KNOWLEDGE, ATTITUDE AND PERCEPTION INFLUENCING CERVICAL CANCER SCREENING AMONG WOMEN IN KITWE DISTRICT, ZAMBIA

BY

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A Dissertation submitted in partial fulfillment for the award of the Degree of Master of Science in Midwifery, Women and Child Health at the University of Zambia.

University of Zambia

Lusaka

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DECLARATION

I Mercy Daka, declare that this dissertation is my own work and that all the sources I have quoted have been indicated and acknowledged using complete references. I further declare that this dissertation has not been previously submitted for a diploma, a degree or for any other qualifications at this or any other university. It has been written according to the guidelines for Master of Science in Midwifery, Women and Child Health of the University of Zambia.

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I, Dr Catherine M Ngoma, having supervised and read through this Dissertation, am satisfied that this is the original work of the author under whose name it is presented. I also confirm that the work has been completed satisfactorily and approve this Dissertation for final submission

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CERTIFICATE OF APPROVAL

The University of Zambia approves this Dissertation by Mercy Daka on "Knowledge, Attitude and Perceptions influencing cervical cancer screening among women in Kitwe District Copperbelt Province Zambia" in partial fulfillment for the requirements for the award of a Master of Science in Midwifery, Women and Child Health Degree.

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ABSTRACT

Background: Cervical Cancer is one such a disease that remains with high mortality unless prevented or detected early and managed. It is one of the most common cancers of the child bearing age between 20 and 45years world over. It is rated as the second most prevalent cancer among women. There is high consensus among various scholars that high quality screening, effective treatment and routine follow-up care are cardinal in helping women. The main objective of the study was to identify factors influencing cervical cancer screening in Kitwe District, Zambia.

Methods: An analytical cross-sectional study design was employed that included the use of a researcher-administered questionnaire. Simple random sampling was used to sample 210 participants. Data was analyzed using SPSS version 25 and Chi-square test was used to determine associations among variables. Binary logistic regression was used for multivariate analysis. Statistical significance was set at $P < 0.05$ and 95% confidence interval.

Results: The age of the women enrolled in the study ranged from 20 to 59 years, with a mean age of 30.4 years (SD: 8.36). Majority (46.2%) of the women were aged between 25 to 34 years and the mean age reported for sexual debut among respondents was 19.7 (SD: 4.01) years ranging from 12 to 31 years at first sexual encounter. Almost all (99%) the women were Christians and 42.9% had attained secondary school education. Fifty nine (59%) of the respondents were married and 77.6% had children.

Over three quarters (77.6%) of the respondents were knowledgeable on cervical cancer and screening, majority (61%) of the respondents demonstrated a more positive attitude towards cervical cancer screening, and the overall perception level among study respondents was more positive (71.9%). The findings of the present study indicated that the magnitude of cervical cancer screening was 44.8%. In the binary logistic regression analysis, older age (35 to 44 years: AOR = 10.91, 95% CI: 2.67 – 44.48, p = 0.001; 45 to 59 years: AOR = 10.28, 95% CI: 1.52 – 69.68, p = 0.017, respectively), and having a positive attitude (AOR = 67.5, 95% CI: 15.42 – 295.44, $p < 0.001$) were independently associated with cervical cancer screening utilization.

Conclusion: Despite women having adequate knowledge, positive attitudes and perceptions, the number of women who had been screened was still low. However, middle aged and older women, and positive attitudes were found to independently influence women to go for cervical cancer screening. Therefore, attempts should be made to reach women who rarely visit health care services, for example, through increasing health campaigns in partnership with other organizations in the area.

Keywords: *Knowledge, Attitude, Perceptions, Cervical cancer, Screening*

DEDICATION

This work is dedicated to my husband Emmanuel whose love, patience and support have been sustaining me throughout my training. To my children Mapalo, Yamikani, Niza and Temwanji for being considerate for the motherly love they were deprived of at the time they needed it most.

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LIST OF ABBREVIATIONS

AIDS	Acquired Immunodeficiency Syndrome
ASR	Average Age Standardized Rate
CCS	Cervical Cancer Screening
CDH	Cancer Disease Hospital
DHO	District Health Office
DNA	Deoxyribonucleic Acid
GRZ	Government of the Republic of Zambia
HBM	Health Belief Model
HIV	Human Immunodeficiency virus
HPV	Human Papilloma Virus
IEC	Information, Education and Communication
KDHO	Kitwe District Health Office
MCH	Maternal and Child Health
MOH	Ministry of Health
NHRA	National Health Research Authority
OPD	Out-patient Department
SMS	Short Message Service
SPSS	Statistical Package for the Social Sciences
STI	Sexually Transmitted Infections
UNZA	University of Zambia
UNZABREC	University of Zambia Biomedical Research Ethics Committee
UTH	University Teaching Hospital
VIA	Visual Inspection with Acetic Acid
WHO	World Health Organization

CHAPTER ONE: INTRODUCTION

1.0 Introduction

This study focuses on knowledge, attitude and perception influencing cervical cancer screening among women in Kitwe District Copperbelt Province, Zambia. Chapter one gives the background information to the study, statement of the problem and justification of the study. The research question and research objectives, the theoretical framework, conceptual and operational definitions and study variables are also outlined.

1.1 Background Information

In the modern medical practice, the practitioners have seen a major shift from communicable diseases to non-communicable diseases. While these diseases are not easy to cure, they are largely easy to manage by prevention for both the diseases and the complications associated with them. Cervical Cancer is one such a disease that remains with high mortality unless prevented or detected early and managed. It is one of the most common cancers of the child bearing age between 20 and 45 years world over. It is rated as the second most prevalent cancer among women (Dike and Ijeoma, 2017; Gebreegziabher, 2016; Singh and Badaya, 2017). While the developed world has made serious strides to reduce both morbidity and mortality among women with this cancer, it is different from the developing countries such as Zambia which still experiences huge challenges against this malignancy (Yörük et al., 2019).

It is projected that low and middle-income regions of the world will see a staggering increase in cervical cancer rates. For instance, Parham (2010) estimated that by 2030 one million Africans will die each year from cancer, making it the hardest hit of all such global regions. African women will bear the heaviest burden as cervical cancer is one of the most common malignancies occurring on the continent and have the highest rates among all regions (Dike and Ijeoma, 2017). This can partially be attributed to its existence as a co-infection to HIV, a virus that changes the behaviour of cervical cancer causing it to grow faster and occur more frequently, especially in younger women (Paharm, 2010). Many factors, known and unknown, even Zambia as a country, to put this in perspective between 1964 and 2006 only 10,000 Zambian women had ever been screened for cervical cancer and this meant 10,000 women screened over 41 years and the seven years that followed saw 100,000 women screened, it is this very slow pace that rise a lot of concern (Paharm, 2010).

According to the World Health Organisation (WHO) (2013) poor knowledge is not limited to patients alone. According to Mingo and Farland (2012), marital status can also determine a woman's utilization of cervical cancer prevention services, especially when it comes to screening. In a Malaysian study, it was found out that 50% of the women did not recognize cervical cancer risk factors. Married women had a higher recognition of cervical cancer risk factor than did those who had never been married. This is consistent with the finding from two studies that were conducted in Botswana by Mingo and McFarland as cited by (Maseko, Chirwa and Muula 2015). In the same study, it was found that the women who were older and had higher income or had heard of cervical cancer were more likely to utilize cervical cancer prevention services than young women and those with little income or those who had never heard about cervical cancer.

According to Olesen and others (2012), fear of learning that one has cervical cancer and fear that cervical cancer is associated with sexually transmitted infections (STI) has been widely reported as a potential barrier for a woman to go for screening and treatment as there is stigma associated with STIs in many parts of the country. A study conducted among Zambian women attending a cervical cancer screening program showed that women perceived cervical cancer to be associated with social stigma (Maseko, Chirwa and Muula, 2015). This is because of its location, dire natural course and its connections to socially condemned behaviours which are associated with HIV and AIDS. Women with such perceptions are unlikely to go for cervical cancer screening.

1.2 Statement of the Problem

The burden of cervical cancer seems low globally but this is largely driven by the statistics from the developed world Eduardo-Sell (2016). In countries like Zambia, the numbers are not impressive. Anecdotal evidence shows a strong link between lack of awareness and not seeking cervical cancer screening. From a study conducted in Kitwe by Nyambe (2019), 63.2 % of the respondents in their study had not heard about cervical cancer and 79.3 % had not screened for cervical cancer. The same study has also demonstrated a significant relationship between lack of awareness of cervical cancer and the practice of screening. Kitwe District Action Plan (2020) assumes that lack of knowledge is one of the major hindrances of cervical cancer screening. A study by Kasungu and Nyirenda (2019) conducted at Kitwe Teaching Hospital concluded that education strongly correlated with the act of seeking cervical cancer screening. In the same report education was reported to be a key compromise of urge to

seeking awareness on the topical subject. Cervical cancer constitutes a major health problem. This has resulted in serious concerns from policy makers and stakeholders. The concern has been as a result of the fact that cervical cancer is preventable and curable at low and affordable cost with currently available means of treatment but only if detected at an early stage. According to the Ministry of Health (2015), Zambia still has a high incidence of cervical cancer compared to other countries with concomitant high mortality affecting women at their prime (25 to 59 years).

According to Nyambe and others (2018) in a study conducted in Lusaka, Zambia, policy makers stated that screening coverage in Lusaka was low and fear of dying drives screening uptake. The respondents (policy makers, special interest groups and stakeholders) generally agreed that screening uptake was facilitated by having awareness and knowledge (Nyambe et al., 2018). There is high consensus among various scholars that high quality screening, effective treatment and routine follow-up care are cardinal in helping women. Therefore, studies to refine knowledge and why most women maybe shunning the cervical cancer screening are very necessary for decision and policy direction. Empirical evidence suggests that cervical cancer screening represents a viable strategy for significant reduction to morbidity and mortality in countries like Zambia. Notwithstanding the existence of the programs across the Sub-Saharan Africa, cervical cancer screening coverage is very low, for instance, here in Zambia, despite having cervical cancer prevention programs offering free services in almost all public health facilities for more than two decades, the screening coverage is less than 5%, and this is concentrated in urban and semi-urban areas (Maseko, Chirwa and Muula, 2015).

Cervical cancer still remains the most common cancer seen at Cancer Disease Hospital (CDH) in Lusaka, comprising approximately 35% of all cancers managed at CDH" (MoH Zambia, 2015) and accounting for about 30% new cancer cases per year (Hachipola, Mweemba and Sitali, 2017). Despite all efforts put in place by the government and other stake holders in the prevention of cervical cancer screening programme, Kitwe district has recorded low numbers of women utilizing cervical cancer screening, in addition, many women access the service when the cancer is in an advanced stage.

In Kitwe, cervical cancer screening has been as low as 2.86% against the 90% set target. This is supported by the data captured during cervical cancer screening for 3 years from 2018 to 2020 were as follows; in 2018 there were 7,973 while in 2019 there were 14,170 women

screening and in 2020 there were 11,890 cervical cancer screenings done bringing the total to 34,03. This was according to Kitwe DHO records, which indicated that there were 187,099 women of the child bearing age in Kitwe district. However, there is little information available on women's cervical knowledge and perceptions about cervical cancer screening. Therefore this study is aimed at determining women's knowledge, attitude and perception on cervical cancer screening in Kitwe District.

1.3 Justification of the Study

Routine cervical screening has been shown to greatly reduce the number of new cervical cancers and deaths from the disease Ranabhat and Thapa (2017) . There are many potential risk factors for cervical cancer, but the most prominent known cause, responsible for about 70% of cases, is infection with the Human Papilloma Virus (HPV). HPV can be spread through skin-to-skin contact, body fluids, and sexual intercourse, two strains in particular; HPV 16 and 18 are precursors for cervical cancer Ranabhat and Thapa (2017) .

There is a high risk for the women in low and middle-income countries of dying from cancer, where these women have three times the risk of dying of cervical cancer compared to those in high-income countries (Dike and Ijeoma, 2007). Despite this high risk from cancer deaths, there is still low utilisation of cancer screening services which are as low as 2.86% in Kitwe. There was need therefore to understand what was causing this low utilisation of these services.

The research questions that guided the study were: what are the levels of utilisation of cervical cancer screening services in Kitwe District?, what were the knowledge levels among women in relation to cervical cancer screening, what were the women's attitudes towards cervical cancer screening and how do women perceive cervical cancer screening in Kitwe District?

Therefore, this study sought to determine women's knowledge, attitude and perception about cervical cancer screening in Kitwe District with a view of encouraging women to utilise the service. The study further brought forth the much-needed information on how to improve the utilization of cervical cancer screening services. This information is beneficial to both the public and health systems in terms of quality service delivering and sensitive to the needs of the women.

1.4 Research Hypothesis

There is an association between cervical cancer screening and knowledge levels, perception and attitude towards cervical cancer screening.

1.5 Research Questions

1. What are the levels of utilisation of cervical cancer screening services in Kitwe District?
2. What are the knowledge levels among women in relation to cervical cancer screening in Kitwe District?
3. What are the women's attitudes towards cervical cancer screening?
4. How do women perceive cervical cancer screening in Kitwe District?

1.6 Main Objective

To assess women's knowledge, attitude and perception on cervical cancer screening in Kitwe District.

1.7 Specific Objectives

1. To determine the level of utilisation of cervical cancer screening services.
2. To evaluate women's level of knowledge attitude and perception towards cervical cancer screening.
3. To assess women's perceptions towards cervical cancer screening.

1.8 Theoretical framework: The Health Belief Model (HBM)

For theoretical purpose, this study is guided by the health belief model, (Glanz et al, 2015). The model was developed by Rosenstock in 1966 and later refined by Marshall Becker and Maiman in 1974. The original theory described five elements that underpin a person's health beliefs Glanz etal (2015), which are;

1. Health motivation. Individuals vary in their overall interest in health and their motivation to look after their health.
2. Perceived vulnerability. Individuals vary in how likely they think they are to develop a specific health problem.
3. Perceived seriousness. Individuals vary in how serious they believe would be the consequences of contracting a particular illness or of leaving it unattended to.

4. Perceived costs and benefits. Individuals weigh up the physical, psychological and social costs and benefits of a particular course of action. They do not necessarily take all relevant considerations into account but an evaluation is made there after leading to a decision.
5. Cues to action. Beliefs do not exist for all possible problems but can be prompted by triggers. These may be internal, such as a physical sensation, or external, such as a hearing an advert or a visit to the doctor.

Becker and Maiman (1974) refined the health belief model by incorporating various modifying factors, which influence all the other factors. These include demographic factors such as age, sex and ethnicity; social-psychological factors such as social class and personality and structural factors such as knowledge, attitude and social construction. This approach to people's beliefs is thought to allow approximations of compliance, the likelihood of on taking preventive action and the utilization of medical services.

1.8.1 Applying the Health Belief Model

The HBM talks about many primary concepts which predict why people will take action to prevent, to screen for, or to control illness conditions. These include vulnerability, seriousness, cost and benefits, cues to action.

Health Motivation: Globally cervical cancer mortality rates have been higher in lower social classes; studies have shown that preventive services including cervical cancer screening are more likely to be taken up by higher social classes. This is attributed to various factors such as levels of education, income and places of residence.

Perceived Vulnerability: Several pieces of evidence both anecdotal and empirical have shown widespread misunderstanding about cervical cancer screening and cervical cancer for example, the common perception that unless one has symptoms pointing to the problem, they do not need to take action towards being screened while others believe it is for certain age groups.

Perceived Seriousness: Having personal knowledge regarding the importance of cervical cancer screening has been evidenced as an important factor to take action to prevent the adverse outcome of the disease .Most women perceive cervical cancer to be serious however, fear of detection of the disease has been found to inhibit attendance for screening by most

women from different age groups. For example, if women think that cervical cancer is a severe disease and believe that getting it would have serious medical, social and economic consequences for them, it is more likely to obtain cervical cancer screening test.

Perceived Costs and Benefits: Fears of disease need to be differentiated from fear of undertaking the screening procedure which an average woman feel is painful, and is commonly given as reason for nonattendance. Anecdotal evidence is that the strongest predictor of nonattendance to cervical cancer screening is the belief that the test would be painful, embarrassing or unpleasant. Women's attitudes need to be in line with the belief that a course of preventive behaviours available would be beneficial in reducing the risk of getting cervical cancer.

Cues to Action: Readiness to action (perceived susceptibility and perceived benefits) could only be potentiated by other factors particularly by cues to instigate action such as bodily events or by environmental events such as media publicity. For example, women would be more likely to have preventive behaviour like up taking cervical cancer screening if they are reminded by their family members or health care providers. With all this information towards cervical cancer screening, it cannot be assumed that all women who attend the screening are simply responding to Doctors' advice, generally people get information from various sources and these need to be utilized.

1.9 Conceptual definitions of key terms

Attitudes: A settled way of thinking or feeling about something.

Awareness: Is understanding of or information about a subject that one gets by experience or study, either known by one person or by people generally.

Cervical cancer: This is a malignant proliferation of cells of the cervix that occurs when the cells of the cervix proliferate to abnormal cells and can affect deeper cell layers or spread to other organs and cause damage (Ferlay et al., 2018).

Influence: The power to cause changes without directly forcing them to happen.

Knowledge: What one knows and understands about a certain phenomenon (Bosch, 2011).

Perception: An individual's unique way of viewing phenomena

Screening: A test or testing carried out routinely on supposedly healthy people in order to establish, as early as possible, whether or not they have an illness or disease (Cormack, 2014)

1.10 Operational Definitions of Key Terms

Knowledge: The score of what a participant knows on the question on cervical cancer and screening. Knowledge was divided into two groups namely adequate and inadequate. It was measured by asking a participant a total of 9 Likert scale statements assessing their knowledge on cancer of the cervix and screening. A respondent was considered to have adequate knowledge if he/she scored 45-23 on the knowledge statements and inadequate if they scored 22 and below.

Perception: Perceptions refers to one's understanding in relation to cervical cancer screening. In this study perceptions were classified as positive and Negative perceptions. This variable was measured by 4 Likert scale statements on how the participant felt about cervical Cancer screening. Participants were considered to have positive perceptions if she scored 20-10 on the perception statements and negative perceptions if she scored 9 and below

Attitude: This means the response or feeling towards cervical cancer screening. Attitudes were classified as positive and Negative. Attitudes were measured by 8 Likert scale statements to ascertain if a participant feels positive or negative about cervical cancer screening Positive perceptions carried a score 40-20 and scores of 19 and below were considered as having negative attitude towards cervical cancer and cervical cancer screening.

Cervical Cancer Screening Status: has the participant been for cervical cancer screening, it shall be measure by asking if a participant has been for this process and the frequencies counted

1.11 Study Variables

Dependent Variable: The Dependent variable for this study was cervical cancer screening.

Independent Variables: The independent variables were knowledge, attitudes and perceptions towards cervical cancer screening.

Table 1.1: Variables, indicators and cut-off points

Variable type	Indicator	Cut-off point	Measurement	Question #
Dependent variable				
Cervical cancer screening	No		Binary	16
	Yes			
Independent variables				
Knowledge	Adequate	A score of 45-23 on knowledge questions	Scale	7 – 15
	Inadequate	A score of22 and below on knowledge questions		
Attitude	Positive	A score of40-20 on attitude questions	Scale	16 – 23
	Negative	A score of 19 and below		
Perception	Positive	A score of 20-10 on perception questions	Nominal	24 – 27
	Negative	A score of 9 and below on perception questions		

1.12 Conclusion

Chapter one discussed the background information on knowledge, attitude and perception influencing cervical cancer screening among women in Kitwe District Copperbelt Province, Zambia. It further talked about the statement of the problem as identified from Kitwe District Health records, which despite the high risk from cancer deaths, Kitwe District still recorded low utilisation of cervical cancer screening services which are as low as 2.86%. There was need therefore to understand what was causing this low utilisation of these services

The research questions discussed in this chapter that guided the study were: what are the levels of utilisation of cervical cancer screening services in Kitwe District?, what were the knowledge levels among women in relation to cervical cancer screening, what were the women's attitudes towards cervical cancer screening and how do women perceive cervical cancer screening in Kitwe District? The chapter discussed what benefit the study would bring forth in undertaking the research to find out the much-needed information on how to improve the utilization of cervical cancer screening services as this information would be beneficial to both the public and health systems in terms of quality service delivering and sensitive to the needs of the women. For Theoretical purposes the chapter discussed the Health Belief Model developed by Rosenstock and later refined by Marshall Becker. The model assumes that health behaviours are motivated by five elements of perceived susceptibility, perceived seriousness, perceived benefits and perceived barriers to behaviour, cues to action.

CHAPTER TWO: LITERATURE REVIEW

2.0 Introduction

Cervical cancer is one of the most prevalent cancers affecting women globally. It is the fourth most common cancer in women and the seventh overall. The morbidity and mortality of cervical cancer can be highly reduced regular screening and timely intervention. Most women are at risk of contracting cervical cancer. Unlike most other cancers, cancer of the cervix is one of the most preventable by both primary and secondary prevention methods. According to the world health organization, about 267.9 million women above the age of 15 years old living in Africa are at risk of developing cervical cancer. Over 80,000 African women are diagnosed with cervical cancer annually with 75% (60,000) mortality rate, and mostly these are found in Sub-Sahara Africa (Denny and Anorlu, 2012). The incidence of cervical cancer in Sub-Sahara Africa is relatively high with an incidence rate of 50 per 100000 and average age standardized rate (ASR) of 31 per 100000 women across the whole region (WHO, 2012).

Morrison (2016) reported that cervical cancer is the second commonest cancer in women globally and among women of reproductive age in developing countries. Cervical cancer is estimated to contribute to about 12% of the cancers in women (Morris, 2016). He also stated that creating awareness on cervical cancer screening services has been found to promote early detection of cervical cancer hence mitigating its progression. Burden of cervical Cancer seems to be increasing in developing countries as well as developed countries showing a significant decline in its morbidity and mortality (Morris, 2016). In Zambia, Hachipola, Mweemba and Sitali (2017) stated that there has been growing evidence that cervical cancer has posed a serious reproductive health problem for women, it ranks as the most frequent cancer among women, accounting for about 30% new cancer cases per year.

2.1 Cervical cancer screening among women

Screening for problems like cervical cancer is supposed to be part of every woman's routine practice but this is not the reality very few women turn up for this very vital exercise for various reasons which may do not seem to uniform across the globe. In the developed world the reasons are slightly different from the rest of the world. A study in Chitwan by Ranabhat and Thapa (2017) listed, socioeconomic and cultural barriers poverty, lack of information, fear, myths, and lack of support from husbands and families as some of the barriers cervical cancer screening. They further went on to report that asymptomatic women "shun screening

due to lack of routine screening, women from poor communities often seek care only when they develop symptoms, often at an advanced stage of the cancer, lack of privacy during screening, embarrassment among women, and low importance given to women's health" (Ranabhat and Thapa, 2017). According to Maseko, Chirwa and Muula, (2015), the screening includes the human papilloma virus DNA test and the visual inspection with acetic acid (VIA). Various scholars have taken interest look at what is influencing the personal factors affecting cervical screening. According to the world health organisation, "about 267.9 million women above the age of 15 years old living in Africa are at risk of developing cervical cancer. According to Ntekim (2017), the burden of cervical cancer is quite low in the developed countries of the world. The situation is quite the reverse in developing countries where it constitutes a major health problem. While the incidence is decreasing in the former, it is on the increase in the later so does mortality. Sub-Sahara Africa is the region with the highest incidence of cervical cancer in the world with concomitant high mortality affecting women at their prime. This has been reported by various scholars and low screening uptake is the commonly cited reason the situation in the developing world.

A study in Jordan reported that "the incidence rate of cervical cancer screening is still low and unsatisfactory. Furthermore, screening is not undertaken by the majority of Jordanian women compared with women in other countries in the same geographic region. This low incidence seemed to be influenced by many factors, including socio-demographic characteristics, health service utilisation, perceived benefits of screening, perceived barriers to screening, perceived susceptibility to cervical cancer, and perceived seriousness regarding the severity of cervical cancer" (Al-amro, Gharaibeh and Oweis, 2020). In a Turkey-based study only "14.6% of women utilized the service of pap-smear testing. Study findings across the globe has revealed that multiple factors (viz. rural residence; no family physician; poor knowledge; low education status; acceptability by the healthcare providers; lesbians' sub-groups of women; etc.) have predicted the underutilization of screening methods. The utilization of pap smear has been found to be positively associated with education status of the women, persistent motivation to act and the caring nature of the clinician" (Shrivastava, Shrivastava. and Ramasamy, 2013). Marital status, knowledge, perceived barriers and having a regular health care provider were the predictive factors for the uptake of cancer screening. Specific awareness programs to increase uptake were suggested to be designed and implemented by the relevant authorities. The result of this study showed about two-thirds (68.4%) of the participants had never heard of Pap smear test. The overall prevalence of

cervical cancer screening uptake in African Malaysian immigrant since the past 3years was 27.2 % (Nwabichie et al., 2018). This in most cases is like this despite the availability of services, notwithstanding, the free availability of cervical cancer screening services in the Vhembe District, the awareness and utilisation of cervical cancer screening services in this setting are low (Vhuromu et al., 2018). Okoeki, Steven and Geddes, (2016) summarised their finding as follows, there was poor uptake of cervical cancer screening and this was due to low awareness mainly about screening procedure and body anatomy (location of the cervix).

In Zambia, the See-and treat cervical cancer screening program was started in 2006. It Initially, only targeting human immunodeficiency virus (HIV) positive women before being made available to all women regardless of HIV status (Mwanahamuntu, 2011). To enhance coverage, nurses were trained to conduct cervical screening and the electronic cervical cancer control (ECZ) was developed to assist their consultation with health professionals using internet and SMS technology (Parham, et al, 2010). Cervical cancer screening is being provided free of charge at government clinics in every province of the country where screening services are available, Kitwe District in the copper belt inclusive which has reported a low turn up of cervical cancer screening in the past three years. Despite these developments, cervical cancer remains the leading cancer in Zambia. According to the Cancer Disease Hospital in Lusaka, approximately 35% of all cancers managed are cervical cancers (MoH Zambia, 2015). Another study that looked at the factors affecting cervical screening among the disabled women reported that few of the women with disabilities were content with the service that they had received. The major barriers include; structural design of the health facility, inappropriate equipment, inability to access IEC materials, limited confidentiality and limited skills of service providers (Hachipola, Mweemba and Sitali, 2017). The biggest weakness with this study was that the sample was very small for resulted to be generalized and too specific to a population.

A study in Lusaka reported by Nyambe and others (2019) found that there was a relationship between awareness of cervical cancer and practicing screening. They also reported that there were significant predictors for the outcome of practicing screening. They presumed that women who knew of cervical cancer were more likely to practice screening. At the end supported the hypothesis which was proven right that being aware that cervical cancer was prevented correlated with people undergoing cervical cancer screening. This was true in the case of both women and men. In particular, men who stated they are aware of cervical cancer were more likely to provide support to their partners in practicing screening.

2.2 Perceptions of cervical cancer screening among women

Overall, perception of the screening was positive and acceptability was expressed by most participants. Nonetheless it is this contradiction between positive perception of cervical cancer and people still not turning up in good number that still warrant studies. According to Chang and others, cervical cancer prevention can be done at "primary, secondary and tertiary levels" (Chang et al, 2017). According to World Health Organization (2015), primary prevention involves vaccinating girls between the ages of 9 to 13 with human papilloma virus (HPV) vaccine (Cevarix and Gardasil) and giving them appropriate health information and warning about the risk behaviors associated with cervical cancer. Secondary prevention, ideally, involves early detection and treatment of subclinical, asymptomatic, or early disease in women of 30 years or older, without obvious signs or symptoms of cancer. Secondary cervical cancer prevention includes "identifying women who are at risk for developing malignancy and implementing appropriate screening recommendations based on the risk assessment and this may involve the use of cytology smears or, non-cytology-based screening methods followed by treatment of the precancerous lesions" (World Health Organization, 2012).

In a study in Trelawney, Jamaica "when barriers to screening were investigated, 42% of the total study population reported that they feared their health provider would find cervical cancer as the result of a Pap smear, and nearly half (46%) revealed that they feared the pain of a Pap test. Nearly one quarter (24%) of the total study population reported never receiving Pap test results. There were significant differences in the distributions of women who found it too far to travel to get a Pap smear ($P<.05$), among women who felt they needed more information about Pap smears, and among the women who said they had difficulty talking to a health provider about Pap smears and cervical cancer" (Bessler, Aung and Jolly, 2017). Though not the least custom and cultural beliefs seem to have an effect on cervical cancer screening, "cultural beliefs and custom barriers faced by women let her shy to discuss their problems and getting examined by the male doctors which could have led to decreased ever received of pap in women especially Muslims" (Singh and Badaya, 2012).

2.3 Demographic factors influencing cervical cancer screening

Marriage has been cited as an impediment to cervical cancer screening, "Marital status was found to be a significant predictor of Pap smear uptake in the past three years, Women who were married had a higher uptake than those unmarried" (Nwabichie, Manaf and Ismail,

2017). This was also observed by Rasul, Cheraghi and Moghadam, (2016), taking Pap test was known necessary and important just for married women who have husbands. However other women like widows or divorced females felt no need for screening based on their relationship status. Because they had no partners, they felt there was no risk. Some scholars have reported a variation to the extent that marriage can act as a barrier to cervical cancer screening, "with increased years of marriage, the practice of cervical cancer screening increased" (Chang et al, 2017). Ranabhat and Thapa, (2017) reported that studies have also reported the duration of marriage being linked the willingness to have Utilization of the cervical cancer screening services was statistically significant among the married women whose duration of marriage was≥20 years than those whose duration of marriage was <20 years. Advancing age and longer duration of marriage were significantly associated with practice of cervical cancer screening. Therefore, further studies are needed to clarify the association between years of marriage and cervical cancer screening practice and this study will seek to clarify this.

2.4 Knowledge and attitude about cervical cancer screening by women

Knowledge and Attitude have been reported as critical to cervical cancer screening Gebreegziabher, Asefa and Berhe, (2016) reported that out of 225 respondents, 80 (35.6%) reported that only HPV was an important predisposing factor for cervical cancer. Knowledge seems to be key variable when it comes to impacting cervical cancer screening. A study in Jordan "revealed that participating women had a low level of knowledge and awareness regarding health services, which could affect the incidence rate of cervical cancer screening. Approximately 37% of the participants reported that they had never asked if their health insurance covered the cost of a Pap smear, and 20% reported that health insurance did not cover this cost. In addition, 32% reported that they were unaware of the cost of a Pap smear, and 34% did not know if screening services were available in the health sector they utilised" (Al-amro, Gharaibeh and Oweis, 2020). According to Singh and Baday, "knowledge was low among the participants regarding cervical cancer and Pap smear screening. There are no awareness campaigns and programs regarding disease prevention similar to effective enthusiastic campaigns against the HIV/AIDS, malaria and tuberculosis. Older ladies and family are still being the major reservoir of the health knowledge in Indian society" (Singh and Badaya, 2012). In Iran "the majority of women who used or did not use cervical cancer screening services were not aware of the start of screening time and most of them believed testing is just necessary for old women. This finding was consistent with the result of other

previous studies that reported increasing age was associated with a decreased use of screening services" (Rasul, Cheraghi and Moghadam, 2016). In India "women who had good level of awareness of cervical cancer screening were more likely to utilize of cervical cancer screening services than those women who had fair level of awareness" (Ranabhat and Thapa, 2017). Some scholars have preferred to statistically show this, "the result of this study showed about two-thirds (68.4%) of the participants have never heard of Pap smear test" (Nwabichie, Manaf and Ismail, 2017). According to WHO, in addition to lack of knowledge about cervical cancer, jobs and income as well as a factor of cervical cancer, cervical cancer is largely (80%) occur in countries with low income" (Susanti, Setyowati and Afiyanti, 2017). More than one-third (38.1%) and 26.6% of the respondents knew that age and multiple sexual partners as a predisposing factor, respectively. With regard to signs and symptoms of cervical cancer, more than one-third (45.8%) of the study participants mentioned vaginal bleeding as one of the signs of cervical cancer.

According to a study in Ethiopia it was demonstrated that "women negative attitudes could deter them from up taking cervical cancer screening. This negative attitude could be due to the lack of trust and confidence, where these clients may partially know the service providers. This partial acquaintance can be a source of shy, fright, and anxiety to use the service" (Gebreegziabher, 2016). A study in Malawi looking at the individual barriers to cervical cancer screening identified various factors, Maseko, Chirwa and Muula, (2015) lack of awareness about cervical cancer and knowledge about prevention are key factors. Furthermore, citing other sources reported that barriers to cervical cancer prevention services uptake included lack of or inadequate knowledge about the disease, lack of familiarity with the concept of preventive health care and one's geographic and economic inaccessibility to the services. There is limited knowledge about cervical cancer, especially the association with human papillomavirus.

From Homabay County, Kenya a study found out there were "myriads of several factors that hinder uptake of cervical cancer screening services. Some of these factors were: respondents never knew existence of such services in the local health facilities; having no time since they are always committed at work, business place or household duties; lack of funds to pay for services, especially those that depend on their husbands; distance to the facilities; fear of the diagnostic outcome and fear of the medical procedures" (Rugendo, 2016). A cross-sectional study conducted with participants selected sexually active in Elmina, Southern Ghana, "out of the 392 respondents, only 23 (5.9%) knew that cancer of the cervix could be transmitted

through sex, while six (1.5%) disagreed. About 93% of the respondents had no knowledge of the mode of transmission of this disease. With regard to whether cervical cancer could be treated and prevented, 92% of the respondent's lacked knowledge. The overwhelming majority (384; 97.7%) of the respondents had never heard about the Pap smear test" (Ebu et al, 2015). Similar to this in Malawi scholars reported that, "some husbands do not want doctors to see private parts of their wives. The women also did not want male doctors to examine them and stated that often times, the husbands would not allow them to go for screening, which limits their cervical cancer screening uptake. It was also noted that women were so afraid of the cervical cancer diagnosis that they would rather die than know that they had cervical cancer" (Maseko, Chirwa and Muula, 2015). From this it can be seen the accuracy of the information on cervical screening is important for people to make the right decision. In the report for her master of public health theses Carvalho wrote, "despite the fact that most women were aware of cervical cancer and were able to describe general features of the disease, there was a noticeable lack of understanding about the cause and the complex transmission risks of the disease. The majority of women seemed to believe that cervical cancer in and of itself could be directly contracted through sexual intercourse, likening it to other sexually transmitted diseases" (Carvalho, 2016).

A paper that reviewed papers from eight countries Ghana, Malawi, Mozambique, Nigeria,Tanzania, Uganda, Zambia, and Zimbabwe, Rahman (2019) recommended the following Various methods suggested for increasing patient awareness, knowledge, and education include but are not limited to: (a) counselling sessions that incorporate educational videos (b) health educators emphasizing the benefits of screening (less pain, potential protection against future cancer, and lower rates of mortality) rather than focusing on the sexual cause of the disease, (c) creating specific curricula targeted at men so they can help motivate and support women to increase screening utilization while improving male sentiment toward the screening (d) recruiting peer educators who are at times more personable and accessible than Cost-effectiveness could be increased by creating models in clinics that offer screening services. During a qualitative study in Nigeria (Modibbo et al, 2016) Some of the barriers to screening that respondent described included modesty concerns, gender of healthcare providers, fear of status disclosure, fear of contracting other illnesses in the hospitals, discomfort during the screening process, lack of awareness of screening programmes, denial of disease condition, discrimination, and requiring husband's permission before screening. Seemingly this study was conducted on a predominantly

conservative grouping in rural Nigeria dominated by Muslims, but this study will seek to interview a population in the urban and not dominated by single religion.

Susanti, Setyowati and Afiyanti, (2017) summarized their finding as follows, financing had variable significant correlation between financing with the motivation of women for cervical cancer screening examination. Statistical test results on social support variables showed that no significant relationship between social support and motivation. In fact, most of the people get the support, has a high motivation to perform cervical cancer screening examinations. Statistical test results of variable work show that there is no relationship between the works with the motivation of women for cervical cancer screening examination. In fact, most of the respondents who do not work have a high motivation to perform cervical cancer screening examinations. Statistical test results in variable feeling threatened cervical cancer will be found that there is no significant relationship between feelings and motivation of women for cervical cancer screening examination. Statistical test results in the variables obtained knowledge that there is no significant relationship between knowledge and motivation of women. In fact, most of the respondents who have high knowledge have high motivation to perform cervical cancer screening examinations.

2.5 Socio economic factors influencing cervical cancer screening

Societal and economic factors also play a role, "socio economic factors also affect uptake; one of the barriers to screening is poor level of education, women who are less educated were less likely to participate in screening, also, the association between education and participation reflect the difficulties that the women with less education have in understanding the benefits of cervical cancer screening (CCS)" (Dike and Ijeoma, 2017). Gebreegziabher, (2016) relationship between socioeconomic factors and the use of health services has shown that education influences screening behaviour through its effect on income and through its association with individual knowledge about cancer screening. According to Alfaro and others, "socio-demographic factors that have been shown to be associated with higher attendance rates in low-income countries include relative higher wealth, seeking healthcare at health facilities when sick, and satisfaction with services at the health facility. Structural and interpersonal barriers to screening include lack of knowledge of available services, financial constraints, family responsibilities, difficulty obtaining transportation, dissatisfaction with care, disapproval by a male partner, or discomfort with a male provider." (Alfaro et al, 2015).

The cost of services does hinder some women from seeking the service, "financial status can also play a role on cervical cancer screening. Women with low incomes were less interested in undertaking the screening even though test was done for free in public health centers. The women were worried about the cost of cancer treatment if diagnosed" (Rasul, Cheraghi and Moghadam, 2016). Some of these factors were: respondents having no time since they are always committed at work, business place or household duties; lack of funds to pay for services, especially those that depend on their husbands; distance to the facilities; fear of the diagnostic outcome and fear of the medical procedures" (Rugendo, 2016). There has been no clarity on this one because a Jordenian study it was reported that a paid for service seems to attract women, "women utilising private health services were 1.5 times more likely to have a Pap test than women whose medical care was provided by the MoH." (Al-amro, Gharaibeh and Oweis, 2020). This becomes another grey area that can be clarified by research.

2.6 Conclusion

Literature in general seems to accept the fact that there is low uptake of cervical cancer screening and this is due to various factors such low knowledge on cervical cancer as a topic. Nonetheless much of the research does not clarify what the general population of women should understand or do not understand if it is the factor that this type of cancer is common and associated with high levels of mortality. Lack of knowledge seems to interact with other variables for example; lower educational attainment may be associated with decreased understanding of written health information and therefore reduced information seeking.

Despite the fact that there has been a lot of research on factors affecting cervical screening, most scholars have preferred to look at the topic from the general perspective. With numerous studies having been done, research has failed to produce similar results on the independent variables for example there have been findings of low and high knowledge, positive and negatives attitude and correct and wrong perceptions but all existing on the side of low cervical cancer screening numbers. For this reason, research still has the responsibility to demonstrate why cervical cancer screening is still being shunned despite some positives that are being created and going on in the space of service delivery such as taking the service close to communities, removing costs, integrating the service in others and educational campaigns.

CHAPTER THREE: METHODOLOGY

3.0 Introduction

In the previous chapter literature review was discussed. Chapter three explains the methodology that was used in this study. It also described the research design, research setting, the study population, sample selection, sample size determination, data collection, data management and analysis. The chapter further looked at validity and reliability, ethical consideration and dissemination of findings.

3.1 Study Design

A cross-sectional analytical study was employed. The researcher used quantitative approach of data collection. This approach was more useful in analyzing variables such as factors to related cervical cancer screening among women.

3.2 Study setting

The study was conducted in selected health facilities in Kitwe District. Kitwe District has 42 health facilities under GRZ and 33 Private facilities. The following are the health facilities Chimwemwe Urban Clinic with a catchment population of 52,960, Ndeke urban Clinic population of 44, 653, Buchi Clinic population of 24,219 and Luangwa clinic having a total population of 45, 307. These were selected based on the fact that they are the most densely and centrally situated populated parts of the district and they offer cervical cancer screening services. Kitwe being the second most modern city in Zambia bears more typical traits of a large urban area. While it has a history associated with the Lamba and still has this ethnic grouping understood by most to be the natives. These longer influence on the ways of life within the city. The people currently living in the city come from different parts of the country as well as the global making life in it being simply a blend and fusion of various cultures and other ways of living. This makes it in some way ideal for a behavioral based study to understand knowledge, attitude and perception on cervical cancer screening.

According to the records at Kitwe District Health Office, Kitwe district is in the Copper-belt province of Zambia, it covers an area of 737 square kilometres (7.79% area of Zambia) with the population of 520,781. It has a total of 53 clinics 49 of these are urban based only 4 of them are in its rural part (KDHO, 2017). Kitwe District has an estimated population of women of the child bearing age of 187,099; these are spread over a total of 40 facilities. From the top ten facilities with the highest numbers of this population the distribution of facilities

with the highest numbers is as follows Chimwemwe 13,811, Kawama Urban 13,245, Luangwa urban 11,815, Ndeke Urban 11,644, Mulenga Urban 10,606, Ipusukilo 9,635, Twatasha 8,179, Bulangililo 8,045, Kwacha Urban Clinic 7,473 and Buchi Urban 6,316. The other remaining facilities have much smaller populations on comparison with the other population. All these facilities have their own cancer screening programme. The turnout for cervical cancer screening has not been impressive over the past three years take for example Buchi Urban Health Facility has the number continuously go down over the past quarters as evidence from the following statistic first quarter 58, second quarter 38, third quarter 62, fourth quarter 37 and for the 2020 first quarter of 2020 the facility only recorded 8 cases of screening.

3.3 Study Population

The study population comprised of women 20 years and above because they are at high risk of developing cervical cancer as the risk of invasive cervical cancer increases with age, occurring between 20 and 55 years of age (Gulanick and Myers, 2007). The four clinics; Ndeke, Chimwemwe, Luangwa and Buchi were selected based on the fact that they offer cervical cancer screening and are the most densely populated parts of the district.

Table 3.1: Clinics Population by catchment area from the Kitwe DHO (2020).

Catchment Population	Target Population
Chimwemwe urban clinic	13,902
Ndeke urban clinic	11,970
Buchi urban clinic	8,107
Luangwa urban clinic	11,900
Totals	**45,879**

3.3.1 Inclusion Criteria

1. All women 20 years and above who have been screened or not screened for cervical cancer before
2. All Women 20 years and above living in the selected catchment areas

3.3.2 Exclusion Criteria

All women 20 years and above unable to stand the interview due to illness

3.4 Sample Design

3.4.1 Sample size

Sample size was calculated using the Cochran formula as follows:

$$n_0 = \frac{Z^2 pq}{e^2}$$

With:

$\mathbf{n_0}$ = Sample Size;

Z = value corresponding to a given confidence level (1.96 for a confidence level of 95%- value commonly used);

P= Percentage of the primary indicator, expressed as a decimal (default 0.5);

e= margin of error, expressed as a decimal (0.05).

The calculated sample size was 384

Table 3.2: S**ample distribut**ion **among the facilities by weights** of **estimated population**

Clinics	Target Population	Weights	Distributed samples
Chimwemwe	13,902	0.303	116
Luangwa	11,970	0.261	100
Ndeke	8,107	0.178	68
Buchi	11,900	0.259	100
Totals	**45,879**	**1**	**384**

3.4.2 Sampling Techniques

In this study, the four health facilities namely Buchi, Chimwemwe, Ndeke and Luangwa were purposely selected because they are among a few other health facilities offering cervical cancer screening and they are centrally situated populated parts in Kitwe District which has recorded low numbers of women accessing cervical cancer screening. The study offered the researcher a chance to get different views from women with different socio and cultural back grounds. The researcher used a simple random sampling method in which participants were selected at random from the target populations by using a ruffle to pick them. Participants were selected randomly from various departments including MCH and OPD. Participants included were women aged 20 years and above accessing care from Buchi, Chimwemwe, Ndeke and Luangwa health facilities. Out of the targeted sample size of 384, only two hundred and ten (210) participants were included in the study and analysis.

3.5 Data Collection Methods

3.5.1. Data Collection Instrument

Data collection and measurement Pretested structured questionnaire was used to collect data from each study subject. The questionnaire was adapted from previously related published studies after an in-depth literature review (Gilson, 2012) and then validated through the supervisors. Four questions related to signs and symptoms were modified and three were deleted as they were not related to the topic under study**.** The questionnaire was first prepared in English, translated into Bemba and then back translated to English to check for its consistency. After that, pilot testing was done on 21 participants from Mulenga clinic which has the similar context with this study setting to assess the clarity of the questionnaire. Results of the pilot and current study were almost the same.

The semi-structured questionnaire was divided into five parts thus; section A, B, C, and D. Information on the participants' demographic data was collected in section A, in section B data on Knowledge about cervical cancer screening, section C on attitudes towards cervical cancer and section D perception about cervical cancer.

3.5.2 Validity and reliability

The researcher ensured that the research instrument was checked for validity by at least two subject matter experts. The content validity was ensured by taking suggestions from experts, advisers and lectures that looked at its relevancy, clarity and consistence to the study. After,

the questionnaire was amended according to the suggestions and the corrections according to respondents' answers.

Reliability was upheld by using the same instrument to collect data from the respondents and clarifications were done so that they did not misunderstand the questions. To achieve this, a test re-test analysis was employed during the pilot study.

3.5.3 Pilot Study

A pilot study intended to pre-test the data collection instruments was carried out at Mulenga Urban Clinic (as Cervical Cancer Screening is also done there) on respondents before the actual research to test the efficiency of the data collection instrument.

3.5.4 Administration of Data Collection Instruments

In this study, data was collected using a self-administered questionnaire. The researcher introduced herself to the participant and explained the purpose of the study. Reassurance to the participant on confidentiality and anonymity was done and then consent was obtained. At the end, the researcher went through to check the consistency in the answers given and completeness of the questionnaire. The responses were entered as given by the participants.

3.6 Ethical Consideration

The approval to conduct the study was obtained from UNZABREC **(REF. 1771-2021)** and National Health Research Authority (NHRA). Permission to conduct the study was obtained from Kitwe District Health Offices, In-Charges from the selected urban clinics and informed consent from the study participants. Participants were explained to the purpose of the study and that they had a right to participate or withdraw from the study. The participants were assured of confidentiality anonymity of personal information that was shared with the researcher. Anonymity was achieved by not using the respondent's names or any other form of identity instead the researcher only used and maintained serial numbers on the questionnaires.

CHAPTER FOUR: ANALYSIS AND PRESENTATION OF FINDINGS

4.0 Introduction

This chapter presents results for the current study. It also highlights on how data was analysed and interpreted. The purpose of this study was to assess women's knowledge, attitude and perception on cervical cancer and cervical cancer screening in Kitwe District. Data for the study was collected using a semi- structured questionnaire where 210 out of the calculated sample size of 384 respondents were interviewed.

The findings of the study have been presented using frequency tables and figures on which demographic data, economic status, knowledge levels, attitudes and practices have been presented. The findings of the study have been presented according to the demographic and study variables. This has been done to facilitate a better understanding of the study findings. The findings of this study have also been presented in form of frequency tables, Figures and cross tabulation tables to give a vivid picture of the findings.

Tables and figures are suitable because they summarize the findings in a meaningful manner for easy understanding. Cross tabulation on the other hand is helpful in showing relationships between variables. The findings of this study have been presented under sections as stipulated below.

4.1 Data Analysis

After the collection of the data the researcher processed and analyzed it. The researcher examined the raw data to detect errors and omissions, and corrected them when necessary and possible. Once examination of the raw data was finished, the step of encoding followed in order to clean and classify the raw data into the usable and purposeful category of excel. The data was then analyzed using SPSS version 25.

Descriptive statistics such as mean, standard deviation and range were used to describe quantitative variables. Respondent's demographics and categorical variables were described using cross tabulations, frequency tables and bar charts. Bivariate analysis was performed using chi-square between the dependent variable (Cervical cancer Screening Yes/No) and independent variables all variables which were significantly associated with the dependent variable in the bivariate analysis were included in the binary logistic model (multivariate analysis). A pooled, cross-sectional, multivariate logistic regression analysis was used to test the hypothesis that the variables employed affected the probability of going for cervical

cancer screening. The statistical significance for analyses was 5% with a 95% confidence interval.

4.2 Presentation of Findings

The study findings are presented according to the sequence of the questionnaire and research objectives. Data was summarised using frequency tables, pie charts and cross tabulations. To determine associations among variables and help to make meaningful inferences cross tabulations are used.For the purpose of analysis, variables with Likert scale-based responses were re-coded as follows: agree (strongly agree and agree), disagree (not sure, disagree and strongly disagree).

4.2.1 Socio-Demographic Characteristics

The socio demographic characteristics of women enrolled in the study are presented in table 4.1. The age of the women enrolled in the study ranged from 20 to 59 years, with a mean age of 30.4 years (SD: 8.36). Majority (46.2%) of the women were aged between 25 to 34 years followed by 27.6% of women aged between 27 to 24 years while 19% were aged between 35 to 44 years and only 7.1% of women were aged above 45 years.

More than half of the respondents (59%) were married while less than a third (31%) of women were still single at the time of the study and about a tenth (10%) of the women were either divorced, separated or widowed (6.7% and 3.3%, respectively).Majority (77.6%) of the respondents had children and the remaining 22.4% of the respondents did not have children. Nearly all (99%) of the respondents were Christians with only a per cent of them belonging to either the Hindu or Islamic faiths (0.5% and 0.5%, respectively).

Nearly half (43.9%) of the respondents had secondary education followed by those who have had attained tertiary education (41.4%) while slightly over a tenth (14.3%) of the respondents had primary level education and only about 1.4% of the respondents had no education.

The mean age reported for sexual debut among respondents was 19.7 (SD: 4.01) years ranging from 12 to 31 years at first sexual encounter. (Age was collected as continuous variable and categorized during analysis)

Sexual initiation was reported in nearly half (47.8%) of the respondents as taking place at the age of 20 to 31 years while 36.1% indicated to have initiated coitus at the age of 16 to 19 years and the remaining 16.1% reported sexual initiation at the of 12 to 15 years. Five women did not yet their sexual debut at the time of the study.

Table 4.1: Socio-demographic profile of women enrolled in the study (n=210)

Character	Response (n)	%
Age group (years)		
17 – 24	58	27.6
25 – 34	97	46.2
35 – 44	40	19
45 – 59	15	7.1
Total	210	100
Marital status	**N**	**%**
Single	65	31
Married	124	59
Divorced/separated	14	6.7
Widowed	7	3.3
Total	210	100
Religion	**N**	**%**
Christian	208	99
Hindu	1	0.5
Islam	1	0.5
Total	210	100
Education	**N**	**%**
None	3	1.4
Primary	30	14.3
Secondary	90	42.9
Tertiary	87	41.4
Total	210	100
Have children	**N**	**%**
No	47	22.4
Yes	163	77.6
Total	210	100
Coitarche		
12 – 15years	33	16.1
16 – 19 years	74	36.1
20 – 31 years	98	47.8
Total	205	100

4.2.2 Knowledge about cervical cancer and the main source of information

This section shows the respondents knowledge on cervical cancer and cervical cancer screening services. Knowledge levels were measured using statements to which the respondents had either agree to or disagree.

Table 4.2 below shows that most (82.9%) of the respondents reported that they had enough information about cervical cancer screening. Only17.1% of the respondents disputed. About 70.5% of the respondents agreed that they knew of the information about cervical cancer screening from friends and relatives and 29.5% did not. Majority respondents (83.3%) stated that they received a lot of information about cervical cancer screening from the health facilities and 16.7% stated having not received information from the health facilities. Three quarters (75.7%) of the respondents stated that they received a lot of information about cervical cancer screening from the media and 24.3% stated not having received information from the media. About 66.2% said that cervical cancer is caused by the human papilloma virus. Sixty per cent (60%) of the respondents agreed with the statement that cervical cancer is a malignant disease affecting the neck of the womb and 40% did not. About 62.9% said that they know the risk factors of having cervical cancer and 37.1% said otherwise, 56.2% stated that they know the signs and symptoms of cervical cancer and 43.8% did not know.

Approximately 63.3% of the respondents agreed to the statement that cervical cancer can be treated while 36.7% did not agree. Three quarters of the respondents (67.3%) stated that cervical cancer can be prevented and 32.7% did not agree. Most (60.5%) of the respondents stated that had heard about ways of preventing cervical cancer and 39.5% stated the opposite. More than three quarters (76.3%) of the respondents stated that they knew where to go for cervical cancer screening while 23.8% stated the opposite.

Table 4.2: Cervical cancer description by women enrolled in the study (n=210)

Statement	N	%
I have enough information about cervical cancer screening		
Agree	174	82.9
Disagree	36	17.1
I know of the information about cervical cancer screening from friends and relatives		
Agree	148	70.5
Disagree	62	29.5
I receive a lot of information about cervical cancer screening from the health facilities		
Agree	175	83.3
Disagree	35	16.7
I receive a lot of information about cervical cancer screening from the media		
Agree	159	75.7
Disagree	51	24.3
Cervical cancer is caused by the human papilloma virus		
Agree	139	66.2
Disagree	71	33.8
Cervical cancer is a malignant disease affecting the neck of the womb		
Agree	126	60
Disagree	84	40
I know the risk factors of having cervical cancer		
Agree	132	62.9
Disagree	78	37.1
I know the signs and symptoms of cervical cancer		
Agree	118	56.2
Disagree	92	43.8
Cervical cancer can be treated		
Agree	133	63.3
Disagree	77	36.7
Cervical cancer can be prevented		
Agree	141	67.1
Disagree	69	32.9

Have heard ways of preventing cervical cancer		
Agree	127	60.5
Disagree	83	39.5
I know where to go for cervical cancer screening		
Agree	160	76.2
Disagree	50	23.8
Cervical cancer is a common cause of death among cancers in Zambia		
Agree	147	70
Disagree	63	30
Screening helps in the prevention of cervical cancer		
Agree	156	74.3
Disagree	54	25.7

4.2.2.1 Overall knowledge levels on cervical cancer (n=210)

Overall, over three quarters (78%) of the respondents were knowledgeable on cervical cancer and screening as shown in figure 4.1.

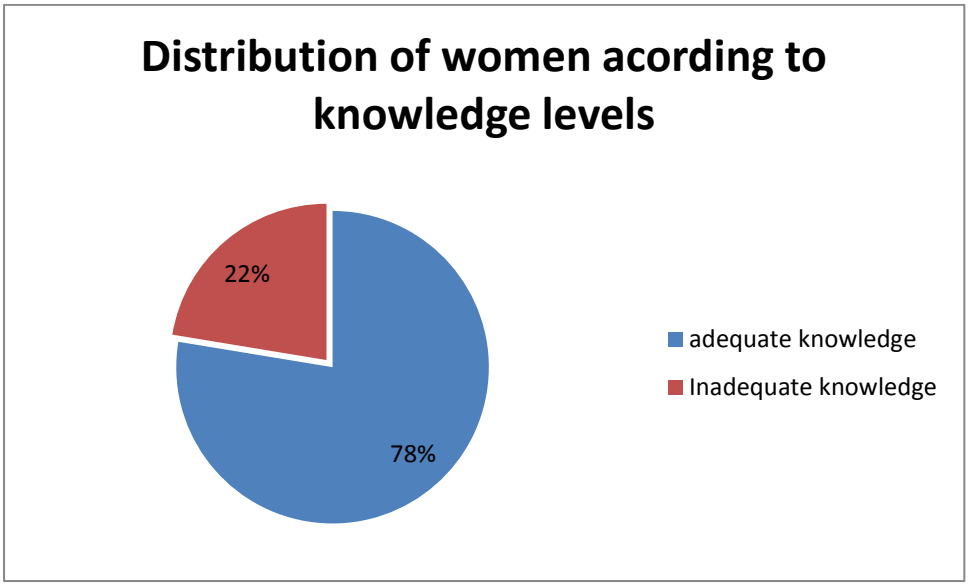

Fig. 4.1: Distribution of women according to knowledge level

4.2.3 Attitude toward cervical cancer and screening

In this section the respondents' attitudes towards cervical cancer and cervical screening are presented. These were measured using statements to which the respondents had to agree or disagree to (see table 4.3 below).

Table 4.3: Distribution of attitude responses by women enrolled in the study (n=210)

Statement	N	%
Cervical cancer screening is important		
Agree	187	89
Disagree	23	11
I went for cervical cancer screening by myself		
Agree	83	39.5
Disagree	127	60.5
I Went for cervical cancer screening at the hospital		
Agree	71	33.8
Disagree	139	66.2
I went for cervical cancer screening at the clinic		
Agree	81	38.6
Disagree	129	61.4
I would consider going for cervical cancer screening in future		
Agree	171	81.4
Disagree	39	18.6
I can recommend cervical cancer screening to others		
Agree	157	74.8
Disagree	53	25.2

As indicated in Table 4.3 above, most (89%) of the respondents agreed with the statement that the statement that cervical cancer is important while 11% did not. About 60.5% disagreed with the statement that they went for cervical cancer screening on their own and 39.5% said agreed that they went for cervical cancer screening on their own. Most (66.2%) of the respondents stated that they went for cervical cancer screening at the hospital and 33.8% said they did not. A large percentage of the respondents 61.4% said that they did not go for cervical cancer screening at the clinic on their own and 38.6 did so.

Most 81.4%of the respondents agreed with the statement that they would consider going for cervical cancer screening in future and 18.1% did not. More than two third (70%) of the respondents agreed with the statement that cervical cancer is a common cause of death among cancers in Zambia while 30% did not. About 74.3% of the respondents agreed with the

statement that screening helps in the prevention of cervical cancer and 25.4% did not. Nearly three quarters (74.8%) of the respondents stated that they can recommend cervical cancer screening to others while 25.2% otherwise.

4.2.3.1 Overall Attitude toward cervical cancer and screening

Overall, most (61%) of the respondents demonstrated a more positive attitude toward cervical cancer screening as shown in figure 4.2.

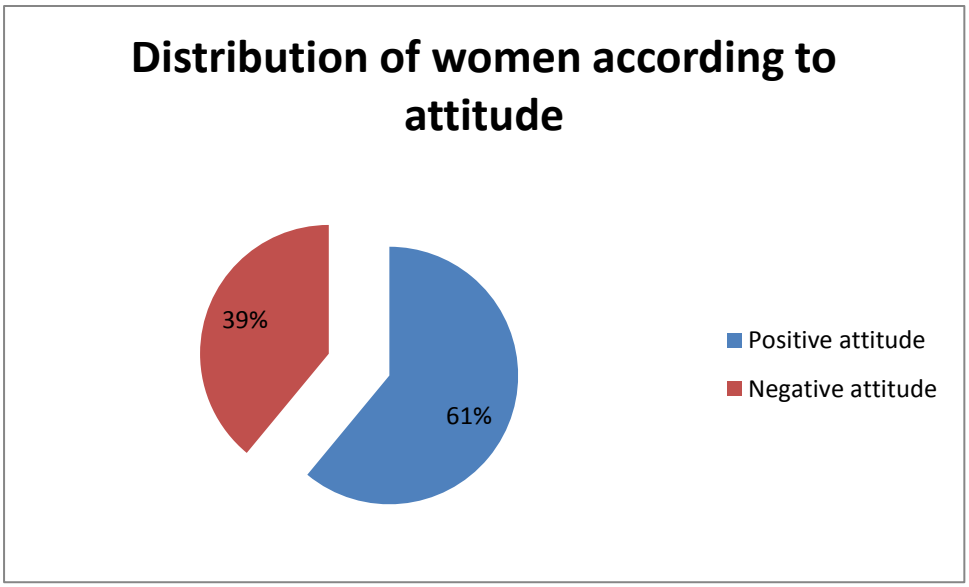

Fig. 4.2: Distribution of women according to attitude level

4.2.4 Perception about cervical cancer and screening

The respondents' perceptions about cervical cancer and cervical cancer screening are present in table 4.4 below.

Table 4.4: Perception responses by women enrolled in the study (n=210)

Statement	N	%
I'm at risk of getting cervical cancer		
Agree	127	60.5
Disagree	83	39.5
Cervical cancer is a dangerous disease		
Agree	178	84.8
Disagree	32	15.2
Any reproductive aged women is susceptible to develop cervical cancer		
Agree	150	71.4
Disagree	60	28.6

When asked about being at risk of getting cervical cancer, majority (60.5%) of the respondents agreed and 84.8% of them also agreed that cervical cancer was a dangerous disease. Nearly three quarters (71.4%) of the respondents agreed that reproductive aged women were susceptible to develop cervical cancer and over half (56.2%) were open to share about their status on cervical cancer. Over half (56.7%) of the respondents however, did not know people with cervical cancer. (See Table 4.4)

4.2.4.1 Overall perception on cervical cancer and screening

The overall perception level among study respondents was more positive (71.9%) than negative (28.1%) as shown in figure 4.3.

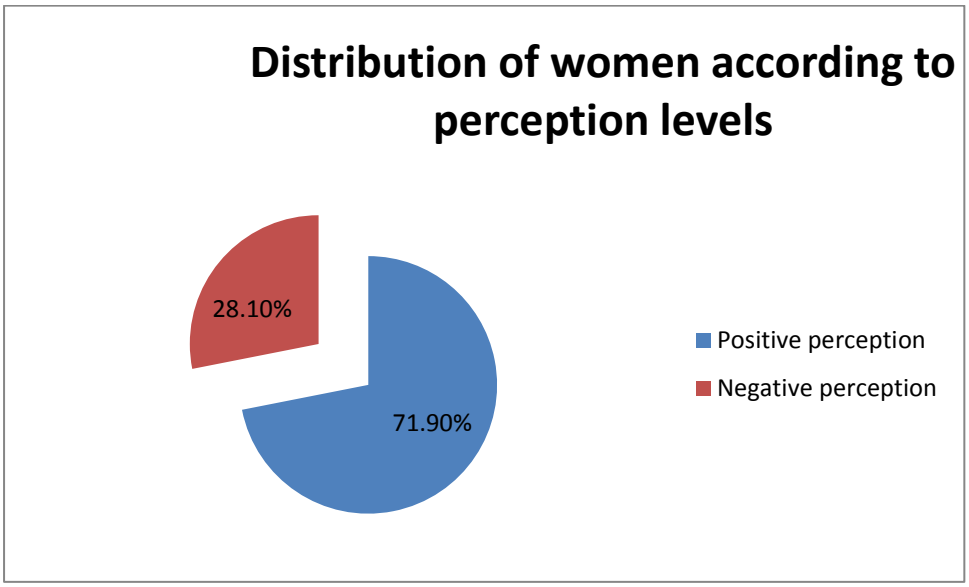

Fig. 4.3: Distribution of women according to perception level

4.2.5 Utilisation of Cervical Cancer screening services Among Women

Out of the 210 women enrolled in this study, only 94 (44.8%) reported having ever been screened for cervical cancer in their lifetime, and 116 (55.2%) of the sample had never screened for cervical cancer. (See Figure 4.4)

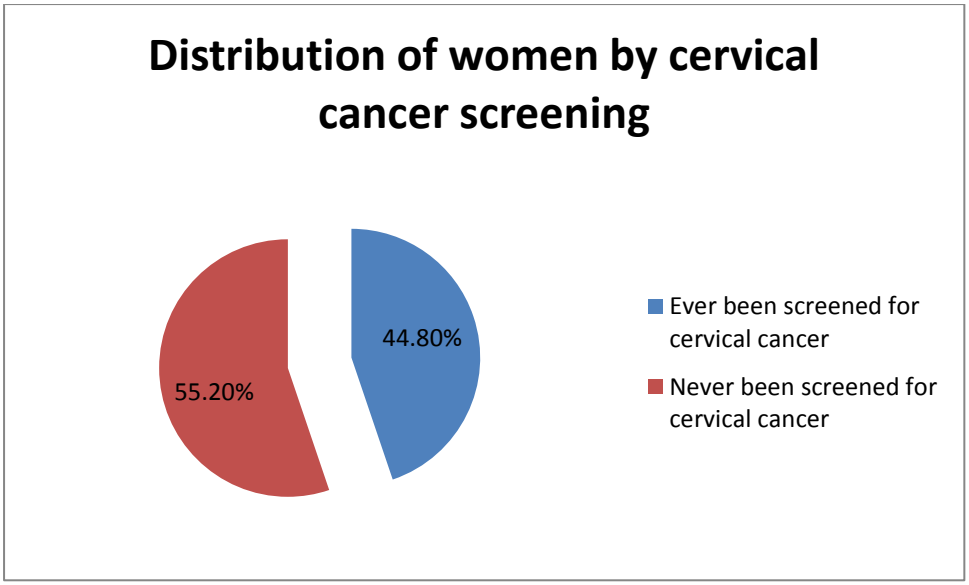

Fig. 4.4: Distribution of women according to extent of cervical cancer screening (n=210)

4.2.5.1 Utilisation of Cervical Cancer screening services in relation to socio-demographics

Table 4.5 presents the bivariate analysis of the extent of cervical cancer screening with the study variables. The analysis showed that a greater proportion of women aged 35 years and older reported having been screened compared to women younger than 35 years, indicating a significant association between age and the level of screening ($p < 0.001$). A greater proportion of women who had their sexual debut after the age of 20 years (54.1%) reported to have been screened for cervical cancer compared to those women who had their sexual initiation before the age of 20 years. This showed a statistically significant difference between the two groups ($p = 0.021$). A greater proportion of respondents with adequate knowledge on cervical cancer and screening (55.2%) reported to have been screening compared to only four (8.5%) women with inadequate knowledge, indicating a statistically significant association between knowledge of cervical cancer and screening and the level of screening ($p < 0.001$). Majority (70.3%) of the respondents with a more positive attitude toward cervical cancer screening reported to have been screened compared to only four (4.9%) respondents with a negative attitude. This also, showed a significant relationship between respondents' attitude and the level of screening ($p < 0.001$).Also, slightly over half (51.7%) of women with a more positive perception about cervical cancer reported to have been screened when compared to only 16 (27.1%), indicating a significant association between women's perception about cervical cancer and the level of screening ($p = 0.001$). However, the analysis did not elicit any significant association between respondents' marital

status (p = 0.200), religion (p = 0.441), education (p = 0.059), and children (p = 0.312) and the level of screening.

Table 4.5: Association between and cervical screening and women's Socio-demographic characteristics

Variable	Ever been screened, n (%)		p-value
	No	Yes	
Age group (years)			
17 – 24	42 (72.4)	16 (27.6)	**<0.001**
25 – 34	58 (59.8)	39 (40.2)	
35 – 44	14 (35)	26 (65)	
45 – 59	2 (13.3)	13 (86.7)	
Marital status			
Single	37 (56.9)	28 (43.1)	0.200
Married	72 (58.1)	52 (41.9)	
Divorced/separated	5 (35.7)	9 (64.3)	
Widowed	2 (28.6)	5 (71.4)	
Religion			
Christian	114 (54.8)	94 (45.2)	0.441
Hindu	1 (100)	0	
Islam	1 (100)	0	
Education			
None	2 (66.7)	1 (33.3)	0.059
Primary	21 (70)	9 (30)	
Secondary	54 (60)	36 (40)	
Tertiary	39 (44.8)	48 (55.2)	
Have children			
No	29 (61.7)	18 (38.3)	0.312
Yes	87 (53.4)	76 (46.6)	
Coitarche			
12 – 15 years	24 (72.7)	9 (27.3)	**0.021**
16 – 19 years	43 (58.1)	31 (41.9)	
20 – 31 years	45 (45.9)	53 (54.1)	
Knowledge			
Inadequate	43 (91.5)	4 (8.5)	**<0.001**
Adequate	73 (44.8)	90 (55.2)	
Attitude			
Negative	78 (95.1)	4 (4.9)	**<0.001**
Positive	38 (29.7)	90 (70.3)	
Perception			
Negative	43 (72.9)	16 (27.1)	**0.001**
Positive	73 (48.3)	78 (51.7)	

4.2.6 Logistic Regression Analysis

Table 4.6 presents the logistics regression analysis of factors that correlated significantly with the extent of cervical cancer screening in bivariate analysis. There was a significant association between respondents' age and the level of screening in both bivariate and after adjusting for other covariates. Older (35 to 59 years) women were about ten times more likely to go for screening than their younger counterparts (35 to 44 years: AOR = 10.91, 95% CI: 2.67 – 44.48, p = 0.001; 45 to 59 years: AOR = 10.28, 95% CI: 1.52 – 69.68, p = 0.017, respectively).

Attitude among respondents was found to be statistically significant where positive attitude often influenced the extent of screening by as much as hundred percent. When adjusted in the presence of other variables, respondents' attitude still remained statistically significant in the level of screening among respondents (AOR = 67.5, 95% CI: 15.42 – 295.44, p < 0.001).

However, participants' coitarche, knowledge, and perception were statistically significant in bivariate regression analysis; however, after adjusting for other covariates, respondents' coitarche at 20 years and older (AOR = 0.33, 95% CI: 0.07 – 1.55, p = 0.160), adequate knowledge level (AOR = 2.15, 95% CI: 0.56 – 8.24, p = 0.264) and positive perception (AOR = 0.61, 95% CI: 0.22 – 1.72, p = 0.350) lost statistical significance.

Table 4.6: Logistic regression

Variable	Odds ratio (95% CI)	p-value	Adj. Odds ratios (95% CI)	p-value
Age group (years)				
17 – 24	Ref.			
25 – 34	1.765 (0.873 – 3.57)	0.114	1.527 (0.613 – 3.805)	0.363
35 – 44	4.875 (2.046 – 11.615)	**<0.001**	10.906 (2.674 – 44.476)	**0.001**
45 – 59	17.062 (3.458 – 84.189)	**<0.001**	10.282 (1.517 – 69.677)	**0.017**
Coitarche				
12 – 15 years	Ref.			
16 – 19 years	1.922 (0.786 – 4.703)	0.152	0.306 (0.065 – 1.452)	0.136
20 – 31 years	3.141 (1.325 – 7.444)	**0.009**	0.33 (0.07 – 1.549)	0.160
Knowledge				
Inadequate	Ref.			
Adequate	13.253 (4.546 – 38.641)	**<0.001**	2.15 (0.561 – 8.244)	0.264
Attitude				
Negative	Ref.			
Positive	46.184 (15.779 – 135.179)	**<0.001**	67.504 (15.424 – 295.44)	**<0.001**
Perception				
Negative	Ref.			
Positive	2.872 (1.489 – 5.538)	**0.002**	0.609 (0.215 – 1.722)	0.350

CHAPTER FIVE: DISCUSSION OF FINDINGS

5.0 Introduction

Chapter four focused on analysis and presentation of findings. In this chapter the findings are discussed. This study was aimed at assessing women's knowledge, attitude and perception on cervical cancer and cervical cancer screening in Kitwe District. Knowledge, attitude and perceptions of women on cervical cancer and screening and Socio-Demographic characteristics influencing screening were determined and characterized. This chapter discusses findings of the study, the extent to which they maybe generalizable, the limitations of the study and recommendations are subsequently suggested. The discussion is presented in four sections according to the objectives of this study, namely Socio-Demographic characteristics, knowledge, attitude and perceptions on cervical cancer and screening.

The findings of the present study indicated that the magnitude of cervical cancer screening was 44.8%. This finding is high than those found in other low- and middle-income countries; for example, 39% in Botswana (Ibekwe, 2009), 25% in Tanzania (Kileo et al., 2015), and 25% in Kenya (Murugi, 2014). The possible explanation for this high cervical cancer screening utilization could be due to the high level of awareness, improved access to screening services, socio-cultural, socio demographic, and availability of specificity of national cancer prevention and control strategies in Zambia.

5.1.1 Socio-Demographic characteristics of women

The sample for the analyses included 210 women from 17 years and above. The sample comprised of mainly middle-aged women since the study exclusively enrolled women from 17 years and above. The greater proportion of women were married however, this factor could not have encouraged women to access health services for screening since the services provided provides an opportunity to protect themselves and their families. This is similar to Mwangelwa's (2019) study who found over 64% of her sample were married. This can be attributed to the fact that the majority age group in this study was 21-40 since this age category consists of adult members of society who by virtue of their age society requires them to be married. The sample was predominantly Christian which was similar to Mwangelwa's (2019) findings in which 66% of the population were professed Christians.

The similarity is assumed mainly because of the constitutional declaration of Zambia as a Christian nation.

Nearly the entire respondents had some form of education with almost half of the sample having achieved secondary education. However, Ndhlovu in 2011 found that her sample had mainly achieved primary education contrary to the current findings. The possible reason could be because of the study setting differences between the two studies, Ndhlovu's study focused on rural setting while this study focused on urban setting. According to Ndhlovu (2011), she found that sexual initiation was reported to be 16 to 19 years by 53.7% of the population contrary to our finding in which the majority (47.8%) of our sample had their sexual debut at 20 years or older (table 4.1, p. 25).

The women aged 35-59 years were ten times more likely to be screened compared to the women aged 17 - 34 years. This result is in line with those reported in Ethiopia (Andargie and Reddy, 2016), Malaysia (Gan and Dahlui, 2013), and Kenya (Gakidou et al., 2008; Mbaka et al., 2018) who also stated that women 35-59 years were more likely to be screened compared to the women aged 17 - 34 years. The explanation for this could be that individuals would consider being at risk and seeking care after recognizing symptoms of cervical cancer.

Women's education is one of the predictors of the practice for cervical cancer screening (Tekle et al., 2020). However, the current study results, did not match the findings from a hospital-based study done in India where higher educational level was independently predictive of cervical cancer screening utilization (Bansal et al., 2015). The current study results was not hospital-based, it comprised of women from mixed densely catchment areas.

5.1.2 Knowledge of women on cervical cancer and screening

One of the specific objectives of the current study was to evaluate women's level of knowledge on cervical cancer and cervical cancer screening. The overall knowledge level among respondents in our study was adequate contrary to previous studies conducted elsewhere in Zambia (Nyambe et al., 2019; Simaubi and Ngoma, 2013). These results also contradict the findings of a systematic review that stated there are low levels of awareness and knowledge of cervical cancer in sub-Saharan Africa (Perlman et al., 2014). However, Belay et al. (2020) in their study on cervical cancer screening utilization and associated factors among Ethiopian women, reported similar findings to ours that the population had good knowledge about cervical cancer and screening.

When a woman's source of information is not a health care provider, there is a potential for her to receive incorrect information more especially cervical cancer screening which is surrounded with a lot of misconceptions amongst women. In this study, majority of women

received information from health workers contrary to the results from the study by Duffett-Leger et al. (2008), that women obtain most of their information about the Pap test and cervical cancer from parents and friends, which could explain the misconceptions that other studies have found surrounding cervical cancer screening. Hoque and Hoque (2009), Ezem (2007), and Lyttle and Stadelman, (2006:3) found similar results. Women in this study reported being aware that cervical cancer can be prevented contrary to Rezaie-Chamani et al. (2012) where women reported not knowing that screening can prevent death due to cervical cancer or that screening should be continued even after menopause. This would form a basis for motivating women to screen for cervical cancer.

In depth knowledge of cervical cancer may not be necessary since having awareness is enough for a respondent to practice prevention. Reverse casualty may be assumed in that having practiced prevention; knowledge levels are increased. This study also established that community-based sensitization strategies have proven to be successful in raising awareness, knowledge and prevention practices (Wamai et al., 2012). Healthcare providers, internet and television/radio were identified as good sources of information and may provide possible targets for conducting interventions aimed at increasing cervical cancer knowledge in Kitwe district.

Women who had a degree/or diploma level of education were more knowledgeable about cervical cancer screening compared with women who did not attend formal education. Our findings confirm the results of a previous study done in Dessie referral hospital and Dessie health centre in northeast Ethiopia (Andargie and Reddy, 2016). This finding is also supported by a study done in southern Ethiopia by Endalew et al. on knowledge and practice of cervical cancer screening among reproductive age grouped women, where it was reported that uneducated/illiterate respondents were 15 times less likely to have good knowledge of cervical cancer screening than those who were educated (Endalew et al., 2020).

This is further supported by the study done in Portland Jamaica (Ncube et al., 2015) and Mexico (Bingham et al., 2003). This might be due to those uneducated respondents may not have better information about cervical cancer screening.

Knowledge has a positive correlation with screening attendance however, failed to serve as a significant predictor of attendance adjusted for other covariates. This is inconsistent with the literature that attributes engagement in behaviour to knowledge. These results are contrary to those found by Rezaie-Chamani et al., (2012); a higher level of knowledge is associated with

a better likelihood of having attended cervical cancer screening in the past. The studies by Behbakht et al. (2004) and Walsh (2006) also found lacking and incorrect knowledge in their screening non-attenders. This positive relationship between knowledge and screening attendance necessitates the dissemination of information regarding cervical cancer screening that is easily understood and accessed.

Knowledge of cervical cancer and the purpose of the Pap test increase women's chances of attending screening. The studies indicate that possessing correct knowledge regarding cervical cancer and the screening process has a significant, positive relationship with screening attendance (Scott, 2015). However, similar to the current findings, Duffett-Leger et al. (2008) and Idestrom et al. (2002) did not find a significant relationship between lack of knowledge and screening attendance. It may be due to the result of inconsistency in the way knowledge was measured. Some studies measured knowledge with a questionnaire while others simply used a single question. The differences in establishing a significant relationship between knowledge and attendance may also be due to the presence of a moderating variable.

According to Moodley (2009), the main barriers to testing in developing countries are a lack of awareness of the disease and screening, women not availing themselves of screening services and lack of political will to provide the service. Dissemination of information should focus on all women especially eligible women. There is a great need to empower women to understand their health care needs and also basic screening procedures so as to increase the uptake of this service.

5.1.3 Attitude of women toward cervical cancer screening

Attitude plays an important role in formulating health seeking behaviour. In this study, most (89%) of the respondents agreed with the statement that cervical cancer is important. About 74.3% of the respondents agreed with the statement that screening helps in the prevention of cervical cancer and 74.8% of the respondents stated that they can recommend cervical cancer screening to others.

Even in the absence of clinical features, perceived risks may encourage women to go for cervical cancer screening (Ndejjo et al., 2016). For instance, more than half (61%) of the respondents had a positive attitude towards cervical cancer screening (table 4.4, p. 30). This finding is incongruent with a study in Northeast Ethiopia, which showed 42.1% (Lyimo and Beran, 2012), and also this finding is higher than the research done in Cameroon (Ekane et al., 2015) and Zimbabwean (Mupepi et al., 2011). The Study found a strong relationship

between old age, higher educational status, and late coitarche and respondents' attitude. In their study, Aweke et al. (2017) also found that the majority of women in Ethiopia had positive attitude towards cervical cancer prevention methods. With such positive attitude, it means if barriers are removed and Ministry of Health decentralize the screening services to all health centres more women will be screen for cervical cancer.

Women with a positive attitude were sixty-eight times more likely to be screened compared to the women with a negative attitude toward cervical cancer screening. This is contrary to a study by Belay et al. (2020) who failed to demonstrate that women's attitude independently associated with cervical cancer screening utilization.

Even though this level of uptake of screening was higher than what was found in similar studies conducted within Africa like Ethiopia at 14.4% in 2016 and South Africa at 15% in 2014 (Mulatu et al., 2017; Hoque et al., 2014), this shows that there is need to intensify educational campaigns on the importance of cervical cancer screening.

Willingness to screen in the future was also a strong factor in this sample. Conversely, in other populations, lack of willingness to test is attributed to perceived lack of personal susceptibility to cervical cancer (Wong et al., 2019). Lyttle and Stadelman (2016), reported misconceptions for future screening like a previous hysterectomy regardless of the reason. There is need to scale up health education on cervical screening services and also access to such services so as to increase impact in reduction of cervical cancer incidence and mortality due to invasive cancer.

5.1.4 Perceptions of women on cervical cancer and screening

The study found that 71.4% of the respondents were aware that reproductive aged women were susceptible to develop cervical cancer (table 4.6, p. 33). This is congruent to other studies done in Ethiopia (Gedefaw et al., 2013), South Africa (Hoque et al., 2008), Uganda (Mwaka et al., 2016) and Nigeria (Amosu et al., 2011). However, the study contradicts what Aweke et al. (2017) reported in their study on the knowledge, attitude and practice for cervical cancer prevention and control among women of childbearing age in Hossana Town, Hadiyazone, Southern Ethiopia, where they reported that less than half (43.6%) of the respondents believed that all women are at risk of getting cervical cancer while 37% of them did not know which women are at risk of getting the disease. This could be attributed to low attention given to media promotion, variations in health information provision about cervical cancer and its exposure. In addition, differences in socio-cultural conditions, health education

at healthcare facilities and other behavioural change interventions regarding the cervical cancer prevention and control program of Ethiopia and Zambia.

The overall perception level among study respondents was more positive than negative. However, respondents' perception of potential susceptibility to cervical cancer failed to independently predict the chance of screening service utilization. This was inconsistent with study findings in Ethiopia (Bante et al., 2019; Bayu et al., 2016; Gebreegziabher et al., 2016).

The inconsistence in the results might be due to differences in the study population i.e., our study mainly sampled women from the outpatient departments while studies from Ethiopia mainly consisted of women in the gynaecology clinics and this could explain the strong relationship between gynaecological problems with cervical cancer and most reproductive problems referred to this unit. When women become more risk full and become symptomatic for cervical cancer, this increases the chance of utilizing screening services.

However, studies have found that some women express anxiety over the possibility of receiving an abnormal result and finding out they have cervical cancer (Agurto et al.,2014; Austin et al., 2012). Fears of negative evaluation, public self-consciousness, social anxiety, and physique anxiety have also been demonstrated to be barriers to screening (Kowalski & Brown, 1994).

Fear that the test will uncover cervical cancer may only be overcome if the woman can be convinced that it is better to find and treat cancer than to leave it undetected. As many of the theories of behaviour change state, the cost of inaction must become greater than the cost of action and the women must expect a higher likelihood of positive outcomes resulting from action. Women need to be educated on the ability of cervical cancer treatments to effectively treat and eliminate the disease. This can be done by healthcare providers during appointments for other matters. It should also be incorporated into health class curriculums. Even though high school and many college age women have not reached the recommended screening age, they are not too young to learn the benefits of screening.

5.2 Application of theory to research findings

In this study, the HBM was used as a theoretical lens to assess women's knowledge, attitude and perception on cervical cancer screening in Kitwe District.

Perceived Severity: The health behaviours for the participants as identified in this study were consistent with the theoretical framework of the HBM. The majority (70%) of the

participants believed that cervical cancer is a deadly disease, and some stated that it was incurable. Participants had personal experiences that influenced and affirmed their belief of the fatal nature of the disease due to experiences with family or friends who suffered with the disease and succumbed to it. These experiences directly lead to fear of the disease and its consequences for the family system or structure. This overall fear of the disease and the strong sense of family responsibility often prompted the participants' adherence to cervical cancer screening.

Perceived Susceptibility: According to Salazar (1991), the individual's personal perceived susceptibility to any given disease and the perceived severity of the consequences of the disease on the individual's life is one of the most powerful perceptions or beliefs that drive individuals to change their behaviours or adopt new healthier behaviours. However, this perception of susceptibility may vary widely with each individual.

Most of the participants (71.9%) perceived they were at risk for developing cervical cancer just because they were women and had a uterus. In addition, the findings suggested that the participants' understanding of cervical cancer was influenced by their knowledge, attitudes, and perceptions. However, it is important to consider the potential change in knowledge, attitudes, and perceptions that may have been directly influenced by exposure to sources that included, but were not limited to, watching television, the Internet, family and friends, government cervical cancer prevention campaigns, and their gynaecologists. In addition, living in a country with a goal to achieve universal health care coverage may promote a strong sense of obligation.

Finally, the potential of increased exposure to the concept of health promotion and illness prevention may result in an increased awareness of the physical and financial burdens of cancer-related illness, thus increasing a sense of personal and social responsibility and providing motivation for continued yearly screening and check-ups.

Perceived Benefits: Most of the participants also believed that to prevent any type of illness, including cervical cancer, one must maintain one's health. In addition to a strong sense of responsibility for maintaining one's health to support family, several participants 74.3%) also expressed a sense of social duty to adhere to the mandate for a yearly health check-up and Pap screening.

Perceived Barriers: Barriers associated with cervical cancer screening practices were identified as related to the system (knowledge), the culture (attitude), and personal beliefs

(perception and young age). The HBM stipulates that one's health-related behaviour depends on one's perceptions. Although the participants' perceived barriers, were expressed as obstacles, they did not cause a marked change in Pap screening behaviour, but rather were seen as inconveniences and added to the overall dissatisfaction with the health care experience and perception of service. Most of the participants continued with their Pap screening behaviours in spite of the expressed barriers.

Cues to Action: Cues to action are factors or events that motivate one to take action. This motivation can take the form of a physical or emotional response to an event that triggers one's action in a given circumstance. In the realm of cervical cancer screening, triggers may include, but are not limited to, such events as family and friends having a difficult experience with cervical cancer; a personal crisis or symptoms that are worrisome, such as heavy vaginal discharge and abdominal pain; exposure to media advertisements or government health campaigns; a sense of responsibility to one's health; and advice and recommendations given by health care providers and friends.

Self-Efficacy: Self-efficacy is defined as the confidence in one's ability to successfully perform an action. In the current study, examples of the lack of self-efficacy (75.7%) were identified as some of the participants' inability to ask questions of the health care provider, and explain the results to others.

However, participants in the current study exemplified the desired outcomes of self-efficacy by continuing with cervical cancer check-ups.

In conclusion, the expanded HBM is a useful framework to explore the participants' perceived severity and susceptibility to cervical cancer, the benefits of Pap screening, and the barriers to their use of health care services. The majority of the participants as reported in the results of this study that 71.5% perceived they were susceptible or at risk to cervical cancer and believed that cervical cancer has serious consequences, this however, led on to a few to undergo regular Pap testing and most of the other current study findings were as well consistent with the HBM.

5.3 Implications of the study finding

5.3.1 Practice

The findings of the study have shown that majority of the participants are aware about cervical cancer services and so the access to the screening services should be worked on by

maintaining the number of trained provides as well as to train more providers so that they are more women can be captured.

Community advocacy and awareness on the benefits of screening and the disease process should be increased by using existing Community Health Action Groups.

Mini surveys should also be periodically conducted to elicit the level of understanding on cervical cancer and the importance of screening. Information obtained would then assist health professionals to further improve the screening services.

5.3.2 Administration

The policy level should ensure that adequate resources for cervical cancer prevention and control activities are available in all health facilities in the country .Information pamphlets or posters should be user friendly i.e., translated to the local language and also distributed to the female population as widely as possible. The health managers should review packaging of information so as to simplify complex terminology when necessary to enhance understanding by all women.

The health facilities in-charges should budget for the procurement of screening supplies, and integrate the delivery of the supplies for VIA with monthly delivery of other drugs to all health facilities.

5.3.3 Education

The training institutions should review pre-service curricula and incorporate cervical cancer screening core competencies in nursing and medical curricula.

5.3.4 Research

Health educational initiatives should also target men since studies suggest that male partners could play a vital role in increasing the awareness of this service. It is recommended that further large-scale studies be conducted to focus on exploring health care resources that influence access across the district so as to better understand reasons for the low uptake of the screening service in this rural community.

5.4 Recommendations

Based on the findings, the following recommendations are made:

1. The current study showed that majority of the participants are knowledgeable about cervical cancer and they are also aware of the risk of not being screened so the government needs to partner with other organizations to come up with a policy to screen all women who come to the facilities of Kitwe district in order to increase the low numbers of cervical cancer utilisation services as well as to prevent complications to women who seek care in the late stage of the disease.
2. Access to the screening services should be worked on by increasing the number of qualified providers.
3. There is need to introduce self-screening kits for cervical cancer as they proved to be acceptable to the majority of the study respondents, including women who have practiced screening. This indicates that self-screening can be an acceptable alternative for women under-screened for cervical cancer. This can be done through ministry of health partnerships.
4. The current study looked at knowledge, attitude and perceptions of women towards cervical cancer screening. Further research is suggested to incorporate perceived barriers to cervical cancer screening in the general population. Future studies can assess the implementation of self-screening as a way to help reduce the incidence of cervical cancer and the barriers to routine screening.

5.5 Utilisation and Dissemination of Findings

The findings of this study will be disseminated by presenting a bound report to the School of Nursing Sciences at UNZA to serve as reference to other researchers. Other bound reports will be presented to the library, school of Medicine. The researcher also intends to present the findings through workshops, or publication as opportunity arises. Findings will also be disseminated to Kitwe District Health office, the health facilities where data was collected, Ministry of Health as well as to the participants. It is hoped that the results of the study will be used to guide information dissemination and targeted interventions to improve knowledge, change attitudes and promote practices about cervical cancer prevention among women in Kitwe district.

5.6 Limitations

The researcher aimed to enrol 384 women in this study, this sample is representative of the women eligible for cervical screening as per National cervical screening policy. The probability simple random sampling might have increased the samples' representativeness of the population and also offered a bit of opportunity to control for biases

Information and selection bias might have occurred as women were recruited from primary health care clinics, so this study might have underestimated women who never sought care and those who normally seek care from other services. The average sample size may as well have masked real differences between the groups that could not be detected due to very wide confidence intervals in some analyses. The weakness of this analysis is that the sample is average but the results cannot be generalizable to other populations in which studies on cervical cancer knowledge and perceptions are conducted.

5.7 Conclusions

In conclusion, this study has shown that women of reproductive age in Kitwe district are well knowledgeable, have positive attitudes and perceptions about cervical cancer screening and prevention. The study has however, shown that despite women having adequate knowledge, positive attitudes and perceptions, the number of women who had been screened was still low. Further, the study has shown that there is no significant difference in the influence of knowledge of cervical cancer screening among the respondents on going for screening. However, middle aged and older women, and positive attitudes were found to independently influence women to go for cervical cancer screening. Health care workers also should play a vital role in educating the communities on cervical cancer and on the benefits for cervical cancer screening, reaching all women who utilize health care services with this information and also communities through outreach programmes. Therefore, attempts should be made to reach women who rarely visit health care services, for example, through increasing health campaigns in partnership with other organizations in the area.

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APPENDIX I: PARTICIPANTS INFORMATION SHEET

KNOWLEDGE, ATTITUDE AND PERCEPTION INFLUENCING CERVICAL CANCER SCREENING AMONG WOMEN IN KITWE DISTRICT, ZAMBIA

Introduction

My Name is Mercy Daka, a student pursing Master of Science in Midwifery, Women's and Child Health at the University of Zambia, Department of Nursing Sciences. I am requesting you to participate in the above-mentioned research study. First of all, I would like to explain to you the purpose of the study, the benefits, any risks involved and what is expected of you before you decide whether to participate in this study or not. You should fully understand what is involved before consenting to take part. You should only agree to take part if you are completely satisfied with all that is involved. The study aims at assessing Knowledge, Attitude and Perception of Cervical Cancer Screening among women in Kitwe District. You are free to ask questions about anything you do not understand about this study. Your participation in this study is entirely voluntary; you may choose to participate and not to participate. If you decide not to participate, it will not affect access to health care and no privileges will be taken away from you. If you agree to take part, you will be asked to sign the consent in the presence of a witness. Agreement to participate will not result in any immediate benefits.

Purpose of the Study

The study is designed to obtain information on factors influencing cervical cancer screening among women. This will help develop health education materials for women's self-care that will result in improved behavior and practice towards self-care and health promotion. This information will as well help Kitwe District Health Offices and Policy makers to come up with protocols and strategies to address cervical cancer screening challenges faced by women which will result in reducing complications and deaths and thus improving quality of life.

Procedure

The study will involve signing of the consent form and participating in answering questions. Your responses will be recorded on the interview schedule. This process will take about 30 minutes to complete. The interview schedules will be coded to ensure confidentiality. Once the interview is complete, the interview schedules will be kept by the researcher.

Voluntary Participation, Cost, Reimbursement and Compensation

Your participation in this study is voluntary. You will receive no money for your participation. However, if you feel like withdrawing at any time, you are free to do so and this will not affect the care and treatment you receive.

Risks and Discomforts

There is no risk involved in this research though part of your time will be spent answering some questions.

Benefits

By taking part in this study, providing information that will help relevant authorities and policy makers to develop protocols and strategies that will address cervical cancer screening challenges faced by women. This will reduce complications and mortality and thus improve the quality of life. No monetary benefits will be given in exchange for information obtained by participating in this study.

Confidentiality/Anonymity

The data collected do not contain any personal information about you. The discussion and information collected in this study will be kept strictly confidential. No one will link the data you will provide to identifying information you supplied (e.g., address, email).

Dissemination of Information

Information obtained in this study will be presented to the faculty of the School of Nursing Sciences, Department of Midwifery Women and Child Health, University of Zambia, Ministry of Health and Kitwe District Health Offices.

For further information

We will be glad to answer your questions about this study at any time. You may contact us by phone or email.

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APPENDIX 2: ILYASHI LYA BALE BULAMO ULUBALI.

UKUIPELESHA KWA CILA MUNTU ELYO NEFICITWA FYAKUISAKAMANA PAKUCEFYA AMAFYA PAKATI KABA KALAMBA ABAKWATA UBULWELE BWA SHUKA, ABO ABATANGATWA NE CIPATALA CA KITWE TEACHING HOSPITAL, ZAMBIA.

UKUILONDOLOLA

Ishina lyandi nine Mercy Daka, ndesambilila Master of Science mufya bana mayo na bana pa University of Zambia, muciputulwa ca masambililo yakutangata abalwele. Ndemilomba ukuisansha muli uyu mulimo wakufwailisha kwa masambililo. Ngecakubalilapo, kuti natemwa ukumilondolwela ubukankala bwa uyu mulimo, ifisuma filimo, ifyakutinya ifinga sangwamo nefile kabilwa kuli imwe ilyo mushila salapo nga kuti mwatemwa ukuisansha muli uyu mulimo nangu iyo. Mufwile ukwishiba bwino ifilekabilwa ilyo tamula sumina ukubulamo ulubali. Mufwile mwasumina fye ukubulamo ulubali nga cakutila namusekelamo ne ntampulo ishisangwa muli uyu mulimo. Uyu mulimo wakufwailisha ulefwaya ukupelulwila nokwishiba ukuipelesha kwaukuchenchetwa kwa cancer yaku kanwa kwa chisa chakwa namayo. Muli abantungwa ukwipusha amapesho pa fili fyonse ifyo tamumfwile pali uyu mulimo. Ukuisansha kwenu muli uyu mulimo kwakuipelesha fye, eco kuti mwasalapo ukuisanshamo nangu iyo. Ukukana ukuisanshamo takwa kalete ubwafya nangu bumo kuli imwe palwa kuya ku cipatala elyo nokutangatwa elyo kabili tamwaka pokwe insambu nangu shimo. Nga mwasumina ukubulamo ulubali, muli nokulombwa ukulemba ishina lyenu pacipepala cakusumina ukubulamo ulubali, pa menso yakwa kambone. Ukusumina ukubulamo ulubali, takwakamipele ubukumu ubuli bonse apo pene.

UBUKANKALA BWA UYU MULIMO

Uyu mulimo wiminine pakusanga ifishinka palwa kuipelesha elyo ne milimo yakuitangata pakucingilila amafya yapitamo namayo uungasagwa nobulwele bwa cancer yaku kanwa kwa chisa chakwe, nokupekanya ifitabo fye lyashi lya masambililo ya bumi pafyo abalwele bengala isakamana abene beka. Ukucita ici kuli nokutwala pantanshi imikalile ne ficitwa fya banamayo palwa kuisakamana nokutungilila ubumi busuma. Ici nipakwafwilisha bana mayo mu Kitwe District elyo nabantu bapanga amafunde ukubikako ifikomo elyo ne ntampulo shakulolesha palwa kuipelesha, namafya ayo banamayo bapitamo ukulosha ku ficitwa fyakuitangata, ico icili nokulenga ukucepako kwa mafya ne mfwa shiletwa naya malwele, ici kabili cilinokuwamya imikalile elyo no bumi bwa banamayo.

IFYAKUKONKA

Muli uyu mulimo muli nokuba ukulemba kwe shina lyenu pa fipepala fyakusumina ukubulamo ulubali, nokuisansha mukwasuka amasuko.Amasuko yenu yali nokulembwa pacipepala cakulanshanya. Uyu mulimo usenda citika wa nsaa imo (30 minutes) pakupwisha. Ifipepala fyakulanshanya filinokubikwapo ifishibilo pakwesha ukumona ukutila kwaba ukusunga inkama. Ukulanshanya nga kwapwa ifipepala fyakulanshanya fili nokusungwa no muntu alebomba umulimo wakufwailisha kwa fishinka.

UKUISANSHAMO UKWABULA UKUPATIKISHIWA, UMUTENGO, UKUMIBWESESHA INDALAMA SHENU ELYO NECISHINKA MUKOFU.

Ukuisansha kwenu muli uyu mulimo, kwakuipelesha. Tamwakapelwe amalipilo nangu yamo pakuisansha muli uyu mulimo. Nangu cibe ifi, ngacakutila mwatemwa ukwimika ukuisansha kwenu muli uyu mulimo, muli abantungwa ukuciteco, kabili ici tacakalete ubwafya nangu bumo pafyo mutangatwa elyo nokundapwa ku cipatala.

IFYAKUTINYA NOKU KALIPWA

Takwaba ifyakutinya nangu fimo ifyaba muli uyu mulimo nangu line inshita yenu imo ikaposwa pakwasuka amepusho.

UBUSUMA BWABAMO

Ukuisansha kwenu muli uyu mulimo nokupela ilyashi ilyo lili nokwafwilisha intungulushi nabo cikumine bonse ukubikako ifikomo ne ntampulo shakukonka pakulolesha pakuipelesha kwa cila namayo elyo namafya yakuma kukuitangata kwaukuchenchetwa kwa cancer yaku kanwa kwa chisa chakwa namayo. Kabili cili nokulenga ukuwamya kwa mikalile ya banamayo. Tapali amalipilo ayakapelwa kuli imwe pamulandu wakupela ilyashi lyenu muli uyu mulimo wakufwailisha.

UKUSUNGA KWA NKAMA

Ilyashi lisendwa talikwatamo ifishinka ifili fyonse pali imwe. Ukulanshanya elyo ne lyashi lisendwa muli uyu mulimo fisungwa mu nkama. Tapali nangu umo uwuli nokubika pamo ilyashi muli nokupela ne ncende kuntu mwikala nangu email address yenu.

UKUSABANKANYA KWE LYASHI.

Ilyashi likasendwa muli uyu mulimo likapelwa kwibumba lya ntungulushi she sukulu lya bana mayo na bana ku Nursing Sciences, pa University of Zambia, Icipani cimona pa bumi elyo namu Kitwe District Health Offices muchende imwe musangwa.

Ngamulefwaya ukwishibilapo ifingi.

Tuli abaipekanya ukwasuka amepusho yenu yonse pali uyu mulimo. Kuti mwatutumina lamya nangu email pamo ngefi.

Umukalamba wa mulimo wakufwailisha, 0979383187

Email mercy2daka@gmail.com

Kangalila

Email catherinengoma@yahoo.com

Kafwa wakwa kangalila

Email victoriakalusopa@gmail.com

APPENDIX 3: INFORMED CONSENT FORM

I have been informed of the purpose of this study. The purpose, the benefits, risks and confidentiality of the study have been explained to me and I understand. I further understand that, if I take part in this study, I can withdraw at any time without having to give an explanation and taking part in this study is purely voluntary.

I, _____ _____

(Names) Agree to take part in this study.

Signed _____ Date: _____

(Participant) Participant's Signature or thumb print

Signed: _____Date: _____

(Witness)

Signed _____ Date_____

(Researcher)

APPENDIX 4: UKUSUMINA PANUMA YAKWISHIBA IFISHINKA

Naba njeba ubukankala bwa uyu mulimo waku fwailisha kwa fishinka. Ubukankala, ubusuma bwabamo, ifyakutinya elyo nokusunga kwa nkama ukwaba muli uyu mulimo nafilondololwa kuli ine kabili ningumfwa bwino bwino. Kabili ningumfwa ukutila nga naisansha muli uyu mulimo, kuti naleka inshita iyili yonse ukwabula ukulondolola ico nalekela kabili ukuisansha muli uyu mulimo kwakuipelesha fye ukwabula ukupatikishiwa.

Nine, _____ _____

(Amashina yenu) Nasumina ukuisansha muli uyu mulimo.

Apakusaina (signature): _____ Ubushiku: _____

(**Abalebulamo ulubali)** Kuti mwasaina nangu ukufwatika

Apakusaina (signature):_____Ubushiku:_____

(Kambone)

Apakusaina (signature): _____ Ubushiku _____

(Kafwailisha)

APPENDIX 5: STUDY BUDGET

The total budget for the research project was approximately K**16; 731.00** as itemized in the table below.

S/N	STATIONARY	QUANTITY	UNIT COST (K)	TOTAL COST (K)
1.	A4 photocopying papers	5 Reams	80.00	400.00
1.	Pens	10	3.00	30.00
3.	Pencils	10	2.00	10.0
4.	Rubber	1	5.00	5.00
5.	T-PEX	1	15.00	15.00
6.	Stapler	1	60.00	60.00
7.	Staples	1 box	10.00	10.00
8.	Perforator	1	80.00	80.00
9.	Folder	3	50.00	150.00
10.	Ethics committee			300.00
11.	Photocopying questionnaires	210	2.50	525
12.	Logistics during data collection		.	1,500.00
13.	Data entry			700.00
14.	Data analysis			2,000.00
15.	Binding	4	1000.00	4,000.00
16.	Report writing			500.00
17.	Flask disk	1	150.00	150.00
18	Travelling Costs			5,000.00
18.	Contingency (10%)			295.3
	TOTAL			**16,731**

BUDGET JUSTIFICATION

TRAVELLING COSTS

The researcher needed transport to enable her travel from her residential place to selected health facilities for data collection. The researcher also needed funds for refreshments for respondents during dissemination of the findings.

STATIONERY AND SECRETARIAL SERVICES

Funds were also required for typing services. These services consisted of printing research proposal, questionnaires, photocopying, printing and binding of the final research reports for submission.

CONTINGENCY

The contingent of 10% of the total amount for the budget was added to the whole budget to cover unforeseen expenses which were required during the research study.

APPENDIX 6: QUESTIONNAIRE

UNIVERSITY OF ZAMBIA

SCHOOL OF MEDICINE

DEPARTMENT OF NUSRING SCIENCES

INTERVIEW SCHEDULE

FACTORS INFLUENCING CERVICAL CANCER SCREENING AMONGWOMEN IN KITWE DISTRICT

DATE OF INTERVIEW……

INTERVIEW SCHEDULE NUMBER……

LOCATION……

INSTRUCTIONS TO THE INTERVIEWER

1. Introduce yourself to the respondent and explain the purpose of the study
2. Assure the respondent of confidentiality
3. Name should not appear on the interview schedule
4. Tick responses where the box is provided. next
5. Fill in where blanks are provided.
6. The interviewer should thank the respondent at the end of the interview

WHERE: Where SA=Strongly Agree (5), A=Agree (4), NS=Not Sure (3), D=Disagree (2), SD=Strongly Disagree (1)

SECTION A DEMOGRAPHIC DATA

1. How old were you on your last birth day?……
2. What is your marital status?
    1. Single
    2. Married
    3. Divorced
    4. Widowed
    5. Separated
3. What is your religion?
    1. Christian
    2. Hindu
    3. Islam
    4. Others,
    (Specify)**…….....**
4. How far did you go in your education?
    1. Primary
    2. Secondary
    3. Tertiary
    4. None
5. Do you have children?
    1. Yes ☐
    2. No ☐
6. How old were you when you first experienced sexual intercourse?

……

SECTION B: KNOWLEDGE ABOUT CERVICAL CANCER

		SA 5	**A 4**	**NS 3**	**D 2**	**SD 1**
1	I have enough information about cervical cancer screening					
2	I know of the information about cervical cancer screening from friends and relatives					
3	I receive a lot of information about cervical cancer screening from the health facilities					
4	I receive a lot of information about cervical cancer screening from the media					
5	I can clearly explain what cervical cancer is					
6	I know the risk factors of having cervical cancer					
7	I know the signs and symptoms of cervical cancer					
8	I know the clinical procedure for cervical cancer testing					
9	I know where to go for cervical cancer screening					

SECTION C: ATTITUDE TOWARDS CERVICAL CANCER SCREENING

		SA 5	**A 4**	**NS 3**	**D 2**	**SD 1**
10	I have gone for cervical cancer screening before					
11	I went for cervical cancer screening at the Clinic					
12	I went for cervical cancer screening at the Hospital					
13	I went for cervical cancer screening by myself					
14	Cervical cancer screening is important					
15	I know why it is important to have cervical cancer screening					
16	I know the causes of cervical cancer					
17	I know ways to prevent cervical cancer					

SECTION D: PERCEPTION TOWARDS CERVICAL CANCER SCREENING

		SA 5	**A 4**	**NS 3**	**D 2**	**SD 1**
18	It is helpful to detect Cervical Cancer early					
19	I have heard of ways to prevent Cervical Cancer					
20	I know some people with cervical cancer					
21	People can share to me about their status on cervical cancer					

THANK YOU FOR YOUR PATIENCE, TIME AND COOPERATION

APPENDIX 7: IPEPALA LYA FIPUSHO

UNIVERSITY OF ZAMBIA

SCHOOL OF MEDICINE

DEPARTMENT OF NURSING SCIENCES

INTATIKO YAKU LASHANYA

UMUTWE WE LYASHI: IFINTU FILESUSUNKANYA KAMPINGU WAMULI BANA MAYO BONSE MWI BOMA LYA KITWE PAKUPIMISHA / UKUCHENCHETWA KWA CANCER YAKU KANWA KWA CHISA CHAKWA NAMAYO

UBUSHIKU BWAKULANSHANYA ……..

INAMBALA YA NTANTIKO YAKU LASHANYA……..

INCHENDE……

IFIPOPE FYAKWA KEPOSHA

1. Ilondolole wemwine napamutwe wesambililo kuwoleipusha
2. Mucinkule nokumweba pabukankala bwankama
3. Ishina talifwile ukusangwa pepapala lyantantiko ya kulanshanya
4. Chonga amasuko mutubokoshi tulipempala yamepusho
5. Amasuko yalingile ukulebwa ukuligana namepusho ayapelelwe muchende iyo
6. Kepusha alingile ukutasha uwo aleipusha pampela yafipusho.

EKUTILA: EKUTI: NS=Nasuminisha Sana (1), N=Nasumina (2), S=Shishibe (3).

SH=Shilesuminisha (4), NS=Nakana Sana (5)

ICIPANDWE CHAKUTAMPILILAPOPAFYA BWIKASHI

1. Bushe mwakwete imyaka yinga pabushiku mwalekeshe ukusefya kwakufyalwa kwenu?

……

2. Bushe Mwalikwata ba wiba / Bushe mwalyupwa?
    1. Naba neka
    2. Nalyupwa
    3. Twalilekana
    4. Ndi muka mfwilwa
    5. Tatwikala pamo
3. Mupepa kwi?
    1. Ndi mwine klistu
    2. Ndi Nsamya
    3. Ndi Mulungwana
    4. Kumbi (Lemba)**…….**
4. Bushe nimwisa mwapeleshe amasambililo yenu?
    1. Ku Primary
    2. Ku Secondary
    3. Ku College/ University
    4. Nsha Sambililapo
5. Mwalikwata abana?
    1. Emukwai
    2. Awe
6. Ngachakuti ubwasuko ni Emukwai muchipusho chachisanu, nomba nishi mwakwata abana banga? **……**

7. Bushe mwakwete imyaka yinga ilyo mwakwete isuna umuku wakubalilapo

……..

ICIPANDWE CHA BUBILI: UKWISHIBA PALI CANCER YAPA MULOMO WACHISA CHAKWA NAMAYO

		NS 1	**N 2**	**S 3**	**SH 4**	**NS 5**
1	Nalishiba ilyashi lya Pali cancer yapa mulomo wachisa chakwa namayo					
2	Nalishiba ilyashi lya Pali cancer yapa mulomo wachisa chakwa namayo Kubanandi/ Balupwa					
3	Nalishiba ilyashi lya Pali cancer yapa mulomo wachisa chakwa namayo Ku Chipatala					
4	Nalishiba ilyashi lya Pali cancer yapa mulomo wachisa chakwa namayo pa Pamulabasa					
5	Kuntu nalondolola ifyo cancer yapamulomo yakwa na mayo yaba					
6	Nalishiba ububi bwaba muli cancer yapa mulomo ya chisa chakwa namayo?					
7	Nalishiba ifimweno /ifishibilo fyaba Pali Cancer yapa mulomo yachisa chakwa namayo					
8	Nalishiba ifyo Cancer yapa mulomo yachisa chakwa namayo ingeshibikwa/Ingasangwa?					
9	Nalishiba uko namayo afwile aya mukuchenchetwa / ukupimwa Pali Cancer yapa mulomo wachisa chakwa namayo					

ICHIPANDWE CHABUTATU: IMIBELE NOKUKONKA NA CANCER YAPA MULOMO YACHISA CHAKWA NAMAYO

10	Naliyapo mukuchenchentwa Pali Cancer yapa mulomo yachisa chakwa namayo	**NS 1**	**N 2**	**S 3**	**SH 4**	**NS 5**
11	Mwaile ku chipata chikalamba mukuchenchentwa Pali Cancer yapa mulomo yachisa chakwa namayo					
12	Mwaile ku clinic mukuchenchentwa Pali Cancer yapa mulomo yachisa chakwa namayo					
13	Nikampingu yandi eyajebele ukuya pimisha/ ukuchenchentwa pali Cancer yapa mulomo yachisa chakwa namayo					
14	Chikankala ukupimisha/ ukuchenchentwa pali Cancer yapa mulomo yachisa chakwa namayo					
15	Nalishiba ubukankala bwaba Mukupimisha/ ukuchenchentwa pali Cancer yapa mulomo yachisa chakwa namayo					
16	Nalishiba ifimweno / ifishibilo fyapali Cancer yapa mulomo yachisa chakwa namayo					
17	Nalishiba ishila yakuichingilila paliCancer yapa mulomo yachisa chakwa namayo					

ICIPANDWE CHALENGA BUNE: ITONTONKANYO LYAPA KUPIMISHA/ / UKUCHENCHENTWA KWA PALI CANCER YAPA MULOMO WACHISA CHAKWA NAMAYO

18	Chikankala ukusangwa/ukuchenchentwa bwangu pali cancer yapa mulomo wa chisa chakwa namayo	**NS 1**	**N 2**	**S 3**	**SH 4**	**NS 5**
19	Mwalyumfwapo inshila shakuchingilila ukukanakwata Cancer yapa mulomo wachisa chakwa namayo					
20	Nalishibapo bamo abakwata ubulwele bwa cancer yapa mulomo wachisa chakwa namayo					
21	Abantu bamo balachikulako pabulwele bwa cancer yapa mulomo wachisa chakwa namayo					

NATASHA SANA PAKULOLELA KWENU, PASHITA NAPA KUFWANA TWACHIKWATA

APPENDIX 8: REQUEST FOR PERMISSION TO CONDUCT THE PILOT STUDY

The University of Zambia
School of Medicine
Department of Nursing Sciences
The District Director of Health
Kitwe DHMT
Kitwe

UFS: The Dean, School of Nursing Sciences
P.O Box 50110
Lusaka

Dear Sir/Madam,

RE: REQUEST FOR PERMISSION TO CONDUCT A PILOT RESEARCH STUDY

I am a Second (2nd) year student pursuing a Degree in Masters at the above-mentioned School. In partial fulfillment for the award of the Degree in Master of Science in Midwifery, Women and Child Health, am required to undertake a research project. My research topic is **'Knowledge, Attitude and Perception influencing Cervical Cancer screening'.** The purpose of writing this letter is to ask for permission to conduct a **pilot study** at Mulenga Urban clinic. The actual research study will be conducted at Chimwemwe, Luangwa, and Ndeke and Buchi Urban clinics. I intend to interview women from OPD, MCH and other departments except cervical cancer clinic from the above-mentioned clinics from……...May, 2021 to……... July, 2021.

Your consideration towards this request will be highly appreciated.

Yours Faithfully,

Mercy Daka

2nd Year MBs N S

The University of Zambia
School of Medicine
Department of Nursing Sciences
The District Director of Health
Kitwe DHMT
Kitwe

UFS: The Dean, School of Nursing Sciences
P.O Box 50110
Lusaka

Dear Sir/Madam,

RE: REQUEST FOR PERMISSION TO CONDUCT A RESEARCH STUDY

I am a Second (2^{nd}) year student pursuing a Degree in Masters at the above-mentioned School. In partial fulfillment for the award of the Degree in Master of Science in Midwifery, Women and Child Health, am required to undertake a research project. My research topic is **Knowledge, Attitude and Perception influencing Cervical Cancer screening'.** The purpose of writing this letter is to ask for permission to conduct the **actual research** study at Chimwemwe, Luangwa, Ndeke and Buchi Urban clinics. I intend to interview women from OPD, MCH and other departments except cervical cancer clinic from the above-mentioned clinics from……...May, 2021 to……... July 2021.

Your consideration towards this request will be highly appreciated.

Yours Faithfully,

Mercy Daka

2^{nd} Year MBs N S