UTILIZATION OF CERVICAL CANCER SCREENING SERVICES AMONG WOMEN OF REPRODUCTIVE AGE IN CHEPALUNGU SUB-COUNTY, BOMET COUNTY, KENYA

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DECLARATION

This proposal is my original work and has not been presented for a degree in any other University or any other award.

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DEDICATION

This work is dedicated to my family for their support and encouragement in my every endeavor. My success is their success.

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I thank God the Almighty for bringing me this far in my studies. I am grateful to Kabianga University for giving me the chance to study in the institution in the Department of Nursing. Finally, I would like to thank my family for their encouragement throughout the study. The fact that they believed in me gave me enough reason to press on when things got tough. To God be the glory and honor

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ABBREVIATION AND ACRONYMS

AIDS	Acquired Immunodeficiency Syndrome
ASCUS	Atypical Squamous Cells of Unknown Significance
CCPPSP	Cervical Cancer Preventive Program Strategic Plan
CCS	Cervical Cancer Statistics
CHV	Community Health Volunteers
CIN	Cervical Intraepithelial Neoplasia
CIS	Carcinoma in Situ
CHS- UDUS	College of Health Science Usmanu Danfodiyo University, Sokoto
CT- SCAN	Computed Tomography Scan
CXR	Chest X- Ray
FIGO	International Federation of Gynaecology and Obstetrics
GLOBOCAN	Global Cancer Incidence, Mortality and Prevalence
H I. V	Human Immune Deficiency Virus
HPV	Human Papilloma Virus
LEEP	Loop Electrosurgical Excision Procedure
MOH	Ministry of Health
MRI	Magnetic Resonance Imaging

NCR	Nairobi Cancer Registry
STI	Sexually Transmitted Infections
TAH	Total Abdominal Hysterectomy
U/S	Ultrasound
VIA	Visual Inspection with Acetic Acid
VILI	Visual Inspection with Lugol's Iodine
WHO	World Health Organization

DEFINITION OF OPERATIONAL TERMS

Cancer of the cervix: refers to malignant cell growth in the lower part of the uterus that opens into the vagina (WHO, 2019).

Cancer: malignant cells in the cervical tissues (MoH, 2016).

Cervix: the lower part of the uterus that opens into the vagina (WHO, 2019).

Determinants: factors that significantly influence the use of available screening methods of cervical cancer screening services (Al-amro, Gharaibeh & Oweis, 2020).

Screening: use of simple tests across a healthy population in order to identify individuals who have cancerous cells, but do not yet have symptoms (Donatus et al., 2019; MoH, 2016).

ABSTRACT

Cancer of the cervix refers to malignant cell growth in the lower part of the uterus that opens into the vagina. Cervical cancer is one of the most prevalent cancers in developed countries and the third most common cancer among women worldwide, with an estimated 569,847 new cases and 311,365 deaths recorded in 2018. Cervical cancer is primarily associated with young women. Women aged 50 years and below accounts for 62%, of all cervical cancers. More than a million women in the world are living with cervical and most of them have no access to screening, treatment and palliative care, resulting in late treatment. Cervical cancer usually develops slowly, which means that most cases can be identified and managed when screening was performed regularly. The study seeks to investigate the determinants of utilization of cervical cancers screening services among women of reproductive age in Chepalungu Sub-County. The study population were women of reproductive age. A stratified random sampling technique was used to obtain 300 respondents from the study population (2542). Data was collected using self-administered semi-structured questionnaires issued to women of reproductive age in Chepalungu Sub-County. The study adopted a cross-sectional descriptive study design. The study used quantitative research methods to obtain data from selected respondents. Data from the respondents was analyzed using statistical package of social sciences (SPSS) in conjunction with Microsoft excel. Most of the respondents (71.67%) have heard of cervical cancer. 81.67% (n=245) know someone who have had cervical cancer. 66.67% (n=200) have ever received information related to cervical cancer while 33.33% (n=100) have not. 65% (n=195) of the respondents were aware of screening for cancer of the cervix while 35% (n=105). The respondents get to know of screening of cancer of the cervix through relatives (n=25), friends (n=44), health provider (n=41) and media (radio, TV, newspaper) (n=85). Based on the findings of this study, it was concluded that, although majority of women are aware of the cervical cancer, the screening is low. There is therefore a need for more sensitization on the need for cervical cancer screening. The Ministry of Health should advocate for cervical cancer screening early enough and tailor the awareness through health education seminars in the community to help improved transfer of correct knowledge on cervical cancer screening services.

CHAPTER ONE: INTRODUCTION

1.1 Background to the study

Worldwide, among all types of cancers among women, cancer of the cervix is 3rd common with an estimate of 311,365 annual deaths and 569,847 new cases recorded in the year 2018 (Bruni *et al*., 2019). Generally, a mortality rate in developed countries exceeds the one for advanced nations by four times, with eighty-to-eighty five percent of deaths taking place in developing countries, (Mupepi, Sampselle & Johnson, 2011). In the year 2010, cancer of the cervix killed 200,000 people worldwide (Lambert, 2013). Cervical cancer is primarily associated with young women. Women who are 50years and below accounts for 62% of all cervical cancers with the highest number raging between 22-29 years (Benard, Watson, Castle & Saraiya, 2012). Cervical cancer incidence rate can be reduced by approximately 25% to 35% if women are screened once at the age of 35years, however, if women are screened twice between the ages of 35 years to 40 years this can reduce the risk of cancer of the cervix to up to 40% (Ferly *et al*, 2010)

In east Africa cancer of the cervix remains most common type of cancer among all other types of cancers (Bray, 2018). In Kenya alone, new cases per year are 5,250 (12.9%) and contribute to 3,286 (11.84%) of annual deaths related to cancer of the cervix. Cervical cancer is the 2nd leading cause of cancer deaths amongst all female cancers. (Bray, Ferlay, Soerjomataram, Siegel, Torre & Jemal, 2018). Screening and testing healthy women for precancerous cells can prevent cancer of the cervix WHO (2014).

Cancer of the cervix cancerous cells can be detected early which can enable early treatment and hence prevention to progression to cancer of cervix. When cancers of the cervix precancerous cell are detected early, treatment can be effective.

More than a million women in the world are living with cervical and most of them have no access to screening, treatment and palliative care, resulting in late treatment. Due to the slow progress of cancer of the cervix, early identification through regular screening can lead to prompt management (Siegel, Miller & Jemal, 2018).

Reports have linked human papilloma virus various types that is sexually transmitted to development of cancer of the cervix pre-cancerous cells. Those women with multiple sexual partners are most at risk of getting infected with HPV which is the main cause of the cancer of the cervix as well as those who had a previous exposure to HPV virus are more prone to

developing the disease (Ifemelumma *et al*., 2019). Therefore, when women are screened early it helps to detect cases at the precancerous stage and hence requires simple management that prevents cancer of the cervix (Al-amro, Gharaibeh & Oweis, 2020). However, screening and other measures to counter the ravaging effects of cervical cancer continue to face several challenges in various contexts. Developing countries has limited resources for training health care providers and laboratory services to make diagnosis in order to initiate treatment

At Mama Lucy Kibaki Hospital, Nairobi, Kenya, Mbaka, Waihenya, Olsebe and Lihana (2018) stated that 83.6% comprised of those who were aware of cancer of the cervix 23.1% had ever gone for screening for cancer of the cervix prior to the study. They feared the procedure for cervical cancer screening where most of the respondent sited the procedure as the main barrier to utilization the service. Motivators for cancer of cervix screening uptake included mass media, health education, and outreach campaigns on screening services, mobile clinics and voluntary cervical cancer screening Centre. A study on reduction risk for cervical cancer showed, screening at 35 year and 45 years can reduce risk by 40%. Three screening visits at 34 years, 40 years and 45 yeas increase reduction risk by 15%. 65% of the women diagnosed in 2006 died of cancer of the cervix. This shows that most women with cancer of the cervix seek medical services when it is very late (NCCPSP, 2011-2016).

1.2 Problem Statement

The effects of late screening of cervical cancer among women cannot be overstated. Globally 270,000 lives are lost due to cervical cancer annually with 80% of these lives being from developing countries (WHO 2010). In Kenya Cancer of the cervix is ranked the 2nd leading type of cancer of all cancers among women for women of ages 15 years and 44 years it is the leading type of cancer. It is estimated that HPV-16 harbours 9.1% of comprises of women in the general population and 63.1% of invasive cancer of the cervix is attributed to HPV 16 or 18 (HPV Information Centre, 2016).

In 2021, Longisa County referral Hospital carried out only few screenings, 1 woman was screened for Human papilloma virus, 190 women were done VIA VILLI and none was done Pap smear although testing kits were available with 169 cartridges expiring due to low uptake of screening (DHIS, 2022). It has been noted that there are unsatisfactory studies conducted in Kenya, specifically in Chepalungu, Bomet County to address the issue at hand. Therefore, based on the above backdrops, the current study finds it justifiable to fill in the gaps and address the

problem by investigating the determinants of utilization of cervical cancer screening services among women of reproductive age in Chepalungu Sub-County.

1.3 Justification

An important aspect of our preventive health care involves screening tests. Women of reproductive age use screening tests in order to detect most common conditions and potentially long life conditions (such as diabetes, heart disease and cancers) that start affecting people in their mid-life years. Early screening and testing can help detect conditions and illnesses at early stages when is most curable before symptoms set in. With the screening tests information, a patient can work closely with the healthcare provider to develop preventive measures that can improve and even extend the extent of healthy years. Likewise, WHO recommends screening for cancer of cervix at least once every 5-10 years in women of reproductive age (WHO, 2018).

1.4 Objectives

1.4.1 Broad objective

To investigate the determinants of utilization of cervical cancers screening services among women of reproductive age in Chepalungu sub-county.

1.4.2 Specific objectives

1. To determine the influence of social-demographic factors on the utilization of cervical cancer screening services among women of reproductive age in Chepalungu sub-county.
2. To examine the utilization of cervical cancer screening services among women of reproductive age in Chepalungu sub-county.
3. To determine the influence of knowledge, awareness and perception of cervical cancer screening services on the utilization of cervical cancer screening services among women of reproductive age in Chepalungu sub-county.

1.5 Research questions

1. What is the influence of social demographic factors on the utilization of cervical cancer screening services among women of reproductive age in Chepalungu sub-county?
2. What is the utilization of cervical cancer screening services among women of reproductive age in Chepalungu sub-county?

3. What is the influence of knowledge, awareness and perception of cervical cancer screening services on the utilization of cervical cancer screening services among women of reproductive age in Chepalungu sub-county?

1.6 Hypotheses

The study will be testing the following alternative hypotheses:

H_{A1}: There is a significant relationship between socio-demographic factors and utilization of cervical cancer screening services among women of reproductive age in Chepalungu sub-county.

H_{A2}: There is a significant relationship between utilization of cancer of the cervix screening services and the knowledge of cancer of cervix among women of reproductive age in Chepalungu sub-county.

H_{A3}: There is a significant relationship between utilization of cancer of cervix screening services and the awareness of cancer of cervix screening services among women of reproductive age in Chepalungu sub-county.

H_{A4}: There is a relationship between utilization of cancer of cervix screening services and the perception on cancer of cervix screening services by women of reproductive age in Chepalungu sub-county.

1.7 Significance and anticipated output

There is a downward trend on mortality related to cancer of the cervix after using Pap smear test as reported by studies done in United States of America. This study provides information on awareness of utilization of cancer of the cervix, knowledge on cancer of the cervix and screening, the social demographic effect on utilization, perception of cancer of the cervix and screening services of cancer of the cervix screening services and the percentage of women of reproductive age who have utilized the screening services. This information will help in improving the uptake of cancer of the cervix screening services through identification of clients' determinants for the services utilization.

1.8 Delimitation and limitation

Potential weaknesses in a study that are out of the researcher's control are limitations while actions taken by the researcher in order to take care of the limits that arise from the research are delimitations (Simon, 2011). The study will be limited to women of reproductive age in Chepalungu Sub-County of Bomet County. However, limiting the study to the County will offers a narrower and more specific scope of research to pinpoint the problems and derive country-

specific solutions. In addition, since the study is scientifically carried out, the findings will be generalizable to the entire population.

This study will experience a number of limiting factors. For instance, the researcher anticipates unwillingness from respondent to give information. This anticipation will be addressed by explaining the respondents that the gathered information is confidential and is for academic purposes only. Time will be another limitation whereby the researcher will not be able to reach all respondents. The research assistants will assist the principal researcher by collecting the data at the same time hence addressing the limitation of time. Financial constrains is another limitation which the researcher addressed through personal savings and support from family members.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

Cancer of the cervix is caused by human papilloma virus (HPV) infection. It accounts for more than eighty percent from middle and low-income countries. an estimate of one million women are living with the cancer of the cervix currently. Many of cervical cancer clients have no access to curative, preventive, and palliative care for cancer of the cervix (WHO, 2010). Women who are infected with HIV get infected by cancer of the cervix earlier than those not infected at a peak of 35 years to 45 years primary prevention of cancer of the cervix can be achieved through sexual abstinence, delayed sexual rebut and use of condom; vaccination of girls at the age of 9-11 year with HPV vaccine and male circumcision promotes primary prevention. (Arbyn *et al*., 2020). Invasive cancer of the cervix progresses in duration of 10 years after precancerous cell detection through early screening and appropriate treatment is important for secondary prevention. Pre-cancerous cell for cervical cancer can be screened through visual inspection with lugos iodine (VILI), and acetic acid (VIA) (Mishra, Pimple & Shastri, 2011).

2.1.1 Global Perspective

Developing countries has highest burden of cancer of the cervix that is caused by lack of effective programs for screening (WHO, 2019). For developed nations such as the United States, about 40 %of women living with cervical cancer die of cervical cancer, while the corresponding mortality rate for developing countries like Sub-Saharan Africa is 78 % The United Kingdom (UK) has reported a 42 per cent drop in cervical cancer after the successful introduction of cervical cancer services by the National Health Service (Torre *et al*., 2015). A fifth of disease burden in India is due to cancer of the cervix caused by inadequate screening programs for cervical cancer. An initiative of cancer of the cervix in Australia lowered the numbers to an average of 4.5 %of people affected by cancer of the cervix (Vhuromu, Goon, Maputle, Lebese & Okafor, 2018).

Haiti has a mortality rate of 4.1 percent per one hundred thousand women while Jamaica has 17.4 percent in same hundred thousand making the highest cancer of cervix mortality rates in the Caribbean Region Countries. In Jamaica mortality rate is 6.6 times higher for cervical cancer than females from unite state of America and 2.8 greater for African American females (Bourne, Kerr-Campbell, McGrowder & Beckford, 2010; Ncube, Bey, Knight, Bessler & Jolly, 2015).

Human papilloma virus testing is not available in public health sector in Jamaica. It ranges between fifty-four and eighty seven percent. It is highest on young teenagers aged between sixteen to nineteen years with multiple sexual partners. In Jamaica despite having, high prevalence for cancer of the cervix does not have programme for HPV vaccination (Ncube, Bey, Knight, Bessler &Jolly, 2015).

2.1.2 Regional Perspective

Among the Sub-Saharan African countries, cancer treatment and screening facilities as well as the resources is limited. Cancer of the cervix is still a major cause of mortality and morbidity despite the importance of screening to women in LMICS in SSA (Bayu, Berhe, Mulat & Alemu, 2016). For instance, in Nigeria sporadic screenings for cancer of the cervix for women visiting certain clinic since there are no policy guidelines for screening (Ndikom & Ofi, 2012). High prevalence and no policy programs for screening services cause high burden of cancer of the cervix in Nigeria. Poor knowledge, Negative seeking behavior and lack of screening programme that are effective has caused low utilization of screening services (Ndikom & Ofi, 2012; Ifemelumma *et al*., 2019).

2.1.3 Kenyan Perspective

Kenya projects approximately four thousand and sixty new cases by the year 2025. Cancer of the cervix remains low at 3.2% of women aged 18 years to 69 years in Kenya. New cases of cervical cancer make up 12.9 % (5,250) annually and 11.84 %(2,286) deaths of cervical cases annually. Cancer of the cervix is the second among all cancers in women (MOH, 2018; Fitzmaurice *et al*., 2017). Nyangasi *et al*. (2018) likewise acknowledge that in Kenya awareness of cancer of the cervix screening is high; however, the rate of screening is still low. Strategies should be put in place to focus on women in rural areas and with no formal education as well as those with non-risky behavior and risky behavior in order to implement the message.

At Mama Lucy Kibaki Hospital, Nairobi, Kenya, Mbaka, Wainenya, Olsebe and Lihana (2018) stated that 83.6% comprised of those who were aware of cancer of the cervix 23.1% had ever gone for screening for cancer of the cervix prior to the study. They feared the procedure for cervical cancer screening where most of the respondent sited the procedure as the main barrier to utilization the service. Motivators for cancer of cervix screening uptake included mass media, health education, and outreach campaigns on screening services, mobile clinics and voluntary cervical cancer screening Centre. A study on reduction risk for cervical cancer showed,

screening at 35 year and 45 years can reduce risk by 40%. Three screening visits at 34 years, 40 years and 45 yeas increase reduction risk by 15%. 65% of the women diagnosed in 2006 died of cancer of the cervix. This shows that most women with cancer of the cervix seek medical services when it is very late (NCCPSP, 2011-2016).

Study on utilization of cancer of the cervix services in Embu County showed that 82% of the women interviewed were aware on cancer of the cervix and 73.2% knew about the availability of screening services (Nthiga 2014). At Mbi Teaching and Referral Hospital, a study on barriers to cervical cancer showed that only 22.8% who felt at risk of cancer of the cervix and only 12.3% were screened prior to the study. Cervical cancer positive results after tests scared women from going for the screening at 22.4% as well as financial constrains at 11.4% (Were et al 2011). Currently, Kandie, Mburugu, Onyambu and Kapigen (2019) state that in Meru Teaching and Referral Hospital 78.4% reported not to have had of HPV vaccination, 38.1% had never heard of cancer of the cervix screening, while 61.9% had heard about cancer of the cervix screening. Aware of cancer of the cervix was at 69%

In Migori County, Kenya, Oketch *et al*. (2019) reported that women indicated to have a positive experience with the HPV self-sampling strategy. Influence on uptake of cancer of the cervix screening services included knowledge, prior awareness of human papilloma virus, perception of cervical cancer by individuals and partner and peer encouragement. However, most of them pointed out that they were paranoid about death associated to cacer of the cervix and the examination

In Bomet 50% of women who were diagnosed with cancer of the cervix in the year 2015 died within the same year. It is reported that they sought health services when it was late and the cancer cells were in stage three and four. A study HPV vaccine acceptability among primary school teachers at Bomet County revealed that awareness of the vaccine was at 90% while knowledge level of cancer of the cervix was at 48% (Masika *et al*., 2015).

The national strategic plan on cancer of cervix prevention for the years 2012 to 2015 which was rolled out in the year 2012 had an aim of providing priority actions which would produce a greater reduction on cancer of the cervix by increasing the screening rate among women. Cervical cancer proportion in Kenya when compared to other cancers is 12.7% and contributes 8.6% deaths of all other cancers. The above instances among others are clear indicators of low uptake of cancer of the cervix screening services not only in Kenya but also globally. The

program in Kenya recommends goo screening testing criteria that include VIA, VILI and Pap smear as well as HPV cytology.

2.2 Utilization of Cervical cancer screening services

In the United States of America in the year 1950, the uptake of cancer of the cervix screening services was very low and was the leading cause of death but now accounts to only 0.7% among women mortality caused by cervical cancer (National Cancer Institute, 2017). Utilization of cancer of the cervix screening services has been reported to be low especially in developing countries. The uptake of cervical cancer screening by women was 5.1% only among women who had been done Pap smear. (Wright *et al* 2014). Non- screening for cancer of the cervix was attributed to the respondents' assumption that they were not at risk of contracting cancer of the cervix. Poor perception on cancer of the cervix screening services by most women who were not screened. (Ajibola *et al*, 2016).

Vhuromu, Goon, Maputle, Lebese and Okafor (2018) studied the use of cancer of cervix Screening Services for Women in Vhembe District, South Africa. By randomly assigning five hundred women ranging between 20-59 years in Vhembe District, Limpopo Province, South Africa, the study indicated that the use of cancer of the cervix screening services is still very low, given the free provision and understanding of cancer of the cervix screening services. In particular, majority of the women would not have been tested for cervical cancer, primarily due to lack of resources, phobia of discomfort, and humiliation. According to the women, the Pap test included scratching the cervix to identify suspected cancer cells, and about a third of them did not have a Pap test. Cancer of the cervix screening health talks should be intensified and improved to provide additional, affordable alternatives for screening women in the rural area.

The survey by Kileo, Michael, Neke and Moshiro (2015) utilization of cancer of cervix screening services and related factors among primary school teachers in Ilala Municipality, Dar es Salaam, Tanzania, and the findings suggest that the uptake of the services was poor. The use of cancer of the cervix screening programs was 28% for women who were aged 20–29 years, 22% for those married and 24% for those of higher education. People were more likely to use cancer of cervix screening whether they were multiparous, had reported more than one-life sexual relationship, and did not include their husband choosing health services.

In Kenya, a study of NCDs Risk Factors revealed that only 16.4 per cent of women aged 30 to 49 years had been tested for cervical cancer (KNBS, 2015). Nevertheless, the use of cervical cancer

screening programs that can eliminate any of this remains exceptionally small at just 3.2 per cent in the country for women aged 18 to 69 years. Fresh cases of cervical cancer account for 12.9 per cent (5.250) per year and 11.84 %(2.286) of prostate cases per year. The leading cause of deaths related to all female cancers is cancer of the cervix (MOH, 2018; Fitzmaurice *et al*., 2017).

Nyangasi et al. (2018) likewise acknowledge that despite high awareness of cancer f cervix screening services the utilization in Kenya is low and therefore the strategies should aim at improving the uptake through health messages addressing risky and non- risky group

At, Mama Lucy Kibaki Hospital, Nairobi, Mbaka, Waihenya, Olsebe and Lihana (2018) announced that the prevalence of cervical screening was 23.1 per cent, with 83.6 per cent conscious of cancer of the cervix. Fear of tests, the lack of knowledge and mistrust of screening were significant obstacles to cervical screening, Free cervical screening Community medical awareness, free cervical screening centers, mass marketing advertisements for cervical cancer and mobile cancer screening services have been described as possible motivators for cervical screening.

2.3 Influence of Knowledge on Utilization of cervical cancer screening services

Heena, Durrani, Al Fayyad, Riaz, Tabasim, Parvez and Abu-Shaheen (2019) on study on knowledge, attitude and practice on women health professional in King Fahad Medical City (KFMC) on cancer of cervix screening showed that only 4.0 per cent of participants tended to have strong cancer of cervix information (in terms of risk factors, susceptibility, signs and symptoms, preventive measures and screening procedures) and that 14.7 per cent had average knowledge of cervical cancer. 86.8 percent of participants agreed that the Pap test was a successful tool for the diagnosis of cervical cancer and 103 (26.2 percent) respondents had experienced Pap Test Testing, This research suggests that female health workers at KFMC have low understanding of cervical cancer as a condition.

Vora, Mcquatters, Saiyed and Gupta (2020) indicate that early diagnosis and preventive care will eliminate up to 80 per cent of cervical cancers-related illness in developing countries where successful screening services are in place. The authors studied Awareness, perception and obstacles to Screening for cancer of the cervix among Women in India and found that in urban and rural areas, the majority of females have learned about cervical cancer, but there is a surprisingly poor adoption for cancer of the cervix screening. This poor incidence of cancer of the cervix screening can be due to a variety of reasons, including a low level of education and

understanding, a low level of perceived risk, shame/stigma associated with cancer, cancer anxiety, expense and family responsibilities.

The case has likewise been noted in the Sub-Saharan Africa where many countries fall short of the necessary resources and capital to facilitate the early screening. Using a cross-sectional descriptive analysis, Gyamfua et al. (2019) investigated the effect of the awareness level on cervical cancer among women in the Kenyan Bosore group in Ghana. The study found that only 9.7 per cent of respondents had high knowledge of cervical cancer, 20.6 per cent had moderate knowledge, while 69.7 per cent had poor knowledge of cancer of the cervix. This is an implication that the respondents have understanding of signs, symptoms, risk factors risk factors, diagnosis and treatment of cancer of the cervix. The analysis also showed that the educational experience and profession are significantly associated with knowledge level of cancer of the cervix screening among the respondents.

A study carried out on uptake of cancer of the cervix screening services in Moshi Tanzania showed that, among the respondents interviewed 59.6% had low level of knowledge on cancer of the cervix as well as its prevention among the respondents. 60.5% had been screened. High knowledge level and prevention on cancer of the cervix screening influenced screening among the respondents (Lyimo and Beran 2012). Likewise, Mugassa and Frumence (2020) analyzed influencing factors to uptake of cancer of the cervix screening services in Tanzania and the study revealed that there was an influence on utilization by the national health system to early uptake of the services by poor flow of information and inadequate availability of tools and competent staff.

Daniyan (2019) measured the effect of Knowledge, Attitudes and Practice of cancer of the cervix screening among Women Health Workers at the Tertiary Health Facility in South-East Nigeria. Informants' level of knowledge on cancer of the cervix screening services was considered satisfactory. That is likely because the respondents were health professionals who were subject to public knowledge of the prevalence of cervical cancer and the need for routine screening. This further suggests that big initiatives and public understanding of the topic have greatly changed knowledge within the target markets. Similar studies have, however, shown that, given a high degree of knowledge and availability of screening facilities, there is low use of Pap-dating among health staff, for example in Maiduguri (Bakari, Takai & Bukar, 2015). Healthcare workers despite been the custodian of heath care has low uptake of cancer of the cervix

screening services hence needing investigation in order to improve utilization of cancer of the cervix screening services. In another study in Southern Ethiopian Mabelele, Materu, Ng'ida and Mahande (2018) studied the effect of awareness on the prevention and screening activities of cancer of the cervix among women attending reproductive and child health clinics in Magu District Hospital, Lake Zone Tanzania. The study showed that awareness of cervical cancer was poor, with 82.7 per cent of women having 50% and below. Slightly above three quarter (82.4%) among the respondents were aware about cancer of cervix. Many women lack detailed awareness of cancer of the cervix and only a handful use screening facilities. Strategies to raise awareness of cervical cancer can help to increase the understanding and use cancer of the cervix screening procedures.

2.3.2 Influence of Awareness on Utilization of cervical cancer screening services

The level of awareness on cervical cancer and cervical cancer screening can influence an individual's intention to seek for the services. In a study conducted among Tunisian, it was revealed that the awareness level of the cancer of the cervix was 40% and an anti HPV vaccination acceptability of eighty percent. The researcher also revealed that there was strong statistical association between awareness of cancer of the cervix and utilization of the same (Gamaoun, 2018).

Abiodun, Oluwasola, Durodola, Ajani, Abiodun and Adeomi (2017) did a cross-sectional survey on perception risk and awareness level on cancer of the cervix among clients attending general outpatient clinic at Bowen University Teaching Hospital (BUTH) showed that recognition and screening tests for cancer of the cervix was at 22.6 per cent and 17.9 per cent, respectively, hospital personnel were the main source of health talks. Approximately 5.7 per cent of the respondent had an assumption that they were never at a risk of cancer of the cervix. Among the respondents, only 1.6% had gone for cervical cancer screening test and approximately 5.7% assumed that they were never at risk of cancer of the cervix

In a study done in Nigeria to investigate community, awareness on cervical cancer among respondent's majority of them were aware of its causes through health talks even though they were reluctant to seek screening services. In another study done in the southeast of Nigeria to determine the influence of awareness on uptake of screening services, it was further revealed that majority of those interviewed had higher awareness levels and a relatively higher rate of uptake of screening services (Aniebue *et al.*, 2010).

Amin et al. (2020) utilized a cross-sectional study design to study the perception of cancer of the cervix and its cytological screening among medical students (Preclinical students of CHS-UDUS). The study showed that UDUS preclinical medical students were well aware of cervical cancer screening (82%) which made them favorably inclined towards the screening method. Many of them(75.6 percent) agree the Pap is successful in the diagnosis of cervical cancer. Most of participants derived their knowledge from daily seminars (81 per cent) against mass media (7 per cent) and other international outlets. Nevertheless, 42.8 per cent were unsure of the Pap Fungal Screening Programs offered at their university. The level of understanding of cancer of the cervix screening was believed to be high among the population of the sample.

In a study conducted among Gabonese women, revealed that majority among the respondent had awareness on cancer of the cervix with a few reporting that not to know the causes of cancer of the cervix with risk factor knowledge gap on cervical cancer. Multiple sexual partners, sexually transmitted infections, insertion of objects into the vagina and early sexual rebut were the risk actors frequently cited by the respondents (Assoumou *et al*., 2015)

The current study, therefore, underscores various empirical results that imply the extent to which awareness has influenced the uptake of cancer of cervix screening services in various contexts. Most of these studies have noted that awareness level on the cancer of the cervix effects; early detection and effects of unscreened cases have had significant effects on the uptake of cancer of the cervix screening services. The current study, therefore, seeks to narrow the effect to a case of women of reproductive age in Chepalungu Sub-County.

2.3.3 Influence of perception on Utilization of cervical cancer screening services

Psychological factors that affected cancer screening included, culture, spiritual beliefs poor knowledge and fear of invasive procedures. Approval by partners, language barrier, lack of confidentiality, high cost on referral and lack of health insurance policy are external factors that influence on utilization of cancer of the cervix screening, (Maria *et al*, 2011). Study done on breast and cancer of the cervix revealed that, socio-economic factors knowledge level, acceptability of healthcare services and language barrier partially explained disparities among Asian and Hispanic women (Elizabeth et al 2011).

A study done in Lagos on perception and prevention practices at the community level showed that among the respondent those who had ever heard about cancer of the cervix were only 37.2

per cent with 5.1 percent having been done Pap smear test (Wright et al 2014). Abiodun, Oluwasola, Durodola, Ajani, Abiodun and Adeomi (2017) conducted a cross-sectional study to determine the level of understanding and perceived risk of cervical cancer among females at the Bowen University Teaching Hospital (BUTH) general outpatient clinic. The study also indicated that risk assessment is strongly related to age and early coitarche. In fact, the mood of the participants to cervical cancer screening was positive.

Ndikom, Fadahunsi, Adekanmbi and Young (2019) indicated that since most women attending the gynaecological clinic have not utilized cervical cancer screening services and have a poor perception about the consequences of late diagnosis. The research examined the potential effects of late cervical cancer diagnosis and use of Cervical

Kandie, et al, 2019 carried a study on assessing the perception and knowledge on cervical cancer screening at Meru Teaching and Referral Hospital. 352 respondents were surveyed through purposive sampling technique; the findings revealed that 86.9 percent never knew cancer of cervix causes. Awareness of cancer of cervix was at 69 percent. Those among the respondent who had undergone screening were 61.9% and heard about cancer of cervix screening and human papilloma vaccination respectively. A negative relationship between screening, perceived pain and perceived embarrassment was established by the study. This negative perception on cancer of cervix screening influences the uptake of cancer of the cervix screening services negatively.

Oketch et al. (2019) did implementation strategies survey in Migori County on cancer of the cervix screening services among 120 respondents in a cluster randomized trial. Women mentioned having good experience with the HPV self-sampling technique. Perceptions and awareness such as previous HPV awareness, personal understanding of the risk of cancer of the cervix, preference for better health outcomes, and peer and partner support have been reported to affect the use of cervical cancer screening. Most of them, however, found out that they were paranoid about pelvic examination, illness, and death connected with cervical cancer.

2.3.4 Influence of Social demographics on the utilization of cervical cancer screening services

Social demographic factors such as age, marital status, educational level, religion and occupation could influence the utilization of screening services. Research findings have shown that younger women tend to seek for cervical screening services more than the older women (Ifemelumma,

2019) do. Other studies have shown that there is no statistical relationship between the respondents age and utilization cancer of the cervix screening services. In a study done in Korea, results showed that age did not influence intention to seek for cervical screening services (Park *et al*, 2011). Similar results were reported in a study done in Greece, which showed that there was no association between age and utilization of cancer of the cervix screening services (Simou *et al*., 2010)

In Norway, Leinonen, Campbell, Klungsøyr, Lönnberg, Hansen and Nygård (2017) examined the impact of personal and provider-level influences on involvement in cervical cancer screening among Norwegians and immigrants. In particular, 34 per cent of women were non-attached 31 per cent of native Norwegians, compared to 50 per cent of immigrants. Higher non-compliance rates were correlated with having a male general practitioner (GP), an international GP, a young GP, and a distance to the screening site. Being single, having no daughters, having a lower socioeconomic status and area of residency, expected non-compliance and, to a lesser degree, influenced the respondents towards adherence to screening. Past contact of cervical disorders, by comparison, greatly improved conformity to the screening.

Ebu (2018) conducted research at central region of Ghana on social demographic characteristic on cancer of the cervix screening among HIV positive women. The study showed that those respondents who had high level of education utilized screening services more than the ones with formal education. Education gives more understanding of health-related issues and therefore can be attributed to a better utilization of screening services for cervical cancer. Women who are educated can also evaluate risk factors to certain disease and can influence decision making for a health service positively including cancer of cervix screening services (Ebu, 2017).

Research findings by Ebu (2018) have also reported respondents' marital status did not influence screening for cancer of the cervix, this could have been due to the study inclusive criteria whereby those cohabitating respondents were termed as married and those who had been divorced were added to the singles as well as the windowed respondents were termed as unmarried (Ajibula et al., 2015).

In Ethiopia, Woldetsadik et al. (2020) have examined the impact of socio-demographic features on cancer of the cervix screening for female clients attending St. Paul's Teaching and Referral Hospital. This examination demonstrated that there was a poor adoption in cervical disease screening. This was evidenced by women between the age of 40 and 49 years old who were

bound to be screened than those in the range of 18 and 29 years old. Individuals living in urban zones were bound to be tested than individuals living in rustic regions. Females in the conceivable objective segment of cervical malignant growth screening was an extent of all age bunches studied and screening was more continuous than in more youthful females. Likewise, rustic residency, low month-to-month salary and absence of mindfulness were critical indicators of the helpless utilization of cervical malignant growth screening exercises.

In Kenya, Mwangi, Gachau and Kabiru (2017) dissected the impact of sociodemographic, social-economic and socio-cultural factors on take-up of cervical malignancy screening administrations in low asset settings. The investigation demonstrated that the degree of awareness on cervical disease avoidance is still low and this among different components lead to low VIA/VILI screening tests usage. This was evidenced by the discoveries that there is a statistically relationship between use of VIA/VILI cervical malignant growth screening administrations and the degree of training of the respondents, fundamental wellspring of salary, normal month to month pay and principal leader in the family. General Health offices were not very much staffed and prepared to enough offer the VIA/VILI screening administrations viably.

Nyangasi et al. (2018) studied the factors influencing the utilization of cancer of the cervix screening among Kenyan women and noted that the uptake of cervical cancer screening is low despite high awareness in Kenya. It was discovered that 16.4 percent were recently screened for cervical malignancy and 67.9 percent of non-screened women were educated regarding cervical disease screening. Lower screening results have been distinguished for increasingly taught women, the most elevated quintile salary and living in urban regions than for women without formal tutoring, the least and living in rustic regions. More youthful women 35 years to 39 years and those with low-thickness lipoprotein (HDL) were less inclined to be tried. Independently employed women, those in the fourth quintile profit, gorge consumers, over the top sugar admission and low physical movement were bound to be screened.

Occupational status of a person enables him/her to afford the direct and indirect costs associated with seeking for the services. However, research findings have shown that cancer of the cervix screening is not significantly affected by employment status. Employment provides a high self-esteem however issues of stigma, fears, and uncertainty cannot be resolved by employment. (Simou, 2010). Workers can therefore be prevented from utilization of the screening services due

to the barrier of stigma, fears and uncertainty related to cancer of cervix screening services (Matejic *et al.*, 2011).

2.4 Summary of Gaps in the literature review

From the reviewed studies, the study has noted that the selected variables play a significant part in influencing the performance. However, some studies have presented weaknesses and limitations in various aspects. These form the basis of argument of the current study to fill them. For instance, the study by Heena et al. (2019) was based in King Fahad Medical City (KFMC), Gu, Chan, Twinn and Choi (2012) focused on Chinese mainland women, while Chen et al. (2020) focused on both rural and urban China; Gyamfua et al. (2019) was based in the Kenyan Bosore group in Ghana and Mabelele, Materu, Ng'ida and Mahande (2018) was based in Magu District Hospital, Lake Zone Tanzania. The studies present findings from different contexts and given different utilization rates, demographic factors and economic capacities of each country, the studies present a contextual gap, which the current study seeks to contextualize in Kenya

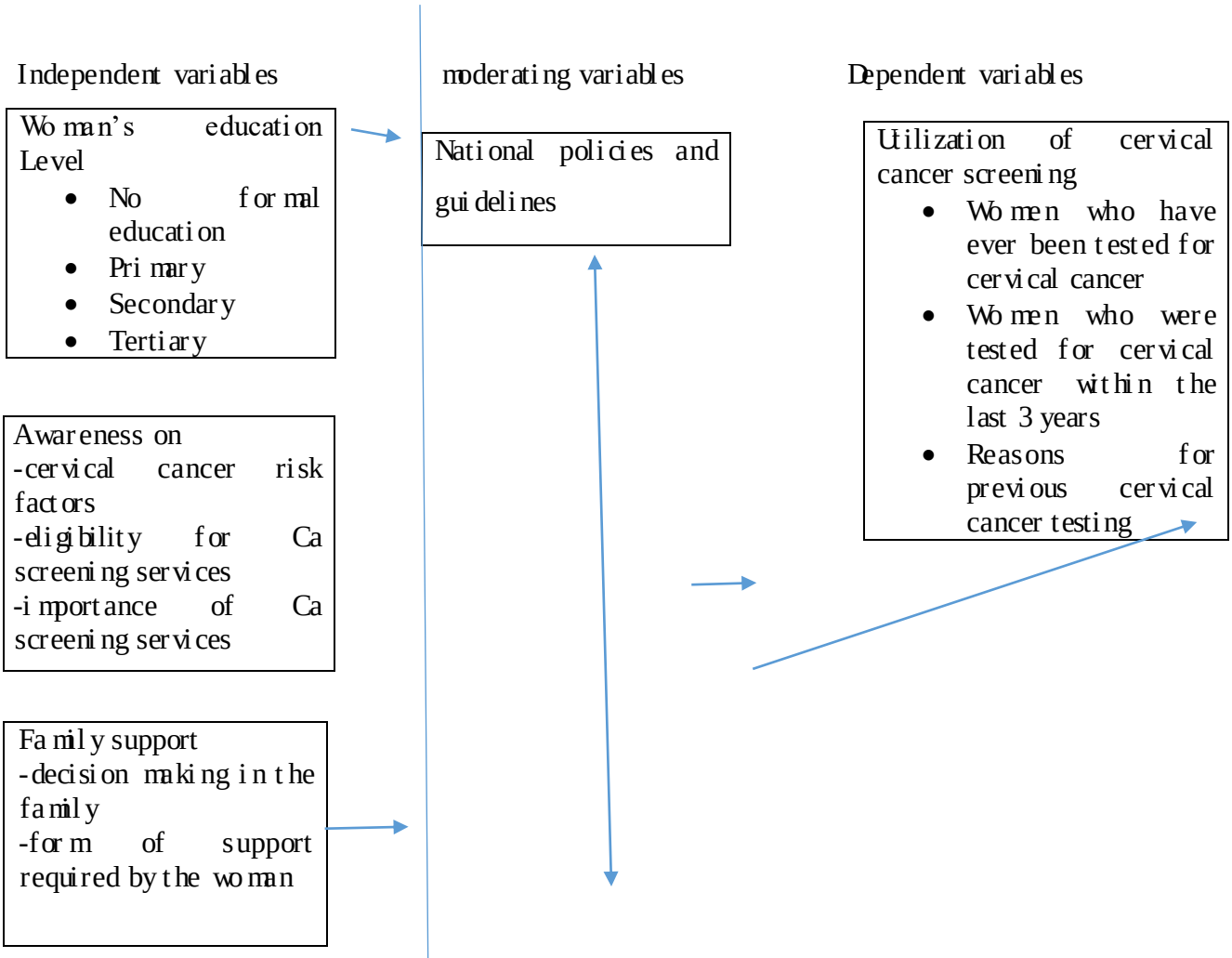
Ebu (2018) conducted research on the influence of socio-demographic characteristics on cervical cancer screening intention of HIV-positive women in the central region of Ghana. The study was based on HIV-positive women and thus neglected the influence the uptake has on other women. The study therefore presents a conceptual gap. Woldetsadik et al. (2020) also examined the impact of socio-demographic features on cancer of the cervix screening for women attending St. Paul's Teaching and Referral Hospital. The study likewise presented a contextual, conceptual gap since the focus was only on socio-demographic features leaving out the influence, knowledge, altitude, and practices have on the uptake of cancer of the cervix screening services.

Review of literature shows that most of the studies done focused on generally the risk factors for cancer of the cervix and other types of cancers. However, in Kenya despite several interventions being put in place to increase uptake of cancer of the cervix screening services, the rate of utilization remains alarmingly low despite being offered free in most public hospitals. This prompted the Ministry of Health together with the County government of Bomet to conduct several sensitizations on cervical cancer screening services to lure women to undertake cancer of cervix screening services. Since its implementation of such interventions in the county, there is scant data on the influence of these strategies on utilization of cancer of the cervix screening services in Bomet County. This, therefore, calls for the need to carry out this study on the

utilization of cervical cancer screening services among women aged 30-49 years in Bomet County.

2.5 Conceptual framework

This is s tool used in research by researcher with the intention of developing understanding and awareness of variables under scrutiny (Gerber, Gerber & Van der Merwe, 2014).



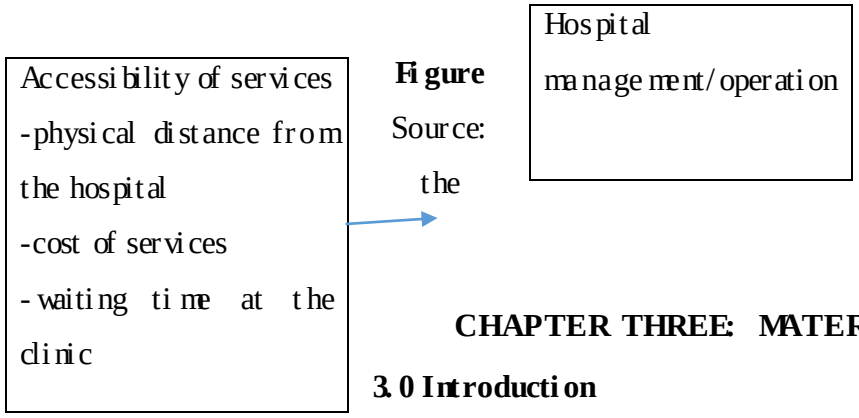


Figure 1.1: Conceptual Framework

Source: the Adopted and modified from literature review (2022)

CHAPTER THREE: MATERIALS AND METHODS

3.0 Introduction

This chapter outlines the research design, target population, sampling procedure, data collection methods, validity of the tools used to collect data, reliability of the research findings and the data analysis technique applied in the study.

3.1 Study Design

Descriptive study design was adopted by the researcher. This type of study design describes situation as it was through a process of data collection in order to produce facts about nature of condition of the research phenomena.

3.2 Variables

The study variables were dependent and independent variables. Dependent variable was utilization of cervical cancer screening services while independent variables were social demographic factors, knowledge level of cervical cancer screening, awareness of cervical cancer screening and perception of cervical cancer screening services.

3.3 Study area

This study was conducted in Chepalungu Sub-County in Bomet County. Chepalungu Sub-County covers an area of 539.8 Km2 with a population of 163,759 individuals (Bomet CIDP 2018). The population density is 387 persons per kms squared. It is bordered by Narok County to the south, Nyamira to the West, Nakuru to the North East and Kericho to the North. The greater population of Chepalungu Sub-County is involved in agriculture. The major cash crop in the county is tea growing. Animal rearing is another major source of income. Food crops are maize, beans, sweet and Irish potatoes, vegetables, millet, onions, tomatoes and sorghum3.4 Study Population

3.4 Study Population

The population consisted of all sampled women of reproductive age in Chepalungu Sub County of Bomet County in the villages that were selected. This was done by tracking the households in Chepalungu Sub- County. According to the Ministry of Health (2020), there are 2542 households in Chepalungu Sub- County

3.5 Inclusion criteria and Exclusion criteria

3.5.1 Inclusion criteria

The study included all women of reproductive age within Chepalungu sub-County who have stayed in the sub-county for six months and gave an informed consent to participate in the study.

3.5.2 Exclusion criteria

The study excluded women who has been done total hysterectomy, more than 5 years prior to the day of data collection and women above reproductive age

3.6 Sampling Techniques and sample size determination

3.6.1 Sampling Technique

The study targeted 300 respondents. Randomization for household was done.

3.6.2 Sample Size Determination

Fisher et al sample size determination was used to calculate the sample size as quoted by Mugeda and Mugeda 2003. The study population for women of reproductive age in Chepalungu sub-county is approximately 20,375 (MOH, 2015) assuming the utilization of cervical cancer screening services is 23.1% based on study done in Kenya, (Mbaka et al 2018)

Therefore:

$$= \frac{^{2}}{^{2}}$$

Where;

n-the desired sample size when target population is greater than 10,000

z=the standard normal deviation at the required confidence level

p=the proportion in the target population estimated to have characteristics been measured.

q=1-p

d=the level of statistical significance set.

Substituted as in:

$$n = \frac{(1.96)^2(0.231)\ (1-0.231)}{(0.05)_2}$$

Therefore:

n = 272.96 respondents.

That is 273 respondents.

A 10% sample size was included to cater for a possible non- respondents' rate (Attrition).

Therefore, the study sample were 300 responses.

3.7 Pre-testing of instrument

The questionnaire was pretested at Siongiroi ward where 30 women of reproductive age were interviewed which have the same population characteristic as the selected. Unclear questions observed were restated or removed in line with objectives of the study.

3.8 Validity Test

The study used content validity (a logical process whereby connection between the test items and the job-related tasks are established logically through expert judgment) and face validity (determined by a review of the items anyone examines and other stakeholders developing an informed opinion as to whether or not the test is measuring what it is supposed to measure) (Cronbach & Meehl, 1955).

3.9 Reliability Test

Internal consistence of each question in the study questionnaire was ensured by carrying out a reliability test. A test-retest method was used to analyze the responses.

3.10 Data collection technique

The research recruited three-research assistant after training them for data collection. The principal investigator trained them on aim, objectives, tools and ethical considerations of the study. They were also taken through the questionnaire (interviewer-administered questionnaire) and how to administer them to minimize information bias. Data collection activity commenced after explaining the objectives of the study to the respondent. After attaining informed consent from the respondent and explaining to them that it was voluntary, the data collection commenced. Verification of response on screening was done by cross checking their response

with individual health records from facilities. Confidentiality was ensured by coding the questionnaires and making sure the respondents names were not written on the questionnaire.

3.11 Data presentation and analysis

Data collected were analyzed quantitatively. The data were collected from the closed-ended part of the questionnaires then was analyzed by use of descriptive and inferential statistics. The descriptive statistics involves such analysis as frequencies, means, standard deviations, central tendencies and percentages among others. In order to show the relationships/link between variables, the inferential statistics were used where chi-square and regression analyses were applied. This was aided by use of Excel and SPSS software. The results were presented in graphs, Charts and tables.

3.12 Ethical Consideration

Authorization was obtained from Institution Research Ethics Committe prior to conducting the research. This was then presented to Bomet County Government. The information, which were collected from the respondents were treated with utmost confidentiality. Personal integrity was upheld throughout data collection. The objectives of the study was explained to the respondents, therefore informed consent was observed.

CHAPTER FOUR: RESULTS

4.1 Demographic Information

From the findings, the distributions of respondents by age were 18-23 years (n=39), 24-29 years (n=53), 30-34 years (n=30), 35-39 years (n=62), 40-44 years (n=69) and 45-49 years (n=47).

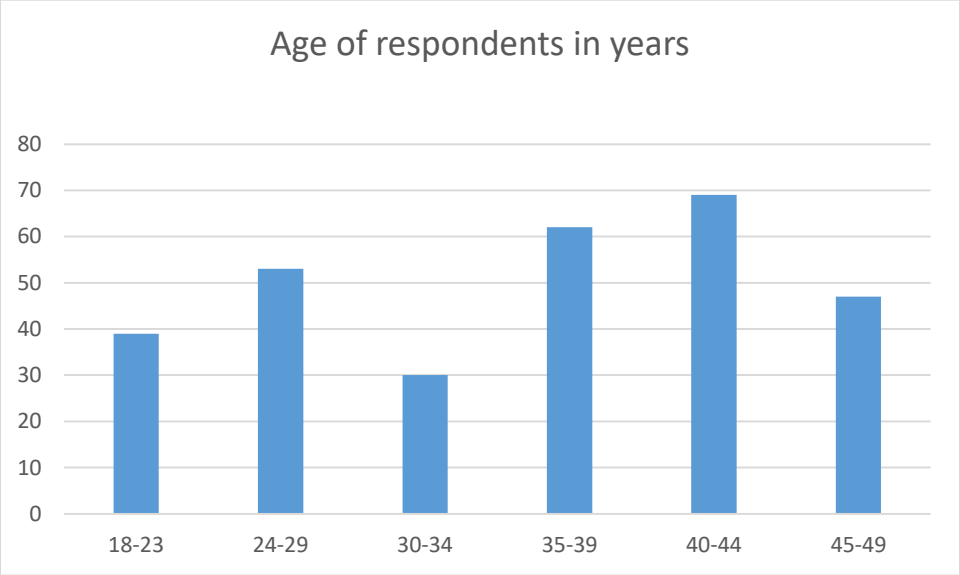


Figure 1: Distributions of study respondents by age

On marital status, married (n=180), single (n=20), separated (n=42), windowed (n=28) and divorced (n=30).

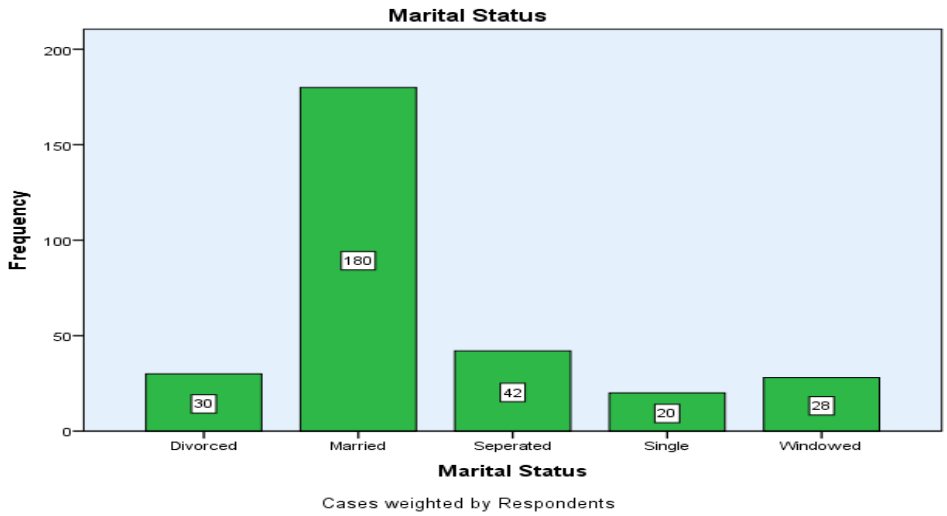


Figure 2: Distributions of study respondents by marital status

From the findings, 60 of the respondents never attended school, 45 attained primary, 101 attained secondary and 94 attained college.

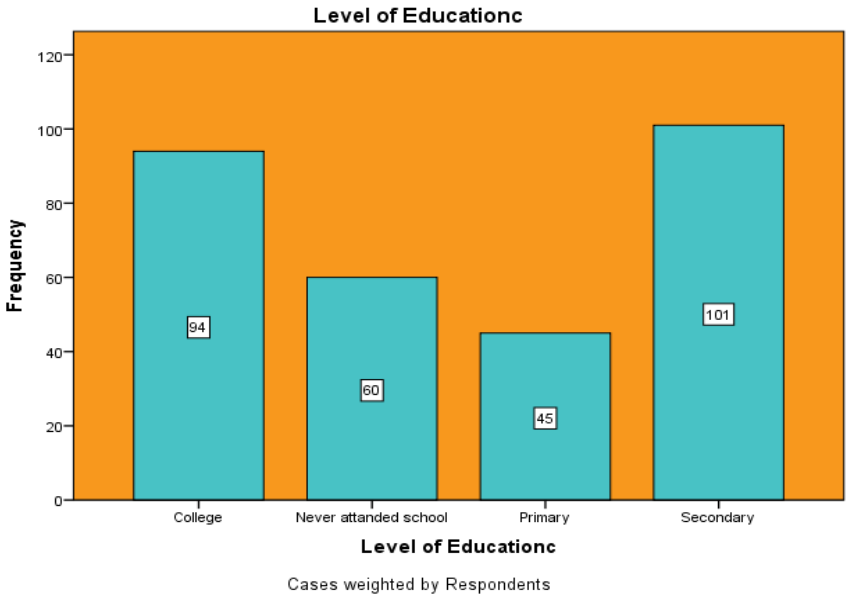


Figure 3: Distributions of study respondents by level of education

91.67% of the respondents were Christians while 8.33% were Muslim.

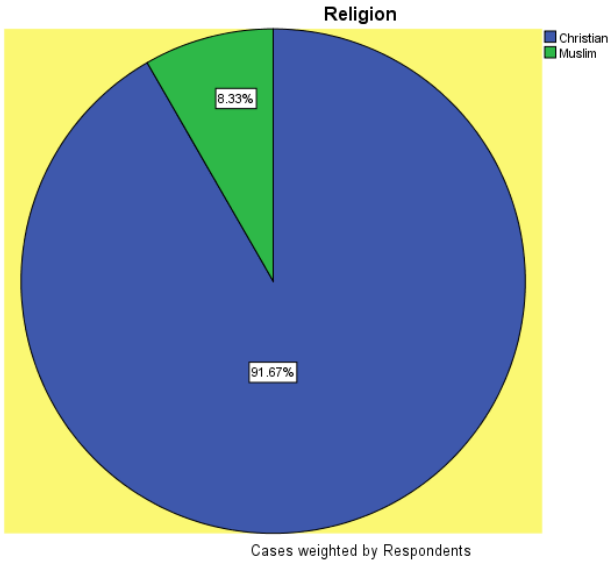


Figure 4: Distributions of study respondents by religion

On occupation, employed (n=80), unemployed (n=120) and self-employed (n=100).

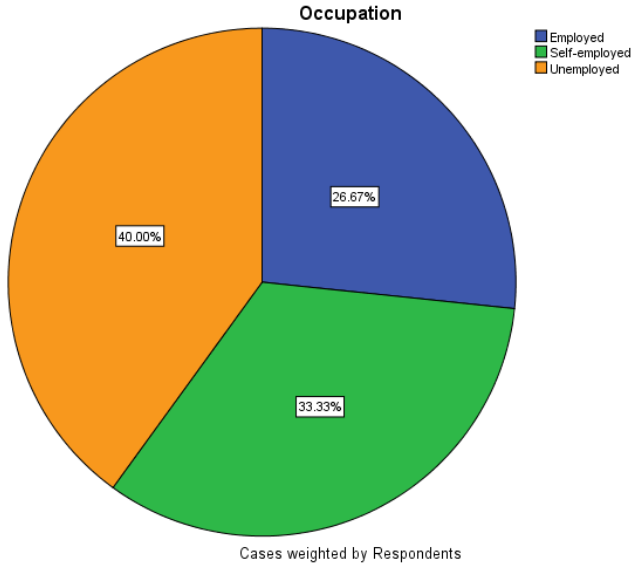


Figure 5: Distributions of study respondents by occupation

From the findings, n=85 earn less than Ksh. 5,000, n=48 earns Ksh. 5,000-9,999, n=100 earns Ksh. 10,000-19,999 and n=67 earns Ksh. 20,000 and above in a month.

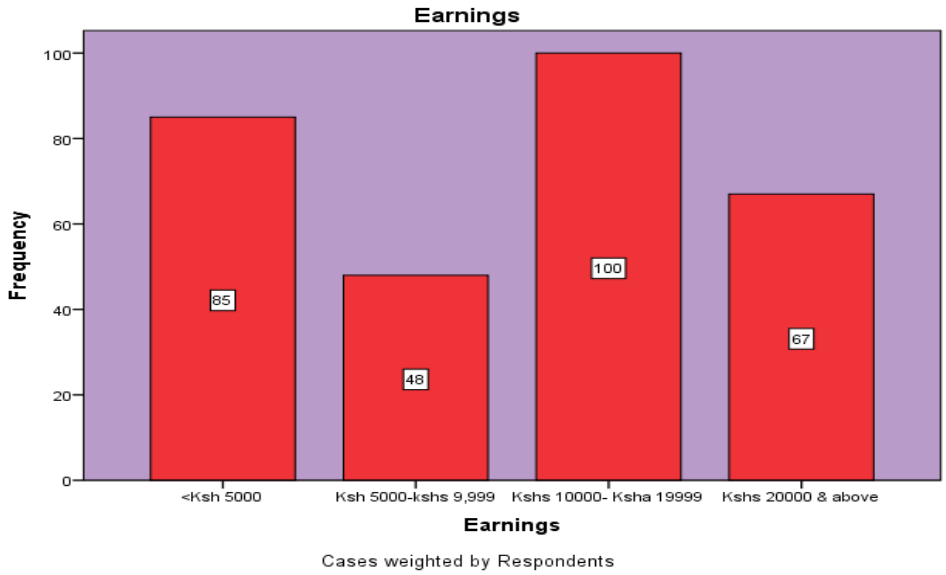


Figure 6: Distributions of study respondents by earning in a month

4.2 Awareness of Cervical Cancer and Screening services

Most of the respondents (71.67%) have heard of cervical cancer.

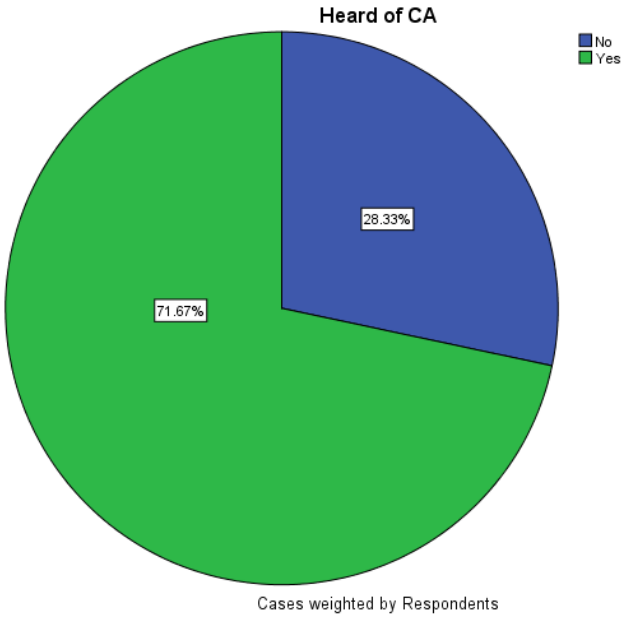


Figure 7: Distributions of study respondents by have heard of cervical cancer

81.67%(n=245) know someone who have had cervical cancer

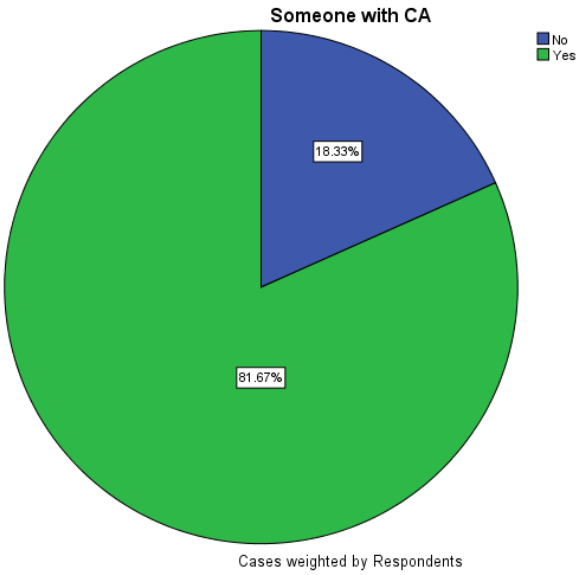


Figure 8: Distributions of study respondents by knowhow of someone who had cervical cancer

66.67%(n=200) have ever received information related to cervical cancer while 33.33%(n=100) have not.

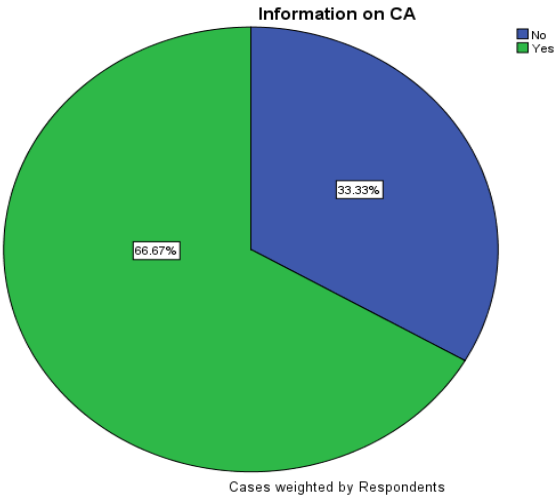


Figure 9: Distributions of study respondents by ever-received information related to cervical cancer

65%(n=195) of the respondents were aware of screening for cancer of the cervix while 35% (n=105).

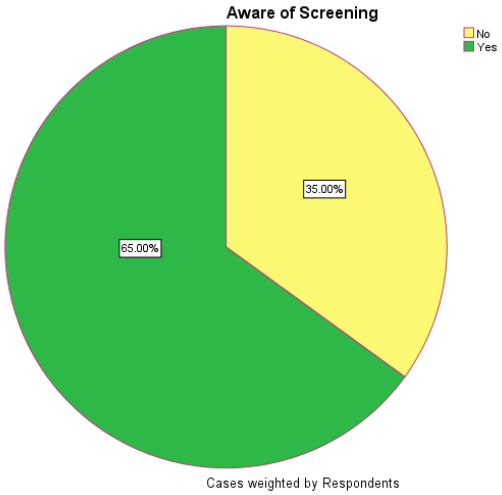


Figure 10: Distributions of study respondents by awareness of screening

The respondents get to know of screening of cancer of the cervix through relatives (n=25), friends (n=44), health provider (n=41) and media (radio, TV, newspaper) (n=85).

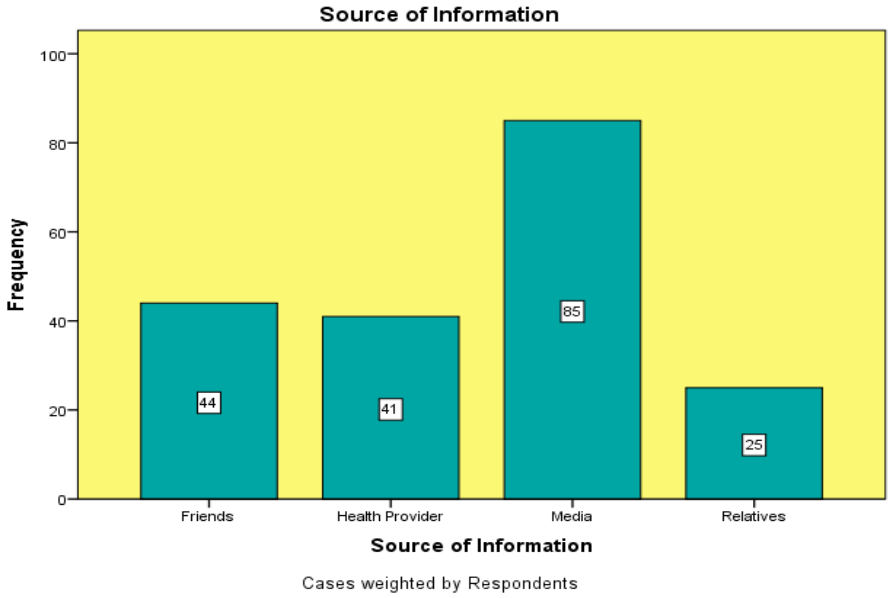


Figure 11: Distributions of study respondents by source of information for screening

4.3 Knowledge on Cervical Cancer Screening

The respondents listed vaginal bleeding (n=300), abnormal vaginal discharge (n=296), decreased appetite (n=245), pain and swelling of legs (n=250), pelvic pain (n=200) and unexplained weight loss (n=300) as signs of cervical cancer.

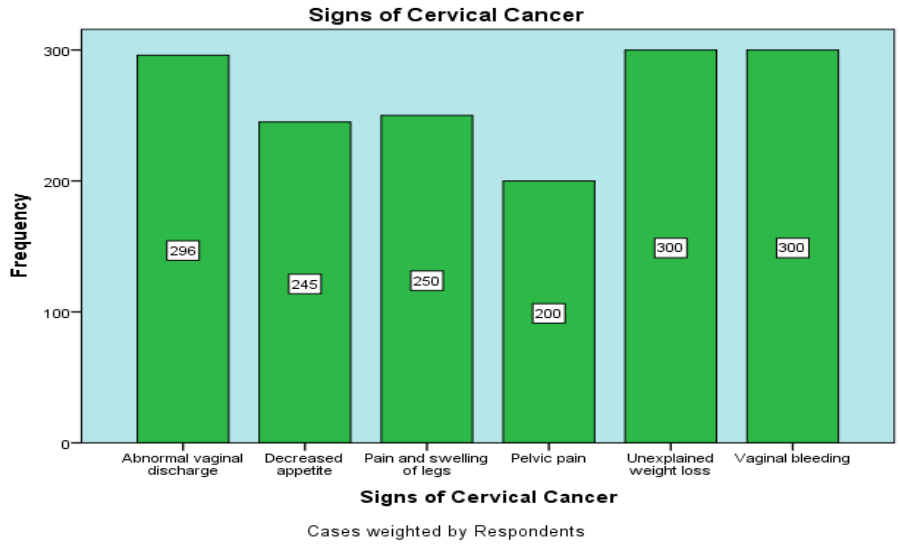


Figure 12: Distributions of study respondents by signs of cervical cancer

The respondents listed abnormal vaginal discharge (n=300), abnormal vaginal bleeding (n=300), pain during sex (n=260) and pain in pelvic region (250) as warning signs for cervical cancer.

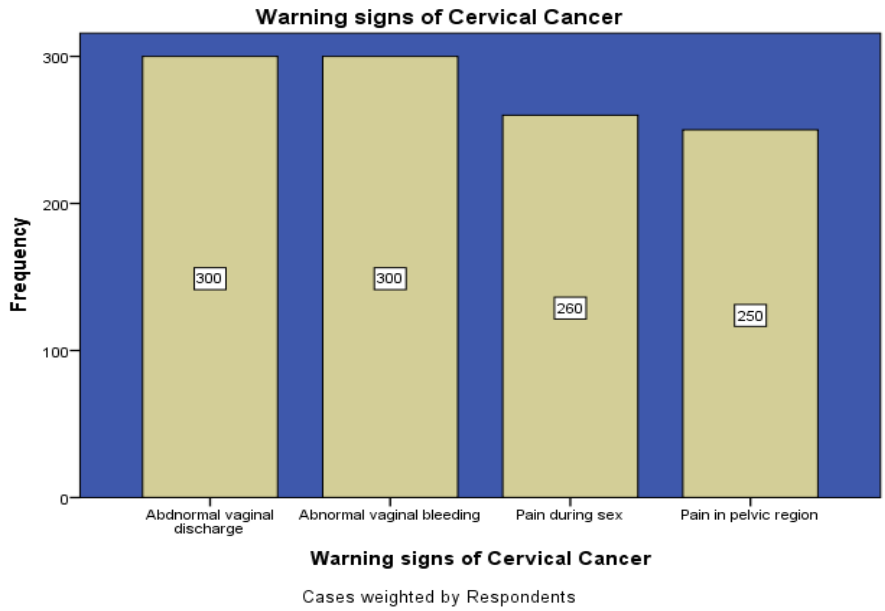


Figure 13: Distributions of study respondents by warning signs for cervical cancer

The study respondents gave use of condoms (n=296), be monogamous (n=234), get an HPV vaccine (n=300) and get regular pap tests (n=300) as ways to prevent cervical cancer.

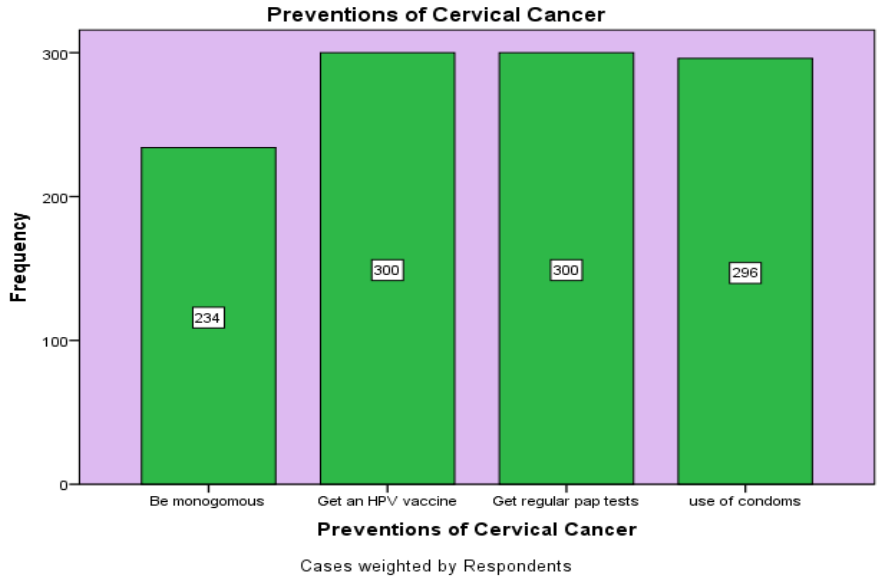


Figure 14: Distributions of study respondents by ways to prevent cervical cancer

4.4 Perceptions

On the perception on cervical cancer, Disease of commercial sex workers (n=17), Have never heard people discussing it (n=15), It is a curse (n=36), it is a disease caused by witchcraft (n=28), It is killer disease (n=120) and It is non-curable disease (n=84).

Table 1: Distributions of study respondents by perception on cervical cancer

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disease of commercial sex workers	17	5.7	5.7	5.7
	Have never heard people discussing it	15	5.0	5.0	10.7
	It is a curse	36	12.0	12.0	22.7
	It is a disease caused by witchcraft	28	9.3	9.3	32.0
	It is killer disease	120	40.0	40.0	72.0

	It is non curable disease	84	28.0	28.0	100.0
	Total	300	100.0	100.0	

From the findings, the respondents perception on cervical cancer screening as; necessary (n=266), not necessary (n=5), cervical cancer screening is painful (4), screening procedure is embarrassing (n=10) and it is for commercial sex workers (n=5).

Table 2: Distributions of study respondents by perception on screening cervical cancer

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Cervical cancer screening is painful	4	1.3	1.3	1.3
	It is for commercial sex workers	5	1.7	1.7	3.0
	Necessary	266	88.7	88.7	91.7
	Not necessary	5	1.7	1.7	93.3
	Screening is only for the sexually active women screening practices	10	3.3	3.3	96.7
	Screening procedure is embarrassing	10	3.3	3.3	100.0
	Total	300	100.0	100.0	

Most of the respondents (n=215) have been screened for cancer of the cervix

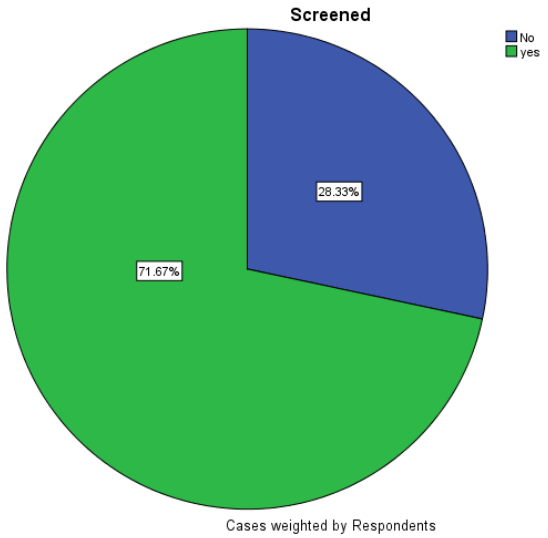


Figure 15: Distributions of study respondents by screened for cancer of the cervix

From the findings, the respondents since they were screened were as follows; less than 3 months (n=48), 3-6 months (n=78), 6-12 months (n=60), 12-26 months (n=15), 36-60 months (n=12) and above 60 months (n=2).

Table 3: Distributions of study respondents by how long since screened

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<3 months	48	22.3	22.3	22.3
	12-36 months	15	7.0	7.0	29.3
	3-6 months	78	36.3	36.3	65.6
	36-60 months	12	5.6	5.6	71.2
	6-12 months	60	27.9	27.9	99.1
	Above 60 months	2	.9	.9	100.0
	Total	215	100.0	100.0	

From the findings, the respondents were prescribed to cervical cancer screening by health provider prescription (n=175) and own initiative (n=40).

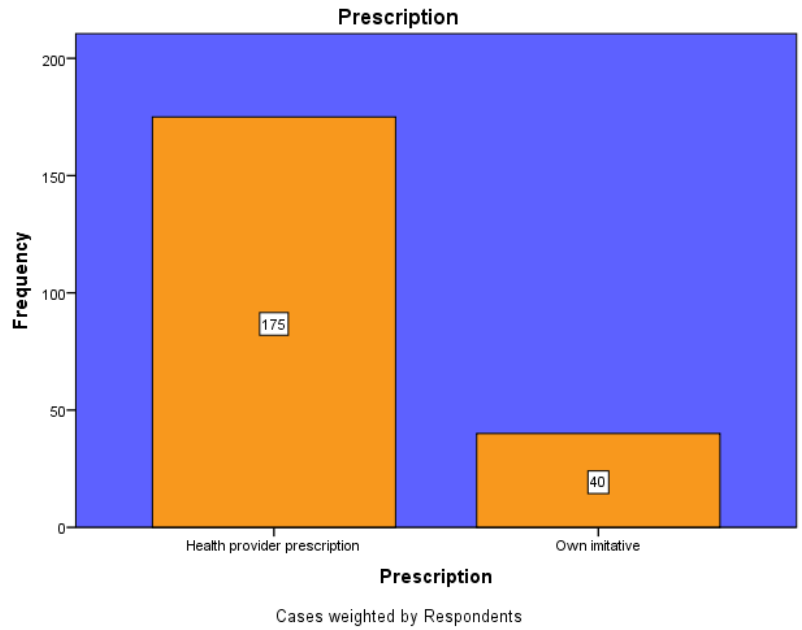


Figure 16: Distributions of study respondents by prescription to screening

On the reasons for not screening, the respondents gave reasons as; little understanding of cervical cancer (n=4), cervical cancer screening is painful (n=3), not thinking that one is at risk (n=2), fear of a vaginal exam(n=7), not knowing where to go for screening (n=5), lack of husband/partner approval (n=3), lack of female screeners at the health facility (n=5), attitude of health care workers (n=4), the screening is expensive (n=14), lack of designated rooms for screening at health facility (n=4), not offered at the nearest health facility (n=12), long distance to a health facility (n=6) and lack of information about cervical cancer.

Table 4: Distributions of study respondents by reason for not screening

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Attitude of health care workers	4	4.7	4.7	4.7
	Cervical cancer screening is painful	3	3.5	3.5	8.2
	Fear of vaginal exam	7	8.2	8.2	16.5

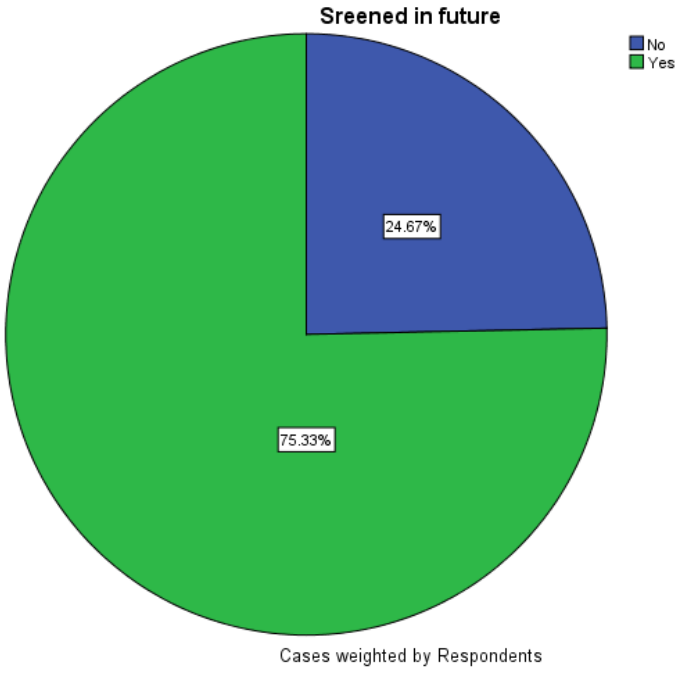
	Lack of female screeners at the healthy facility	5	5.9	5.9	22.4
	Lack of husband/partner approval	3	3.5	3.5	25.9
	Lack of information about cervical cancer	13	15.3	15.3	41.2
	Lackof designated rooms for screening at health facility	4	4.7	4.7	45.9
	Little understanding of cervical cancer	4	4.7	4.7	50.6
	Long distances to the health facility	6	7.1	7.1	57.6
	Not allowed by religion/culture	3	3.5	3.5	61.2
	Not knowing where to go for screening	5	5.9	5.9	67.1
	Not offered at the nearest health facility	12	14.1	14.1	81.2
	Not thinking that one is at risk	2	2.4	2.4	83.5
	The screening is expensive	14	16.5	16.5	100.0
	Total	85	100.0	100.0	

The respondents gave reason for not being screened for cervical cancer as; was not aware am supposed to be screened (n=5), lack of time (n=4), did not get the service when I needed it (n=4), don't think am susceptible to cancer of the cervix (n=6), embarrassed being examined in my private parts (n=10), worried that I can be told that I have the disease (n=40), my husband or partner will not approve (n=8) and has not thought about it (n=8)

Table 5: Distributions of study respondents by reason not been screened

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Did not get the service when i needed it	4	4.7	4.7	4.7
	Don't think am susceptible to cancer of the cervix	6	7.1	7.1	11.8
	Embarrassed been examined in my private parts	10	11.8	11.8	23.5
	Has not thought about it	8	9.4	9.4	32.9
	Lack of time	4	4.7	4.7	37.6
	My husband or partner will not approve	8	9.4	9.4	47.1
	Was not aware am supposed to be screened	5	5.9	5.9	52.9
	Worried that i can be told that i have the disease	40	47.1	47.1	100.0
	Total	85	100.0	100.0	

Most of the respondents (n=226) were planning to be screened in the future.



From the findings, the respondents believe the best place to pass messages on cervical cancer were local women's groups (n=39), places of worship (church/ mosque) (n=72), health facilities (n=69), at home (n=34) and market (n=86)

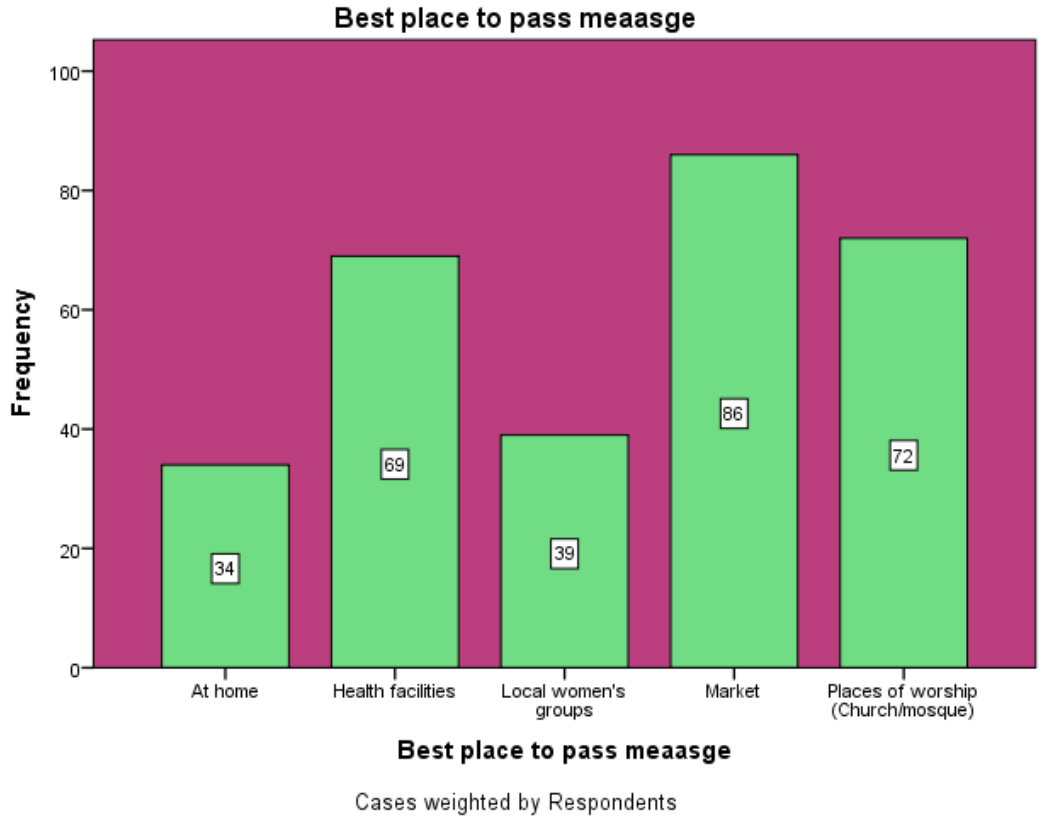


Figure 17: Distributions of study respondents by best place to pass message on cervical cancer

CHAPTER FIVE: DISCUSSION, CONCLUSION AND RECOMMENDATION

5.1 Discussion

From the findings, the distributions of respondents by age were 18-23 years (n=39), 24-29 years (n=53), 30-34 years (n=30), 35-39 years (n=62), 40-44 years (n=69) and 45-49 years (n=47). On marital status, married (n=180), single (n=20), separated (n=42), widowed (n=28) and divorced (n=30). From the findings, 60 of the respondents never attended school, 45 attained primary, 101 attained secondary and 94 attained college. 91.67% of the respondents were Christians while 8.33% were Muslim. On occupation, employed (n=80), unemployed (n=120) and self-employed (n=100). From the findings, n=85 earn less than Ksh. 5,000, n=48 earns Ksh. 5,000-9,999, n=100 earns Ksh. 10,000-19,999 and n=67 earns Ksh. 20,000 and above in a month. The finding of this study is in agreement with a study by Ebu (2018) conducted research at central region of Ghana on social demographic characteristic on cancer of the cervix screening among HIV positive women. The study showed that those respondents who had high level of education utilized screening services more than the ones with formal education. Education gives more understanding of health-related issues and therefore can be attributed to a better utilization of screening services for cervical cancer. Women who are educated can also evaluate risk factors to certain disease and can influence decision making for a health service positively including cancer of cervix screening services (Ebu, 2017).

Most of the respondents (71.67%) have heard of cervical cancer. 81.67% (n=245) knows someone who have had cervical cancer. 66.67% (n=200) have ever received information related to cervical cancer while 33.33% (n=100) have not. 65% (n=195) of the respondents were aware of screening for cancer of the cervix while 35% (n=105). The respondents get to know of screening of cancer of the cervix through relatives (n=25), friends (n=44), health provider (n=41) and media (radio, TV, newspaper) (n=85). This study concurs with a study conducted among Gabonese women, revealed that majority among the respondent had awareness on cancer of the cervix with a few reporting that not to know the causes of cancer of the cervix with risk factor knowledge gap on cervical cancer. Multiple sexual partners, sexually transmitted infections, insertion of objects into the vagina and early sexual rebut were the risk actors frequently cited by the respondents (Assoumou *et al*., 2015)

The respondents listed vaginal bleeding (n=300), abnormal vaginal discharge (n=296), decreased appetite (n=245), pain and swelling of legs (n=250), pelvic pain (n=200) and unexplained weight loss (n=300) as signs of cervical cancer. The respondents listed abnormal vaginal discharge (n=300), abnormal vaginal bleeding (n=300), pain during sex (n=260) and pain in pelvic region (250) as warning signs for cervical cancer. The study respondents gave use of condoms (n=296), be monogamous (n=234), get an HPV vaccine (n=300) and get regular pap tests (n=300) as ways to prevent cervical cancer. This study thus, agrees with A study carried out on uptake of cancer of the cervix screening services in Moshi Tanzania showed that, among the respondents interviewed 59.6% had low level of knowledge on cancer of the cervix as well as its prevention among the respondents. 60.5% had been screened. High knowledge level and prevention on cancer of the cervix screening influenced screening among the respondents (Lyimo and Beran 2012). Likewise, Mugassa and Frumence (2020) analyzed influencing factors to uptake of cancer of the cervix screening services in Tanzania and the study revealed that there was an influence on utilization by the national health system to early uptake of the services by poor flow of information and inadequate availability of tools and competent staff.

On the perception on cervical cancer, Disease of commercial sex workers (n=17), Have never heard people discussing it (n=15), It is a curse (n=36), it is a disease caused by witchcraft (n=28), It is killer disease (n=120) and It is non-curable disease (n=84). From the findings, the respondents perception on cervical cancer screening as; necessary (n=266), not necessary (n=5), cervical cancer screening is painful (4), screening procedure is embarrassing (n=10) and it is for commercial sex workers (n=5). Most of the respondents (n=215) have been screened for cancer of the cervix. From the findings, the respondents since they were screened were as follows; less than 3 months (n=48), 3-6 months (n=78), 6-12 months (n=60), 12-26 months (n=15), 36-60 months (n=12) and above 60 months (n=2). From the findings, the respondents were prescribed to cervical cancer screening by health provider prescription (n=175) and own initiative (n=40).

On the reasons for not screening, the respondents gave reasons as; little understanding of cervical cancer (n=4), cervical cancer screening is painful (n=3), not thinking that one is at risk (n=2), fear of a vaginal exam (n=7), not knowing where to go for screening (n=5), lack of husband/partner approval (n=3), lack of female screeners at the health facility (n=5), attitude of health care workers (n=4), the screening is expensive (n=14), lack of designated rooms for screening at health facility (n=4), not offered at the nearest health facility (n=12), long distance

to a health facility (n=6) and lack of information about cervical cancer. The respondents gave reason for being screened for cervical cancer as; was not aware am supposed to be screened (n=5), lack of time (n=4), did not get the service when I needed it (n=4), don't think am susceptible to cancer of the cervix (n=6), embarrassed beebn examined in my private parts (n=10), worried that I can be told that I have the disease (n=40), my husband or partner will not approve (n=8) and has not thought about it (n=8). From the findings, the respondents believe the best place to pass messages on cervical cancer were local women's groups (n=39), places of worship (church/ mosque) (n=72), health facilities (n=69), at home (n=34) and market (n=86). Thus, it agrees with Ndikom, Fadahunsi, Adekanmbi and Young (2019) indicated that since most women attending the gynaecological clinic have not utilized cervical cancer screening services and have a poor perception about the consequences of late diagnosis. The research examined the potential effects of late cervical cancer diagnosis and use of Cervical

5.2 Conclusion

Based on the findings above, the study concluded that majority of the respondents were aware of cervical cancer screening. Ironically, the rate of utilization of cervical cancer screening services was low despite results revealing that the respondents were aware of cervical cancer and cervical cancers screening services.

The study concludes that the knowledge level of respondents on cervical cancer is low since majority of the respondents were unable to state the signs, and prevention of cervical cancer. It was however not clear how the respondents were aware of cervical cancer screening services but not knowledgeable on the same.

Finally, these results have shown that the respondents had poor perception towards cervical cancer screening. This may be due to the poor knowledge among the respondents towards cervical cancer.

The study further concluded that socio-demographic factors influence the utilization of cervical cancer screening. In fact, age, occupation, level of income, and education showed significant statistical relationship with utilization of cervical screening services. This implies that the likelihood to utilize cervical cancer screening services increases with those women with high income, those who are employed, those who are educated and those who are between the age of 40 and 49 years. This explains the variation utilization of cancer screening services among respondents.

The study therefore, concludes that the rate of utilization of cervical cancer screening services is alarmingly low despite the efforts to increase the uptake. This was in comparison to other studies done across different regions in the world, which revealed relatively lower uptake of cervical cancer screening services despite being the second most common type of cancer.

5.3 Recommendation

From this study the following recommendation were made;

i. The Ministry of Health, non-governmental organization should work on strategies to advocate for cervical cancer screening early enough when the condition can be managed and thus better prognosis. They should also empower women to ensure barriers to access of screening services are broken to improve uptake of such services

ii. The Ministry of Health and relevant stakeholders addressing cervical cancer issues should ensure that when creating awareness on screening, they should organize events targeting women and thereafter offer free cervical cancer screening services.

iii. The Ministry of Health together with relevant stakeholders organize health education seminars in the community to help improve transfer of correct knowledge on cervical cancer screening services thus signify importance of seeking such services early enough

iv. Ministry of health and Ministry of Communication should enhance health messages on cervical cancer to demystify the wrong perception among the community members about cervical cancer.

REFERENCES

Abiodun, A. B., Oluwasola, T. A., Durodola, A. O., Ajiani, M. A., Abiodun, A. D., & Adeomi, A. A. (2017). Awareness and perception of risk for cervical cancer among women in Ogbomoso, Nigeria. *Tropical Journal of Obstetrics and Gynaecology*, *34*(3), 218-223.

Al-amro, S. Q., Gharaibeh, M. K., & Oweis, A. I. (2020). Factors Associated with Cervical Cancer Screening Uptake: Implications for the Health of Women in Jordan. *Infectious Diseases in Obstetrics and Gynecology*, *2020*.

Amin, S. M., Abdullahi, K., Muhammad, M., Mohammed, L. I., Mahmoud, R. A., & Muhammad, R. B. (2020). Perception of cervical cancer and its cytological screening among medical students. *Sahel Medical Journal*, *23*(1), 41.

Ampofo, A. G., Adumatta, A. D., Owusu, E., & Awuviry-Newton, K. (2020). A crosssectional study of barriers to cervical cancer screening uptake in Ghana: An application of the health belief model. *PloS one*, *15*(4), e0231459.

Aniebue, P. N., & Aniebue, U. U. (2010). Awareness and practice of cervical cancer screening among female undergraduate students in a Nigerian university. *Journal of Cancer Education*, *25*(1), 106-108.

Arbyn, M., Weiderpass, E., Bruni, L., de Sanjosé, S., Saraiya, M., Ferlay, J., & Bray, F. (2020). Estimates of incidence and mortality of cervical cancer in 2018: a worldwide analysis. *The Lancet Global Health*, *8*(2), e191-e203.

Assefa, A. A., Astawesegn, F. H., & Eshetu, B. (2019). Cervical cancer screening service utilization and associated factors among HIV positive women attending adult ART clinic in public health facilities, Hawassa town, Ethiopia: a cross-sectional study. *BMC health services research*, *19*(1), 847.

Augusto, E. F., Rosa, M. L., Cavalcanti, S. M., & Oliveira, L. H. (2013). Barriers to cervical cancer screening in women attending the Family Medical Program in Niterói, Rio de Janeiro. *Archives of gynecology and obstetrics*, *287*(1), 53-58.

Aynalem, B. Y., Anteneh, K. T., & Enyew, M. M. (2020). Utilization of cervical cancer screening and associated factors among women in Debremarkos town, Amhara region, Northwest Ethiopia: Community based cross-sectional study. *PloS one*, *15*(4), e0231307.

Bakari, M., Takai, I. U., & Bukar, M. (2015). Awareness and utilization of Papanicoloaus mear among health care workers in Maiduguri, Nigeria. *Nigerian Journal of Basic and Clinical Sciences*, *12*(1), 34.

Bayu, H., Berhe, Y., Mulat, A., & Alemu, A. (2016). Cervical cancer screening service uptake and associated factors among age eligible women in Mekelle Zone, Northern Ethiopia, 2015: a community-based study using health belief model. *PloS one*, *11*(3), e0149908.

Benard, V. B., Watson, M., Castle, P. E., & Saraiya, M. (2012). Cervical carcinoma rates among young females in the United States. *Obstetrics and gynecology*, *120*(5),

1117.

Bourne, P. A., Kerr-Campbell, M. D., McGrowder, D. A., & Beckford, O. W. (2010).

Perception of women on cancer screening and sexual behavior in a rural area, Jamaica: Is there a public health problem? *North American journal of medical sciences*, *2*(4), 174.

Bray, F., Ferlay, J., Soerjomataram, I., Siegel, R. L., Torre, L. A., & Jemal, A. (2018). Global cancer statistics 2018: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. *CA: a cancer journal for*

Clinicians, *68*(6), 394-424.

Bruni, L., Albero, G., Serrano, B., Mena, M., Gómez, D., Muñoz, J., & de Sanjosé, S. (2019). ICO/IARC information centre on HPV and cancer (HPV information centre). Human papillomavirus and related diseases in the world. *Summary Report*, *22*.

Chen, T., Wei, M., Liu, Y., Wang, H., Zhou, W., Bi, Y., & Zhang, Z. J. (2020). Rising Mortality Rate of Cervical Cancer in Younger Women in Urban China. *Journal of General Internal Medicine*, *35*(2), 593-593.

Chifamba, D. (2019). Health Care Determinants of Cervical Cancer Screening in Harare Zimbabwe.

Daniyan, B. C., Ekwedigwe, K. C., Yakubu, E., Mohammara, S. U., & Annamilo, I. C. (2019). Assessment of Knowledge, Attitudes and Practice of Cervical Cancer Screening Among Female Health Workers in a Tertiary Health Facility in South-East Nigeria. *J Integr Oncol*, *8*(228), 2.

Donatus, L., Nina, F. K., Sama, D. J., Nkfusai, C. N., Bede, F., Shirinde, J., & Cumber, S. N. (2019). Assessing the uptake of cervical cancer screening among women aged 25-65 years in Kumbo West Health District, Cameroon. *The Pan African Medical Journal*, *33*.

Ebu, N. I. (2018). Socio-demographic characteristics influencing cervical cancer screening intention of HIV-positive women in the central region of Ghana. *Gynecologic oncology research and practice*, *5*(1), 3.

Ferlay, J., Shin, H. R., Bray, F., Forman, D., Mathers, C., & Parkin, D. M. (2010). Estimates of worldwide burden of cancer in 2008: GLOBOCAN 2008. *International journal of cancer*, *127*(12), 2893-2917.

Feyisa, G. C., & Temesgen, H. (2019). Perceived benefits and barriers toward cervical cancer screening among women≥ 15 years in Arsi Zone, Southeastern Ethiopia: Application of the health belief model in a community-based cross-sectional study. *Journal of Cancer Research and Practice*, *6*(1), 7.

Fitzmaurice, C., Allen, C., Barber, R. M., Barregard, L., Bhutta, Z. A., Brenner, H., & Fleming, T. (2017). Global, regional, and national cancer incidence, mortality, years of life lost, years lived with disability, and disability-adjusted life-years for 32 cancer groups, 1990 to 2015: a systematic analysis for the global burden of disease study. *JAMA oncology*, *3*(4), 524-548.

Gamaoun, R. (2018). Knowledge, awareness and acceptability of anti-HPV vaccine in the Arab states of the Middle East and North Africa Region: a Systematic. *EMHJ*, *24*(6-2018).

GU, C., Chan, C. W., Twinn, S., & Choi, K. C. (2012). The influence of knowledge and perception of the risk of cervical cancer on screening behavior in mainland Chinese women. *Psycho-Oncology*, *21*(12), 1299-1308.

Gyamfua, A. A., Nkrumah, I., Ibitoye, B. M., Agyemang, B. A., Ofosu, E. S., Tsoka-Gwegweni, J. M., & Cumber, S. N. (2019). The level of knowledge and associated socio-demographic factors on cervical cancer among women: a crosssectional study at Kenyase Bosore community, Ghana. *The Pan African Medical Journal*, *34*.

Hoque, M. E., Ghuman, S., Coopoosmay, R., & Van Hal, G. (2014). Cervical cancer screening among university students in South Africa: a theory based study. *PloS one*, *9*(11), e111557.

HPV Information Centre. (2016, June). *Kenya Human Papillomavirus and Related Cancers, Fact Sheet 2018*. Retrieved from https://hpvcentre.net/statistics/reports/KEN_FS.pdf

Idowu, A., Olowookere, S. A., Fagbemi, A. T., & Ogunlaja, O. A. (2016). Determinants of cervical cancer screening uptake among women in Ilorin, North Central Nigeria: a community-based study. *Journal of cancer epidemiology, 2016*.

Ifemelumma, C. C., Anikwe, C. C., Okorochukwu, B. C., Onu, F. A., Obuna, J. A., Ejikeme, B. N., & Ezeonu, O. P. (2019). Cervical cancer screening: assessment of perception and utilization of services among health workers in low resource setting. *International journal of reproductive medicine, 2019*.

Jeronimo, J., Bansil, P., Lim, J., Peck, R., Paul, P., Amador, J. J., & Asthana, S. (2014). A multicountry evaluation of careHPV testing, visual inspection with acetic acid, and papanicolaou testing for the detection of cervical cancer. *International Journal of Gynecological Cancer*, *24*(3), 576.

Kandie, G., Mburugu, R., Onyambu, F., & Kapigen, M. (2019). Knowledge and Perception of Women towards Cervical Cancer Screening in Meru County, Kenya.

Kileo, N. M., Michael, D., Neke, N. M., & Moshiro, C. (2015). Utilization of cervical cancer screening services and its associated factors among primary school teachers in Ilala Municipality, Dar es Salaam, Tanzania. *BMC Health Services Research*, *15*(1), 552.

Lambert, C. L. C. (2013). Factors influencing cervical cancer screening in women infected with HIV: a review of the literature. *Journal of the Association of Nurses in AIDS Care*, *24*(3), 189-197.

Leinonen, M. K., Campbell, S., Klungsøyr, O., Lönnberg, S., Hansen, B. T., & Nygård, M. (2017). Personal and provider level factors influence participation to cervical cancer screening: a retrospective register-based study of 1.3 million women in Norway. *Preventive Medicine*, *94*, 31-39.

Lyimo, F. S., & Beran, T. N. (2012). Demographic, knowledge, attitudinal, and accessibility factors associated with uptake of cervical cancer screening among women in a rural district of Tanzania: three public policy implications. *BMC public health*, *12*(1), 22.

Mabelele, M. M., Materu, J., Ng'ida, F. D., & Mahande, M. J. (2018). Knowledge towards cervical cancer prevention and screening practices among women who attended reproductive and child health clinic at Magu district hospital, Lake Zone Tanzania: a cross-sectional study. *BMC cancer*, *18*(1), 565.

Matejic, B., Vukovic, D., Pekmezovic, T., Kesic, V., & Markovic, M. (2011). Determinants of preventive health behavior in relation to cervical cancer screening among the female population of Belgrade. *Health Education Research*, *26*(2), 201-211.

Mbaka, P., Waihenya, R., Olsebe, C., & Lihana, R. (2018). Factors Affecting the Uptake of Cervical Cancer Screening in Mama Lucy Kibaki Hospital, Nairobi, Kenya. *Cancer Research Journal*, *6*(3), 106.

Mishra, G. A., Pimple, S. A., & Shastri, S. S. (2011). An overview of prevention and early detection of cervical cancers. *Indian journal of medical and paediatric oncology: official journal of Indian Society of Medical & Paediatric Oncology*, *32*(3), 125.

Mugassa, A. M., & Frumence, G. (2020). Factors influencing the uptake of cervical cancer screening services in Tanzania: A health system perspective from national and district levels. *Nursing Open*, *7*(1), 345-354.

Mupepi, S. C., Sampselle, C. M., & Johnson, T. R. (2011). Knowledge, attitudes, and demographic factors influencing cervical cancer screening behavior of

Zimbabwean women. *Journal of Women's Health*, *20*(6), 943-952.

Mwangi, H. J., Gachau, G. A., & Kabiru, W. E. (2017). Socio-Demographic, Social

Economic and Socio-Cultural Factors That Influences Uptake of Cervical Cancer Screening Services In Low Resource Settings. *Global Journal of Health Sciences*, *2*(1), 1-12.

Ncube, B., Bey, A., Knight, J., Bessler, P., & Jolly, P. E. (2015). Factors associated with the uptake of cervical cancer screening among women in Portland, Jamaica. *North American journal of medical sciences*, *7*(3), 104.

Ndejjo, R., Mukama, T., Musabyimana, A., & Musoke, D. (2016). Uptake of cervical cancer screening and associated factors among women in rural Uganda: a cross sectional study. *PLoS One*, *11*(2), e0149696.

Ndikom, C. M., & Ofi, B. A. (2012). Awareness, perception and factors affecting utilization of cervical cancer screening services among women in Ibadan, Nigeria: a qualitative study. *Reproductive health*, *9*(1), 11.

Ndikom, C. M., Fadahunsi, T. S., Adekanmbi, V., & Young, A. (2019). Perceived Consequences of Late Diagnosis and Utilization of Cervical Cancer Screening among Gynecology Clinics Attendees in Ibadan, Nigeria. *International Journal of Caring Sciences*, *12*(1).

APPENDICES

Appendix 1: Questionnaire

Date ……..

Code ……

Ticking the box to your appropriate response

Demographic Information

1. How old are you?

□18-23 years

□24-29 years

□30-34years

□ 35-39year

□ 44-44years

□ 45-49year

2. What is your marital status?

□ Married

□ Single

□ Separated

□ Windowed □ Divorced

3. What is your highest level of education?

□ never attended school

□ Primary

□ Secondary

□ College

□ Others

Specify ……

4. What is your religion?

□ Christian

□ Muslim

□ Others

Specify ……

Social Economic

5. What is your occupation?

□ Employed

□ Unemployed

□ Self-employed

6. How much do you earn in a month?

□ < 5000

□ Ksh 5000-9,999

□ Ksh 10,000-19999

□ Ksh 20,000 and above

Awareness of cervical cancer and screening services

7. For the following statements, answer YES or NO

i) Have you heard of cervical cancer? _____

ii) Do you know someone who have had cervical cancer? _____

iii) Have you ever received information related to cancer of the cervix? _____

iv) Are you aware of screening for cancer of the cervix? _____

If yes to statement, (iii) is "yes" in question 7 from who/ where

.....

If yes to statement, (iv) is "yes" in question 7 how did you get to know about it?

□ Relatives

□ Friends

□ Health provider

□ Media (Radio, TV, Newspaper)

□ Others specify ……..

Knowledge on cervical cancer screening

8. Can you give me 4 signs of cervical cancer?

1 ……

2 ……

3 ……

4 ……

9. State 4 warning signs for cervical cancer?

1 ……..

2 ……

3 ……

4 ……

10. How can cervical cancer be prevented? Give a maximum of 4 ways

1 ……..

2 ……

3 ……

4 ……

Perception

11. What is your perception on cervical cancer? Choose one

- It is a disease caused by witchcraft
- It is a curse
- It is killer disease
- Disease of commercial sex workers
- It is non curable disease
- Have never heard people discussing it

Others

(Specify) ……

……

……

12. What is your perception on cervical cancer screening? Tick all appropriate.

- Necessary
- Not necessary
- Cervical cancer screening is painful
- Screening procedure is embarrassing
- It is for commercial sex workers
- Screening is only for only the sexually active women Screening practices

13. Have you been screened for cancer of the cervix?

□ Yes

□ No

If YES to question 13. How long is it since you were screened?

□ Less than three months ago

□ Between 3-6 months ago

□ 6-12 months

□ 12-36 months □ 36-60 months

□ Above 60 months

If you answered yes to question 13, whose prescription, was it?

□ Health provider prescription

□ Own initiative

If answer in question 13 is NO. What are the reasons for not screening? Select all that apply?

□ Little understanding of cervical cancer

□ Cervical cancer screening is painful

□ Not thinking that one is at risk

□ Fear of a vaginal exam

□ Not knowing where to go for screening

□ Lack of husband/partner approval

□ Not allowed by religion/culture

□ Lack of female screeners at the health facility

□ Attitude of health care workers

□ The screening is expensive

□ Lack of designated rooms for screening at health facility (privacy)

□ Not offered at the nearest health facility

□ Long distances to a health facility

□ Lack of information about cervical cancer

14. If you have not been screened what is the reason? Select one.

Was not aware am supposed to be screened	
Lack of time	
Did not get the service when I needed it	
Don't think am susceptible to cancer of the cervix	
Embarrassed been examined in my private parts	
Worried that I can be told that I have the disease	
My husband or partner will not approve	
Has not thought about it	
Others specify	

15. Are you planning to be screened in future?

□ Yes

□ No

16. In your own opinion, which would be the best place to pass messages on cervical cancers screening to women?

Tick all appropriate.

□ Local women's groups

□ Places of worship (church/ mosque)

□ Health facilities

□ At home

□ Markets

Others (Specify ……

……

Thank you for taking time to participate in this interview

APPENDIX II: WORK PLAN

Activities	Feb 2022	Feb 2022	march 2022	march 2022	April 2022	April 2022	April 2022	May 2022	May 2022	June 2022
Approval of the topic										
Background of the study										
Literature review										
Methodology										
Presentation of the dissertation										
Submission of the dissertation										
Collection of data										
Analysis and interpretation of data										
Production of printed copies										
Submission										

of the project										

APPENDIX III: BUDGET

Items	Quantity	Unit (ksh)	Total
Printing	300	@5	1500
Foolscaps	2reams	@450	900
Pens	2	@20	40
Typing		1500	1500
Computer services	1hour 30mins	150	150
Transport/lunch		1500 @day for 5 days	7500
Binding	2pairs	180	360
Total			11950

Appendix IV: Consent Form

UNIVERSITY OF KABIANGA

Tel: 020-2172665
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P. O Box 2030- 20200
KERICHO

INSTITUTIONAL SCIENTIFIC AND ETHICS REVIEW COMMITTEE (ISERC)
INFORMED CONSENT FORM

Study Title: Utilization of cervical cancer screening services among women of reproductive age in Chepalungu Sub- County, Bomet county

Name of Principal Investigator(s): Lydia Chepkoech Langat

Name of Organization: University of Kabianga

Informed Consent Form for: Women of reproductive age
This Informed Consent Form has two parts:

- Information Sheet (to share information about the study with you)
- Certificate of Consent (for signatures if you choose to participate)

You will be given a copy of the signed Informed Consent Form

Part I: Information Sheet

Introduction:

You are being asked to take part in a research study. This information is provided to tell you about the study. Please read this form carefully. You will be given a chance to ask questions. If you decide to be in the study, you will be given a copy of this consent form for your records.

Taking part in this research study is voluntary. You may choose not to take part in the study. You could still receive other treatments. Saying no will not affect your rights to health care or services. You are also free to withdraw from this study at any time. If after data collection you choose to quit, you can request that the information provided by you be destroyed under supervision- and thus not used in the research study. You will be notified if new information becomes available about the risks or benefits of this research. Then you can decide if you want to stay in the study

Purpose of the study:

The purpose of the study is to investigate the determinants of utilization of cervical cancers screening services among women of reproductive age in Chepalungu sub-county.

Type of Research Project/Intervention:

You will be given a questionnaire to fill or the researcher will ask you questions as she fills in the questionnaire.

Why have I been identified to Participate in this study?
The study seeks to collect information from women of reproductive age and the fact that you reside in this area and that you are in this age bracket has made me to request you to participate in this study
How long will the study last?

You will be in this study for of about 20 minutes during the interview, you will not be required to spend any other additional time after completion of the questionnaire. However. The study findings will be disseminated through Sub- County health department

What will happen to me during the study?

We are asking you to help us learn more about the determinants of utilization of cervical cancers screening services among women of reproductive age in Chepalungu sub-county. If you accept, you will be asked to take your time of about 10 to 15 minutes to fill the questionnaire

What side effects or risks I can expect from being in the study?
There are no risks that are anticipated for participating in this study
Are there benefits to taking part in the study?
You may not benefit personally from this study, the possible benefits to society may include increase in awareness of available cervical cancer screening services and increased uptake and overally reduce the cancer morbidity and mortality

Reimbursements:
There will be no payment for participating in the study
Who m do I call if I have questions about the study?

Questions about the study: Please contact Lydia 0728801742

Questions about your rights as a research subject: You may contact Institutional Review Ethics Committee (IREC) 053 33471 Ext. 3008. IREC is a group of people that reviews studies for safety and to protect the rights of study subjects.

Will the information I provide be kept private?

All reasonable efforts will be made to keep your protected information (private and confidential. Protected Information is information that is, or has been, collected or maintained and can be linked back to you. Using or sharing ("disclosure") of such information must follow National privacy guidelines. By signing the consent document for this study, you are giving permission ("authorization") for the uses and disclosures of your personal information. A decision to take part in this research means that you agree to let the research team use and share your Protected Information as described below

As part of the study, Lydia Langat and her study team may share the results of your responses. These may be study or non-study related. They may also share portions of your medical record, with the groups named below:

- The National Bioethics. Committee,
- The Institutional Review and Ethics Committee,
- Chepalungu Sub-County Health Management Team.

National privacy regulations may not apply to these groups; however, they have their own policies and guidelines to assure that all reasonable efforts will be made to keep your personal information private and confidential.

The study results will be retained in your research record for at least six years after the study is completed. At that time, the research information not already in your medical record will be with the researcher. Any research information entered into your medical record will be kept indefinitely.

Unless otherwise indicated, this permission to use or share your Personal Information does not have an expiration date. If you decide to withdraw your permission, we ask that you contact Lydia in writing and let her know that you are withdrawing your permission. At that time, we will stop further collection of any information about you. However, the health information collected before this withdrawal may continue to be used for the purposes of reporting and research quality.

You will receive a copy of this form after it is signed.

Part II: Consent of Subject:

I have read or have had read to me the description of the research study. The investigator or his/her representative has explained the study to me and has answered all of the questions I have at this time. I have been told of the potential risks, discomforts and side effects as well as the possible benefits (if any) of the study. I freely volunteer to take part in this study.

Name of Participant (Witness to print if the subject is unable to write	Signature of subject/thumbprint	Date & Time

Name of Representative/Witness | Relationship to Subject

_____	_____	_____
Name of person Obtaining Consent Obtaining Consent	Signature of person	Date
_____	_____	_____
Printed name of Investigator	Signature of Investigator	Date