UNIVERSITI PUTRA MALAYSIA

CROSS-SECTIONAL STUDY OF DETERMINANTS OF SCREENING PROVISION AND UPTAKE OF CERVICAL CANCER AMONG WOMEN ATTENDING COMMUNITY CLINICS IN A SUBURBAN AREA OF SELANGOR

NURUL SYAFIQA BT MOHAMMAD ABDULLAH

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Miss Norafisyah binti Makhdzir

Date: 07/06/22

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

LIST OF ABBREVIATIONS

HPV	Human Papillomavirus
MCO	Movement Control Order
WHO	World Health Organization

CHAPTER 1

INTRODUCTION

1.1 Background of Study

This study is about the determinants of screening provision and uptake of cervical cancer and attitudes towards cervical cancer screening which focus on women attending community clinics in a suburban area in Selangor. Cervical cancer occurs when the cancerous cells are developing in the entrance of uterus from vagina (World Health Organization, 2018). According to World Health Organization (2018), infection from Human Papillomaviruses (HPV) is the main cause for development of cervical cancer. 99% of cases are related to HPV infection. HPV is a non-enveloped and double-stranded DNA. HPV has more than 100 types but 14 types can be categorized as the high-risk type which can cause the development of cancer (World Health Organization, 2018). Cohen et al. (2019) stated that the most commonly found are type 16 and 18 which contribute up to 70% of the cervical cancer cases.

Besides, HPV can be transmitted through sexual contact, and not surprisingly, the onset of infection will begin shortly after the sexual activity with an infected person (WHO, 2018). Zaridah (2014) claimed that HPV infection should be resolved completely within two years but persistent infection can cause cancer. The risk factors for cervical cancer are early age of first sexual activity and delivery, multiple sexual partners, an increasing number of pregnancies, immunosuppression, smoking, and long-term consumption of oral contraceptive (Nour, 2009). Cohen et al. (2019) added on the history of sexually transmitted infection, HPV-related vulvar and vaginal dysplasia, and absence to the screening appointment.

The main aim of conducting this study is to raise awareness on cervical cancer among women in Malaysia since the number of new cases keeps increasing worldwide. Based on the latest statistics from World Health Organization (WHO), cervical cancer is the fourth common cancer among women. In 2018, 570 000 new cases have been diagnosed and 311 000 women died

due to cervical cancer worldwide. As in Malaysia, according to Azizah et al. (2019), cervical cancer is the third most common cancer in women after breast and colorectal cancer. 3981 new cases have been diagnosed between 2012 until 2016. The age-standardised incidence rate (ASR) is 6.2% per 100 000 populations. By looking in detail at ethnicity, the incidence rate is higher in Chinese (6.8%) followed by Indian (5.5%) and Malay (4.6%). Age-specific new cases show that women aged between 50 to 65 years old have a higher incidence rate.

Cervical cancer can cure if detected at an early stage. In general, there are three modalities in preventing the occurrence of cervical cancer which can be divided into primary, secondary, and tertiary prevention. Primary prevention focused on halting HPV infection via vaccination and health education. Secondary prevention is aimed at screening and treatment of precancerous and pre-invasive lesions while tertiary prevention mainly for detecting and treating early stage of cervical cancer (World Health Organization, 2018). In this regard, many studies were conducted worldwide which focus on the level of awareness among populations regarding the prevention of cervical cancer. Prevention of cancer is crucial as it can promote in decreasing cancer burden, suitable for a long-term strategy, and cost-effective. It can be done by altering and avoiding risk factors and applying prevention strategies according to evidence-based practices as concluded by World Health Organization (2018).

In a country that has strong health systems, Malaysia has been putting a lot of effort to ensure accessible early detection, quality *treatment of cervical cancer. Nevertheless, it would be a vain effort if people are not cognizant of cancer preventions,* Hence, this research is important to evaluate the level of knowledge on cervical cancer, attitudes on cervical cancer screening and the rate of screening uptake among women in Malaysia especially for those in risky groups so that it would give an insight into improving strategies on cancer prevention.

1.2 Problem Statement

Cervical cancer is a potentially preventable disease due to the existence of HPV vaccination that acts as primary prevention for HPV infection (Zaridah, 2014). However, Malaysia still has a high prevalence and mortality rate of cervical cancer despite the licensing of HPV vaccination since November 2006. According to (Malaysian Ministry of Health (2019), HPV vaccination is routinely carried out for female teenagers aged 13 years. As stated by Azizah (2019), there are 3981 new cases of cervical cancer that have been reported from 2012 to 2016 in Malaysia. Even the incidence rate has been decreased from 7.6% to 6.2% over the 100,000 population, it is still worrisome as the number of cases that have been detected at the late stage is slightly increasing from 40.3% to 41.0%. Based on the study conducted by Tan et al. (2018), the prevalence of HPV infection in cervical cancer in Malaysia is 83.2%.

Several studies have been conducted in Malaysia on cervical cancer are focussing on the level of knowledge and awareness. A previous study by Wong et al. (2009), proved the lack of knowledge and awareness on cervical cancer and the need for Pap Smear test. Most of the respondents from the study believed that the Pap Smear test is conducted only when cervical cancer has been diagnosed. This study has shown the misconception that is lingering in the community. Several risk factors for cervical cancer can be revealed by the respondents but none of them cited on smoking, having sexual intercourse at an early age, and parity. According to Sopian et al. (2018), more than half of the parents have poor knowledge of cervical cancer. This can affect the decision-making in allowing their children for HPV vaccination. The healthcare providers must get permission from the parents before giving the vaccination (Malaysian Ministry of Health, 2015).

Contrastingly, several other studies reported that that women in Malaysia are well aware that having multiple sexual partners and sexually transmitted diseases are among the risk factors for cervical cancer (Seng et al., 2018). This study also reported that women were aware that cervical cancer may be detected and treated by routine Pap Smear and surgery. In addition,

they also had good knowledge of vaccination for cervical cancer, Pap smear, and HPV and showed a good attitude towards vaccination for Pap smear and HPV (Malhi et al., 2018). Age, education, and occupational level influence significantly on attitudes towards the prevention of cervical cancer (Malhi et al., 2018). It seems that level of knowledge and awareness will influence the attitudes towards prevention such as HPV vaccination, early screening test, and avoiding risk factors (Larasati et al., 2018). Sam et al. (2009) found that younger mothers and those who know someone that is suffering from cancer are more likely to accept HPV vaccination for their daughters.

From the above explanations, it is evident that there are incongruent results on the level of knowledge and attitudes towards cervical cancer screening test which can influenced the screening uptake among women. On that account, it is necessary to conduct a study to further evaluate this disagreement so that the findings will bring a conclusive idea into improving the prevention strategies.

1.3 Significance of Study

This thesis helps to evaluate recent knowledge on cervical cancer, attitudes towards prevention and determinants of screening uptake specifically to women attending community clinics in a suburban area of Selangor. These three components can be used to assess the awareness on cervical cancer among the population group. In consequence, the findings would be beneficial for the healthcare professionals to guide them in designing effective methods to be used in delivering knowledge and raising awareness on cervical cancer, especially for the populations. Concomitantly, this study could trigger awareness on respondents since they can gain knowledge and clarify misconceptions on cervical cancer whilst answering the questionnaire.

1.4 Research Questions

i. Do the socio-demographic characteristics of the women attending community clinics influence their level of knowledge on cervical cancer, attitude towards cervical cancer screening, and screening uptake?

ii. Do the level of knowledge on cervical cancer and attitudes towards cervical cancer screenings of the women attending community clinics affect the screening uptake?

1.5 Objectives

1.5.1 General Objective

The main objective of this study is to assess the attitudes towards cervical cancer screenings and determinants of screening uptake among women attending community clinics in a suburban area of Selangor.

1.5.2 Specific Objectives

i. To assess the level of knowledge on cervical cancer among women attending community clinics.

ii. To assess the attitudes towards cervical cancer screenings among women attending community clinics.

iii. To assess the rate of screening uptake for cervical cancer among women attending community clinics.

iv. To identify the relationship between the level of knowledge on cervical cancer and attitudes towards cervical cancer screenings.

v. To analyse the statistical association between screening uptake between socio-demographic characteristics, level of knowledge on cervical cancer, and attitudes on cervical cancer screenings.

1.6 Hypothesis

Null Hypothesis (H0):

iii. There is no association between the socio-demographic characteristics of the respondents and their level of knowledge on cervical cancer, attitude towards cervical cancer screening, and screening uptake.

iv. There is an association between the level of knowledge of the respondents on cervical cancer, their attitudes towards cervical cancer screenings, and screening uptake.

Alternative Hypothesis (H1):

i. There is an association between the socio-demographic characteristics of the respondents and their level of knowledge on cervical cancer, attitude towards cervical cancer screening, and screening uptake.

ii. There is no association between the level of knowledge of the respondents, their attitudes towards cervical cancer screenings, and screening uptake.

1.7 Contextual Definition

1.7.1 Cervical Cancer

Cervical cancer occurs when the cancerous cells are developing in the cervix. The main cause for cervical cancer is an infection of Human Papillomaviruses (HPV) which can be transmitted through sexual contact with the infected person (World Health Organization, 2018).

1.7.2 Knowledge

Knowledge is considered as a collection of experience, appropriate information, and skilled insight which offers a structure for estimating and integrating new experiences and information (Kumar Mohajan, 2016).

1.7.3 Belief

Belief is a mental acceptance or conviction in the truth or actuality of some idea which can be expressed in the form of sentences and attitude (Connors & Halligan, 2015).

1.7.4 Attitude

Attitude refers to a disposition towards or against a specified phenomenon, person, or thing (Altmann, 2008).

1.7.5 Screening

Screening is the presumptive identification of unrecognized disease or defect by the application of tests, examinations, or other procedures that can be applied rapidly. Screening tests sort out well persons who probably have a disease from those who probably do not. A screening test is not intended to be diagnostic. Persons with positive or suspicious findings must be referred to their physicians for diagnosis and necessary treatment (World Health Organization, 2020).

1.8 Operational Definition

1.8.1 Knowledge on cervical cancer and screening test

In this study, knowledge is defined as participants' understanding and basic information on cervical cancer and screening test. It will be measured using ten multiple-choice questions with the format of True, False, and Not Sure. The questions were developed after reviewing several articles. The respondent will be categorized as having good knowledge if the total score obtained is more than the mean score and vice versa.

1.8.2 Attitudes towards cervical cancer screening

Attitudes can be defined as positive or negative acceptance towards cervical cancer screening tests. It will be measured by ten questions with the format of the Five-Likert scale. If the total score obtained by the respondent is more than the mean score, it will be reported as a positive attitude and conversely for negative attitude.

1.8.3 Beliefs on cervical cancer screening

In this study, belief is the confidence of the respondents on the effectiveness of cervical cancer screening tests. Ten questions with the format of the Five-Likert scale will be used in measuring the belief of the respondents towards the cervical cancer screening tests. If the total score obtained by the respondent is less than the mean score, it will be reported as a poor belief and vice versa.

1.8.4 Uptake of cervical cancer screening

The uptake of cervical cancer screening tests will be assessed by the classification of the respondents' screening behaviour. If the respondents reported of ever been screened in their lifetime even once will be regarded as positive uptake and likewise for those who have never been screened. Positive uptake and negative uptake will score 1 and 0 respectively. Besides, the respondents are required to fill in the cues and barriers of their screening uptake.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

According to recent statistics from World Health Organization (2018), the fourth most common cancer among women worldwide is cervical cancer. Cervical cancer develops when cancerous cells form at the entrance of the vaginal uterus (World Health Organization, 2018). The primary cause of cervical cancer development is Human Papillomaviruses (HPV) infection. It is very concerning as the incidence and mortality rate of cervical cancer keeps increasing in Malaysia despite tremendous efforts done by the government includes free HPV vaccination, health education and counselling (Zaridah, 2014). All of these efforts are aiming to halt HPV infection among Malaysian women as it is the main cause of cervical cancer worldwide. In Malaysia, there is a slight increase in the percentage of newly diagnosed cases at the late stage (III and IV) which is 41% compared to previous years which is 40.3% (Azizah et al., 2019). As stated by Wong et al. (2009), Malaysian women are lacking in awareness and knowledge on cervical cancer. This claim can be supported by a previous study from Zaridah (2014), as she stated that there is a need in improving women's awareness and knowledge on cervical cancer which can open up on changing towards positive attitudes on prevention methods. This chapter will summarize the previous studies regarding knowledge on cervical cancer and attitudes towards prevention. All of the findings in this chapter will be synthesized referring to the conceptual model of Health Belief Model as a framework.

2.2 Conceptual Model of Health Belief Model

Health Belief Model (HBM) was developed in the 1950s by the United States psychologists, Godfrey Hochbaum, Irwin Rosenstock, and Stephen Kegels due to low acceptance in tuberculosis health screening programs even though it is free (Tarkang & Zotor, 2015). This model explained the chain of human behavior changes related to health. Over the years, this model was revisited in the mid-range by many theorists across the world to make it more adaptable. HBM has been adopted by many studies related to the knowledge and practice of cancer screening. Austin et al. (2002) stated that HBM was used to determine the factors of low compliance rate of breast and cervical cancer screening among women. Despite aiding in determining the associated factors, HBM is also useful in designing effective health interventions to encourage positive health behaviors (Austin et al., 2002).

Originally, HBM consist of four concepts which are perceived susceptibility, perceived severity, perceived benefits, and perceived barriers but as research evolved two more concepts were added which are cues to action and self-efficacy (Tarkang & Zotor, 2015). This model conceptualized an individual's perceptions of the threat of illness and evaluation of the effectiveness of behaviors to counteract this threat as one of the factors which determine their likelihood of actions. Nevertheless, the likelihood of action is modified by demographic variables, social pressure, and personality.

Based on this model, Rosenstock (1974) concludes that an individual is likely to take particular action if he assumes that he was personally vulnerable and the incidence of the disease would have at least moderate seriousness for any portion of his life. He also mentions that particular action was done as it is advantageous either to minimize the percentage of vulnerability or severity of the disease. All of the perceptions and cues to action are influenced by modifying factors which can be translated via health-related behaviors (Fayanju et al., 2014).

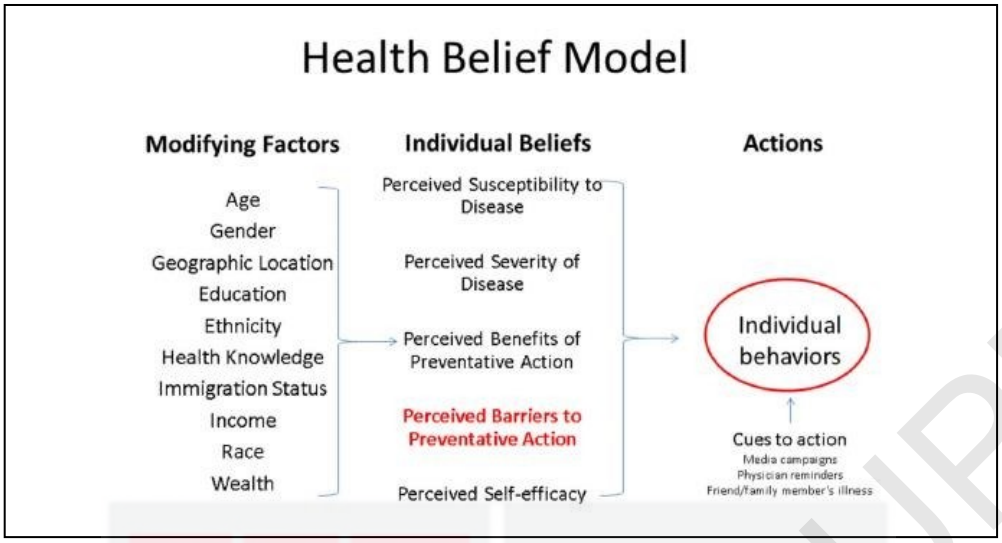

Figure 1: Health Belief Model (Fayanju et al., 2014)

2.3 Perceived Susceptibility

Tarkang & Zotor (2015) define perceived susceptibility as an individual's belief about the chances of contracting a health condition. People who consider themselves to be vulnerable to the disease are more likely to take the requisite steps to avoid the health issue.

A study conducted by Seng et al., (2018) claimed that in the absence of signs and symptoms, sometimes women fail to appreciate the importance of preventive health tests. They also mention that due to lack of awareness, many women assume that Pap Smear screening is not unnecessary. Hence, Seng et al. (2018) concluded that many women do not perceive their vulnerability to cervical cancer due to lack of awareness and asymptomatic condition.

On the other hand, Aldohaian et al. (2019) claimed that 12% of the participants from their study considered themselves to be susceptible to develop cervical cancer. The common reasons for claiming themselves for being susceptible to cervical cancer are a low level of education, more number of children, and positive family history of cervical cancer. Therefore, women that fit these criteria believed that they have a higher risk of developing cervical cancer.

Kaneko (2018) stated that women with high perceived susceptibility were more likely to undergo cervical cancer screening tests compared to women who had low perceived

susceptibility to cervical cancer. Perceived susceptibility to cervical cancer is high among women who are aware of the rising incidence of cervical cancer among Japanese women and sexually active women.

2.4 Perceived Severity

Perceived severity is referring to one's beliefs of how serious a condition or disease can affect their life either physically or socially (Tarkang & Zotor, 2015). They will be triggered to take preventive measures when they realize the negative consequences of the diseases.

According to Seng et al. (2018), if cervical cancer is diagnosed, many women feel that they are powerless. Similarly, Aldohaian et al. (2019) claimed that 36% of participants from their study agreed to the seriousness of cervical cancer. The participants believed that cervical cancer can change their whole life and ruin their relationship with their spouses.

Lin et al. (2016) reported that participants acknowledge the perceived severity of the disease but surprisingly they are not aware of being vulnerable to cervical cancer and infection of HPV. This finding might be influenced by sample group characteristics. This study is conducted among college students and they reported that 96.4% of the participants never engaging sexual intercourse. This finding also can be supported by only 3.9% of the participants had a family history of cervical cancer. These explained the low level of perceived susceptibility to cervical cancer among the participants.

2.5 Perceived Benefits

Perceived benefits are described as one's belief in the efficacy of the advised action to minimize the risk or severity of the impact of the disease (Tarkang & Zotor, 2015). Appropriate steps will be taken by the individuals to avoid the negative consequences caused by the diseases or to reduce the severity of the diseases.

As stated by Aldohaian et al. (2019), most of the participants claimed that undergoing a regular Pap Smear test brings a lot of benefits. They also agree that the Pap Smear test is the best way to diagnose cervical cancer as it helps in the early detection of an abnormal condition in the cervix hence the treatment would be more tolerable.

A study by Lin et al. (2016) revealed that more than half of the respondents believed that HPV vaccination is one of the strategies in preventing HPV infection. Also, almost half of them reportedly agree that regular Pap Smear tests will aid in cervical cancer prevention but only 8.3% of respondents agree that no smoking is also one of the preventive strategies.

2.6 Perceived Barriers

In the Health Belief Model, perceived barriers are described as one's belief in the tangible and psychological costs of the advised behaviors (Tarkang & Zotor, 2015). These barriers can impact individuals' decisions to take specific actions. The individuals will only take the appropriate actions only when they have the potential to cope with those barriers.

In a study conducted by Seng et al. (2018), the common barriers for ignoring screening tests for cervical cancer are due to lack of awareness on illness or symptoms, knowledge on screening tests conducted, peer participation, and thinking reinforcement. The authors stated that most women consider pelvic examination as a major cause of anxiety, lack of privacy, and embarrassment. Denunciation of women's pelvic examination is due to peers' exposure to sensationalized tales such as pain and discomfort during the procedure (Seng et al., 2018). Other than that, Seng et al. (2018) also stated that among women in Malaysia, understanding about tissue biopsy is still vague, which creates a wide gap in attitudes and awareness about it similar to the Pap Smear test. Thus, these barriers will lead to non-compliance to the planned screening tests.

Likewise, Aldohaian et al. (2019) concluded several common barriers to undergoing the Pap Smear test. One of the barriers is from the aspect of social-cultural. This includes being unable

to access female doctors and feeling embarrassed to undergo the gynecologic examination. Participants feel uncomfortable showing their private parts, especially to male physicians. Other than that, ignorance towards regular tests did not have accessibility and painful procedure are also hinder the women from the gynecologic examination. From the context of HPV vaccination, the most common barriers for receiving HPV vaccination are lack of knowledge about the HPV vaccine, doubting infection, and high cost (Aldohaian et al., 2019). All in all, these barriers explained the low uptake of the cervical cancer screening test.

Ilevbare et al. (2020) reported that financial constraints and the cost of screening are the major reasons for ignoring the screening uptake. They claimed that women with low income are less likely to uptake the screening test compared to women with high income. If the screening test is free or subsidized, most of the women are willing to undergo the screening test.

Not to mention, some women feeling shame and fear for the result of the Pap Smear test. These are the major reasons for them to ignore the importance of the Pap Smear test (Vamos et al., 2015).

Lee et al.(2020) stated that the cost includes the fee charged for the screening test and transportation. They also claim that the patient needs to spend more on transportation costs since there are no nearest clinics that provide the screening test services

2.7 Cues to Action

Based on Tarkang & Zotor (2015), cues to action are experiences, personal, interpersonal, or environmental that inspire a person to take action. These cues will motivate the person, make them feel the desire to take appropriate steps, and be able to overcome the barriers.

According to Sopian et al. (2018), 85% of parents knew that cervical cancer is caused by HPV. This study found that mothers have a greater awareness of cervical cancer screening compared to fathers because of exposure to campaigns and counseling during prenatal and postnatal care.

Vamos et al. (2015) stated that most of the participants gaining health information through television (70.49%) followed by the social circle (65.1%) and newspaper and magazines (59.9%). This study showed that most women are more comfortable speaking out about their health issues with their mother (78.7%) compared to friends (59.9%) and healthcare providers (55.2%).

Again, a study by Aldohaian et al. (2019) shown that 48.7% of participants knew about the Pap Smear test. Based on this study, women who are engaging more with healthcare providers, family and friends have more reliable information about Pap Smear tests compared to women who gained information from the media. Also, women who had long-term marriage were more inspired to further self-health care compared to others since they believe that they are more susceptible to cervical cancer.

2.8 Self-Efficacy

Tarkang & Zotor (2015) explained self-efficacy as confidence in one's ability to successfully take action including in handling difficult situations or associated obstacles. They also mention that this concept is retrieved from the Self-Efficacy Theory by Albert Bandura.

According to Kaneko (2018), women with high confidence in the male physician to conduct Pap Smear test are more probably to undergo cervical cancer screening test than those with a low level of confidence with the male physician. This shown high self-efficacy since they can overcome the barrier which is feeling embarrassed towards the male physician. Conversely, a study by Seng et al. (2018) confirmed that many women prefer to ignore by not uptake the Pap Smear test rather than accept the reality of being diagnosed with cervical cancer. This is because they believed in being powerless if being diagnosed with cervical cancer. This finding might be influenced by the lack of knowledge of screening tests and treatments.

2.9 Conceptual Framework

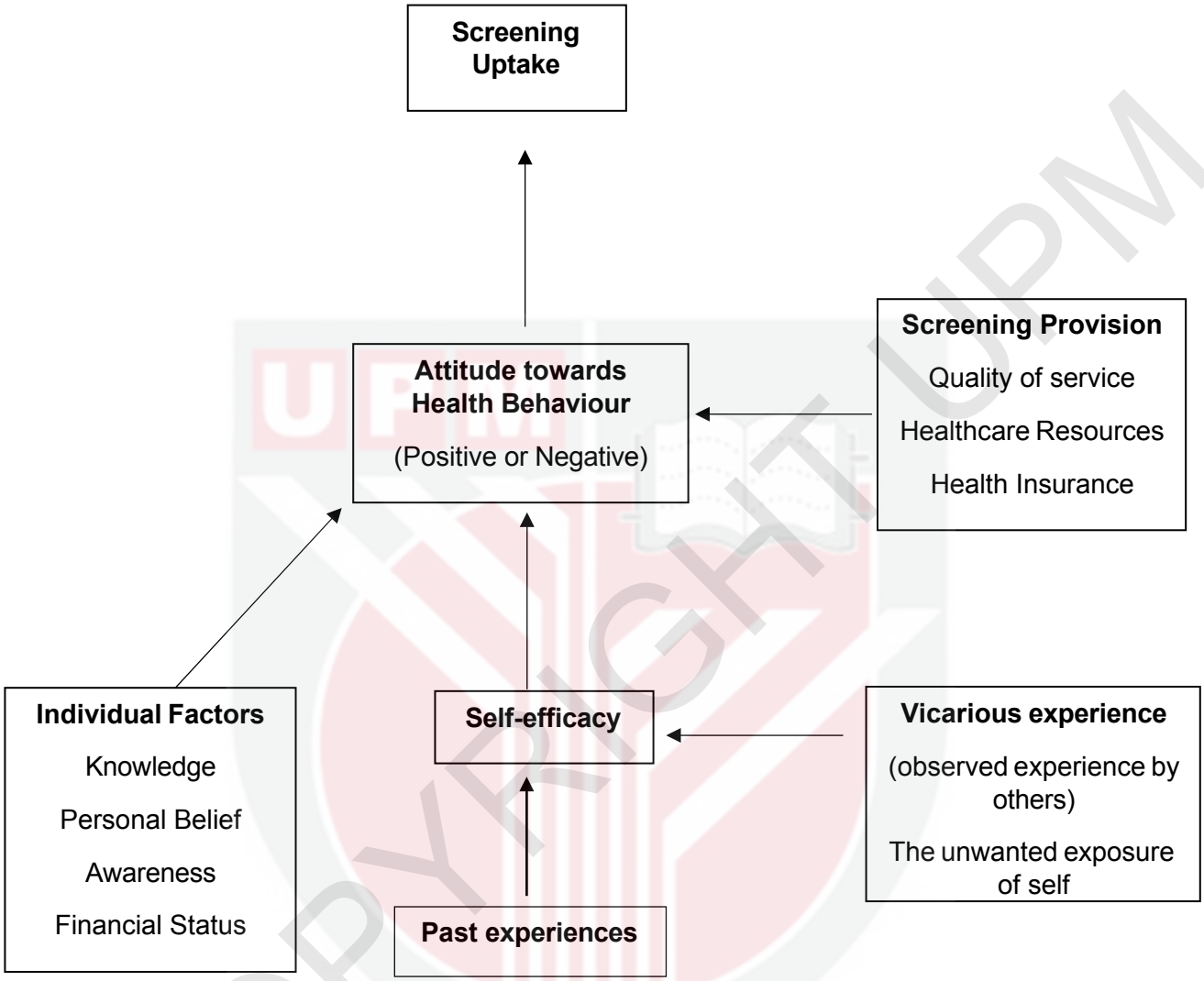

Figure 2: Conceptual Framework

The figure above shows the conceptual framework for this study which is about the determinants of screening provision and uptake of cervical cancer. The main highlight of this framework is the attitude towards health behavior In this study, attitude is defined as either positive or negative according to the acceptance towards screening tests provided while health behavior is translated into the uptake of cervical cancer screening tests. According to Ilevbare et al. (2017), almost 80% of women with a negative attitude towards cervical cancer screening

are less likely to uptake the screening test compared to women with positive attitudes. Several factors can directly influence the attitudes towards screening uptake that are categorized into several groups which are individual, behavioral, environmental, and screening provision.

2.9.1 Individual factors

Firstly, individual factors include the level of knowledge on cervical cancer, personal belief, and awareness. As stated by Seng et al. (2018), women failed to appreciate the importance of screening uptake for cervical cancer due to a lack of knowledge and awareness on disease, symptoms, and screening tests provided which can result in low perceived susceptibility and perceived severity towards cervical cancer. Kaneko (2018) claimed that women with high perceived susceptibility to cervical cancer are more likely to undergo the screening compared to those with low perceived susceptibility. Financial status can affect the rate of cervical cancer screening test uptake as reported by Ilevbare et al. (2020) that the major barriers for taking the screening test are financial constraints and the cost of screening. They claimed that women with high income are more likely to uptake the screening test compared with women with low income. Lee et al.(2020) stated that the cost is not solely on the fee charged for the screening test but also include the transportation cost to reach for health facilities that provide the services.

2.9.2 Vicarious and Past Experience Factors

Vicarious experience that is observed by women from others such as friends and family members can affect their attitude towards cervical cancer screening tests provided. As stated by Seng et al. (2018), peers' exposure can lead to denunciation towards pelvic examination due to sensationalized tales such as pain and discomfort experienced during the procedure. In addition, the unwanted exposure of self may prevent women from undertaking the screening in which they claimed that pelvic examination can cause anxiety due to lack of privacy and feeling embarrass (Seng et al., 2018). Women felt uncomfortable showing their private parts

area especially when they have limited access to female doctors (Aldohaian et al., 2019). This will influence the self-efficacy of women on the screening uptake. Women with high self-efficacy are more likely to go for the screening tests since they can overcome the barriers that withhold them from screening uptake (Tarkang & Zotor, 2015). As stated by Kaneko (2018), women with high confidence in the male physician to perform Pap Smear test are more probably to undergo cervical cancer screening test than those with a low degree of confidence with the male physician. Aldohaian et al. (2019) claimed that feeling embarrassed towards the male physician is one of the major reasons for women to refuse cervical cancer screening tests. Based on this study, women who had long-term marriages were more likely to practice self-health care. This is because most of them are aware of sexually active women are more susceptible to cervical cancer.

2.9.3 Screening Provision Factors

Lastly, attitudes towards cervical cancer screening uptake can be influenced by screening provision factors such as the quality of services provided. As stated by Seng et al. (2018), unsatisfactory service is one of the reasons for women to ignore the Pap Smear test even it is cheap and safe to practice. This can be supported by Lee et al. (2020) that mention public facilities that provide the screening tests service are more crowded hence the patients need to wait longer. Health resources are also important in determining the rate of screening uptake. Lee et al. (2020) conclude that there are no clinics that provide visual inspection with acetic acid (VIA) services within reach for the villagers. They also mention that there is also a lack of human resources due to trained healthcare workers being prone to work in desirable places instead of rural areas. In terms of health insurance, very few of the citizens have health insurance coverage but unfortunately, cervical cancer screening tests and HPV vaccination are not included (Ilevbare et al., 2017). They also found that majority of the women are willing to uptake the screening if it is free or subsidized.

CHAPTER 3

METHODOLOGY

3.1 Introduction

This chapter will discuss the methods that were implemented for this study include study design, study location, sampling frame, sample size, sampling method and subject requirement, criteria of the respondents, instruments used, pre-test, validity, reliability, data collection process, analysis of data and ethical consideration.

3.2 Study Design

This study will utilize a cross-sectional study design to determine the prevalence of screening uptake for cervical cancer among women. Setia (2016) reported that a cross-sectional study design measures the outcome and exposure of a population and the association between the variables at a one-time point in a short period. This design is useful in planning, monitoring, and evaluating public health interventions and strategies (Setia, 2016). Hence, it is appropriate to be implemented in this study to explore the determinants of screening provision and screening uptake of cervical cancer among women in a suburban area of Selangor.

3.3 Study Location

This study will be conducted in Klinik Kesihatan Salak Tinggi which is provided in the district of Sepang. The distance between the researcher location with Klinik Kesihatan Salak Tinggi is 37.3 km. The researcher needs to use her transport in getting access to the study site for asking permission from the gatekeeper and collecting data.

3.4 Sampling Frame

3.4.1 Study Population

The study population is the women attending Klinik Kesihatan Salak Tinggi from 1st August until 31st October in 2021.

3.4.2 Study Duration

The data for this study will be collected within 3 months which is from 1st August 2021 until 31st October 2021.

3.4.3 Subject Criteria

Inclusion Criteria	Exclusion Criteria
i. Participants must be able to read, understand and converse in Malay and/or English language. ii. Participants must be at least 18 years old and above. iii. Participants must be female patients who attend the clinics.	i. Non-Malaysian women. ii. Unmarried women. iii. Participants that are not willing to participate.

3.5 Sample Size

The estimation of sample size was obtained from the calculation on Statistical Services Population Proportion Calculator. The formula used is shown below.

$$\mathbf{n = N*X / (X + N – 1),}$$

where,

$$\mathbf{X = Z_{\alpha/2}^2 *p*(1-p) / MOE^2}$$

n: required sample size

X: Z value = 95% confidence level

$Z_{\alpha/2}$: critical value of the normal distribution at α/2 = 1.96

MOE: margin of error = 0.05

p: sample proportion = 24.4% (based on report by Fatanah et al. (2019) stated that 24.4% of women in Selangor that uptake cervical cancer screening)

N: population size = 118600 residents (according to Jabatan Perangkaan Malaysia (2020) stated that there 118 600 residents in Sepang, Selangor)

$$n = (118\ 600)*(0.95) / (0.95 + 118\ 600 – 1)$$

$$= 283 \text{ respondents}$$

Based on the calculation, the estimated sample size is n=283 respondents who are required to take part in this study. The estimation of the non-response rate is 10% which needs to be added to recommended sample size. Hence, the finalize sample size needed for this st udy is 311 respondents.

3.6 Sampling Method and Subject Recruitment

In order to obtain generalizability for this study, a systematic random sampling method will be used in recruiting the sample respondents. For this method, the researchers will use a systematic rule which is a fixed interval in selecting the respondents (Elfil & Negida, 2019). Due to several limitations, the sampling method had been changed to convenience sampling.

In recruiting the subjects, the researcher approached the respondents that fulfil the inclusion and exclusion criteria. Only the respondents who agreed to take part were recruited in this study. Firstly, the researcher obtained the consent of participation from the respondents, then the questionnaires were distributed.

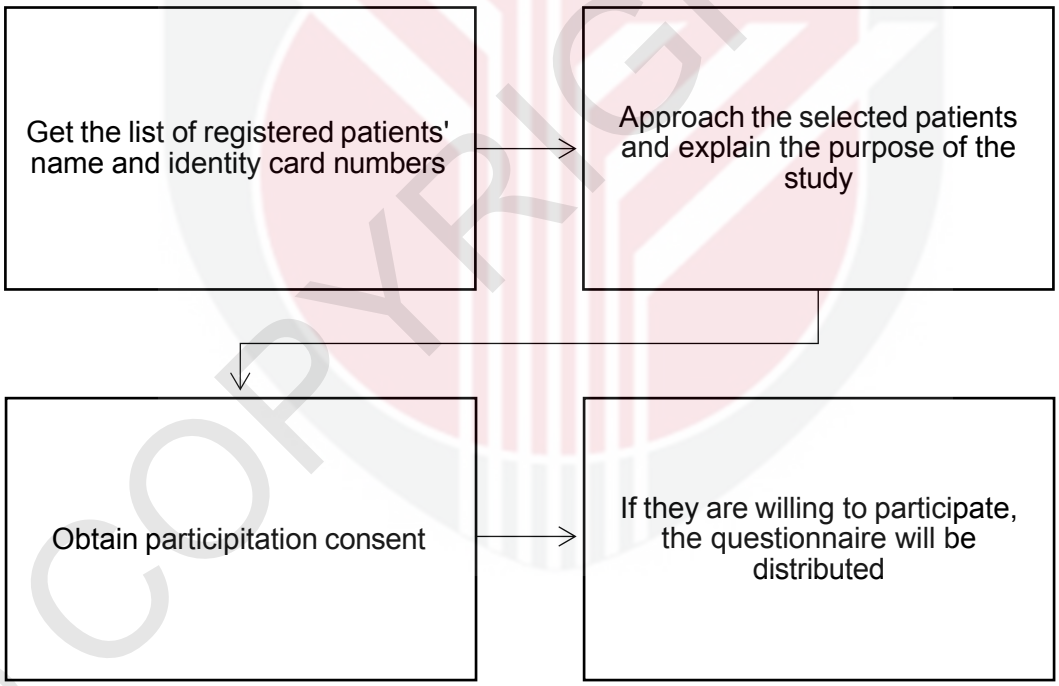

Figure 3: Flowchart on Subject Recruitment

3.7 Study Instrument

An online platform questionnaire (Google Form) was used in collecting the data for this study. The questionnaire was modified from studies conducted by Abdul Rahman et al. (2019), Ilevbare et al. (20170 and Seng et al. (2018). The modified version questionnaire has five sections that required between 15 to 20 minutes to be completed by the respondents.

The first section which was Part A is focused on collecting socio-demographic data of the respondents. The data collected include age, ethnicity, educational level, employment status, monthly income, marital status, menopausal stage, contraception method, and family history of cervical cancer. Participants were required to tick in the box and fill in the space provided on the information that represents themselves.

Next, Part B consists of five questions that focus on the uptake of cervical cancer screening. The respondents were required to choose the answers that represent themselves on screening behavior. If the respondents have ever been screened for cervical cancer in their lifetime, they were regarded as positive screening behavior. The respondents were also required to fill in the cues to screening uptake and reasons for ignoring screening uptake.

Part C consists of 10 multiple-choice questions that evaluate the knowledge on cervical cancer and cervical cancer screening tests. The questions cover the causes, risk factors, risky groups, signs and symptoms, prevention measures, screening tests, and treatments provided for cervical cancer. The respondents were required to choose the answer based on their understanding of cervical cancer. The options provided for this section were Yes, No, and Not Sure. For the scoring system, the correct response, wrong response, and not sure response scored 3,0, and 1 respectively. Thus, the maximum score is 30 while the minimum score is 0. If the score obtained by the respondent was more than the mean score, it was categorized as good knowledge and conversely for poor knowledge.

Besides, Part D focus on analyzing the attitude of the respondents towards the cervical cancer screening test. This section consists of 10 questions that cover both positively and negatively worded questions to prevent bias. Five-point Likert scales were used for this section with the format of strongly agree, agree, not sure, disagree, and strongly disagree. The scoring system for positively questions were strongly agree (5), agree (4), neutral (3), disagree (2), and strongly disagree (1) while the scoring system for negatively questions were strongly disagree (5), disagree (4), neutral (3), agree (2) and strongly agree (1). Hence, the range score for this section is 10 to 50. Respondents' attitudes will be determined by the mean score.

Lastly, belief in cervical cancer screening will be assessed in Part E. This section comprises 10 questions that have been modified according to the Health Belief Model (HBM). Five-Likert Scales also will be used in this section with the format of strongly agree, agree, neutral, disagree, and strongly disagree. For positively worded questions, the scoring system strongly disagree (1), disagree (2), neutral (3), agree (4), and strongly agree (5) and was scored contrariwise for negatively worded questions. Therefore, the maximum score and minimum score for this section are 50 and 10 respectively. The respondents' beliefs towards cervical cancer screening tests were determined by the mean score and conversely for poor belief.

3.8 Pre-test

The questionnaire was modified in order to suit the context of the study among Malaysian women. Since the questionnaire used was modified from Abdul Rahman et al. (2019), Ilevbare et al. (2017), and Seng et al. (2018), a pre-test is required to ensure the survey instruments are applicable, valid, and reliable to use in the future (Ruel et al., 2018). In addition, by conducting a pre-test helps in determining problems that need to be improved, minimize measurement errors, minimize respondents' burden, analyze respondent interpretation on the questions and prevent bias.

In that regard, the pre-test was conducted at Klinik Kesihatan Dengkil, Sepang, Selangor. 28 respondents will be included for the pre-test was equivalent to 10% of the estimated sample size. The convenience sampling method were used for the pre-test. The researcher will conduct the pre-test once permission is obtained from Klinik Kesihatan Dengkil. The respondents for the pre-test are the women who attend the clinic for appointments and follow-up.

Statistical Packages for Social Sciences (SPSS) 22.0 will be used in analyzing the findings of the pre-test earlier and requiring the values of *Cronbach's Alpha*, α which require to be within ≥ 0.70 for the instrument which means the questions asked are reliable to be used for the data collection.

3.9 Validity

Content validity for the modified questionnaire were be validated by a Medical Officer from Klinik Kesihatan Dengkil.

My supervisor had reviewed and checked the questionnaire before using it for collecting data. It was crucial in ensuring the questionnaire cover entirely the aspects related to variables for the study. The modified questionnaire was available in both English and Malay versions. This aided the respondents in answering the questionnaire.

3.10 Data Collection Procedure

The data were collected after ethical approval was issued from Medical Research Ethics Committee (MRCC) a pre-test has been conducted and permission from the study sites was obtained from Jabatan Kesihatan Negeri Selangor (JKNS). Once the convenience sampling method has been implemented, the participants that meet the inclusion criteria were approached by the researcher. The researcher explained the purpose of the study and got the

participation consent. The questionnaire was distributed to the participants. 15 to 20 minutes were given for the participants to complete the questionnaire. After that, the researcher checked thoroughly on the answered questionnaire. Analysis of the collected data will be done starting the first day of data collection by using Statistical Packages for Social Sciences (SPSS) version 22.0. All of the data collected were handled carefully to maintain confidentiality.

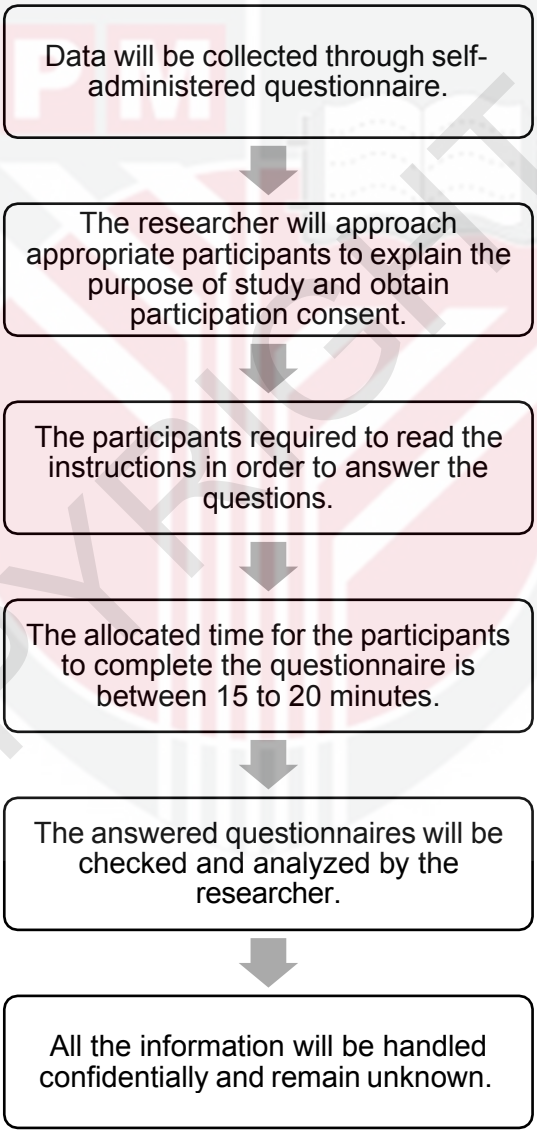

Figure 4: Data Collection Flowchart

3.11 Data Analysis

Statistical Packages for Social Sciences (SPSS) version 22.0 were used in analyzing the data collected. For this study, the independent variables were the attitude towards cervical cancer screening tests and the level of knowledge on cervical cancer and screening tests while the dependent variable was cervical cancer screening uptake. The screening uptake of cervical cancer was measured by a modified questionnaire based on (Ilevbare et al., 2017). The normality test was conducted to determine the distribution of data. The type of statistical analysis methods used was determined by the distribution of data. The distribution of screening uptake of cervical cancer was visualized by the histogram. The value of skewness and kurtosis were determined. The Shapiro-Wilk test also was conducted. Hence, normally distributed data should have a bell-shaped histogram, -2 to +2 for the value of skewness and kurtosis and p-value > 0.05. The data were presented in the form of descriptive and inferential analysis.

For the descriptive analysis, the numerical data include current age, monthly income, number of marriages, number of child number of pregnancies, age at first marriage, level of knowledge, and attitudes towards cervical cancer were described in mean for normally distributed data. If the data were skewed, the mean and median were used. Meanwhile, the categorical data were described using percentages and frequency. The categorical data includes race, highest education level, employment status, contraception method, menopausal stage, family history of cervical cancer, and screening uptake.

In inferential statistics, the primary analysis was to assess the relationship between the level of knowledge on cervical cancer and screening tests and the attitudes towards cervical cancer screenings. The Pearson Correlation was used due to normally distributed data with the p-value ≤0.05 as the significant value. Next, in the second analysis, logistic regression was used to determine the association between the screening uptake and socio-demographic characteristics of the respondents, their level of knowledge on cervical cancer, and their attitude towards cervical cancer screening.

DESCRIPTIVE ANALYSIS			
Objectives	Variables	Types of Variables	Statistical Measurements
To determine the socio-demographic characteristics of the respondents.	Socio-demographic characteristics of the respondents.	Continuous	Mean Median
		Categorical	Percentage Frequency
To assess the level of knowledge on cervical cancer among women attending community clinics.	Level of knowledge on cervical cancer	Continuous	Mean Median
To assess the attitudes towards cervical cancer screenings among women attending community clinics.	Attitudes towards cervical cancer screenings	Continuous	Mean Median
To assess the screening uptake for cervical cancer among women attending community clinics.	Screening uptake for cervical cancer	Categorical	Percentage Frequency

Figure 5: Descriptive Data Analysis

INFERENTIAL ANALYSIS			
Objectives	Dependent Variables	Independent Variables	Statistical Measurements
To identify the relationship between the level of knowledge on cervical cancer and attitudes towards cervical cancer screenings.	Attitudes towards cervical cancer screenings (continuous)	Level of knowledge on cervical cancer (continuous)	Pearson Correlation Spearman Correlation
To analyze the statistical association between screening uptake and socio-demographic characteristics, level of knowledge on cervical cancer, and attitudes on cervical cancer screenings.	Screening uptake for cervical cancer (categorical)	Socio-demographic characteristics (categorical and continuous)	Logistic Regression
		Level of knowledge on cervical cancer (continuous)	
		Attitudes on cervical cancer screenings (continuous)	

Figure 6: Inferential Data Analysis

3.12 Study Flowchart

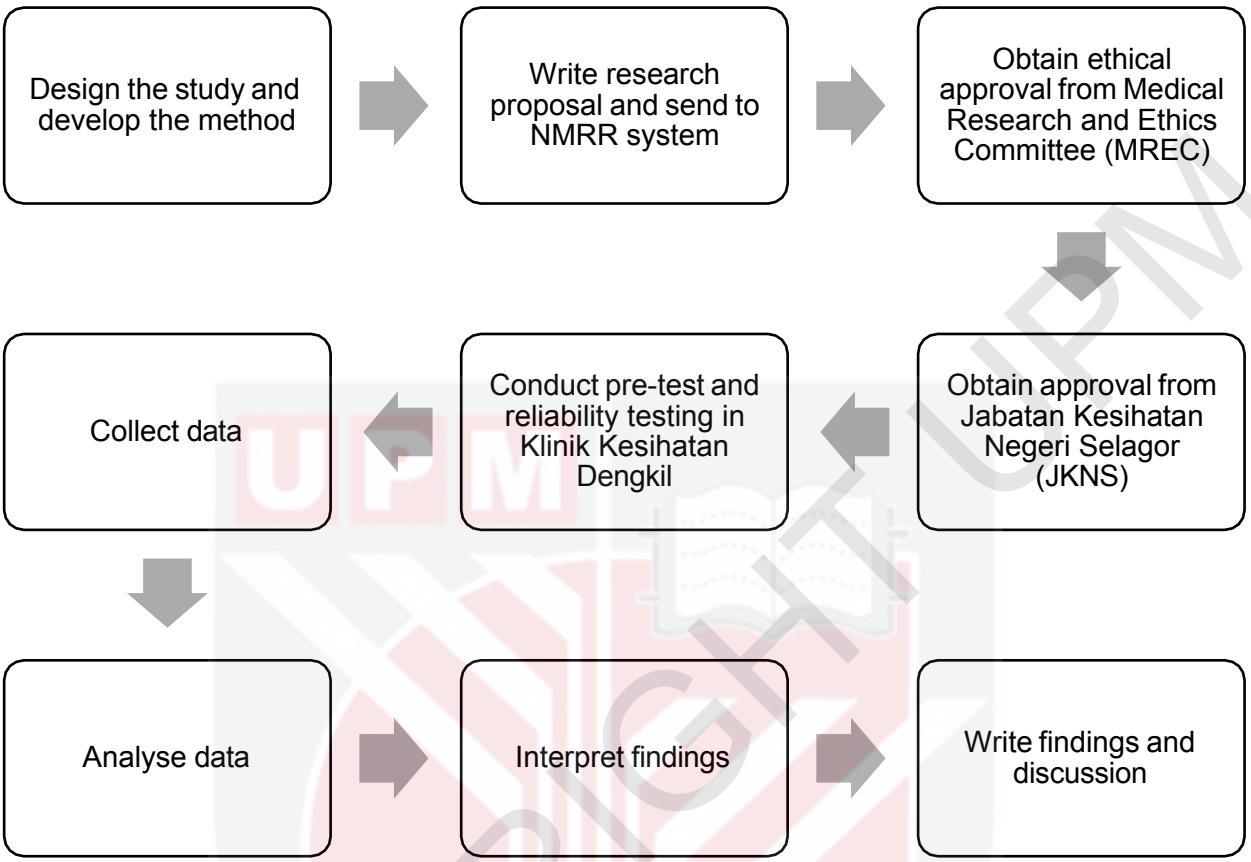

Figure 7: Study Flowchart

3.13 Ethical Consideration

3.13.1 Participant's Approval

The participants that fit with the inclusion and exclusion criteria were approached by the researcher to explain the purpose of the study and to get participation consent. Participant Information Sheet (PIS) was given to the participants that confirm to take part in the study. Five minutes were given to the participants to read on the information sheet and fill in the required information. Then, the questionnaire was distributed to the participants for data collection.

3.13.2 Institution's Approval

In order to get ethical approval for this study, an online submission was submitted to Medical Research and Ethics Committee (MREC) through National Medical Research Register (NMRR) system. After receiving ethical approval, a copy of the approval form will be sent to Research Ethics Committee Universiti Putra Malaysia (JKEUPM) and Jabatan Kesihatan Negeri Selangor (JKNS).

3.13.3 Access to Study Site

Since this study was conducted in the Ministry of Health facilities, a written permission form had to be submitted to the healthcare facilities involved. The study sites include Klinik Kesihatan Salak Tinggi and Klinik Kesihatan Dengkil (for conducting pre-test). The permission form was received by the gatekeeper of the study sites.

The study only proceeded once the approval was obtained from the list mentioned above in a written form. All the information collected from the participants was only used for research purposes. The confidentiality of the participant's data will be maintained. All the answered questionnaires were secured by the researcher and kept for three years before being permanently disposed of. Total access to the findings was only available for the principal investigator, supervisory committee, and researcher.

CHAPTER 4

RESULTS

4.1 Introduction

This chapter discussed the results and findings obtained through this study includes the socio-demographic profile of the respondents (Table 4.1), level of knowledge on cervical cancer and screening test, rate of cervical cancer screening uptake, attitudes towards cervical cancer screening tests, and beliefs on cervical cancer screening tests.

This information was essential in determining the relationship between attitudes towards cervical cancer screening and determinants of screening uptake, the association between the socio-demographic and cervical cancer screening uptake, the relationship between the level of knowledge on cervical cancer and attitudes towards cervical cancer screenings, the relationship between the level of knowledge on cervical cancer and screening uptake and the association between the attitudes towards cervical cancer screening tests and screening uptake which were presented later in this chapter.

4.2 Response Rate

The actual sample size needed for this study was 311 respondents with a 95% of confidence level and 5% of margin error but only 81 respondents were sampled and completed the questionnaire that was disseminated during the period of data collection. Hence, the response rate was equivalent to 26.0%.

4.3 Normality Test

Based on the normality test, the value of Skewness and Kurtosis were -0.025 and -2.051 respectively. For *Kolmogorov Smirnov* and *Shapiro-Wilk* test, both values were 0.000. By

referring to Figure 8, the normal curve was bell-shaped and symmetric about the mean=1.51. Hence, it can be concluded that the data collected were normally distributed.

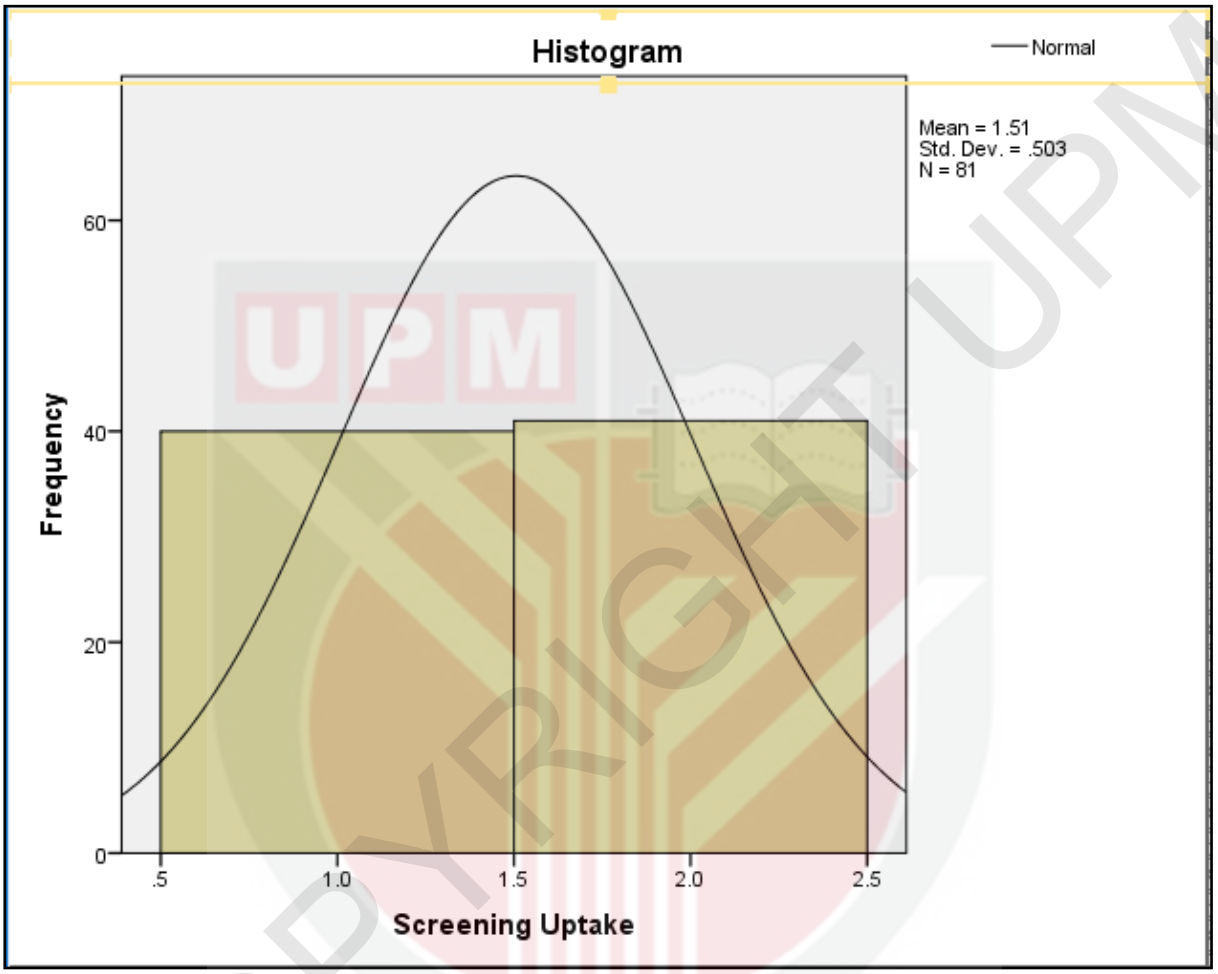

Figure 8: Result for normality test for the dependent variable which is the screening uptake of the cervical cancer screening test

4.4 Descriptive Analysis Results

4.4.1 Socio-demographic Characteristics of Respondents

Eighty-one respondents participated in this study. The minimum age and the maximum age of the respondents were 21 and 50 years old respectively. The percentage of respondents aged 21 until 30 years old was 34.6%, whereas for age range within 31 until 40 years old was 37.0%

and 28.4% for respondents that aged 41 until 50 years old. This showed that the majority of the respondents that participated in this study were aged from 31 until 40 years old while the minority group was respondents aged from 41 until 50 years old. The skewness and kurtosis for age were 0.209 and -0.984 respectively, hence the result was normally distributed. The mean ± standard deviation and median for age were 34.69 ± 8.46 and 34.00 respectively.

The data evidenced that the majority race of the respondents belonged to Malay (61.7%) followed by Indian (17.3%), Chinese (14.8%), and Others include Kenyah, Iban, Bidayuh, and Kadazan-Dusun (6.2%). Based on Table 4.1, all of the respondents had formal education. The majority of the respondents had a tertiary education level (74.1%) while 24.7% of the respondents had a secondary education level. Only 1.2% of the respondents had formal education up to primary education. For employment status, the data implied that more than half of the respondents were from the working group (66.7%) whereas 33.3% of the respondents were unemployed.

The majority of the respondents were categorized into the B40 group (67.9%) which can be defined as monthly household income < RM 4850 while 27.2% of the respondents were categorized into the M40 group which had RM4850 up to RM 10 959 for monthly household income. Only 4.9% of the respondents were from the T20 group which had ≥ RM 10 960 for monthly household income.

According to the data collected, most of the respondents were married (82.7%). 13.6% of the women were single while the minority groups were in a relationship (1.2%) and single mothers (2.5%). Among the respondents, 81.5% were on their first marriage whereas only 3.7% had married more than once in their lifetime. The percentage of the respondents who get married at an age between 20 to 30 years old and 31 to 40 years old were 76.5% and 2.5% respectively meanwhile, there was 6.2% of the respondents who get married before age 20 years old.

79.0% of the respondents had children while 21.0% had no children. Based on the data, the least of the respondents had more than four children (11.1%). More than half of the

respondents practiced family planning (53.1%) while the rest did not. 95.1% of the respondents did not experience menopause yet while only 4.9% had menopause.

Table 4.1: Summary of the socio-demographic characteristics of the respondents.

Socio-demographic Characteristics	Mean ± Standard Deviation	Median	Frequency, n=81	Percentage, %
Age				
23 – 30	34.69 ± 8.46	34.00	28	34.6
31 – 40			30	37.0
41 – 50			23	28.4
Race				
Malay			50	61.7
Chinese			12	14.8
Indian			14	17.3
Others			5	6.2
Highest Educational Level				
Primary			1	1.2
Secondary			20	24.7
Tertiary			60	74.1
Employment Status				
Employed			54	66.7
Unemployed			27	33.3
Monthly Income				
B40			55	67.9
M40			22	27.2
T20			4	4.9
Marital Status				
Single			11	13.6
In Relationship			1	1.2
Married			67	82.7
Single Mother			2	2.5
Have Children				
Yes			64	79.0
No			17	21.0
Practice of Family Planning				
Yes			43	53.1
No			38	46.9
Menopausal Status				
Yes			4	4.9
No			77	95.1

4.4.2 Knowledge on Cervical Cancer and Screening Test

Table 4.2 showed the frequency and percentage of the respondents' answers for each item in the knowledge section. The answers were categorized into correct, wrong, and not sure answers. The respondents were required to choose the answer based on their understanding of cervical cancer.

Almost half of the respondents (46.9%) knew that Human Papillomavirus can cause cervical cancer while 53.1% of the respondents did not know about this. The majority of the respondents (79.0%) acknowledged that abnormal vaginal bleeding and foul vaginal discharge were alert signs for cervical cancer whilst the rest (21.0%) did not acknowledge them as the alert signs for cervical cancer. Besides, most of the respondents (79.0%) understood that not only sex workers and the elderly were the risky group for cervical cancer but 21.0% of the respondents did not aware of the risky groups. There were 53.1% of the respondents gave the incorrect answer on item number four while 46.9% of the respondents knew that poor hygiene of the private part cannot cause cervical cancer. Most of the respondents were aware that cervical cancer is preventable.

Next, majority of the respondents (82.7%) correctly answered item number six whilst 17.3% of the respondents did not acknowledge that having a family history and multiple sex partners can contribute to the risk of getting cervical cancer. Most of the respondents (90.1%) knew that Pap Smear is the screening test for cervical cancer while there were 9.9% of the respondents were not sure about Pap Smear as a screening test for cervical cancer. Unfortunately, majority of the respondents (86.4%) did not aware of the routine checkup for the Pap Smear test and only 13.6% of the respondents knew the proper Pap Smear test routine checkup. There were 34.6% of the respondents realized that smoking is one of the contributing factors for cervical cancer whereas more than half of them (65.4%) wrongly answered this item. Fortunately, majority of the respondents (90.1%) knew that cervical cancer can be treated and only 9.9% did not know about this.

Table 4.2: Frequency (n) and percentage (%) of the respondents' answers for each item in the knowledge section.

Questions	Frequency (Percentage), n= 81 (%)		
	Correct	**Wrong**	**Not Sure**
Human Papillomavirus can cause cervical cancer	**38 (46.9)**	**2 (2.5)**	**41 (50.6)**
Abnormal vaginal bleeding and foul vaginal discharge are signs of cervical cancer	**64 (79.0)**	**1 (1.2)**	**16 (19.8)**
Only sex workers and the elderly will get cervical cancer	**64 (79.0)**	**2 (2.5)**	**15 (18.5)**
Poor hygiene of private area can cause cervical cancer	**12 (14.8)**	**43 (53.1)**	**26 (32.1)**
Cervical cancer be preventable	**72 (88.9)**	**1 (1.2)**	**8 (9.9)**
Among the risk factors for cervical cancer are family history of cervical cancer and multiple sex partners	**67 (82.7)**	**3 (3.7)**	**11 (13.6)**
Pap smear a screening test for cervical cancer	**73 (90.1)**	**0 (0.0)**	**8 (9.9)**
Pap smear needs to be done every year	**11 (13.6)**	**50 (61.7)**	**20 (24.7)**
Smoking a risk factor for cervical cancer	**28 (34.6)**	**13 (16.0)**	**40 (49.4)**
There is no treatment for cervical cancer	**8 (9.9)**	**60 (74.1)**	**13 (16.0)**

The options provided for this section are Yes, No, and Not Sure. For the scoring system, the correct response, wrong response, and not sure response will score 3,0, and 1 respectively. The skewness and kurtosis were -0.606 and 0.546 respectively which indicate that it was normally distributed. The mean ± standard deviation for knowledge scores was 20.56 ± 4.40 while the median was 21.00. Hence, the mean was used as a cut-off point to classify the total score obtained into 'good knowledge' and 'poor knowledge'. The respondents were

acknowledged as having good knowledge if the total score obtained were > 20.56 and vice versa for poor knowledge. The minimum score obtained by the respondents was 9.00 while the maximum score was 30.00.

Table 4.3: Summary of the level of knowledge on cervical cancer and screening test of the respondents.

Variable	Frequency, n=81 (%)		Mean ± Standard Deviation	Median
Level of knowledge	**Good knowledge**	**Poor knowledge**		
	42 (51.9%)	39 (48.1%)	1.52 ± 0.50	2.00

Based on the results obtained, more than half of the respondents (51.9%) had good knowledge of cervical cancer and screening test while 48.1% of the respondents had a poor level of knowledge about it.

4.4.3 Cervical Cancer Screening Uptake

Table 4.4: Summary of the respondents' cervical cancer screening uptake status.

Variable	Frequency, n=81 (%)		Mean ± Standard Deviation	Median
Screening Uptake	**Have been screened**	**Never been screened**		
	40 (49.4%)	41 (50.6%)	1.51 ± 0.50	2.00

According to Table 4.4, almost half of the respondents (49.4%) had undergone cervical cancer screening tests at least once in their lifetime while there were 50.6% of the respondents had never been screened for cervical cancer.

4.4.4 Attitudes towards Cervical Cancer Screening Tests

Table 4.5 showed the summary of the frequency and percentage on each item for attitudes towards cervical cancer screening tests based on the respondents' responses. Five-point Likert scales were used for this section with the format of strongly agree, agree, not sure, disagree, and strongly disagree. The scoring system for positively questions were strongly agree (5), agree (4), neutral (3), disagree (2), and strongly disagree (1) while the scoring system for negatively questions were strongly disagree (5), disagree (4), neutral (3), agree (2) and strongly agree (1).

Table 4.5: Frequency (n) and percentage (%) of the respondents' answers for each item in the attitudes section.

Questions	Frequency (Percentage), n=81 (%)				
	Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
Importance of having screening tests regularly	**2 (2.5)**	**2 (2.5)**	**25 (30.9)**	**31 (38.3)**	**21 (25.9)**
Ignore screening test if have no sign and symptom	**13 (16.0)**	**48 (59.3)**	**17 (21.0)**	**3 (3.7)**	**0 (0.0)**
Ignore screening test if practice safe sex	**12 (14.8)**	**53 (65.4)**	**12 (14.8)**	**1 (1.2)**	**3 (3.7)**
Feel satisfied after knowing screening test result	**3 (3.7)**	**2 (2.5)**	**31 (38.3)**	**27 (33.3)**	**18 (22.2)**
Feel ashamed to go for a screening test	**11 (13.6)**	**27 (33.3)**	**28 (34.6)**	**8 (9.9)**	**7 (8.6)**
Afraid that abnormal cervix changes found during my screening test	**5 (6.2)**	**21 (25.9)**	**24 (29.6)**	**23 (28.4)**	**8 (9.9)**
Have sense of control by uptake regular cervical cancer screening test	**3 (3.7)**	**3 (3.7)**	**30 (37.0)**	**32 (39.5)**	**13 (16.0)**
Painful procedure	**5 (6.2)**	**31 (38.3)**	**30 (37.0)**	**12 (14.8)**	**3 (3.7)**
Cervical cancer screening should be made compulsory	**4 (4.9)**	**2 (2.5)**	**30 (37.0)**	**32 (39.5)**	**13 (16.0)**
Encourage other people to go for screening test	**4 (4.9)**	**0 (0.0)**	**31 (38.3)**	**28 (34.6)**	**18 (22.2)**

Table 4.6: Descriptive analysis of the respondents' answers for each item in the attitudes section.

Questions	Mean ± Standard Deviation	Median
Importance of having screening tests regularly	3.83 ± 0.93	4.00
Ignore screening test if have no sign and symptom	3.88 ± 0.71	4.00
Ignore screening test if practice safe sex	3.86 ± 0.82	4.00
Feel satisfied after knowing screening test result	3.68 ± 0.97	4.00
Feel ashamed to go for a screening test	2.67 ± 1.11	3.00
Afraid that abnormal cervix changes found during my screening test	3.10 ± 1.09	3.00
Have sense of control by uptake regular cervical cancer screening test	3.60 ± 0.93	4.00
Painful procedure	2.72 ± 0.93	3.00
Cervical cancer screening should be made compulsory	3.59 ± 0.96	4.00
Encourage other people to go for screening test	3.69 ± 0.98	4.00

The mean ± standard deviation for total attitudes scores was 34.60 ± 5.72 while the median was 35.00. Hence, the mean was used as a cut-off point to classify the total score obtained into 'positive attitude' and 'negative attitude'. The respondents were acknowledged as having a positive attitude if the total score obtained were > 34.60 and vice versa for a negative attitude. The minimum total score and maximum total score obtained by the respondents were 18.00 and 50.00 respectively.

Table 4.7: Summary of the respondents' attitudes towards screening tests for cervical cancer.

Variable	Frequency, n=81 (%)		Mean ± Standard Deviation	Median
Attitudes towards cervical cancer screening tests	**Positive Attitude** 43 (53.1%)	**Negative Attitude** 38 (46.9%)	1.53 ± 0.50	2.00

By referring to Table 4.7, more than half of the respondents (53.1%) had a positive attitude towards cervical cancer screening tests while there were 46.9% of the respondents had a negative attitude towards the screening tests.

4.4.5 Beliefs on Cervical Cancer Screening Tests

Table 4.8 showed the summary of the frequency and percentage on each item for beliefs on cervical cancer screening tests based on the respondents' responses. Five-point Likert scales were used for this section with the format of strongly agree, agree, not sure, disagree, and strongly disagree. For positively worded questions, the scoring system strongly disagree (1), disagree (2), neutral (3), agree (4), and strongly agree (5) and will be scored contrariwise for negatively worded questions.

Table 4.8: Frequency (n) and percentage (%) of the respondents' answers for each item in the beliefs section.

Questions	Frequency (Percentage), n=81 (%)				
	Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
Find cervical changes before become cancerous	**1 (1,2)**	**1 (1.2)**	**31 (38.3)**	**38 (46.9)**	**10 (12.3)**
Easily curable if find early	**2 (2.5)**	**1 (1.2)**	**28 (34.6)**	**37 (45.7)**	**13 (16.0)**
If I am destined to get cancer, I will	**6 (7.4)**	**24 (29.6)**	**34 (42.0)**	**15 (18.5)**	**2 (2.5)**
Getting cervical screening would only make me worry	**9 (11.1)**	**42 (51.9)**	**21 (25.9)**	**8 (9.9)**	**1 (1.2)**
I am at risk for cervical cancer	**12 (14.8)**	**23 (28.4)**	**30 (37.0)**	**15 (18.5)**	**1 (1.2)**
Cervical cancer only happens to women over 50	**18 (22.2)**	**49 (60.5)**	**11 (13.6)**	**1 (1.2)**	**2 (2.5)**
Having cervical cancer would make a woman's life very difficult	**7 (8.6)**	**17 (21.0)**	**25 (30.9)**	**24 (29.6)**	**8 (9.9)**
Effective treatments for cervical cancer	**4 (4.9)**	**3 (3.7)**	**31 (38.3)**	**37 (45.7)**	**6 (7.4)**
Most young unmarried women that I know go to have Pap smears done	**6 (7.4)**	**21 (25.9)**	**39 (48.1)**	**14 (17.3)**	**1 (1.2)**
Healthcare workers should tell women about cervical cancer screening	**3 (3.7)**	**2 (2.5)**	**25 (30.9)**	**27 (33.3)**	**24 (29.6)**

Table 4.9: Descriptive analysis of the respondents' answers for each item in the beliefs section.

Questions	Mean ± Standard Deviation	Median
Find cervical changes before become cancerous	3.68 ± 0.76	4.00
Easily curable if find early	3.72 ± 0.84	4.00
If I am destined to get cancer, I will	2.79 ± 0.92	3.00
Getting cervical screening would only make me worry	2.38 ± 0.86	2.00
I am at risk for cervical cancer	2.63 ± 0.99	3.00
Cervical cancer only happens to women over 50	2.01 ± 0.80	2.00
Having cervical cancer would make a woman's life very difficult	3.11 ± 1.11	3.00
Effective treatments for cervical cancer	3.47 ± 0.88	4.00
Most young unmarried women that I know go to have Pap smears done	2.79 ± 0.86	3.00
Healthcare workers should tell women about cervical cancer screening	3.83 ± 1.01	4.00

The mean ± standard deviation for total beliefs scores was 30.41 ± 5.16 while the median was 31.00. Hence, the mean was used as a cut-off point to classify the total score obtained into 'salient belief' and 'non-salient belief'. The respondents were acknowledged as having a salient belief if the total score obtained were > 30.41 and vice versa for a non-salient belief. The minimum total score obtained by the respondents was 18.00 and the maximum total score obtained was 42.00.

Table 4.10: Summary of the respondents' beliefs on screening tests for cervical cancer

Variable	Frequency, n=81 (%)		Mean ± Standard Deviation	Median
Beliefs on cervical cancer screening tests	**Salient Belief**	**Non-salient Belief**		
	41 (50.6%)	40 (49.4%)	1.51 ± 0.50	2.00

Based on Table 4.10, 50.6% of the respondents perceived a salient belief in cervical cancer screening tests while 46.9% of the respondents had a poor belief towards the screening tests.

4.5 Inferential Analysis Results

4.5.1 Predictive Factors in Cervical Cancer Screening Uptakes

i) Socio-demographic Factors

Direct logistic regression was performed to assess the socio-demographic characteristics on the likelihood that the respondents would uptake cervical cancer screening. The analysis was carried out on nine independent variables namely age, race, highest educational level, employment status, monthly income, marital status, have children, practice of family planning, and menopausal status. The analysis containing all predictors was statistically significant, $X^{2(19)} = 59.105$, p=0.001. The analysis as a whole explained between 51.8% (Cox and Snell R square) and 69.1% (Nagelkerke R square) of the variance in cervical cancer screening uptake status, and correctly classified 88.9% of the cases. Sensitivity was 95.0% and specificity was 82.9%. The positive predictive value was 79.2% and the negative predictive value was 77.3%. As shown in Table 4.11, the analysis found that the practice of family planning and screening uptake was statistically significant with p = 0.009.

Table 4.11: Logistic regression predicting the likelihood of cervical cancer screening uptake based on socio-demographic characteristics

Variable	Wald	df	p
Age	0.264	1	0.607
Race	2.665	3	0.446
Highest Educational Level	1.630	4	0.803
Employment Status	1.392	3	0.707
Monthly Income	0.052	2	0.974
Marital Status	0.008	3	1.000
Have Children	0.908	1	0.341
Practice of Family Planning	6.793	1	0.009
Menopausal Status	0.000	1	0.998

ii) Level of Knowledge on Cervical Cancer and Screening Test

Logistic regression was conducted to determine if the level of knowledge on cervical cancer could predict the likelihood that the respondents' uptake the cervical cancer screening test. The results of the logistic regression were not statistically significant, $X^{2(1)}$=1.474, p=0.225. The analysis explained between18.0% (Cox & Snell R2) and 24.0% (Nagelkerke R2) of the variance in the cervical cancer screening uptake and correctly classified 45.7% of cases. Sensitivity was 47.5% and specificity was 43.9%. The positive predictive value was 65.5% and the negative predictive value was 64.2%.

Table 4.12: Logistic Regression Predicting the Likelihood of Screening Uptake

Variable	B	S.E.	Wald	df	p	Exp(B)	95% C.I. for Exp(B)	
							Lower	Upper
Level of Knowledge	-0.063	0.052	1.427	1	0.232	0.939	0.848	1.041

iii) Attitudes towards Cervical Cancer Screening Test

Logistic regression was conducted to determine if the attitudes towards cervical cancer screening tests could predict the likelihood that the respondents' uptake the cervical cancer screening test. The results of the logistic regression were not statistically significant, $X^{2(1)}$=3.574, p=0.059. The analysis explained between 4.3% (Cox & Snell R2) and 5.8% (Nagelkerke R2) of the variance in the cervical cancer screening uptake and correctly classified 55.6% of cases. Sensitivity was 52.5% and specificity was 58.5%. The positive predictive value was 67.7% and the negative predictive value was 70.6%.

Table 4.13: Logistic regression predicting the likelihood of screening uptake based on the attitudes towards cervical cancer screening tests.

Variable	B	S.E.	Wald	df	p	Exp(B)	95% C.I. for Exp(B)	
							Lower	Upper
Attitudes towards cervical cancer screening tests	0.077	0.042	3.312	1	0.639	1.080	0.994	1.173

4.5.2 Relationship between the level of knowledge on cervical cancer and attitudes towards cervical cancer screenings

Based on Table 4.14, Pearson Correlation Analysis showed that there was no correlation between the level of knowledge on cervical cancer and attitudes towards cervical cancer screenings as evidenced by p = 0.245.

Table 4.14: Pearson correlation analysis on the level of knowledge on cervical cancer and attitudes towards cervical cancer screenings

Variables	Attitudes	
	r	p
Knowledge	0.131	0.245

CHAPTER 5

DISCUSSION

5.1 Introduction

The main objective of this study is to assess the attitudes towards cervical cancer screenings and determinants of screening uptake among women attending community clinics in a suburban area of Selangor. In this chapter, results obtained from the analysis conducted will be discussed according to the specific objectives of this study.

5.2 Cervical Cancer Screening Uptake

According to the finding of this study, 49.4% of the respondents had undergone cervical cancer screening tests at least once in their lifetime while there were 50.6% of the respondents had never been screened for cervical cancer.

The result obtained on the rate of screening uptake of cervical cancer could be related to the employment status of the respondents as more than half of the respondents were employed. In government clinics, the Pap Smear test can be done free of charge but the patients need to make an appointment to book the slot since every clinic had the quota per day and might need to wait for a longer time. The working respondents might not have time to come to the clinics for Pap Smear test since the clinics are usually only open on weekdays which may interfere with their working time and if insisted, they need to apply for medical leave from their employer which might be quite troublesome. In addition, some women acknowledged the importance of cervical cancer screening uptake but ignored it due to several reasons includes worried about the painful procedure, afraid of getting a bad result, and disapproval from husband.

Similarly, a study carried by Abdul Rahman et al. (2019) stated that 54.2% of the respondents never had a Pap Smear test done while the rest of them had been screened at least once in

their lifetime. Majority of the respondents for this study were employed (56.7%) hence they might not have time to present at the clinics for the Pap Smear test. This might explain the low rate of cervical cancer screening uptake.

5.3 Predictive Factors in Cervical Cancer Screening Uptakes

5.3.1 Socio-demographic Factors

The results of the logistic regression analysis containing all predictors were statistically significant, $X^{2(19)} = 59.105$, $p=0.001$. The only practice of family planning and screening uptake was statistically significant with $p = 0.009$.

This finding can be explained as the respondents who practice family planning might have better knowledge about cervical cancer and screening test since the healthcare providers had provided the information about cervical cancer during the consultation which raise awareness among the respondents. Hence, the respondents might have perceived susceptibility and perceived severity towards cervical cancer and acknowledge the importance of screening uptake includes early detection of abnormal findings in cervix cells which help in early treatment.

Again, a study conducted by Seng et al., (2018) claimed that sometimes women fail to appreciate the importance of preventive health tests due to the absence of signs and symptoms and lack of awareness. Hence, they assume that Pap Smear screening is not unnecessary. Hence, Seng et al. (2018) concluded that many women do not perceive their vulnerability to cervical cancer due to lack of awareness and asymptomatic condition.

5.3.2 Level of Knowledge on Cervical Cancer and Screening Test

Based on the result, 42 (51.9%) of the respondents had good knowledge of cervical cancer and screening test while the rest of the respondents, 39 (48.1%) had poor knowledge. The results of the analysis between the level of knowledge on cervical cancer and cervical cancer screening test with the screening uptake showed that the logistic regression was not statistically significant, $X^{2(1)}=1.474$, $p=0.225$. The odds ratio of the level of knowledge was 0.939 and the coefficient value was -0.063. Thus, the respondents with good knowledge have 0.939 times the odds for cervical cancer screening uptake.

We might relate the finding in this study with the educational level of the respondents where all of them had proper formal education where the majority of the respondents had tertiary educational level. The respondents might be able to gain and understand well the information provided regarding cervical cancer and screening test. Besides, the marital status might influence the level of knowledge on cervical cancer and screening test as the majority of the respondents were married. Probably the married respondents understood that sexually active women had the risk to encounter cervical cancer.

This can be supported by a study conducted by (Malhi et al., 2018) claimed that 62% of the respondents had good knowledge of cervical cancer and 73% of them had good knowledge of cervical cancer prevention where more than half of the respondents (51%) had a tertiary educational level. Similarly, 70.8% of the respondents were aware that Pap Smear is recommended after getting married Abdul Rahman et al. (2019) since majority of them were married (99.2%).

In contrast, a study by Larasati et al. (2018) stated that respondents who had good knowledge were women with a lower education level (63.2%) compared to women with higher educational level (36.8%). This finding might be influenced by the big gap between the number of respondents between the educational levels as 410 out of 649 respondents who had participated in this study had lower educational level.

5.3.4 Attitudes towards Cervical Cancer Screening Tests

The result showed that more than half of the respondents (53.1%) had a positive attitude towards cervical cancer screening tests while there were 46.9% of the respondents had a negative attitude towards the screening tests. The odds ratio of the attitudes towards cervical cancer screening tests and the coefficient value were 1.080 and 0.077 respectively. Hence, the respondents with positive attitudes have 1.080 times the odds for cervical cancer screening uptake.

By referring to the result obtained in this study, the positive attitudes towards cervical cancer screening tests might be contributed by high perceived susceptibility towards cervical cancer. This can be supported by Kaneko (2018) which stated that women with high perceived susceptibility were more likely to undergo cervical cancer screening test compared to women who had low perceived susceptibility to cervical cancer. Aldohaian et al. (2019) reported that the common reasons for women claiming themselves for being susceptible to cervical cancer are a low level of education, more number of children, and positive family history of cervical cancer.

Besides, they also claimed that most of the participants mentioned that undergoing a regular Pap Smear test brings a lot of benefits. They also agree that the Pap Smear test is the best way to diagnose cervical cancer as it helps in the early detection of an abnormal condition in the cervix hence the treatment would be more tolerable. Hence, high perceived susceptibility towards cervical cancer and perceived benefits on screening uptake might contribute to positive attitudes towards cervical cancer screening test.

Likewise, the study conducted by Abdul Rahman et al. (2019) claimed that 70.0% of the respondents showed a positive attitude towards the Pap Smear test. Moreover, 85.8% of the respondents agreed that regular practice of Pap Smear is important in preventing cervical cancer which also gives them a sense of control towards themselves. The majority of the respondents believed that the Pap Smear test is necessary even in the absence of any sign or symptoms of cervical cancer.

5.4 Relationship between Level of Knowledge on Cervical Cancer and Attitudes towards Cervical Cancer Screenings

There was no correlation between the level of knowledge on cervical cancer and attitudes towards cervical cancer screenings as evidenced by $p = 0.245$. This shows that the attitudes towards cervical cancer screenings tests do not affect by the level of knowledge on cervical cancer.

This probably can be explained by a good exposure to mass media about cervical cancer and encouragement from the healthcare providers during clinic visits. The respondents might accept the recommendation from healthcare providers but do not understand the benefits of screening uptake. this can be supported by a study conducted by Vamos et al. (2015) which stated that most of the participants gaining health information through television (70.49%) followed by the social circle (65.1%) and newspaper and magazines (59.9%).

Again, a study by Aldohaian et al. (2019) shown that women who are engaging more with healthcare providers, family and friends have more reliable information about Pap Smear tests. According to Sopian et al. (2018), mothers have a greater awareness of cervical cancer screening compared to fathers because of exposure to campaigns and counseling during prenatal and postnatal care.

In contrast, Malhi et al. (2018) claimed that majority of the respondents had good knowledge of cervical cancer and showed a good attitude towards Pap Smear and HPV vaccination program. They also mentioned that the attitude was significantly higher among higher education groups and employed groups. This might be due to encouragement from surroundings, peer experiences, and opportunities to the available sources.

CHAPTER 6

LIMITATION AND RECOMMENDATION

6.1 Limitation

This research was a simple cross-sectional study conducted within a short period. Thus, there were several possible limitations in conducting this study that needs to be acknowledged.

Firstly, sampling bias was probable since it was quite hard to get respondents according to the estimated sample size during the pandemic issue. Movement Control Order (MCO) limits the number of patients coming to the clinics per day to prevent crowded areas.

MCO was continued which limit the researcher from accessing the study sites, a google form survey has been used in collecting data. Thus, a convenience sampling method has been used instead of a systematic random sampling method. The researcher will forward to the gatekeeper for the study sites the QR code which can be used for the respondents to assess the google form survey.

Besides, the study sites especially Klinik Kesihatan Salak and Klinik Kesihatan Dengkil are quite far from the researcher area. The researcher needs to have personal transport to go for collecting data.

6.2 Recommendation

This study discovered the recent knowledge on cervical cancer, attitudes towards prevention, and determinants of screening uptake among women in a suburban area of Selangor. Besides, the findings of this study were beneficial for the healthcare system in proposing efficient methods to be implemented in spreading knowledge and awareness and also in encouraging the public to practice cervical cancer screening uptake and prevention measures.

6.2.1 Nursing Education

Based on the results obtained from this study, there was a small gap between the good and poor level of knowledge of the respondents on cervical cancer and screening tests. Besides, more than half of the respondents had never been screened for cervical cancer. Nurses play an important role in delivering sufficient and correct information about cervical cancer to the public. Hence, the friendly attitudes of nurses and communication skills among nurses should be improvised. Moreover, strategic communication targeting eligible women may increase the uptake of screening.

6.2.2 Nursing Practice

Indirectly, nursing practice becomes an important role to enhance the level of knowledge and promoting cervical cancer screening uptake among communities. Next, all healthcare providers must consider every minute of contact with the women as an opportunity to educate and inspire them to do regular Pap smear tests. Besides, the nurses should halt the spread of groundless taboo about cervical cancer and screening tests that have been lingering in the community.

6.2.3 Nursing Research

For the next study, the researcher should determine the available sources which provide information on cervical cancer, prevention measures, and screening tests obtained by the participants. Hence, it will be really helpful in delivering health education effectively to the public. In the future, the reasons for ignoring the cervical cancer screening uptake should be obtained not only the rate of screening uptake thus the healthcare providers can overcome this issue systematically.

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APPENDICES

Appendix 1: Questionnaire

FACULTY OF MEDICINE AND HEALTH SCIENCE

DEPARTMENT OF NURSING AND REHABILITATION

BACHELOR OF NURSING

QUESTIONNAIRE

TITLE:

CROSS-SECTIONAL STUDY OF DETERMINANTS OF SCREENING PROVISION AND UPTAKE OF CERVICAL CANCER

AMONG WOMEN ATTENDING COMMUNITY CLINICS IN A SUBURBAN AREA OF SELANGOR

NMRR ID: 21-153-58298

RESEARCHER:

NURUL SYAFIQA BT MOHAMMAD ABDULLAH (192384)

SUPERVISOR:

DR NORAFISYAH BT MAKHDZIR

INSTRUCTION: This study is conducted for academic purpose. All information will be kept private and confidential. Thank you for your cooperation in answering this questionnaire.

Bahagian A: Demografi Sosial

(Part A: Socio-demographic data)

Sila isi dan tandakan (√) pada ruangan yang disediakan.

(Please fill in and tick (√) in the space provided.)

1. Umur (*Age*): _____ tahun (*years old*)

2. Bangsa (*Race*):
   - ☐ Melayu (*Malay*)
   - ☐ Cina (*Chinese*)
   - ☐ India (*Indian*)
   - ☐ Lain-lain (*Others*)
     Nyatakan (*Specify*): _____

3. Tahap Pendidikan tertinggi (*Highest education level*):
   - ☐ Tidak bersekolah (*No formal education*)
   - ☐ Sekolah rendah (*Primary school*)
   - ☐ PMR
   - ☐ SPM
   - ☐ STPM/Matrikulasi/Diploma/Asasi/A level
   - ☐ Degree
   - ☐ Master
   - ☐ PhD

4. Status pekerjaan (*Employment status*):
   - ☐ Bekerja sendiri (*Self-employed*)
   - ☐ Kaki tangan kerajaan (*Government servant*)
   - ☐ Pekerja swasta (*Private sector*)
   - ☐ Tidak bekerja (*Unemployed*)

5. Pendapatan bulanan (*Monthly income*):

   ☐ ≤ RM 2500
   ☐ RM 2500 – RM3000
   ☐ RM 3000 – RM 3500
   ☐ ≥RM 3500

6. Status perkahwinan (*Marital status*):

   ☐ Bujang (*Single*)
   ☐ Dalam hubungan (*In relationship*)
   ☐ Berkahwin (*Married*)
   ☐ Kehilangan pasangan (*Widowed*)
   ☐ Bercerai (*Divorced)*

Jika anda pernah berkahwin, sila jawab soalan di bawah. Jika belum berkahwin sila terus ke soalan 9.

(If you have ever been married,please answer the following question. If no, please skip to question 9.)

7. Sila jawab soalan di bawah yang berkaitan dengan anda.
   (*Please answer the following questions if applicable to you*.)

   i. Jumlah perkahwinan (*Number of marriage*): _____kali
   ii. Umur ketika berkahwin (*Age at first marriage*): _____tahun (*years old*)
   iii. Jumlah anak (*Number of child*):_____orang
   iv. Bilangan kehamilan (*Number of pregnancies*):_____

8. Adakah anda mengamalkan perancang keluarga
   (*Do you practice family planning?*)

   ☐ Ya (*Yes*)
   ☐ No (*Tidak*)

Jika Ya, sila nyatakan kaedah yang digunakan

(*If Yes, please specify*):

- ☐ Pil (*Pill*)
- ☐ Suntikan (*Injection*)
- ☐ Implan (*Implant*)
- ☐ Alat dalam rahim (*Intrauterine device*)
- ☐ Kondom (*Condom*)
- ☐ Lain-lain (*Others*)

  Nyatakan (*Please specify*): _____

9. Status menopaus (*Menopause status*):
   - ☐ Sudah menapous (*Yes*)
   - ☐ Belum menopausk (*No*)

   Jika sudah menopaus,sila nyatakan tahun anda mengalami menopaus

   (*If yes, please specify*):

   _____tahun (*years old*)

10. Adakah anda mempunya sejarah kanser serviks dalam kalangan ahli keluarga terdekat

    (*Do you have family history of cervical cancer?)*
    - ☐ Ya (*Yes*)
    - ☐ Tidak (*No*)

    Jika Ya, sila nyatakan

    (*If Yes, please specify*):

    - ☐ Ibu (*Mother*)
    - ☐ Adik-beradik (*Siblings*)
    - ☐ Lain-lain (*Others*): _____

Bahagian B: Pengambilan Ujian Saringan Kanser Serviks

(*Part B: Cervical Cancer Screening Uptake*)

Sila tanda (√) pada ruangan yang disediakan.

(Please fill in and tick (√) in the space provided.)

1. Pernahkah anda menjalani ujian saringan kanser serviks?
   (*Have you ever been screened for cervical cancer?*)

   ☐ Ya (Yes)

   ☐ Tidak (No)

   Jika Tidak, sila terus ke soalan 4.

   (If No, please proceed to question 4.)

2. Apakah faktor yang mendorong anda untuk menjalani ujian saringan? [Anda boleh tanda lebih dari satu.]
   (What made you to go for cervical cancer screening?) [You may choose more than one.]

   ☐ Kanser serviks dapat disembuhkan sekiranya dikesan awal.
   (*Because if it is detected early, it can be cured*.)

   ☐ Saya berkemungkinan mempunyai kanser serviks.
   (*Because I could have the disease*.)

   ☐ Disarankan oleh petugas kesihatan.
   (*Recommend by healthcare providers*.)

   ☐ Disarankan oleh ahli keluarga.
   (*Encourage by my family.*)

   ☐ Mempunyai kenalan rapat yang meninggal disebabkan oleh kanser serviks.
   (*Having a close relation died due to cervical cancer*.)

   ☐ Lain-lain (*Others*)
   Sila nyatakan (*Please specify*): _____

3. Apakah kaedah ujian yang anda gunakan semasa saringan yang lepas?

   (*What method did you use the last time you screened for cervical cancer?*)

☐ Pap Smear

Tidak pasti *(Unsure)*

☐ Lain-Lain (*Others*)

Sila nyatakan (*Please specify*): _____

4. Jika Jawapan anda soalan 1 adalah tidak, adakah anda mahu mengambil ujian saringan pada masa akan datang?
(*If No, do you plan to take screening test in the future*?)

☐ Ya (*Yes*)

☐ Tidak (*No*)

☐ Tidak pasti (*Not sure*)

5. Mengapakah anda tidak menjalani ujian saringan? Anda boleh tanda lebih dari satu.
(*Why have you not gone for the screening? You may choose more than one.*)

☐ Saya tidak tahu tentang kewujudan ujian saringan untuk kanser serviks.
(*I did not know the screening existed.*)

☐ Saya takut berasa sakit semasa prosedur.
(*I am worried of painful procedure*.)

☐ Saya takut jika mendapat keputusan buruk.
(*I am afraid of getting a bad result*.)

☐ Suami saya tidak mengizinkan saya.
(*My husband will not approve it*.)

☐ Saya malu sekiranya diperiksa oleh pegawai kesihatan lelaki.
(*I feel ashamed if check by male medical personnel.*)

☐ Lain-lain (*Others*)

Sila nyatakan. (*Please state*): _____

Bahagian C: Pengetahuan tentang Kanser Serviks dan Ujian Saringan

(*Part C: Knowledge on Cervical Cancer and Screening Test*)

Sila tanda (√) pada ruangan yang disediakan.

(Please fill in and tick (√) in the space provided.)

1. Kanser serviks disebabkan oleh *Human Papillomavirus*.
   (*Human Papillomavirus can cause cervical cancer.*)
   - ☐ Betul (*True*)
   - ☐ Salah (*False*)
   - ☐ Tidak pasti (*Not sure*)

2. Pendarahan faraj yang tidak normal dan lelehan faraj yang berbau busuk adalah tanda-tanda kanser serviks.
   (*Abnormal vaginal bleeding and foul vaginal discharge are signs of cervical cancer.*)
   - ☐ Betul (True)
   - ☐ Salah (False)
   - ☐ Tidak pasti (Not sure)

3. Hanya pekerja seks dan orang tua yang berisiko untuk mendapat kanser serviks?
   (*Only sex workers and elderly will get cervical cancer?)*
   - ☐ Betul (True)
   - ☐ Salah (False)
   - ☐ Tidak pasti (Not sure)

4. Kurang penjagaan kebersihan di kemaluan boleh menyebabkan kanser serviks
   (*Poor hygiene at private area can cause cervical cancer)*
   - ☐ Betul (True)
   - ☐ Salah (False)
   - ☐ Tidak pasti (Not sure)

5. Kanser serviks boleh dicegah
   (*Cervical cancer be preventable)*
   - ☐ Betul (True)
   - ☐ Salah (False)
   - ☐ Tidak pasti (Not sure)

6. Antara faktor-faktor untuk mendapat kanser serviks adalah mempunyai sejarah kanser serviks dalam keluarga dan mempunyai pasangan seks yang ramai.
(*Among the risk factors for cervical cancer are family history of cervical cancer and multiple sex partners*)

☐ Betul (True)
☐ Salah (False)
☐ Tidak pasti (Not sure)

7. Pap smear merupakan salah satu ujian saringan untuk kanser serviks.
(Pap smear a screening test for cervical cancer.)

☐ Betul (True)
☐ Salah (False)
☐ Tidak pasti (Not sure)

8. Pap smear perlu dilakukan pada setiap tahun.
(*Pap smear need to be done for every year.*)

☐ Betul (True)
☐ Salah (False)
☐ Tidak pasti (Not sure)

9. Merokok merupakan salah satu faktor yang menyebabkan kanser serviks.
(*Smoking a risk factor for cervical cancer.*)

☐ Betul (True)
☐ Salah (False)
☐ Tidak pasti (Not sure)

10. Kanser serviks tidak boleh dirawat.
(*There is no treatment for cervical cancer.*)

☐ Betul (True)
☐ Salah (False)
☐ Tidak pasti (Not sure)

Bahagian D: Sikap terhadap Ujian Saringan Kanser Serviks

(*Part D: Attitudes towards Cervical Cancer Screening*)

Sila baca kenyataan dibawah dan tandakan (√) pada bahagian yang disediakan berdasarkan sejauh manakah anda bersetuju dengan pernyataan berikut.

(Please read the following statements and tick (√) in the box provided based on to what extent do you agree with the following statements.)

No.	Penyataan (Statement)	Sangat Tidak Setuju (Strongly Disgaree)	Tidak setuju (Disagree)	Neutral	Setuju (Agree)	Sangat Setuju (Strongly agree)
1.	Pada pendapat saya, menjalani ujian saringan kanser serviks secara berkala amat penting. (*In my opinion, it is important to have cervical cancer screening test regularly*.)					
2.	Saya tidak perlu menjalani ujian saringan sekiranya tiada simptom. (*I do not have to take cervical cancer screening test if there is no sign and symptom*.)					
3.	Saya tidak perlu menjalani ujian saringan sekiranya saya mengamalkan seks sihat.					

	(*Cervical cancer screening test is unnecessary if I practice safe sex*.)					
4.	Saya akan berasa lega selepas mengetahui keputusan ujian saringan. (*I will be satisfied after knowing my screening test result*.)					
5.	Saya malu untuk menjalani ujian saringan. (*I feel ashamed to go for screening test*.)					
6.	Saya takut sekiranya keputusan ujian saringan saya mengesan abnormal pada serviks. (*I am afraid that abnormal cervix changes found during my screening test.*)					
7.	Saya berasa selamat jika menjalani ujian saringan. (*Having regular cervical cancer screening test give me a sense of control*.)					

8.	Ujian saringan kanser serviks adalah satu prosedur yang menyakitkan. (*Cervical cancer screening test is a painful procedure*.)					
9.	Ujian saringan kanser serviks perlu diwajibkan untuk semua wanita. (*Participating in the cervical cancer screening should be made compulsory for all women*.)					
10.	Saya akan menggalakkan orang di sekeliling saya untuk turut menjalani ujian saringan. (*I will encourage other people to go for screening test*.)					

Bahagian E: Keyakinan terhadap Ujian Saringan Kanser Serviks

(*Part E: Beliefs on Cervical Cancer Screening Test*)

Sila baca kenyataan dibawah dan tandakan (√) pada bahagian yang disediakan berdasarkan sejauh manakah anda bersetuju dengan pernyataan berikut.

(Please read the following statements and tick (√) in the box provided based on to what extent do you agree with the following statements.)

No.	Penyataan (Statement)	Sangat Tidak Setuju (Strongly Disgaree)	Tidak setuju (Disagree)	Neutral	Setuju (Agree)	Sangat Setuju (Strongly agree)
1.	Perubahan pada serviks dapat dikesan melalui ujian saringan. (*Cervical cancer screening can find cervical changes before they become cancer.*)					
2.	Kanser serviks boleh disembuhkan sekiranya perubahan pada serviks dikesan awal. (*If cervical changes are found early, they are easily curable*.)					
3.	Saya tetap akan menghidap kanser sekiranya telah ditakdirkan. (*If I am destined to get cancer, I will*.)					

4.	Mengambil ujian saringan kanser serviks hanya membuatkan saya berasa risau. (*Getting cervical screening would only make me worry*.)					
5.	Saya berisiko untuk mendapat kanser serviks. (*I am at risk for cervical cancer*.)					
6.	Kanser serviks hanya dihidapi oleh wanita yang berumur 50 tahun ke atas. (*Cervical cancer only happens to women over 50*.)					
7.	Hidup seorang wanita akan menjadi sukar sekiranya menghidapi kanser serviks. (*Having cervical cancer would make a woman's life very difficult*.)					
8.	Terdapat banyak rawatan yang efektif untuk kanser serviks. (*There are effective treatments for cervical cancer*.)					

9.	Ramai kenalan wanita saya yang belum berkahwin mengambil ujian saringan kanser serviks. (*Most young unmarried women that I know go to have Pap smears done*.)					
10.	Petugas kesihatan perlu mendedahkan tentang ujian saringan kanser serviks kepada wanita. (*Healthcare workers should tell women about cervical cancer screening*.)					

Tamat. Terima kasih atas kerjasama anda.

(The end. Thank you for your cooperation.)

Appendix 2: Answer Scheme for Knowledge on Cervical Cancer and Screening Test

No.	Questions	True	False
1.	Human Papillomavirus can cause cervical cancer	/	
2.	Abnormal vaginal bleeding and foul vaginal discharge are signs of cervical cancer	/	
3.	Only sex workers and the elderly will get cervical cancer		/
4.	Poor hygiene in the private area can cause cervical cancer		/
5.	Cervical cancer be preventable	/	
6.	Among the risk factors for cervical cancer are family history of cervical cancer and multiple sex partners	/	
7.	Pap smear a screening test for cervical cancer	/	
8.	Pap smear need to be done for every year.		/
9.	Smoking a risk factor for cervical cancer	/	
10.	There is no treatment for cervical cancer		/

Appendix 3: Information Sheet and Consent Form

PARTICIPANT INFORMATION SHEET AND INFORMED CONSENT FORM

(for adult subjects)

1. **Title of study**:
   Cross-sectional Study of Determinants of Screening Provision and Uptake of Cervical Cancer among Women Attending Community Clinics in a Suburban Area of Selangor.

2. **Name of investigator and institution:**
   Nurul Syafiqa binti Mohammad Abdullah, Universiti Putra Malaysia (UPM)

   Dr. Norafisyah binti Makhdzir, Universiti Putra Malaysia (UPM)

3. **Name of sponsor**: No external funding

4. **Introduction:**

It is important to understand the purpose of conducting this research. Please take your time to read through and consider this information carefully before you decide if you are willing to participate. Ask the study staff if anything is unclear or if you would like more information. After you are properly satisfied that you understand this study, and that you wish to participate, you must sign this informed consent form.

Your participation in this study is voluntary. You do not have to be in this study if you do not want to. If you volunteer to be in this study, you may withdraw from it at any time without any penalty. If you withdraw, any data collected from you up to your withdrawal will still be used for the study. Your refusal to participate or withdrawal will not affect any medical or health benefits to which you are otherwise entitled.

This study has been approved by the Medical Research and Ethics Committee, Ministry of Health Malaysia.

5. What is the purpose of the study?

The purpose of this study is to determine the knowledge of women on cervical cancer and prevalence of cervical cancer screening uptake. This research is necessary to improve the understanding of women in importance in screening uptake for preventing cervical cancer.

This research will be conducted for duration of 3 months (01/08/2021 till 31/10/2021). The expected number of participants is 311 women attending Klinik Kesihatan Salak Tinggi, Selangor.

6. What are my responsibilities when taking part in this study?

It is important that you answer all of the questions asked by the study staff honestly and completely which will take about 20 minutes of your time.

You will be given a questionnaire to be answered which consists of five section which will enquire about socio-demographic background, practice of cervical cancer screening uptake, knowledge on cervical cancer and screening test, attitudes on screening uptake and belief towards screening uptake.

7. What are the potential risks and side effects of being in this study?

There is no potential risk or harm to the participants in participating for this study. No clinical procedures included in this study. The participants only need to complete the questionnaire distributed.

8. What are the benefits of being in this study?

By participating in this study, the participants may or may not be any benefits to you but you might have a better understanding on cervical cancer and initiate awareness on cervical cancer screening uptake.

9. **Who is funding the research?**

No external funding received for this research. You will not be paid for participating in this study.

10. Will my medical information be kept private?

All your information obtained in this study will be kept and handled in a confidential manner, in accordance with applicable laws and/or regulations. In addition, total access to the data collected from the participants will be kept in password-protected database which only can be accessed by the principal investigator, supervisory committee, and researcher investigators. Once the study is complete, the data in the database and answered questionnaires will be kept by the principal investigator and maintained for three years. The data and questionnaires will be disposed after that period of time. Subjects can request to access their personal info and study findings by contacting the investigators. When publishing or presenting the study results, your identity will not be revealed without your expressed consent. Individuals involved in this study, qualified monitors and auditors, and governmental or regulatory authorities may inspect the study data, where appropriate and necessary.

11. Who should I call if I have questions?

If you have any questions about the study or if you think you have a study related injury and you want information about this study, please contact the study staff, Nurul Syafiqa binti Mohammad Abdullah at email: misz.nurulsyafiqa@gmail.com or telephone number [016-2114428].

If you have any questions about your rights as a participant in this study, please contact: The Secretary, Medical Research & Ethics Committee, Ministry of Health Malaysia, at telephone number 03-3362 8407/8205/8888.

INFORMED CONSENT FORM

Title of Study: Cross-sectional Study of Determinants of Screening Provision and Uptake of Cervical Cancer among Women Attending Community Clinics in a Suburban Area of Selangor.

By signing below, I confirm the following:

- I have been given oral and written information for the above study and have read and understood the information given.
- I have had sufficient time to consider participation in the study and have had the opportunity to ask questions and all my questions have been answered satisfactorily.
- I understand that my participation is voluntary and I can at anytime free withdraw from the study without giving a reason and this will in no way affect my future treatment. I am not taking part in any other research study at this time. I understand the risks and benefits, and I freely give my informed consent to participate under the conditions stated. I understand that I must follow the study doctor's (investigator's) instructions related to my participation in the study.
- I understand that study staff, qualified monitors and auditors, the sponsor or its affiliates, and governmental or regulatory authorities, have direct access to my medical record in order to make sure that the study is conducted correctly and the data are recorded correctly. All personal details will be treated as STRICTLY CONFIDENTIAL
- I will receive a copy of this subject information/informed consent form signed and dated to bring home.
- I agree/disagree* for my family doctor to be informed of my participation in this study. *(*delete which is not applicable)*

Subject:

Signature: I/C number:

Name: Date:

Investigator conducting informed consent:

Signature: I/C number:

Name: Date:

Impartial witness:

Signature: I/C number:

Name: Date:

RISALAH MAKLUMAT PESERTA DAN

BORANG PERSETUJUAN ATAU KEIZINAN PESERTA

(untuk subjek dewasa)

12. **Tajuk penyelidikan**:

Kajian Keratan Rentas Penentu Peruntukan Saringan dan Pengambilan Kanser Serviks di kalangan Wanita Yang Menghadiri Klinik Komuniti di kawasan pinggir bandar Selangor.

13. **Nama Institusi and nama penyelidik:**

Nurul Syafiqa binti Mohammad Abdullah, Universiti Putra Malaysia (UPM)

Dr. Norafisyah binti Makhdzir, Universiti Putra Malaysia (UPM)

14. **Nama penaja**:

Tiada tajaan luar.

15. Pengenalan:

Risalah ini menjelaskan hal-hal berkenaan penyelidikan tersebut dengan lebih mendalam dan terperinci. Amat penting untuk anda memahami tujuan penyelidikan ini dilakukan. Sila ambil masa yang secukupnya untuk membaca dan mempertimbangkan dengan teliti penerangan yang diberi sebelum anda bersetuju untuk menyertai penyelidikan ini. Jika ada sebarang kemusykilan ataupun maklumat lanjut yang anda ingin tahu, anda boleh bertanya dengan mana-mana kakitangan yang terlibat dalam penyelidikan ini. Setelah anda berpuas hati bahawa anda memahami penyelidikan ini, dan anda berminat untuk turut serta, anda dikehendaki untuk menandatangani Borang Persetujuan atau Keizinan Peserta, pada muka surat akhir risalah ini.

Penyertaan anda dalam penyelidikan ini adalah secara sukarela. Anda tidak perlu menyertai penyelidikan ini jika anda tidak mahu. Anda juga boleh menarik diri daripada penyelidikan ini pada bila-bila masa sahaja tanpa sebarang penalti. Jika anda menarik diri, segala maklumat yang telah diperolehi sebelum anda menarik diri tetap akan digunakan dalam penyelidikan ini. Jika anda tidak mahu menyertai ataupun menarik diri dari penyelidikan ini, tindakan anda tidak akan menjejaskan segala hak dan keistimewaan perubatan kesihatan yang selayaknya anda terima.

Penyelidikan ini telah mendapat kelulusan Jawatankuasa Etika dan Penyelidikan Perubatan, Kementerian Kesihatan Malaysia.

16. Apakah tujuan penyelidikan ini dilakukan?

Tujuan penyelidikan ini dilakukan adalah untuk mengetahui pengetahuan wanita mengenai kanser serviks dan kelaziman pengambilan saringan kanser serviks. Penyelidikan ini adalah perlu untuk meningkatkan pemahaman wanita yang penting dalam menyaring pengambilan untuk mencegah kanser serviks.

Penyelidikan ini akan berlangsung selama 3 bulan (01/04/2021 sehingga 31/6/2021). Dijangka bahawa 311 wanita yang hadir di Klinik Kesihatan Salak Tinggi akan mengambil bahagian dalam kajian ini.

17. **Apakah tanggungjawab saya sewaktu menyertai penyelidikan ini?**

Amat penting anda menjawab kesemua soalan yang dikemukan oleh kakitangan penyelidikan dengan jujur dan lengkap yang akan mengambil masa selama 20 minit. Anda akan diberi boring soal selidik yang akan dijawab yang terdiri daripada lima bahagian yang akan bretanya tentang latar belakang sosio-demografi, amalan pengambilan saringan kanser serviks, pengetahuan mengenai kansr serviks dan ujian saringan, sikap mengenai pengambilan saringan dan kepercayaan terhadap pengambilan saringan.

18. Apakah risiko dan kesan-kesan sampingan menyertai penyelidikan ini?

Tiada risiko atau kemudaratan yang berpotensi kepada peserta yang menyertai kajian ini. Tiada prosedur klinikal yang dimasukkan dalam kajian ini. Peserta hanya perlu melengkapkan borang soal selidik yang diedarkan.

19. **Apakah manfaatnya saya menyertai kajian ini?**

Dengan menyertai kajian ini, peserta mungkin atau mungkin tidak ada manfaat kepada anda tetapi anda mungkin mempunyai pemahaman yang lebih baik mengenai kanser serviks dan memulakan kesedaran mengenai pengambilan saringan kanser serviks.

20. Siapakah yang membiayai penyelidikan ini?

Tiada tajaan luar untuk penelidikan ini. Anda tidak akan dibayar untuk menyertai kajian ini.

21. Adakah maklumat saya akan dirahsiakan ?

Segala maklumat anda yang diperolehi dalam penyelidikan ini akan disimpan dan dikendalikan secara sulit, bersesuaian dengan peraturan-peraturan dan/ atau undang-undang yang berkenaan. Selain itu, akses kepada data yang dikumpulkan dari peserta akan disimpan dalam pangkalan data yang dilindungi kata kunci yang hanya dapat diakses oleh penyelidik utama, jawatankuasa penyeliaan dan para penyelidik. Setelah kajian selesai, data dalam pangkalan data dan soal selidik yang dijawab akan disimpan oleh penyiasat utama dan disimpan selama tiga tahun. Data dan soal selidik akan dibuang setelah jangka masaa tersebut. Subjek boleh meminta untuk mengakses maklumat peribadi merek dan penemuan kajian dengan menghubungi penyelidik. Semasa menerbitkan atau membentangkan hasil kajian, identiti anda tidak akan dideahkan tanpa persetujuan anda. Jika sesuai dan perlu, data yang dikumpul akan disemak oleh individu yang terlibat dalam kajian ini seperti juruaudit dan pemantau yang berkelayakan.

22. Siapakah yang perlu saya hubungi sekiranya saya mempunyai sebarang pertanyaan?

Anda boleh menghubungi staff penyelidikan, Nurul Syafiqa binti Mohammad Abdullah pada emel: misz.nurulsyafiqa@gmail.com atau nombor telefon [016-2114428] sekiranya anda mempunyai sebarang pertanyaan mengenai penyelidikan ini atau jika anda mengesyaki anda mengalami kecederaan yang terhasil daripada penyelidikan ini dan anda mahukan maklumat tentang rawatannya.

Jika anda mempunyai sebarang pertanyaan berkaitan dengan hak-hak anda sebagai pesakit dalam penyelidikan ini, sila hubungi: Setiausaha, Jawatankuasa Etika & Penyelidikan Perubatan, Kementerian Kesihatan Malaysia, melalui talian telefon 03-3362 8407/8205/8888.

BORANG PERSETUJUAN/ KEIZINAN PESERTA

Tajuk Penyelidikan : Kajian Keratan Rentas Penentu Peruntukan Saringan dan Pengambilan Kanser Serviks di kalangan Wanita Yang Menghadiri Klinik Komuniti di kawasan pinggir bandar Selangor.

Dengan menandatangani di bawah, saya mengesahkan bahawa :

- Saya telah diberi maklumat tentang penyelidikan di atas secara lisan dan bertulis and saya telah membaca dan memahami segala maklumat yang diberikan dalam risalah ini.
- Saya telah diberikan masa yang secukupnya untuk mempertimbangkan penyertaan saya dalam penyelidikan ini dan telah diberi peluang untuk bertanyakan soalan dan semua persoalan saya telah dijawab dengan sempurna dan memuaskan.
- Saya juga faham bahawa penyertaan saya adalah secara sukarela dan pada bila-bila masa saya bebas menarik diri daripada penyelidikan ini tanpa harus memberi sebarang alasan dan ianya sama sekali tidak akan menjejaskan rawatan perubatan saya pada masa akan datang. Saya tidak mengambil bahagian dalam mana-mana penyelidikan lain pada masa ini. Saya juga memahami tentang risiko

dan manfaat penyelidikan ini dan saya secara sukarela memberi persetujuan untuk menyertai penyelidikan ini di bawah syarat-syarat yang telah dinyatakan di atas. Saya faham saya harus mematuhi nasihat dan arahan yang berkaitan dengan penyertaan saya dalam penyelidikan ini daripada doktor penyelidikan (penyelidik).

- Saya faham bahawa kakitangan penyelidikan, pemantau dan juruaudit terlatih, pihak penaja atau gabungannya, dan pihak berkuasa kerajaan atau undang-undang, mempunyai akses langsung dan boleh menyemak laporan perubatan saya bagi memastikan penyelidikan ini dijalankan dengan betul dan data direkodkan dengan betul. Segala maklumat dan data peribadi akan dianggap sebagai SULIT.
- Saya akan menerima satu salinan 'Risalah Maklumat Pesakit dan Borang Persetujuan atau Keizinan Pesakit' yang telah lengkap dengan tarikh dan tandatangan untuk dibawa pulang ke rumah.
- Saya bersetuju/ tidak bersetuju* untuk doktor yang merawat keluarga saya diberitahu tentang penyertaan saya dalam penyelidikan ini. *(*Potong mana yang tidak berkenaan)*

Subjek:

Tandatangan: Nombor K/P:

Nama: Tarikh:

Penyelidik yang mengendalikan proses menandatangani borang keizinan:

Tandatangan: Nombor K/P:

Nama: Tarikh:

Saksi tidak-berpihak/adil:

Tandatangan: Nombor K/P:

Nama: Tarikh:

Appendix 4: Approval Letter from Medical Research & Ethics Committee (MREC)

JAWATANKUASA ETIKA & PENYELIDIKAN PERUBATAN
(MEDICAL RESEARCH & ETHICS COMMITTEE)
KEMENTERIAN KESIHATAN MALAYSIA
MINISTRY OF HEALTH MALAYSIA
Kompleks Institut Kesihatan Negara (NIH)
No.1, Jalan Setia Murni U13/52,
Seksyen U13 Bandar Setia Alam,
40170 Shah Alam, Selangor.
Tel.: +(6)03-33628888/ 33628205

Ref. : KKM/NIHSEC/P21-644(12)
Date : **20-May-2021**

NURUL SYAFIQA BINTI MOHAMMAD ABDULLAH
UNIVERSITY PUTRA MALAYSIA (UPM)

Dear Dato'/ Dr/ Sir/ Madam,

LETTER OF ETHICAL APPROVAL:

NMRR-21-153-58298 (IIR)
CROSS-SECTIONAL STUDY OF DETERMINANTS OF SCREENING PROVISION AND UPTAKE OF CERVICAL CANCER AMONG WOMEN ATTENDING COMMUNITY CLINICS IN A SUBURBAN AREA OF SELANGOR

This letter is made in reference to the matter above.

2. The Medical Research and Ethics Committee (MREC), Ministry of Health Malaysia (MOH) has provided ethical approval for this study. Please take note that all records and data are to be kept strictly **CONFIDENTIAL** and can only be used for the purpose of this study. All precautions are be taken to maintain data confidentiality. Permission from the District Health Officer / Hospital Administrator/ Hospital Director and all relevant heads of departments /units where the study will be carried out must be obtained prior to the study. You are required to follow and comply with their decision and all other relevant regulations including the Access to the Biological and Benefit Sharing Act 2017.

3. The investigators and sites involved in this study are:

Klinik Kesihatan Dengkil
Nurul Syafiqa Binti Mohammad Abdullah (Principal / Coordinating Investigator)
Norafisyah Binti Makhdzir

Klinik Kesihatan Salak
Nurul Syafiqa Binti Mohammad Abdullah (Principal / Coordinating Investigator)
Norafisyah Binti Makhdzir

4. The following study documents have been received and reviewed with reference to the above study:

Documents received and reviewed with reference to the above study:

1. Cover letter to MREC (Version 1, dated 18-05-2021)
2. Declaration of Conflict of Interest (COI) (Version 1, dated 28-01-2021)
3. Protocol (Version 4, dated 18-05-2021)
4. English: Patient Information Sheet/ Informed Consent Form (Version 1, dated 18-05-2021)
5. Malay: Patient Information Sheet/ Informed Consent Form (Version 1, dated 18-05-2021)
6. Questionnaire (Version 2, dated 17-04-2021)
7. Follow-up Review Report (Version 1, dated 18-05-2021)

.../2-

Appendix 5: Approval Letter from Jabatan Kesihatan Negeri Selangor (JKNS)

JABATAN KESIHATAN NEGERI SELANGOR
Tingkat M,9,10,11,14,17 & 18 , No.1, Wisma Sunway
Jalan Tengku Ampuan Zabedah C 9/C , Seksyen 9
40100 Shah Alam
Selangor Darul Ehsan

Tel : 03-5123 7333,03-5123 7334,03-5123 7335,03-5123 7481
Faks : 03-5123 7202 (Pengarah),03-5123 7209 (Penguasa),
03-5123 7290 (Perubatan),03-5123 7389 (Pergigian),
03-5123 7388(Kesihatan Awam),03-5123 7482 (BKKM),
03-5123 8604 (Farmasi)

Portal Rasmi : www.jknselangor.moh.gov.my

Ruj Kami : JKNS/KA/Q-712/04-01 Jld 16 (8)
Tarikh : 23 Ogos 2021

Puan Nurul Syafiqa binti Mohammad Abdullah
Jabatan Kejururawatan
Fakulti Perubatan dan Sains Kesihatan
Universiti Putra Malaysia

Puan,

MAKLUMBALAS PERMOHONAN MENGGUNAKAN FASILITI JABATAN KESIHATAN NEGERI SELANGOR UNTUK MENJALANKAN PENYELIDIKAN BERTAJUK "NMRR-21-153-58298 (IIR) – *CROSS-SECTIONAL STUDY OF DETERMINANTS OF SCREENING PROVISION AND UPTAKE OF CERVICAL CANCER AMONG WOMEN ATTENDING COMMUNITY CLINICS IN A SUBURBAN AREA OF SELANGOR*"

Dengan hormatnya saya merujuk kepada perkara di atas.

2. Sukacita dimaklumkan bahawa Bahagian Kesihatan Awam, Jabatan Kesihatan Negeri Selangor **tiada halangan** untuk membenarkan puan menjalankan penyelidikan yang bertajuk **"NMRR-21-153-58298 (IIR) – *Cross-Sectional Study Of Determinants Of Screening Provision And Uptake Of Cervical Cancer Among Women Attending Community Clinics In A Suburban Area Of Selangor*"** seperti di bawah:

2.1 PKD Sepang : KK Dengkil, KK Salak

3. Walaupun begitu, berdasarkan pembentangan yang telah dijalankan pada 11 Ogos 2021 yang lalu, pihak puan adalah diminta untuk melihat semula beberapa perkara di bawah bagi memudahkan puan dalam pengambilan data. Antara perkara yang puan perlu lihat kembali adalah:

Appendix 6: Gantt Chart

Project Activities	2021									
	J	F	M	A	M	J	J	A	S	O
Project implementation plan write up										
Ethics application										
Conducting pilot study										
Data collection										
Data analysis										
Meeting and writing for thesis										
Final presentation										

Appendix 7: Research Budget

No	Items	Cost
1.	Transportation to study sites	RM 50.00
	Total cost	**RM 50.00**