al. 2019). Local data showed the highest incidence of CC is among women aged 50 to 65, and 41% of this cancer was detected late (Azizah et al. 2019), of which the prognosis is likely to be poor.

An important preventive strategy for CC is the pap smear screening programme, which aims to detect cancer cells early (Smith et al. 2019). For over five decades, Malaysia has advocated pap smear screening for women between the ages of 20 and 65 and who have sexual intercourse, and it is freely available in public healthcare facilities (Ministry of Health 2019). The effort is vital as early detection is essential for better prognosis and treatment success (WHO 2018). The

Malaysian Clinical Guideline states that women should follow the recommended pap smear screening schedule once every three years (Ministry of Health 2019). This is crucial because the precancerous lesion can become cancerous within a few years (Cohen et al. 2019; Smith et al. 2019), as this condition is related to the human papillomavirus infection (Sharifa Ezat et al. 2010).

Despite the availability of pap smear screening in Malaysia, its uptake is still poor. Data from a local survey showed only 36.6% of adult women underwent pap smear screening in the past year (Institute of Public Health 2020), while a study among older women found that only 39.22% had ever done the screening (Romli et al. 2019). Previous studies have identified common barriers to pap smear screening, including poor awareness (Abdullah et al. 2016; Al-Naggar 2012; Ashtarian et al. 2017; Yang et al. 2019), fear of positive results (Al-Naggar et al. 2010), fear of the procedure and embarrassment (Nahrawi et al. 2020). Women also claimed that a lack of family support, time, and preference for male physicians were among the factors (Yang et al. 2019).

Furthermore, several local studies have investigated the extent of adherence towards the pap smear screening schedule. The finding was alarming, in which 90.5% of women aged 25 to 65 were non-adherent (Yunus et al. 2018). This observation concurs with a recent study in which half of the women admitted did not have a pap smear in the last three years (Romli et al. 2023). The findings indicate that local women find it challenging to follow the recommended schedule of pap smears and warrants further investigation. Yunus et al. (2018) made an initial effort to examine this issue but found that non-adherence was not associated with the women's perceptions of susceptibility, severity, barriers, cues to action or perceived benefits. Apart from this finding, there is no further effort to identify the reasons for non-adherence, particularly among Malaysian women aged 50 to 65. Nevertheless, a qualitative study from the West found the reasons for non-adherence among women aged 50 to 64 were poor knowledge of CC, discomfort, embarrassment, fear, negative experiences related to the procedure and health professional factors (Marlow et al. 2019). Till now, a similar effort to examine this issue is still limited in our local setting. As CC is highly prevalent in women aged 50-65 years old, identifying their reasons for non-adherence is crucial before designing any intervention. This age category is considered at risk of CC because they did not have the opportunity to have Human Papillomavirus vaccination during their younger age, as the vaccination was only introduced in Malaysia in 2010 (Ezat & Aljunid 2010).

It is also pertinent that women are given opportunities to voice their opinions on why they could not attend the recommended pap smear screening. Malaysian women may have different views on pap smear screening and their reasons for non-adherence are possibly linked with socio-cultural values. Therefore, a qualitative study is needed to understand why women aged 50-65 did not attend regular pap smear screenings. This study explored why women in this age category did not perform regular pap smears. We hoped that the findings can assist healthcare providers in designing an effective intervention programme

to promote adherence to pap smear screening for this high-risk group.

MATERIALS AND METHODS

Study Setting, Participants and Sampling

This qualitative study was conducted from June until November 2022. Participants were recruited from a public university primary care centre in Kuala Lumpur, Klinik Primer Hospital Canselor Tuanku Muhriz (HCTM). Participants were identified through medical notes and purposively sampled. The researcher contacted them and invited them to the clinic for an interview. The inclusion criteria were (i) women aged between 50-65 years; (ii) participants that did not follow the recommended pap smear screening, i.e. three yearly intervals; (iii) able to speak Malay or English; (iv) not having cognitive, hearing or visual impairment; and (v) not known to have CC. A briefing about the study was given first before inviting them to participate. Once the participant agreed, an interview was arranged in a private room in the clinic.

Data Collection

An in-depth interview was conducted using a semi-structured protocol guide by a family medicine specialist trainee. This protocol guide comprised questions to uncover the participant's reasons for not performing regular pap smear screening (King & Horrocks 2010; Liamputtong 2013). The interview began with inquiring about the participants' previous pap smears, frequency and interval. Subsequently, their views on pap smear screening and reasons for non-adherence were explored. During the interviews, the researcher used specific probing questions to clarify the participants' responses or concerns about certain issues (King & Horrocks 2010; Liamputtong 2013). A pilot interview using a protocol guide was carried out first with a senior qualitative researcher to ensure the researcher's interviewing technique was appropriate and to test the protocol guide (Liamputtong 2013).

Written consent and the participant's profile, including socio-demographic, co-morbidity and pap smear screening history, were obtained before each interview. The interviews were conducted in Malay or English, according to the participant's preference. Each session lasted between 45 and 60 minutes and was recorded using a digital voice recorder. The researcher also recorded every observation and impression in a diary for each interview. This information helped the research team during the data analysis (Liamputtong 2013).

Data Analysis

The data analysis and collection were done simultaneously (King & Horrocks 2010; Liamputtong 2013). At the end of each interview, the researcher summarised what the participants said and invited them to check for discrepancies or inaccurate information. After each interview, a debriefing session was held among the research team (McMahon & Winch 2018), whereby the researcher wrote each interview's summary and reflection. The recorded data was then transcribed and analysed with thematic analysis (Braun & Clarke 2006; King & Horrocks 2010). Before coding the text, the researcher

read it multiple times to familiarise with the content. Subsequently, the researcher did a descriptive level of coding of a few phrases, singles or sentences. The research team then checked these codes, and as a result, some codes were re-coded to ensure they were coherent (Braun & Clarke 2006; King & Horrocks 2010). After several transcripts, an interpretative level coding was done. The team reviewed and re-labelled the codes throughout this coding process, requiring the researcher to listen to the recording and read the text (Braun & Clarke 2006; King & Horrocks 2010).

After the ninth interview, certain patterns in the interpretative codes could be seen. Similar codes were then grouped, generating themes and sub-themes (Braun & Clarke 2006). The themes and sub-themes were reviewed and discussed among the research team. These themes and subthemes were redefined and re-categorised. A decision to proceed with further data collection was made to ensure the research team had obtained sufficient information to meet the study objective. The data collection stopped at the twelve interviews when the data reached a saturation point, in which no new theme emerged (Liamputtong 2013).

Ethical Approval

The current study was approved by the Research and Ethical Committee, Faculty of Medicine, Universiti Kebangsaan Malaysia (FF-2021-357). All participants were briefed about the study and written consent was obtained. The participant's identities were coded to maintain anonymity.

RESULTS

Participants' Profile and their Pap Smear Experience

Twelve participants were interviewed, including nine Malays, two Chinese and one was Indian. Their educational level varied from primary to tertiary level. Eleven were married and one had divorced. Table 1 showed the participants' profile and their pap smear experience. The themes were categorised into (a) internal and (b) external factors. A total of seven themes and four subthemes explained why women aged 50 to 65 did not attend the recommended pap smear screening, as shown in Figure 1.

(a) Internal factors

This study found that internal factors, including perceived not at risk of CC, misconceptions about the purpose of a pap smear and its recommended schedule, fatalistic belief, prioritising other life commitments and negative experiences with pap smear procedure caused non-adherence to the recommended pap smear schedule.

(i) Perceived not at risk of CC

Some women thought that they were not at risk, as demonstrated by the two subthemes:

- Wrong understanding of CC risk factors

Being asymptomatic and perceiving CC only affects older women, leading them to think that repeating pap smears was

TABLE 1: Participants' profile and pap smear screening history

ID Participant	Age	Ethnic	Educational level	Marital status	Employment	Co-morbidity	Pap smear screening intervals
P1	56	Malay	SPM	married	housewife	nil	only twice in a (unable to recall when)
P2	53	Malay	SPM	married	housewife	HPT, dyslipid.	only once (22 years ago)
P3	55	Malay	Degree	married	teacher	DM, dyslipid.	only twice (2017, 2022)
P4	60	Chinese	Secondary school	married	housewife	nil	only once (2022)
P5	57	Malay	Degree	divorced	teacher	DM, dyslipid.	only twice (2013)
P6	65	Malay	Degree	married	housewife	dyslipid.	only thrice in a lifetime (last in 2022)
P7	59	Malay	SPM	married	housewife	dyslipid.	a few times only (unable to recall when)
P8	55	Malay	Degree	married	housewife	dyslipid.	a few times (unable to recall when)
P9	63	Chinese	Diploma	married	retailer	nil	started at the age of 52 and had done thrice.
P10	59	Malay	STPM	married	retired teacher	HPT, dyslipid.	only once (30 years ago)
P11	63	Malay	SPM	married	housewife	DM, dyslipid., thyroid disorder	only once (2019)
P12	55	Indian	Primary school	married	office cleaner	Knee OA	only twice (15 years ago and 2022)

Note: HPT: hypertension, DM: Diabetes Mellitus, Dyslipid: Dyslipidaemia, OA: Osteoarthritis, nil: No Comorbid

unnecessary. They felt that they were healthy and still young:

"I don't want to do it (pap smear) again yet, because I feel like I'm still okay (asymptomatic)"

(Participant 1, 56 years old)

One participant stated that she only felt the need to repeat it when she reached old age, thinking that CC generally occurred when age increased:

"I have to do it (pap smear) now because I'm getting older."

(Participant 11, 63 years old)

Another participant also emphasised that old age was more at risk and even

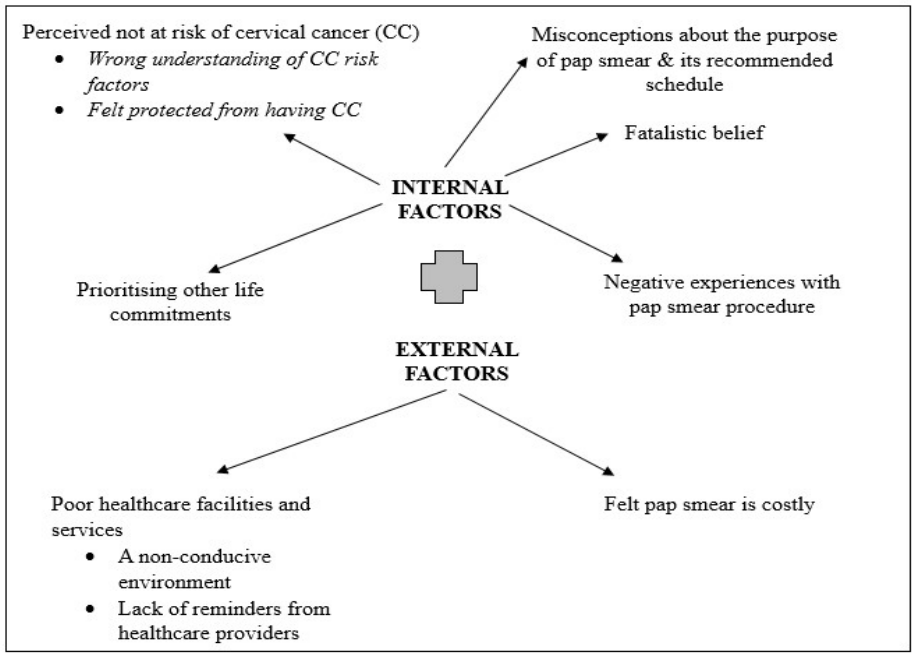

FIGURE 1: Themes & subthemes explaining reasons women aged 50 to 65 did not attend regular pap smear screening

believed that age played a higher risk than having a positive family history. She admitted that she only became concerned after she reached menopause:

"My mother had cervical cancer, and it is alarming to all my three siblings and me but we take this seriously only after our menopause."

(Participant 9, 63 years old)

- Felt protected from having CC

Some participants were not worried about having CC because they had personal protective factors, such as having no family history, being in a monogamous relationship and following certain dietary habits from the older generations. Hence, a repeat pap smear was not perceived as necessary. Below were some of the remarks:

"I have a mother who doesn't have cancer, my sister also doesn't have cancer, so I'm not afraid of getting cervical cancer."

(Participant 4, 60 years old)

One participant claimed that a woman in a polygamous relationship would be more at risk as her sister, whose husband had an extramarital affair, suffered from CC. Even though she had a family member with cancer, she was not concerned because she was in a monogamous relationship:

"My sister got it (cervical cancer) because the doctor said it is because her husband had an extramarital affair"

(Participant 8, 55 years old)

Meanwhile, one participant followed her mother's advice that a particular food could build up immunity and protect from cancer:

"The important thing is to eat chilli. I have a mother who is 92 years old and still eats chilli. Chilli will build stronger cells and can defend against cancer"

(Participant 4, 60 years old)

(ii) Misconception about the purpose of pap smear and its recommended schedule

Some participants have a misconception about the purpose of pap smear screening. One participant thought the screening was done to ensure the reproductive organs were healthy and that it was only necessary during childbearing age. Thus, she did not repeat it when she decided not to conceive again:

"*My understanding is because I gave birth, the doctor wanted to see how healthy my uterus was. I didn't do it (pap smear) because I stopped giving birth"*

(Participant 8, 55 years old)

Meanwhile, an older participant assumed a single pap smear would be able to detect cancer cells that could develop in ten years and wish to repeat it only after ten years:

"Once the result is normal, I feel everything is okay. From my assumption, a single pap smear will cover for ten years. I am worried when entering the 50s."

(Participant 11, 63 years old)

Likewise, another participant believed that doing the pap smear once was sufficient for a lifetime:

"I feel I'm okay, nothing like that (no symptoms), so I thought that one pap smear is forever"

(Participant 2, 53 years old)

Surprisingly, some participants were unaware of the recommended screening interval and thought that it was totally up to the women to decide:

"I think knowledge is not there. The doctor said two years once, so I stopped in 2nd year"

(Participant 9, 63 years old)

(iii) Prioritising other life commitments

Most participants admitted that when they were young, they struggled to manage other responsibilities, including raising children, caring for family and building up careers. They needed to fulfil these roles first and would only come for screening once they had less commitment:

"I think at that time, I was raising the children, the situation didn't allow me to think about pap smear."

(Participant 10, 59 years old)

"*Now I'm going (for a pap smear) because I'm free. The children are now grown up. Now there is time for me..like my daughter and family said, now you have to think about yourself*"

(Participant 11, 63 years old)

One participant added that it is difficult to be excused from work, causing her to delay their intention. Furthermore,

being asymptomatic also influenced her decision:

"I used to postpone my appointment many times because I cannot be excused from work and when I'm on leave, I was occupied and busy with other jobs, and since I have no symptoms yet, I chose to postpone my pap smear"

(Participant 5, 57 years old)

In another situation, a woman could not adhere to the screening schedule as she was too overwhelmed by her other medical problems:

"I'm busy with five operations because of my accident, including my spine was involved, so I can hardly focus on other issues (pap smear)"

(Participant 8, 55 years old)

(iv) Fatalistic belief

Having a fatalistic belief was also mentioned as one of the reasons. One participant admitted that before, she was neither worried nor interested in the screening as she believed God had determined disease and human beings could not change it. She only agreed to do it when her doctor urged her to start doing it:

"God already knows how people will die. It's true..my sister's husband doesn't smoke or drink but still has cancer".

(Participant 4, 60 years old)

However, one participant argued that some disagree with this belief and felt that people must be responsible for their health. She was willing to do pap smear screenings as she was concerned about her risk:

"I don't believe that. I want to know if I have any problem and need a doctor's consultation before blaming God."

(Participant 12, 55 years old)

(v) Negative experiences with pap smear procedure

Certain participants felt discouraged to repeat the pap smear after they had a poor experience with it. A woman claimed that the procedure was embarrassing because she had to expose her private body parts:

"It's not really about the pain during a pap smear...it's about feeling shy...it's more embarrassing than the pain in a pap smear. I will not volunteer immediately for a pap smear."

(Participant 3, 55 years old)

One participant explained that she would feel more comfortable and likely consider repeating pap smears if a female healthcare provider performed the procedure instead of a male:

"Pap smear involves the private part, I'm scared male doctor will approach me, so I get rid of doing a pap smear."

(Participant 2, 53 years old)

A woman claimed that she was reluctant to repeat the pap smear as she had already seen the speculum and was scared of it:

"I'm afraid of an iron instrument(speculum) was used because of this I'm a little phobic about doing a pap smear"

(Participant 10, 59 years old)

Meanwhile, there was also a concern about bleeding after the procedure:

"I'm scared of the side effects. A nurse explained to me the risk of bleeding after a pap smear and asked me to go to the hospital immediately, had made me feel phobia repeating pap smear"

(Participant 6, 65 years old)

The above remarks indicated that the participants did not receive an adequate explanation and reassurance of the procedure.

(b) External factors

Several external factors, including healthcare facilities and provider's attitudes as well as cost, influenced the women's decision whether to repeat the pap smear.

(i) Poor healthcare facilities and services

- A non-conducive environment

Women expressed that some health clinics had poor facilities, i.e., limited parking space, and patients need to wait long to do the screening. Moreover, some clinics were crowded, and patients had difficulty in making or changing appointments. Hence, they tended to default on their appointments:

"If you come here (clinic), there's a lot of things you have to do, register, then take a number, then take an appointment. You can't walk in...all kinds of obstacles."

(Participants 6, 65 years old)

A woman suggested that a private room should be available for the procedure:

"There is a room for pap smear near the room, all patients do medical check-ups,dressings, etc., so everyone is aware that we are doing pap smear"

(Participant 10, 59 years old)

Some felt uncomfortable with the lack of sensitivity shown by certain staffs when the room was not properly closed:

"I already undressed and then the curtain was drawn half,..and another nurse was sitting at the front, and both were chit-chatting. So that made me lose confidence"

(Participant 9, 63 years old)

- Lack of reminders from the healthcare provider

Many participants claimed that they did not receive a reminder to repeat the pap smear:

"I had a pap smear more than two years ago, but the doctor did not mention repeating it"

(Participant 7, 59 years old)

One reason was probably the lack of advertisements and health promotion about the screening:

"I received a pamphlet which is only 2-3 pages, but it has a long-lasting effect on me. I kept it and brought it back. I have had it for many years"

(Participant 6, 65 years old)

Another participant admitted that she was initially unsure whether to repeat it but became convinced after reading a pamphlet:

"I read the pamphlet and immediately made an appointment with the nurse. However, I changed the appointment due to unavoidable reasons, but I'm not sure if I did the pap smear at that time."

(Participant 5, 57 years old)

(ii) Felt pap smear is costly

Some participants felt it was more convenient to do it at a private facility but were concerned about its cost:

"I thought that it might be a little expensive when I wanted to do a pap smear."

(Participant 2, 53 years old)

DISCUSSION

The present study gained insight from women aged 50 to 65 on the barriers of not attending the recommended pap smear screenings. The findings are crucial as this age group has a high incidence of CC in Malaysia (Azizah et al. 2019). Among the internal factors contributing to their non-adherence were perceptions and knowledge of CC. It was noted that their understanding of CC, its risk factors and screening method were superficial. They believed CC is only likely to happen in people with increased age and family history. This missed information is shared among the locals, leading women to think that regular pap smears are unnecessary. Moreover, some perceived that only having symptoms would indicate a need to repeat it, affirming previous studies (Kissal & Beser 2014; Wong et al. 2009; Yang et al. 2019). It is apparent that when women have insufficient knowledge of CC, they wrongly interpret their own risk and are less likely to perform pap smear screening. This observation was also seen in previous studies (Ashtarian et al. 2017; Marashi et al. 2021 Yang et al. 2019), concurring with the Health Belief Model, whereby when people perceive low susceptibility to a disease, they would not feel threatened and avoid taking action (Rosenstock 1974).

Another interesting observation is that women value the older generation's advice and are willing to follow a particular diet to maintain health. This reflects the family values in our society (Sumari et al. 2019). Malaysia is an example of a collectivist culture, whereby families significantly influence women's behaviour and decisions (Shaw et al. 2018), indicating subjective norms also play a crucial role. This was earlier described in the Theory of Planned Behavior (TPB), stating that people tend to follow the same behaviour when a person or group promotes that particular behaviour (Ajzen 2001). Malaysia also upholds strong cultural and religious values, and the issue of fatalistic belief is still recurring. The belief that a high power like God determines human conditions and humans cannot alter them (Powe & Finnie 2003) led women to be passive (Shaw et al. 2018), as depicted in the present study participant.

Some women did not understand the purpose and schedule of pap smear screening, which was consistent with previous reports (Nahrawi et al. 2020; Oon et al. 2010; Wong et al. 2009). This was evident when some claimed that doing it once could assure the absence of CC for a lifetime. Some thought it was to ensure

their reproductive organs were healthy during childbearing. Thus, women need to receive correct information about the purpose of having regular pap smears and a good opportunity for education should be given during their pre-pregnancy, antenatal and post-natal check-ups (Romli et al. 2019). It is also timely for healthcare providers to utilise various platforms or any interactive technology, such as e-health, to increase awareness in the population (Romli et al. 2022).

Another reason for not attending regular pap smears is that women felt they should prioritise other life obligations instead of their health, replicating findings from previous research (Yunus et al. 2018). As in other collectivist societies, local women primarily manage families and care for their children (Abdullah & Su 2010; Sumari et al. 2019; Yang et al. 2019), which they struggle to balance these. They would often choose to delay pap smears until time permits as they need to fulfil their roles in the family.

Apart from the above reasons, women in this study highlighted they felt embarrassed and scared seeing the instrument when they previously underwent the pap smear procedure. This affected their decision to repeat it, similarly reported by others (Al-Naggar et al. 2010; Ashtarian et al. 2017; Kissal & Beser 2014; Yang et al. 2019). Moreover, poor healthcare facilities and services, including limited parking space, private rooms and female personnel influenced their decision whether to repeat pap smears. Women also mentioned these barriers in other studies (Abdullah & Su 2010; Marashi et al. 2021). Besides, poor attitudes and lack of reminders from healthcare providers also contribute to non-adherence to pap smear screening. In Malaysia, some women prefer to do pap smears at private healthcare facilities despite being freely available in Malaysian public clinics. However, this incurs some costs for women, making them feel burdensome (Al-Naggar et al. 2010).

The current study has several limitations. The study was conducted in an urban health centre; thus, the findings could differ in other settings. This study has also excluded women who could not communicate in Malay or English. Therefore, we could not capture responses from those unable to speak these languages. Even though sampling has incorporated those from various age and ethnic groups and educational backgrounds, more information can be obtained from women from other settings. We recommend advocating for future research focused on women in rural and East Malaysia.

CONCLUSION

Our study demonstrated that women aged 50-65 did not attend regular pap smears because of their beliefs and perceptions, including the perception of not being at risk of CC, a fatalistic belief, misconception about the purpose of pap smears and its recommended schedule, as well as prioritising other life commitments. Past negative experiences with pap smear procedures, non-favourable healthcare services and concern about cost also contribute to the barriers. Several important points are worth noting to improve our healthcare practice. First, our efforts to promote cervical screening should focus on delivering educational content to address missed perceptions among local women. Women should

receive information on the value of performing pap smears and how it can improve outcomes if CC is detected early. Healthcare providers should provide a better environment and healthcare services. Furthermore, family and employer support is crucial for women's adherence to the screening. In the future, we should look into screening women at their workplace to ensure their adherence to the pap smear schedule.

ACKNOWLEDGEMENT

The authors would like to thank all study participants and the Faculty of Medicine, Universiti Kebangsaan Malaysia, for funding this study (FF-2021-357).

REFERENCES

Abdullah, F., Su, T.T. 2010. Enhancement of the cervical cancer screening program in Malaysia: a qualitative study. *APJCP* **11**(5): 1359-66.

Abdullah, N.N., Daud, S., Al-Kubaisy, W., Saari, I.S. Saad, S.R. 2016. Cervical cancer screening after 50: Near extinction? *Eur J Obstet Gynecol Reprod Biol* **206**: 136-40.

Ajzen, I. 2001. Nature and operation of attitudes. *Annu Rev Psychol* **52**: 27-58

Al-Naggar, R.A., Low, W., Isa, Z. M. 2010. Knowledge and barriers towards cervical cancer screening among young women in Malaysia. *APJCP* **11**(4): 867-73.

Al-Naggar, R.A. 2012. Practice and barriers towards pap smear test from a public hospital in Malaysia. *J Community Med Health Educ* **2**(132): 2.

Ashtarian, H., Mirzabeigi, E., Mahmoodi, E., Khezeli, M. 2017. Knowledge about cervical cancer and pap smear and the factors influencing the pap test screening among women. *Int J Community Based Nurs Midwifery* **5**(2): 188-95.

Azizah, A.M, Hashimah, B., Nirmal, K., Siti Zubaidah, A.R., Puteri, N.A, Nabihah, A., Sukumaran, R., Balqis, B., Nadia, S.M.R., Rahayu, O., Nur Alham, O., Azlina, A.A. 2019. *Malaysia National Cancer Registry Report 2012-2016*. Malaysia: Ministry of Health Malaysia.

Braun, V., Clarke, V. 2006. Using thematic analysis in psychology. *Qual Res Psychol* **3**(2): 77-101.

Cohen, P.A., Jhingran, A., Oaknin, A., Denny, L. 2019. Cervical cancer. *Lancet* **393**(10167): 169-82.

Ezat, W.P., Aljunid, S. 2010. Cost-Effectiveness of HPV vaccination in the prevention of cervical cancer in Malaysia. *Asian Pac J Cancer Prev* **11**(1): 79-90.

Institute for Public Health. 2020. *National Health and Morbidity Survey (NHMS) 2019: Non-communicable diseases, healthcare demand, and health literacy-Key Findings.* Setia Alam: National Institutes of Health.

King, N., Horrocks, C. 2010. *Interviews in Qualitative Research*. 1st ed. London: Sage.

Kissal, A., Beser, A. 2014. Perceptions of barriers and facilitators of cervical cancer early detection behaviors among elderly women. *Int J Caring Sci* **7**(1): 157-68.

Liamputtong, P. 2013. *Qualitative research methods*. 4th ed. Oxford University Press.

Marashi, T., Irandoost, S.F., Lebni, J.Y., Soofizad, G. 2021. Exploring the barriers to pap smear test in Iranian women: A qualitative study. *BMC Women's Health* **21**(287): 1-12.

Marlow, L., Mcbride, E., Varnes, L., Waller, J. 2019. Barriers to cervical screening among older women from hard-to-reach groups: A qualitative study in England. *BMC Women's Health* **19** (38): 1-10

McMahon, S.A., Winch, P.J. 2018. Systematic debriefing after qualitative encounters: An essential analysis step in applied qualitative research. *BMJ Glob Health* **3**(5): e000837.

Ministry of Health Malaysia. 2019. *Clinical Practice Guidelines: Management of Cancer Cervix* 2nd ed. Putrajaya: Malaysia Health Technology Assessment Section.

Nahrawi, N., Mustafa, W.A., Kanafiah, S.N.A.M. 2020. Knowledge of human papillomavirus (HPV) and cervical cancer among Malaysia residents: A review. *Sains Malaysiana* **49** (7): 1687-95.

Oon, S.W., Shuib, R., Ali, S.H., Hussain, N.H.N., Shaaban, J., Yusoff, H.M. 2010. Knowledge and attitude among women and men in decision making on pap smear screening in Kelantan, Malaysia. *Int J Soc Manag Econ Bus Eng* **4**(6): 1384-91.

Powe, B.D., Finnie, R. 2003. Cancer fatalism: The state of the science. *Cancer Nurs* **26**(6): 454-67.

Romli, R., Shahabudin, S., Saddki, N., Mokhtar, N. 2019. Cervical cancer and pap smear screening: knowledge, attitude and practice among working women in northern state of Malaysia. *Med J Malaysia* **74**(1): 8-14.

Romli, R., Abd Rahman, R., Chew, K.T., Mohd Hashim, S., Mohamad, E.M.W., Mohammed Nawi, A. 2022. Empirical investigation of e-health intervention in cervical cancer screening: A systematic literature review. *PLoS*

One **17**(8): e0273375

Romli, R., Mohamad, E.M.W., Abd Rahman, R., Chew, K.T., Mohd Hashim, S., Mohammed Nawi, A. 2023. Women's motivation towards Pap smear screening based on sexual and screening status: A cross sectional-study using Protection Motivation Theory. *J Educ Health Promot* **12:** 357

Rosenstock, I.M. 1974. Historical origins of the health belief model. *Health Educ Monogr* **2**(4): 328-35.

Sharifa Ezat, W.P., Sharifah, N.A., Sayyidi Hamzi, A.R., Norin Rahayu, S., Shamsul Azhar, S. & Syed Mohamed, A. 2010. Prevalence of human papillomavirus genotypes in preinvasive and invasive cervical cancer- A UKM study. *Med & Health* **5**(2): 66-76.

Shaw, T., Ishak, D., Lie, D., Menon, S., Courtney, E., Li, S.T., Ngeow, J. 2018. The influence of Malay cultural beliefs on breast cancer screening and genetic testing: A focus group study. *Psychooncology* 27(12): 2855-61.

Smith, R.A., Andrews, K.S., Brooks, D., Fedewa, S.A., Manassaram-Baptiste, D., Saslow, D., Wender, R.C. 2019. Cancer screening in the United States, 2019: A review of Current American Cancer Society guidelines and current issues in cancer screening. *CA Cancer J Clin* **69**(3): 184-210.

Sumari, M., Baharudin, D.F., Khalid, N. M., Ibrahim, N.H., Tharbe, I.H.A. 2019. Family functioning in a collectivist culture of Malaysia: A qualitative study. *The Family J* **28**(4): 396-402.

Wong, L.P., Wong, Y.L., Low, W.Y., Khoo, E.M., Shuib, R. 2009. Knowledge and awareness of cervical cancer and screening among Malaysian women who have never had a Pap smear: A qualitative study. *Singapore Med J* **50**(1): 49-53.

WHO. 2018. Cervical cancer. World Health Organization Geneva. https://www.who.int/news-room/fact-sheets/detail/cervical-cancer. [Accessed on 1st July 2021].

Yang, H., Li, S.P., Chen, Q., Morgan, C. 2019. Barriers to cervical cancer screening among rural women in eastern China: A qualitative study. *BMJ Open* **9**(3): e026413.

Yunus, N.A., Yusoff, H.M., Draman, N. 2018. Non-adherence to recommended pap smear screening guidelines and its associated factors among women attending health clinic in Malaysia. *Malays Fam Physician* **13**(1): 10-7.