

**UTILIZATION OF CERVICAL CANCER SCREENING SERVICES AND
ASSOCIATED FACTORS AMONG WOMEN OF REPRODUCTIVE AGE
IN KISARAWA DISTRICT, COAST REGION**

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IN KISARAWA DISTRICT COAST REGION**

By

Pendo Bukori

**A Dissertation Submitted in Partial Fulfillment of the Requirements for
the Degree of Master of Public Health of the
Muhimbili University of Health and Allied Sciences**

**Muhimbili University of Health and Allied Sciences
October, 2014**

CERTIFICATION

The undersigned certify that, they have read and hereby recommend for acceptance by Muhimbili University of Health and Allied Science a dissertation entitled **Utilization of cervical cancer screening services and associated factors among women of reproductive age in Kisarawe district, Coast region**, in partial fulfilment of the requirements for the degree of Master of Public Health of the Muhimbili University of Health and Allied Sciences.

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DECLARATION AND COPYRIGHT

I, **Pendo Bukori**, declare that this **dissertation** is my own original work and that it has not been submitted to any other University for a similar or any other degree award.

Signature Date

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DEDICATION

This work is dedicated to my parents Mr. Andrea Bwire Bukori and the late Juliana Manyama Bukori for giving me the basic education and my husband Dr. Vedastus Mugeta for encouraging me to proceed with continuous education which is the best heritage in my life one can ever receive.

ABSTRACT

Background: Cervical cancer is the leading cause of cancer related morbidity and mortality in women in Tanzania. Early detection and prevention of cervical cancer can reduce morbidity and mortality due to cervical cancer. Despite the existence of cervical cancer screening services by using Visual Inspection by Acetic Acid (VIA), the utilization of the service is still very low.

Study Aim: The aim of the study was to determine the level of utilization of cervical cancer screening services and its associated factors among women of reproductive age in Kisarawe district, Coast region.

Methods: A cross sectional population-based study was conducted among 414 women aged 15-49 years in Kisarawe District. Structured questionnaires were used to collect information. The outcome variable was utilization of cervical screening services. Bivariate analysis was done to investigate the association between the dependent and independent variables. Ethical clearance was sought prior to the study and informed consent obtained from each participant.

Results: Of the 414 respondents, 13.8% reported to have ever been screened for cervical cancer and 49% were aware of the availability of screening services. Knowledge on cervical cancer symptoms, risk factors and prevention methods was insufficient. Factors that significantly influenced utilization of cervical cancer screening services were age 40+, being a Christian, employed and whether divorced/separated/widowed. Some misconceptions regarding risk factors for cervical cancer prevailed among the respondents. Barriers of utilization of cervical screening services included not knowing where to go for screening, lack of bus fare and fear of being screened by a male provider. Three quarters of the women perceived that the cervical cancer screening prevents development of cancer and enhances quality of life to women

Conclusion: Utilization of cervical cancer screening services in the studied area is quite low. Targeted interventions are needed to improve the level of utilization of screening services. There is a need for integrating cervical screening services into the existing RCH services all over the country to enable women to utilize the service.

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LIST OF ACRONYMS / ABBREVIATIONS

| | |
|---------|--|
| ACCP | Alliance for Cervical Cancer Prevention |
| AGOTA | Association of Gynecologists and Obstetricians of Tanzania |
| AIDS | Acquired Immunodeficiency Syndrome |
| AMREF | African Medical and Research Foundation |
| ASR | Age Standardized Incidence Rate |
| CBO | Church Based Organization |
| CCHP | Council Comprehensive Health Plans |
| CCA | Cervical Cancer Action |
| CHMT | Council Health Management Team |
| CIN | Cervical Intra-Epithelial Neoplasia |
| CMS | Central Medical Stores |
| CCSS | Cervical Cancer Screening Services |
| DHMT | District Health Management Team |
| DMO | District Medical Officer |
| EPI | Expanded Programme on Immunization |
| FBO | Faith Based Organizations |
| HIV | Human immunodeficiency Virus |
| HPV | Human Immunodeficiency Virus |
| HPV DNA | Human Papillomavirus Virus Deoxyribonucleic Acid |
| IARC | International Agency for Research on Cancer |
| ICAP | International Centre for AIDS Control and Treatment Programs |

| | |
|--------|--|
| ICC | Interagency Coordinating Committee |
| IEC | Information, Education and Communication |
| KCMC | Kilimanjaro Christian Medical College |
| LEEP | Loop electrosurgical excision procedure |
| MAT | Medical Association of Tanzania |
| MEWATA | Medical Women's Association of Tanzania |
| MOHSW | Ministry of Health and Social Welfare |
| MNH | Muhimbili National Hospital |
| MSD | Medical Stores Department |
| MUHAS | Muhimbili University of Health and Allied Sciences |
| NACP | National AIDS Control Program |
| NCCPC | National Cervical Cancer Prevention and Control |
| NGO | Non Governmental Organization |
| ORCI | Ocean Roads Cancer Institute |
| PACT | Program for Cancer Therapy |
| RCH | Reproductive Child Health |
| RHMT | Regional Health Management Team |
| UICC | Union of International Cancer Control |
| UNICEF | United Nations Children's Fund |
| VIA | Visual inspection with acetic acid |
| VILI | Visual inspection with Lugol's iodine |
| WHO | World Health Organization |

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background information

Cervical cancer continues to be among the leading devastating causes of death among women in the world, and more so in Sub-Saharan Africa. The World Health Organization (WHO) suggest that each year there are more than a quarter of a million deaths from cervical cancer and over 530,000 new cases, most of which could be prevented [1]. WHO projects that without immediate action the global number of deaths from this disease will increase by nearly 80% by 2030, mostly in low- and middle-income countries. More than 85% of the global burden of cervical cancer occurs in developing countries, where it accounts for 13% of all female cancers. WHO projects cervical cancer deaths will rise to 320,000 in 2015 and 435,000 in 2030.

Sub Saharan Africa is a home to more than a 20% of a million women who die annually from cervical cancer, with highest burden in Eastern Africa. Research indicates that 96 to 99% of cases of invasive cervical cancer are associated with HPV infection [2]. In Tanzania where the population is approximately 40 million people, 11.4 million women within the reproductive age and beyond are at risk of developing carcinoma of the cervix. WHO reports that cervical cancer's crude incidence rate in Tanzania is 40.6 per 100,000 women compared to 25.7 and 16 respective averages for the rest of East Africa and the world. Out of the 7515 cases reported in the country in 2002, a staggering 6009 (80%) died. According to Tanzania cancer registry 2009, cervical cancer accounted for 29.8% of all cancers in females in Northern Tanzania between 1998 and 2000.

Cervical cancer is complicated by the high prevalence of HIV to women of child bearing age which is estimated to be 8% in the general population. The proportion of women at risk is expected to be high as HIV infection is associated with a rapid progression of invasive cervical cancer [3]. There is epidemiologic evidence linking cervical cancer to the Human Papilloma

Virus (HPV) sexually transmitted with the existence of new and highly efficacious vaccines against HPV, and the existence of effective screening methods for early detection, cervical cancer could practically be eliminated if the right strategic approaches were developed and implemented. WHO has recommended its member countries to develop and integrate cervical cancer screening into their health systems depending on the local social, cultural and economic contexts?. Tanzania has opted to vaccinate girls in Primary school and screening of women aged 30 to 50 years by using Visual Inspection by Acetic Acid (VIA) to identify precancerous lesions [4]. Treat small lesions by freezing method using carbon dioxide gas or Nitrous oxide gas (cryotherapy), Loop electrosurgical procedure (LEEP) for those found with large lesions.

Strong partnerships with international organizations, non-governmental organizations and the private sector offer a great opportunity to develop and undertake the implementation of a Comprehensive National Cervical Cancer Prevention and Control (NCCPC) program. Several initiatives to address cervical cancer prevention, care and treatment have started in Tanzania over the last several years. These initiatives are still scattered and need to be consolidated in a National Strategic Plan, these will serve as building blocks to cervical cancer expand screening services to the whole country.

The Reproductive Health Cancer Unit was established within the Ministry of Health in 2008. Following a number of consultations with stakeholders the MOHSW developed a cervical cancer Prevention and Control Strategy that provides a background for the development of a National health policy in Tanzania [5]. Ocean Road Cancer Institute (ORCI the only centre for cancer treatment in country), Medical Women Association of Tanzania (MEWATA), and other professional organizations such as Medical Association of Tanzania (MAT), Tanzania Public Health Association (TPHA), Association of Gynaecologists and Obstetricians in Tanzania (AGOTA), and other implementing partners have been working to increase awareness of cervical cancer screening and treatment through interviews and advertisements on televisions, radio stations as well as information in brochures, posters, and banners.

VIA screening initiatives for cervical cancer in Tanzania have largely been undertaken by ORCI since 2002, whereby the service mostly benefited women in Dar es Salaam. Since 2006,

ORCI expanded services by training health care workers in regional hospitals and clinics. Some available data on cervical cancer screening at the end of 2009 was 21,347. Screening results showed that 17,868 (85%) were VIA negative, 2,577 (12%) were VIA positive and 558 (3%) were suspicious for cancer. There are no data regarding follow up of cases requiring referral. Women accessing these services include those attending health facilities for other services at reproductive and child health (RCH) clinics, care and treatment services but also women mobilized from the community. Thus, cervical cancer preventive measures are still low in the country despite the efforts of preventing cervical cancer.

1.2. Problem Statement

Cervical cancer is the leading cause of cancer related morbidity and mortality in women in Tanzania. In 2009, cervical cancer accounted for 35.3% of all cancer patients seen at the Ocean Road Cancer Institute. Despite the high burden of disease, the majority of women do not get information on cervical cancer disease and how it is prevented. Early detection of precancerous lesions coupled with early treatment of cervical cancer increases chances for complete cure [6]. Cervical cancer prevention and treatment services are scarce in Tanzania and the majority of women have limited access to these services. About 80% of patients are seen in the last stages of the disease where palliative care is the only option. Cervical cancer screening services have already been established in most of the regions in the country. Some of these screening centres are not providing services routinely or not functioning at all. However, the available and functioning clinics are not utilized effectively.

Few studies conducted in Tanzania have reported the level of utilization of cervical screening services and its associated factors. A study conducted among primary school teachers in Ilala Municipal revealed that 21% had ever been screened for cervical cancer. Factors that were found to influence utilization of cervical cancer screening services were knowledge on at least one symptom and one prevention method, age at first sexual debut, knowledge of anyone who has ever gone for cervical cancer screening and involvement of spouse/partner in decision to seek health care [8]. Furthermore, there is limited information regarding the application of the Health Belief Model (HBM) to cervical cancer screening. This study, therefore, aimed to determine the level of utilization of cervical cancer screening services and its associated factors among women of childbearing age in Kisarawe District.

1.3. Rationale and Justification of the Study

Tanzania women experience a wide variety of gender related challenges including social, economical and cultural inequalities and vulnerabilities. Most women who die from cervical cancer are in the prime of their life, may be raising children, caring for their family, and contributing to the social and economic life of their communities. Women have a right to accessible, affordable and effective services for prevention, care and treatment of cervical cancer. Understanding the level of and factors associated with cervical cancer screening is important in developing effective interventions for cervical cancer.

Findings from this study will assist in planning and developing interventions aimed at improving utilization of cervical cancer screening services. The findings from this study will also assist policy makers to allocate adequate budget for cervical cancer prevention and program managers to plan and develop cost effective strategies on cervical cancer prevention through advocacy, communication and social mobilization strategy towards cervical cancer screening.

Theoretical Framework

The Health Belief Model is a framework for predicting behaviour towards use of cervical cancer screening services. The HBM was originally developed in the 1950s by a social psychologist in the U.S public Health Service to explain the widespread failure of people to participate in programs to prevent and detect disease. Later, the model was extended to study peoples' responses to symptoms and their behaviours in response to diagnosed illness, especially adherence to medical regimens [10].

This model aims to explain preventive health behaviours rather than behaviours in time of illness. The HBM contains several primary concepts that predict why people will take action to prevent, to screen for, or to control disease conditions. Thus, this model assumes that health behaviours are motivated by five elements of perceived susceptibility, perceived seriousness, perceived benefits, perceived barriers, cues to action and most recently perceived self-efficacy.

Application of the Health Belief Model to cervical cancer screening behaviour

Perceived susceptibility: The perceived susceptibility refers to beliefs about the likelihood of getting a disease or condition or increased chances of contracting a disease. For example, women must believe there is a possibility of getting cervical cancer before they will be interested in up taking cervical cancer screening.

Perceived severity: The perceived severity of a disease refers to the perceived danger of a health problem as assessed by an individual. For example, if women think that cervical cancer is a severe disease and believe that getting cervical cancer would have serious medical, social and economical consequences for them, they are more likely to obtain cervical cancer screening.

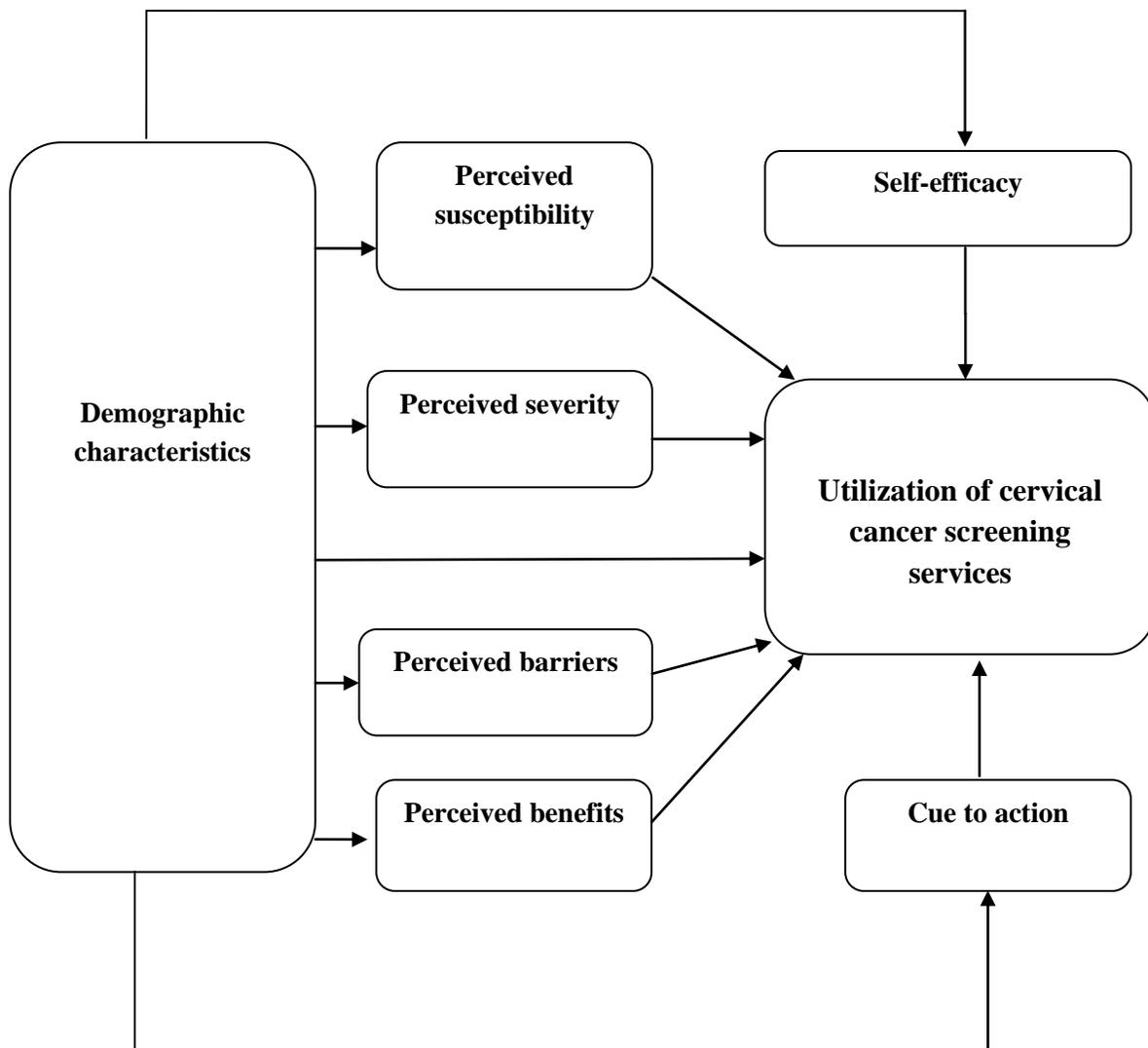
Perceived benefit: Viewed as the gain that, doing cervical cancer screening will result to early detection, delay progression of cervical cancer and subsequently leading to decreased mortality due to cervical cancer. For example, women must believe that advised health action or seeing someone benefited from treatment of pre-cancerous lesion after cervical cancer screening will reduce risks of getting cervical cancer.

Perceived barrier: A perceived barrier to action refers to the negative aspects of health-oriented actions or the potential negative aspects of particular health action, may act as impediments to undertaking recommended behaviours. For example, fear of a positive result of cervical cancer, embarrassment, pain, financial constraints, and attitudes of health workers, lack of convenient clinic times and lack of female screeners as the major barriers to cervical cancer screening.

Cues to action: Refers to verbal and non-verbal cues may act as reminders to activate readiness to take a healthy action. For example, media publicity, educational attainment, or reminded by their family members/health care providers.

Other variables: Demographics- Age, parity, social economic, education, availability of cervical cancer screening services, distance, sexual and reproductive factors affect directly or indirect behaviour of cervical cancer screening. For example lack of awareness, knowledge on cervical cancer and social economical status may influence positively or negatively towards utilization of cervical cancer screening services.

A Conceptual framework of the Health Belief Model and its application to the study



SOURCE: Modified from Stetcher and Rosenstock,1997 [10].

1.4. Research Questions

1. What is the proportion of women ever screened for cervical cancer in Kisarawe District?
2. What are the demographic, sexual and reproductive factors associated with utilization of cervical cancer screening in Kisarawe district?
3. What is the pattern of Health Belief Model components with regards to utilization of cervical cancer screening services?

1.5 Objectives

1.5.1 Broad objective

To determine the level of utilization of cervical cancer screening services and its associated factors among women of reproductive age in Kisarawe District.

1.5.2 Specific Objectives

1. To determine the proportion of women who have ever screened for cervical cancer.
2. To investigate demographic, sexual and reproductive health factors associated with utilization of cervical cancer screening.
3. To describe the level of perceived severity/seriousness of cervical cancer among women of childbearing age.
4. To describe the level of perceived benefits, perceived barriers and cues to action towards utilization of cervical cancer screening among women of childbearing age.

CHAPTER TWO

2.0 LITERATURE REVIEW

In sub-Saharan Africa, very few women are ever screened for cervical cancer [11]. Low levels of awareness and poor knowledge of cervical cancer coupled with unavailability and inaccessibility of cervical cancer screening services are responsible for the very small number of women being screened and in other developing countries. In a cross-sectional survey of 650 women 15-78 years of age randomly recruited at 2 hospitals in London, England, 76.2% perceived cervical cancer to be a common disease and there was good awareness of the association between this cancer with smoking and the number of sexual partners [12]. Furthermore, 91.7% believed cervical cancer could be treated if detected early enough.

Persistent infection with a high risk type of HPV is crucial for the development of pre-cancer and cancer of the cervix. There is currently no antiviral available to treat the underlying HPV infection. Within a few months to five years of initial infection the continuing infection can lead to cervical intra epithelial neoplasia (CIN stage 1, 2 or 3), which in 3 to 5% of cases will develop into an invasive cervical cancer [12]. CIN is also termed as pre-invasive disease. It usually takes 10-20 years for invasive cancer to develop; this means that cervical cancer control is possible through screening and treatment of pre-invasive conditions. Risk factors for HPV infection are most common to young women at (20-24 years of age), number of sex partners, early age of first sexual intercourse, male partner with multiple sexual partners.

Study done in Malaysia found that, the knowledge of cervical cancer, attitudes and beliefs pertaining to cervical cancer screening, and reasons for not doing cervical screening were identified. It concurred with other studies that women's knowledge, attitudes and beliefs influenced their screening behaviour [13]. The study found that women were poorly aware of the indications and benefits of cervical cancer screening; many believed that cervical screening is performed only to women who are symptomatic. They did not see the need for a screening test because they perceived themselves as not at risk of developing cervical cancer. Many thought that the purpose of cervical cancer screening is to detect existing cervical cancer.

Such misconceptions require extensive public education, with a new emphasis on the crucial fact that Pap smear screening is targeted primarily at detecting precursor lesions that occur early in the course of the disease, and subsequent timely treatment would thus prevent progress towards invasive cancer.

Practice on screening among Africans was also shown to be poor as shown in a study done in South Africa, in spite of knowledge of cervical screening and the availability of such services, majority of women (87%) from higher social and educational backgrounds did not undergo cervical screening [14]. Most of the women resided within a 12-kilometer radius of a facility that either provided or could potentially provide screening. In Africa, a study done in Cameroon to assess the knowledge of cervical cancer by women living in Maroua, the capital of the Far North Province of Cameroon showed that, of 171 women studied, only 48 (28%) had prior knowledge of cervical cancer [15].

In Kenya, large burden of disease has been attributed to a lack of national screening guidelines and funding for cervical cancer prevention programs. In the past 2 decades, this has been augmented by the impact of the HIV epidemic in Kenya overall HIV prevalence estimated to be approximately 8% at the end of 2008, the prevalence of women aged 18–49 years was estimated at 8.9% [16]. Women of reproductive age are the fastest growing group to become newly infected with HIV, with a 5-fold greater risk than men, which will substantially increase the number of women at risk for cervical cancer and other HIV-related reproductive health effects over the next 5–10 years.

Alongside the individual impact, HIV presents immediate, severe challenges to the healthcare, social, and economic infrastructure in Kenya, reducing the overall life expectancy. The country has established few centers for cervical cancer screening by using Visual inspection with Acetic Acid (VIA) and Visual inspection with Lugol's Iodine (VILI) for early detection and treatment to reduce the disease burden.

Tanzania reported very poor knowledge of the disease in a study done among female inpatients at Muhimbili between August 1999 and January 2000. It was a case control study to assess knowledge of cervical cancer symptomatology, where the knowledge ranged between 30 and 50% among cases and controls respectively [17]. Many patients thought the symptoms were due to bewitchment, husbands' extramarital affairs, or husbands making love to their daughters. This study also showed that more than 90% of patients presented with invasive cervical cancer.

Another studies done in Uganda, Turkey and Nigeria, about knowledge of cervical cancer and screening practices of nurses as it has been seen in other studies in" the study found that, a large proportion of the nurses had inadequate knowledge of risks similar to nurses in Uganda [18] . This is in contrast to findings by Tessaro et al in the United States in a study on nurse practitioners who knew most of the risk factors such as multiple sexual partners, history of HPV infection and sexual intercourse at an early age. In both studies however only a small proportion of the nurses identified smoking as a risk factor.

In South Eastern Nigeria, a study done on knowledge, attitude and practice of cervical cancer screening (pap smear) among female nurses found that, healthcare providers influence women's screening behaviours. A woman undergoing gynaecological examination or seeking reproductive healthcare is more likely to receive a recommendation for a screening procedure for a Pap smear test or VIA by her doctor [19]. At the same time, healthcare providers such as general practitioners and gynaecologists need to do their part in promoting cervical cancer screening. They should disseminate information that focuses on educating the women about cervical cancer risks, prevention and early detection to enhance uptake of screening practices.

A study done in Thailand on Knowledge, Attitudes and Practices vis-a-vis Cervical Cancer screening observed that, in regards to education level, several studies have found that women with high screening rates have a high level of education Study areas should be stated"[20]. However, women with high education may not necessarily seek screening thus, additional factors must be considered. Rates of screening are substantially lower in younger women aged

20-29 years and elderly women aged 60 years and above. Also, unmarried and widowed women are less likely than married women or women living with a partner to obtain screening.

Other studies done in Uttar Pradesh India, Somali and Arab have found that, single women are more likely than married women to have pap screening [21, 22]. Perhaps negative attitudes among the male partners, who may serve as key decision-makers, prevent women from seeking screening services. The man's role may, thus, be important to take into consideration to determine whether women will access screening. Women's knowledge is also implicated in screening uptake. In addition to knowledge, women's attitudes toward screening may be relevant, cultural barriers may lead to negative opinions about screening including concern about exposure of private body parts [23].

A cross-sectional study to evaluate the knowledge, attitude and practice of cervical cancer screening among market women [24]. A total of 260 women were administered with questionnaires which were both self and interviewer administered in Nigeria. Results: Respondents exhibited a fair knowledge of cervical cancer and cervical cancer screening (43.5%); however, their knowledge of risk factors was poor. There was generally good attitude to cervical cancer screening (80.4%), but their level of practice was low (15.4%). Conclusions: There was a fair knowledge of cervical cancer and cervical cancer screening among Nigerian market women in this study, their practice of cervical cancer screening was poor.

The perception of one's susceptibility to cervical cancer can affect screening behaviour. A study done in San Francisco on Health behaviour and health education; found that, many women expressed a lack of personal susceptibility to cervical cancer and therefore believed it was unnecessary for them to have a Pap smear test done. This concurs with a study which found that women's perceived susceptibility to cervical cancer predicts their cervical screening behaviour [25]. Thus, efforts to promote cervical cancer screening uptake among women should focus on informing women of their susceptibility to cervical cancer, challenging beliefs of vulnerability to the disease and encouraging a belief that active and regular screening can

detect cervical cancer at the pre-cancerous stage, hence enabling the early treatment and prevention of cancer development.

The perceived severity of a disease refers to the severity of a health problem as assessed by the individual. These variables refers to feeling about the seriousness of contracting an illness or of leaving it untreated include evaluations of medical/ clinical consequences like death, disability and pain or social consequences such as effects of the conditions on work, family life and social relation. For example, if women think that cervical cancer is a sever disease and believe that getting cervical cancer would have serious medical, social and economical consequences for them; it is more likely to obtain cervical cancer screening test [26].A study done in Latin America, on Perceived barriers and benefits to cervical cancer screening found that, cervical cancer related anxiety and perceived seriousness did not vary by age group or level of education. Although most participants perceived cervical cancer as serious, the thought of believing that there was no treatment of cervical cancer, makes them uninterested to doing cervical cancer screening test.

A study done in Botswana explored that, either screened or never screened research participants agree or strongly agree that screening is important to be done (88.8% versus 87.3%), screening can find changes before they become cancer (83% versus 69.8%) and cervical cancer is easily curable when detected early (92.4% versus 79.5%) [27]. Both the ever screened (42.4%) and never screened (36.1%) responded not sure to whether cervical cancer decreases chances of an abortion but the ever screened (43.1%) thinks screening improves the chances of an infertile woman become pregnant as opposed to the never screened among whom 37.4% responded not sure. Screening in Botswana as well as address issues of barriers and misconceptions associated that it is important to do cervical cancer screening.

This is consistent with studies done in Jordan and Malaysia, in which the majority of subjects agreed that regular pap smear screening will give them peace of mind, find a problem before they become cancer and very necessary even if there is no family history of cancer [28, 29]. The major reasons while both screeners and never screeners in Ibekwe1 study believed was

that it is important to do cervical cancer screen because it could find changes in the cervix before they get cancer and the disease could easily be cured when found early.

A study done in Mexico California on attitudes towards cervical cancer screening, thought perceived barrier as a potential negative aspect of particular health action may act as impediments to undertaking recommended behaviours' kind of no conscious, cost effective analysis occurs wherein individuals weigh the action expected benefits with perceived barriers such as it could help me, but it may be expensive, have negative side effects [30]. Such negative experiences included experiencing pain, bleeding and being faced with inexperienced sample takers who did not explain the process or enable them to ask questions. Even if the participants who took part in the study appreciated the need for screening, fear of the test was cited as a hindrance to some women. Furthermore, the metal speculum was perceived as a painful instrument and some did not trust the sterilization process. Fear of the test results was also thought to prevent some women from coming forward for screening.

Readiness to action (Perceived susceptibility and perceived benefits) could only be potentiated by other factors particularly by cues to instigate action such as bodily events or by environmental events such as media publicity [31]. For example, women would be more likely to have preventive behaviour like up taking Pap smear if they be reminded by their family members or health care providers a study done in Addis Ababa. Continued education to clear misconceptions still required to ensure increased uptake of cervical cancer screening among the eligible women especially among those that are at high risk.

Perceived self-efficacy is defined as the conviction that one can successfully execute the behaviour required to produce the outcomes. For behaviour change to succeed, people must feel threatened by their current behavioural pattern (perceived susceptibility and severity) and believe that change of a specific kind will result in a valued outcome at an acceptable cost (perceived benefit).

In conclusion, there is considerable epidemiological literature which will investigate the utilization of cervical cancer screening and associated factors. Most of the literature has looked

into the level of knowledge and attitudes towards cervical cancer screening. However, most of these studies have been done in high income countries and thus the extent of exposure to risk factors and utilization of cervical cancer screening remain largely unknown in low income countries including Tanzania.

CHAPTER THREE

3.0 METHODOLOGY

This chapter explains the methodology for the study. It presents the area of the study, study design, study population, sample size estimation, sampling technique, data collection technique and tools used, variables, data collection procedures, data analysis and ethical considerations.

3.1 Study area

Kisarawe District is among the seven districts of Coast Region. It borders Dar es Salaam City to the east while to the north it borders with Kibaha District and Rufiji in the South. The total population in 2012 was 101,598, of which 25,779 are women aged 15-49 years (NBS, 2012). The district consists of 4 divisions, 15 wards and 74 villages. The district has 1 hospital, 3 health canthers and 17 dispensaries. According to ICAP report, Kisarawe district is one of the districts with low numbers of women screened for cervical cancer.

3.2 Study design

A cross sectional study was conducted from March to June 2014.

3.3 Study population

Women of reproductive age (15-49 years) in Kisarawe district.

3.4 Sample size estimation

The following formula was used:

$$n = \frac{Dx z^2 p(100-p)}{e^2}$$

Where $z=1.96$ (assuming 95% confidence interval)

p =proportion of women screened for cervical cancer in Tanzania is 6.6% [5].

e = Margin of error, 3%.

D =design effect = 1.5

Therefore the minimum sample size was $395 \approx 400$.

3.5 Sampling technique

The sample for the study was selected in several stages. There are four divisions in Kisarawe district: Sungwi, Mzenga, Maneromango and Chole. Mzenga was not included because of difficult transportation during the rainy season. The remaining three divisions were included in the study. A total of four wards namely: Chole samvula, Kisarawe, Maneromango, Masaki, were selected purposefully for the study due to accessibility. In each ward, two streets/villages were randomly selected using the ballot method to get a total of 8 villages/streets. In each village/street, approximately 50 households were also selected purposeful depending on availability of women of child bearing age. In each household, all eligible women were invited to participate in the study.

3.6 Data collection technique and instrument

Data collection was done through interviews using questionnaires which included structured questions. The questionnaire was developed in English and translated into Kiswahili. The instruments were pretested before starting data collection.

3.7 Variables

Dependent variable: Ever screened for cervical cancer.

Independent variables:

- Demographic characteristics (age, marital status, religion, level of education, occupation)
- Sexual and reproductive history (age at first penile vaginal sexual intercourse, age at first pregnancy, number of sexual partners and parity).
- Awareness and availability of cervical cancer screening services(ever heard about cervical cancer screening, , availability, distance to screening facility)
- Knowledge on cervical cancer risk factors, symptoms and prevention methods
- Information on perceived susceptibility, perceived severity, perceived benefits, perceived barriers and cues to action to utilization of cervical cancer screening.

3.8 Training of research assistants

Training of four research assistants by the principal researcher was done to ensure understanding the contents of the questionnaire and how to fill it before data collection. Data collection was done in March and April 2014.

3.9 Data collection procedures

Data was collected by the principal researcher and four trained research assistants, one from each ward. With the assistance of the hamlet/village leaders, house to house visits were made to interview eligible women. We reported to Ward Executive Officer (WEO) with an introductory letter from Kisarawe District authorities. The WEO then introduced us to Village Executive Officer (VEO). In each village/street, the street/hamlet leader guided and introduced the team to the household members. Field monitoring of data quality was done through supervisory visits and checking correctness of the filled questionnaires.

3.10 Data management

3.10.1 Measurements

The dependent variable was recorded as either ever screened for cervical cancer or not.

Questions on cervical cancer screening awareness and availability, knowledge of cervical cancer screening, HBM- perceived susceptibility to cervical cancer and perceived severity or seriousness, subjects were based on a single question with responses: (1)YES, (2) NO.

For the HBM components on perceived benefits, barriers and cues to action to cervical cancer screening, respondents were requested to indicate a 4-point Likert scale whether they 1) strongly agree, (2) agree, (3) disagree and (4) strongly disagree.

Self-efficacy was measured by asking participants to respond to a single question based on 2 responses: (1) YES, (2) NO.

3.10.2. Data processing and analysis

Data were entered into the computer using EPI-INFO software programme and cleaned. Data analysis was performed using Statistical Program for Social Scientists (SPSS) version 11. Descriptive statistics such as frequency tables was used to describe demographic characteristics and elements of the HBM model (for objectives 1, 3 and 4). Bivariate analysis was done using the Chi square test to examine the relationship between independent variables and utilization of cervical cancer screening services (objective 2). A p-value of less than 0.05 was considered statistically significant.

3.11. Ethical considerations

Ethical clearance was obtained from MUHAS Senate Research and Publications committee. Following an introductory letter from MUHAS, permission for conducting this study was sought from Kisarawe district authorities. Informed consent was obtained from participants before they participated in the study. Participants were informed about the objectives of the study and that their participation was voluntary. It was clearly clarified that the information obtained was for research purposes and would therefore be strictly anonymous and dealt with confidentiality.

CHAPTER FOUR

4.0 RESULTS

4.1 Description of the study sample

The socio demographic characteristics of the study population are summarized in Table 1. A total of 414 women aged 15-49 years participated in the study. The result shows that the 34% of participants were within the age group of 20-29 years, while 32.4% were within the age of 30-39 years. Another category was marital status, where 50.7% of the participants were married women, singles were 35.0% and divorce/separated/widowed were 14.3%. More than half of the respondents 56.2% had primary education, 23.8% had secondary and above, while 20.0% had no formal education. About religion, 80.6% were Muslim and 19.4% were Christians. For employment, 40.0% were unemployed, 35.4% peasants, 21.7% petty traders, and only 2.9% were employed formally.

Table 1: Socio demographic characteristics of the respondents (n=414)

| Characteristic | Frequency | Percent |
|----------------------------|------------------|----------------|
| Age group (years) | | |
| <20 | 22 | 5.5 |
| 20-29 | 157 | 38.4 |
| 30-39 | 134 | 32.4 |
| 40+ | 59 | 14.3 |
| Marital status | | |
| Single | 145 | 35.0 |
| Married | 210 | 50.7 |
| Divorce/separation/widowed | 59 | 14.3 |
| Education | | |
| No formal education | 82 | 20.0 |
| Primary | 231 | 56.2 |
| Secondary and above | 98 | 23.8 |
| Religion | | |
| Muslim | 333 | 80.6 |
| Christian | 80 | 19.4 |
| Occupation | | |
| Not employed | 165 | 40.0 |
| Peasant | 145 | 35.4 |
| Employed | 12 | 2.9 |
| Petty trader | 90 | 21.7 |

4.2 Sexual and reproductive health history of the study sample

Table 2 summarizes the sexual and reproductive health characteristics of the study population. The analysis shows that more than half (63.7%) of respondents reported to have been involved in early first penile-vaginal penetration at the age of 12-19 years. It was also noted that most of respondents (67.4%) reported to have 2 or more sexual partners. About one fifth of the respondents were aged below 19 years during their first pregnancy. Findings also reveal that about 60.4% of the respondent had less than 4 deliveries.

Table 2: Sexual and reproductive health history (n=414)

| Characteristic | Category | Number | Percent |
|---|-----------------|---------------|----------------|
| Age at first sex (years) | 12-19 | 264 | 63.7 |
| | ≥20 | 145 | 35.1 |
| | Missing | 5 | 1.2 |
| Number of lifetime sexual partners | 1 | 124 | 30.0 |
| | 2+ | 279 | 67.4 |
| | Missing | 11 | 2.6 |
| Age at first pregnancy (years) | 13-18 | 81 | 19.6 |
| | ≥19 | 307 | 74.2 |
| | Missing | 26 | 6.3 |
| Number of deliveries | 0-3 | 250 | 60.4 |
| | 4-6 | 119 | 28.7 |
| | ≥7 | 30 | 7.2 |
| | Missing | 15 | 3.6 |

4.3 Awareness of cervical cancer screening services and sources of information

The level of awareness of cervical cancer screening services was assessed. Overall, 65.9% of respondents reported to be aware of cervical cancer screening services. Information on cervical cancer screening services was obtained from different sources. The most common type of sources mentioned included health facilities (71.7%), TV/Radio (48.5%) and friends (31.0%) as shown in Table 3.

Table 3: Awareness and source of information about cervical cancer screening services (n=414)

| Characteristic | Number | Percent |
|--|---------------|----------------|
| Ever heard about cervical screening services | 265 | 65.9 |
| Source of information | | |
| Village meetings | 52 | 17.5 |
| Mosque/Church | 21 | 7.1 |
| Health facilities | 213 | 71.7 |
| Friends | 92 | 31.0 |
| TV/Radio | 144 | 48.5 |
| Magazine | 58 | 19.5 |
| Community Based Organizations | 3 | 0.7 |

4.4 Availability and accessibility of cervical cancer screening services

Table 4 shows results on availability and accessibility of screening facilities. About half of the respondents reported that a screening facility was within their reach with 37.7% of them mentioning the availability of 1 such facility. Concerning the distance to the screening facility, 31.7% of the subjects were less than ½ an hour away from the screening facility while 39.4% had more than 1 hour walking distance. Majority (86.9%) of the respondents mentioned the hospital as a type of screening facility. Furthermore, 82.2% of the respondents mentioned that their spouses/families allowed them to go for cervical cancer screening.

Table 4: Availability and accessibility of cervical cancer screening services (n= 414

| Characteristic | Category | Number | Percent |
|--|-----------------|---------------|----------------|
| Availability of any screening facility within reach | Yes | 175 | 49.3 |
| | No | 180 | 50.7 |
| If yes, how many cervical screening facilities? | 1 facility | 156 | 89.7 |
| | 2 facilities | 16 | 9.2 |
| | Do not know | 2 | 1.1 |
| Distance to cervical screening facility (hours) | <½ | 69 | 31.7 |
| | ½-1 | 63 | 28.9 |
| | >1 | 86 | 39.4 |
| Type of cervical screening facility* | Dispensary | 38 | 10.0 |
| | Health centre | 139 | 36.5 |
| | Hospital | 331 | 86.9 |
| Spouse/family support screening | Yes | 295 | 82.2 |
| | No | 64 | 17.8 |

*Multiple responses

4.5 Knowledge about cervical cancer risk factors, symptoms and prevention

Table 5 shows knowledge on cervical cancer risk factors, symptoms and its prevention methods. Almost all (99.5%) respondents mentioned unclean vagina to be the cause of cervical cancer, 56.0% mentioned acquiring infections that cause cervical cancer, and 54.3% mentioned multiple sexual partners, 52.6% age of first penile penetration before 17 years. Similarly, 50.2% mentioned lack of regular cervical screening, while cigarette smoking was mentioned less frequently (21.3%). About the symptoms of cervical cancer, 60.5% mentioned painful coitus, 58.1% foul smelling watery discharge and 54.0% increased frequency of vaginal bleeding.

Knowledge on cancer prevention methods was also assessed. About two thirds of the respondents knew some of the prevention methods; 65.1% mentioned regular cervical cancer screening, others mentioned avoid multiple sexual partners (53.5%) and use family planning methods such as condom (37.5%).

Table 5: Knowledge about cervical cancer risk factors, symptoms and prevention (n=414)

| Item | Number | Percent |
|---|---------------|----------------|
| Risk factors of cervical cancer | | |
| Unclean vagina | 412 | 99.5 |
| Acquiring infections that cause cervical cancer | 229 | 56.0 |
| Multiple sexual partners | 222 | 54.3 |
| First penile penetration < 17yrs | 215 | 52.6 |
| Lack of regular cervical screening | 205 | 50.2 |
| Poor hygiene to the perineum | 201 | 49.3 |
| Cigarette smoking | 88 | 21.3 |
| Do not know | 77 | 18.9 |
| Symptoms of cervical cancer | | |
| Painful coitus | 250 | 60.5 |
| Foul smelling watery discharge | 240 | 58.1 |
| Increased frequency of vaginal bleeding | 223 | 54.0 |
| Do not know | 124 | 30.0 |
| Puffy face and peeling hair | 32 | 7.8 |
| Prevention methods for cervical cancer | | |
| Regular cervical cancer screening | 267 | 65.1 |
| Avoid multiple sexual partners | 220 | 53.5 |
| Use family planning methods eg condom | 154 | 37.5 |
| Avoid cigarette smoking | 103 | 25.1 |
| Depend on Gods' grace | 94 | 22.9 |
| Wearing of charms and use of local herbs | 11 | 2.7 |

4.6 Utilization of Cervical Cancer Screening Services and its associated factors

4.6.1 Socio demographic factors and utilization of cervical cancer screening services

Table 6 summarizes the level of utilization of screening services in relation to socio-demographic characteristics. It was noted that respondents aged 40 years and above had the highest proportion (28.4%) utilizing cervical cancer screening services followed by those aged below 20 years (18.2%) compared to the other age groups ($p < 0.0001$). The age groups 20-29 and 30-39 had the lowest level of utilization of cervical cancer screening services

Another finding was that level of education was not associated with utilization of cervical cancer screening services. The results revealed that utilization of cervical cancer screening services was highest among those who had primary education (15.6%) compared to the other groups, but the difference was not statistically significant ($p = 0.21$).

Utilization of screening services was highest among the divorced/separated/widowed (27.1%) when compared to singles (7.5%). Also, Christians were more likely to utilize cervical cancer screening (22.5%) as compared to Muslims (11.4%). This difference was statistically significant ($p = 0.01$).

Furthermore, the employed group (33.3%) and petty traders (24.4%) had the highest level of utilization compared to those who were not employed or peasants.

4.6.2 Sexual and reproductive health factors and utilization of cervical screening services

Table 7 shows sexual and reproductive health factors associated with utilization of cervical cancer screening services. Findings indicate that there was no association between age at first sex and utilization of cervical screening services ($p = 0.35$). Similarly, level of utilization of cervical cancer screening services was similar among those who had one partner in their lifetime compared to those reporting to have had 2 or more partners ($p = 0.84$). Furthermore, there was no difference in level of utilization of cervical cancer screening services among those whose age at first pregnancy was below 19 years compared to their counterparts who reported to have been 19 years or older during their first pregnancy. Findings revealed that utilization of cervical screening services increased as the number of deliveries increased (test for trend $p = 0.03$). About one third of the respondents with 7 or more deliveries reported to have ever screened for cervical cancer.

Table 6: Association between socio demographic characteristics and utilization of cervical cancer screening services (n=414)

| Characteristic | Utilization of cervical | | |
|----------------------------|-------------------------|------------------------------------|----------|
| | Total | cancer screening services n (%) | p-value* |
| Age (years) | | | |
| <20 | 22 | 4 (18.2) | <0.0001 |
| 20-29 | 157 | 10 (6.4) | |
| 30-39 | 134 | 16 (11.9) | |
| 40+ | 95 | 27 (28.4) | |
| Level of education | | | |
| None | 82 | 7 (8.5) | 0.21 |
| Primary | 230 | 36 (15.7) | |
| Secondary and above | 98 | 11 (11.2) | |
| Marital status | | | |
| Single | 145 | 11 (7.6) | 0.001 |
| Married | 209 | 30 (14.4) | |
| Divorced/separated/widowed | 59 | 16 (27.1) | |
| Religion | | | |
| Muslim | 332 | 38 (11.4) | 0.01 |
| Christian | 80 | 18 (22.5) | |
| Occupation | | | |
| Not employed | 164 | 14 (8.5) | 0.001 |
| Peasantry | 146 | 16 (10.9) | |
| Employed | 12 | 4 (33.3) | |
| Petty traders | 90 | 22 (24.4) | |

*Chi-square test

Table 7: Association between sexual and reproductive health characteristics and utilization of cervical cancer screening services (n=414)

| Characteristic | Total | Utilization of cervical cancer screening services n (%) | p-value* |
|---|-------|--|----------|
| Age at first sex (years) | | | |
| 12-19 | 264 | 40 (15.2) | 0.35 |
| 20+ | 144 | 17 (11.8) | |
| Number of lifetime sexual partners | | | |
| 1 | 124 | 17 (13.7) | 0.84 |
| 2 or more | 278 | 36 (12.9) | |
| Age at first pregnancy (years) | | | |
| 13-18 | 81 | 12 (14.8) | 0.74 |
| 19+ | 306 | 14 (13.4) | |
| Number of deliveries | | | |
| 1-3 | 249 | 30 (12.0) | 0.03** |
| 4-6 | 119 | 17 (14.3) | |
| 7+ | 30 | 9 (30.0) | |

*chi square test; ** chi square test for trend

4.7 Perceived severity/seriousness, benefit, barriers and cues to action to utilization of cervical cancer screening

4.7.1 Perceived severity/seriousness of cervical cancer

Respondent perception on severity/seriousness of cervical cancer is shown in Table 8. The analysis has shown that, 93.5% of the interviewed subjects perceived that cervical cancer causes severe pain. Furthermore, very few participants (21.2%) perceived that cervical cancer leads to death even after treatment, while the majority (78.8%) disagreed with the account.

Table 8: Perceived severity of cervical cancer (n=414)

| Item | Agree | | Disagree | | Total n (%) |
|--|-------|--------|----------|--------|----------------|
| | n | (%) | n | (%) | |
| Cervical cancer causes severe pain | 373 | (93.5) | 26 | (6.5) | 399 (100) |
| Cervical cancer causes death even if you get treatment | 87 | (21.2) | 323 | (78.8) | 410 (100) |

4.7.2 Perceived benefit, barriers and cues to action to utilization of cervical cancer screening

Results in Table 9 show the proportion with perceptions on benefits, barriers and cues to action for cervical cancer screening. About the benefits of screening, 75.1% of respondents' perceived that regular cervical cancer screening enhances early detection and early treatment while 73.0% perceived that, screening prevents development of cancer and enhances quality of life to women. However, 53.3% agreed that screening helps to detect other gynaecological problems.

With regards to the barriers to utilization of cervical cancer screening, the majority (95.1%) had perception of not knowing where to go for cervical cancer screening is one of the barriers to utilize screening. Also 85.0% mentioned lack of bus fare, 83.7% explained lack of women's decision making is a barrier while 68.8% perceived not feeling ill as a barrier for cervical cancer screening. Others 60.5% felt they can be infected during screening, 57.4% perceived that they can be found with cancer, and 50.9% perceived that it is a shame to be screened with a male provider. Few participants (29.0%) agreed on spouse, relatives do not allow them to go for screening, 18.8% perceived on fear of pain during screening and very few (4.5%) perceived the embarrassment to show the private parts. Concerning perception on cues to action, 97.8% of the study subjects perceived on media, family member and health care workers information reminds women to go for screening. Moreover, 89.0% of respondents perceived that, seeing women suffering from cervical cancer reminds them to go for cervical screening.

Table 9: Perceived benefit, barriers and cues to action (n=414)

| Item | Agree | | Disagree | | Total | |
|--|-------|--------|----------|--------|-------|---------|
| | n | (%) | n | (%) | n | (%) |
| Perceived benefits | | | | | | |
| Prevents development of cancer and enhances quality of life to women | 400 | (73.0) | 11 | (27.0) | 411 | (100.0) |
| Enhance early detection and early treatment | 304 | (75.1) | 104 | (24.9) | 405 | (100.0) |
| Helps to detect other gynaecological problems | 216 | (53.3) | 189 | (46.7) | 405 | (100.0) |
| Perceived barriers | | | | | | |
| Not knowing where to go for cervical cancer screening | 390 | (95.1) | 20 | (4.9) | 410 | (100.0) |
| Spouse and relatives do not allow them to go for screening | 118 | (29.0) | 289 | (71.0) | 407 | (100.0) |
| Perception that one can be infected with cervical cancer during screening | 247 | (60.5) | 161 | (39.4) | 408 | (100.0) |
| Fear of being diagnosed with cervical cancer during screening | 233 | (57.4) | 173 | (42.6) | 406 | (100.0) |
| It is shame to be screened with a male provider | 209 | (50.9) | 201 | (49.1) | 410 | (100.0) |
| Lack of money for bus fare to go for screening | 346 | (85.0) | 61 | (15.0) | 407 | (100.0) |
| Lack of women's decision making | 338 | (83.7) | 66 | (16.3) | 407 | (100.0) |
| Fear of pain | 75 | (18.8) | 323 | (81.2) | 398 | (100.0) |
| Does not feel ill | 274 | (68.8) | 124 | (30.0) | 398 | (100.0) |
| It is embarrassing to show private parts | 18 | (4.5) | 380 | (95.5) | 398 | (100.0) |
| Perceived cues to action | | | | | | |
| Media, family member and health care workers information reminds women to go for screening | 400 | (97.8) | 9 | (2.2) | 409 | (100.0) |
| Seeing women suffering from cervical cancer reminds them to go for cervical screening | 364 | (89.0) | 45 | (10.7) | 409 | (100.0) |

CHAPTER FIVE

5.0 DISCUSSION

5.1 Introduction

In this chapter we discuss the main findings of the study. The study sought to assess utilization of cervical cancer screening and its associated factors among women of child bearing age in Kisarawe district. Findings from this study revealed quite a low rate of utilization of cervical cancer screening services. Findings also highlight limited knowledge on the risk factors, symptoms and prevention methods. Factors that significantly influence utilization of cervical cancer screening services were age, marital status, occupation and religion.

5.1.1 Utilization of cervical cancer screening in the studied sample

Self-reported women ever screened for cervical cancer in the studied sample was 13.8% although 65.9% of respondents reported to be aware of cervical cancer screening services. These results are comparable to those reported from various studies conducted in sub-Saharan Africa where the screening rates range from 12.3%-19.4% [6, 8]. A study done in South Africa showed a poor practice of cervical cancer screening in spite of high knowledge of cervical screening and the availability of such services [14]. These findings are slightly different from a study conducted among primary school teachers in Dar es Salaam where the screening rate was reported to be 21%. Poor knowledge on cervical cancer risk factors, unavailability and inaccessibility of cervical cancer screening services coupled with poor social economic status are probably responsible for the very small proportion of women being screened for cervical cancer in the district.

5.1.2 Awareness of cervical cancer screening services and sources of information

About two thirds of the respondents were aware of the screening services, possibly because of the availability of two screening facilities in the district (Maneromango Health center and Kisarawe District Hospital). The most frequent sources of information mentioned were health facilities, TV/Radio and friends. Although awareness may be a significant factor, some

women, nevertheless, do not seek screening. It is likely, therefore, that awareness in combination with other factors will determine whether women utilize screening services.

5.1.3 Availability and accessibility of cervical cancer screening services

Findings indicate that, half of the women reported that screening services were available within 1 hour away from their homes. A study done in South Africa found that most of the women resided within a 12-kilometer radius of a facility that either provided or could potentially provide screening [14]. Long distance, costs involved might be contributed to low utilization of cervical cancer screening.

5.1.4 Knowledge about cervical cancer risk factors, symptoms and prevention

This study revealed a poor knowledge on risk factors for cervical cancer. Almost all respondent (99.5%) had misconception that unclean vagina is a risk factor of cervical cancer. A study done in Nigeria found that, respondents exhibited a fair knowledge of cervical cancer and cervical cancer screening (43.5%), however their knowledge of risk factors was poor [24].

5.1.5 Socio demographic factors associated with utilization of cervical cancer screening services

In this study, respondents aged 40 years and above had the highest proportion utilizing cervical screening services. Interestingly, those aged below 19 years were more likely to utilize cervical cancer screening compared to those in the age group 20-39 years. These findings contradict with the study reported in Thailand, where the rates of screening are substantially lower in younger women aged 20-29 years and elderly women aged 60 years and above [20].

Utilization of cervical cancer screening services was higher among those with primary education compared to their counter parts with no formal education. A study done in Thailand on knowledge, attitudes and practices vis-a-vis cervical cancer screening observed that, in regards to education level, several studies have found that women with high screening rates have a high level of education [20]. Findings from this study are inconsistent to what has been

reported by the study done in South Africa where women with high education may not necessarily seek screening thus, additional factors must be considered [14].

Separated/widowed/divorced women were more likely to utilize screening than married or single women. This perhaps is due to negative attitudes among the male partners, who may serve as key decision-makers, prevent women from seeking screening services. A study done in United Arab Emirates also found that the man's role may be important to take into consideration to determine whether women will access screening [23]. Similarly, a study done among Somali women found that single women were more likely than married women to have pap screening [22]. Findings also indicate that Christians reported to utilize cervical cancer screening more frequently compared to Muslims. However, there was no literature to support the finding, but more studies are needed to explore cultural and religious factors affecting utilization of cervical cancer screening.

Furthermore, occupation of respondent featured as one of the factors highly significantly associated with increased utilization of cervical cancer screening. The employed and petty traders had the highest level of utilization compared to the un-employed and peasants. This is supported by our finding in which 85% of the respondents mentioned that they have no bus fare to go for screening. It is widely known and reported that Tanzanian women experience a wide variety of gender related challenges including social, economical and cultural inequalities and vulnerabilities [5].

5.1.6 Perceived benefits of cervical cancer screening

About three quarters of the women perceived that regular cervical cancer screening enhances early detection and early treatment, and also prevents development of cancer and enhances quality of life to women. A study done in Botswana found that majority of subjects agreed that regular Pap smear screening will give them peace of mind, find a problem before they become cancer and very necessary even if there is no family history of cancer [27]. The major reasons which both screeners and never screeners believed was that it is important to do cervical cancer screen because it could find changes in the cervix before they get cancer and the disease could easily be cured when found early.

5.1.7 Perceived barriers to utilization of cervical cancer screening

With regards to the barriers to utilization of cervical cancer screening, the majority (95.1) agreed that not knowing where to go for cervical cancer screening is one of the barriers to utilize screening, (85.0%) mentioned lack of money for bus fare to go for screening, while (68.8%) didn't feel ill to go for screening and (57.4) had fear of being found with cervical cancer during screening. A study done in Malaysia found that women were poorly aware of the indications and benefits of cervical many believed that cervical screening is performed only to women who are symptomatic.

Many thought that the purpose of cervical cancer screening is to detect existing cervical cancer [13]. However fear of pain didn't seem to a barrier for screening. Levy et al observed that fear of the test was cited as a hindrance to screening for some women [30]. Such misconceptions require extensive public education, with a new emphasis on the crucial fact that screening is targeted primarily at detecting precursor lesions that occur early in the course of the disease, and subsequent timely treatment would thus prevent progress towards invasive cancer.

5.2 Study limitations

This study has some limitations. First, the study was conducted in the community of Kisarawe rural district, which may not be generalizable to other areas. Second, the method of interviewing may have influenced the results (e.g. the sexual and reproductive health questions). That is, women may have responded in a positive manner to the questions to present themselves in a socially desirable way. Thirdly, responses are all self-report and may not reflect true events. Finally, reliability and validity of the responses were not verified; however, the instrument was pilot tested.

CHAPTER SIX

6.0 CONCLUSION AND RECOMMENDATIONS

6.1 CONCLUSION

This study revealed a low rate of utilization of cervical cancer screening services. The findings highlighted limited knowledge and information on the risk factors, symptoms and prevention methods. Women's reluctance to undergo cervical cancer screening appears to be based on lack of knowledge about cervical cancer, the risk factors and its prevention. More than half of the respondent had misconceptions that unclean vagina is one of the risk factor. Some of the barriers for screening were lack of knowledge, lack of bus fare to go for screening, nowhere to go for screening, and lack of women's decision making. Factors that significantly influence utilization of cervical cancer screening services were age, marital status, occupation and religion. The level of perceived benefits of cervical cancer screening was encouraging although it does not match with the level of utilization of the screening services.

6.2 RECOMMENDATIONS

- Thus program managers and other implementing partners at the district level need to involve community members to design and institute targeted health educational materials for cervical cancer and its risk factors through advocacy, communication, and social mobilization.
- There is a need of integrating cervical cancer screening in the existing RCH services where outreach/mobile clinics are provided so as to reach the majority in their community.
- There is a need to address issues on male involvement in sexual reproductive health so that they can motivate and support their partners to go for screening.
- Further studies using a qualitative approach should be done to identify social-cultural, life style; religious and psychosocial factors associated utilization of cervical screening services.

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APPENDICES

Appendix 1: Informed consent - English version.

Introduction: My name is Pendo Bukori I'm working on this research project with the objective of determine the magnitude of utilization of cervical cancer screening and its associated factors in Kisarawe District Council. We will be interviewing child bearing women in the community.

Purpose of the study : The purpose of the interview is to collect information from child bearing women on Factors associated with i.e. socio-demographic characteristics, social economic, parity, accessibility, cervical cancer risk factors and awareness. The findings of this study will help the principal investigator to come out with the strategies to improve screening for cervical cancer and HPV infection.

If you agree to participate in this study the following will occur:

You will sit with interviewer and answer questions.

You will be interviewed only once for approximately 20-30 minutes in a private setting.

Confidentiality and consent:

I'm going to ask you some very personal questions that some people find difficult to answer. Your answers are completely confidential. Your name will not be written on this form, and will never be used in connection with any of the information you tell me. You do not have to answer any questions that you do not want to answer, and you may end this interview at any time you want to. However, your honest answers to these questions will help us to understand factors associated with utilization of cervical cancer screening. Can I go ahead? We would greatly appreciate your help in responding to this survey. The interview will take about 20-30 minutes. Are you willing to participate?"

Who to contact

If you ever have questions about this study, you should contact Principal Investigator, Pendo Bukori-mobile 075482069, Muhimbili University of Health and Allied Sciences (MUHAS), P.O. Box 65001, Dar es Salaam.

If you have questions about your right as a participant, you may call Prof. Mainen Moshi Chairman of the Senate Research and Publications Committee, P.O. Box 65001, Dar es Salaam. Tel: 2150302-6 and Dr. Candida Moshiro – supervisor mobile no 0655950071, Dr Deodatus Kakoko Co-supervisor mobile no 0786015304 of this study.

Agreement of the Participant

Do you agree?

Yes

No

IHave read and understood the contents in this form. My questions have been answered. I agree to participate in this study.

Signature of participants

Signature of research assistant.....

Date of signed consent

Appendix 2: Informed Consent - Swahili version

CHUO KIKUU CHA AFYA NA TIBA MUHIMBILI

FOMU YA RIDHAA

Namba ya Utambulisho.....

Ridhaa ya Kushiriki katika utafiti huu

Habari! Naitwa Pendo Bukori ni mtafiti katika utafiti huu wenye lengo la kuangalia mwitikio wa huduma ya upimaji wa saratani ya mlango wa kizazi na sababu zake kwa akina mama walio katika umri wa kupata watoto (kuzaa) kwenye jamii katika wilaya ya Kisarawe.

Malengo ya Utafiti

Utafiti huu una lengo la kukusanya taarifa za hali ya upatikanaji la huduma ya upimaji wa saratani ya mlango wa kizazi na sababu zake katika katika wilaya ya Kisarawe.

Unaombwa kushiriki katika utafiti huu.

Ushiriki: Ukikubali kushiriki katika utafiti huu yafuatayo yatatokea:

1. Utapewa maelekezo na mtafiti namna ya kujaza dodoso, ukishaelewa tutakuomba muda wako wa dakika 15 hadi 20 kujaza dodoso.
2. Hakuna taarifa zozote za utambulisho tutakazokusanya wakati wa usaili isipokua umri, kiwango cha elimu na hali yako ya ndoa.

Usiri: Nakuhakikishia kwamba taarifa zote zitakazokusanywa kutoka kwako zitakuwa ni siri, ni watu wanaofanya kazi katika utafiti huu tu ndio wanaweza kuziona taarifa hizi. Hatutaweka jina lako au taarifa yoyote ya utambulisho kwenye kumbukumbu za taarifa utakazotupa.

Madhara: Utaulizwa maswali juu ya ufahamu wako kuhusu sababu zinazohusishwa na hali ya lishe iliyozidi na sababu zake. Baadhi ya maswali yanaweza kukufanya usijiskie vizuri. Unaweza kukataa kujibu swali lolote na unaweza kusimamisha usaili wakati wowote. Haki ya kujitoa na mbadala wowote.

Kushiriki katika utafiti huu ni uchaguzi wako, kama utachagua kutokushiriki au utaamua kusimamisha kushiriki hutapata madhara yoyote. Unaweza kusimamisha kushiriki katika tafiti hii muda wowote hata kama ulisharidhia kushiriki. Kukataa kushiriki au kujitoka katika utafiti hakutasababisha adhabu yoyote au upotevu wa faida yoyote unayotakiwa kupata.

Endapo Utadhurika: Hatutegemi madhara yoyote kutokea kwa kushiriki kwako katika utafiti huu.

Watu wa kuwasiliana nao:

Kama una maswali katika utafiti huu unaweza kuwasiliana na mratibu mkuu wa utafiti Pendo Bukori, Chuo Kikuu cha Muhimbili, S.L. P. 65001, Dar es Salaam (Simu. no. 0754 820 691). Kama utakuwa na maswali yoyote kuhusu haki zako kama mshiriki unaweza kupiga simu kwa Prof. Mainen Moshi ambaye ni Mwenyekiti wa kamati ya chuo ya utafiti na machapisho, S.L.P 65001, Dar es Salaam. Simu namba: 2150302-6 na Dr. Kandidida Moshiro msimamizi mkuu simu ya mkononi 0655950071 na Dr Deodatus Kakoko msimamizi msaidizi wa utafiti huu simu ya mkononi 0786015304.

Makubaliano na mshiriki

Unakubali?

Mshiriki amekubali

Mshiriki amekataa

Mimi nimesoma/nimeielewa hii fomu, maswali yangu yamejibiwa. Nakubali kushiriki katika utafiti huu.

Sahihi ya mshiriki.....

Sahihi ya shahidi (Kama hawezi kusoma na kuandika).....

Sahihi ya mtafiti.....

Tarehe ya makubaliano.....

Appendix 3: Questionnaire - English version

UTILIZATION OF CERVICAL CANCER SCREENING SERVICES AND ASSOCIATED FACTORS AMONG WOMEN OF REPRODUCTIVE AGE IN KISARAWA DISTRICT

Village Name:.....

Street/Hamlet:.....

Ward:.....

Name of respondent:.....

Date:.....

Section A: Social demographic data (fill in the blank spaces or circle the best answer/answer)

1. What is your current age?in years

2. What is your current marital status?

- 1. Single
- 2. Married
- 3. Divorced
- 4. Separated
- 5. Widowed

3. What is your highest level of education?

- 1. No formal education
- 2. Primary education
- 3. Secondary education
- 4. High school education
- 5. College after primary
- 6. College after secondary
- 7. University
- 8. Other specify.....

4. What is your religion?

1. Muslim
2. Christian
3. Other specify

5. What is your occupation?

1. No job
2. Peasantry
3. Employed
4. Retired
5. Petty traders
6. Other (please specify)

Section B: Sexual and reproductive health data

6. At what age did you have a first vaginal-penile sexual intercourse?years

7. How old were you at first pregnancy?years

8. How many sexual partners have you had in your life time?

9. How many children do you have?

Section C: Cervical cancer awareness and availability of screening services

10. Have you ever heard about cervical cancer screening? ____ 1. Yes 2. No

11. If yes from which source

1. Village meetings ____ 1. Yes 2. No
2. Place of worship (Mosque/Church ____ 1. Yes 2. No
3. Hospital/health centre/dispensary staff ____ 1. Yes 2. No
4. Relatives/friends ____ 1. Yes 2. No
5. Radio/Television ____ 1. Yes 2. No
6. Magazine ____ 1. Yes 2. No
7. Other (please specify).....

12. Is cervical cancer screening services available at the nearest health facility? __1. Yes

2. No

13. If yes, how many screening facilities are available?

1. One

2. Two

3. Nothing

4. Don't know

14. How long does it take to reach at the screening facility?

1. Less than half an hour minutes

2. Half an hour to one hour

3. More than one hour

4. Don know

15. Which health facility provides cervical screening services?

1. Dispensary ___ 1. Yes 2. No

2. Health centre__ 1. Yes 2. No

3. Hospital ____ 1. Yes 2. No

4. Other (please specify).....

16. Does your spouse/family allow you to go for cervical cancer screening?

1. Yes

2. No

3. Not sure

Section D: Knowledge of cervical cancer and cervical cancer screening

17. What is the cause of cervical cancer (you may choose more than one answer)

1. Early sexual intercourse below the age of 17 years _____ 1. Yes 2. No

2. Multiple sexual partners _____ 1. Yes 2. No

3. Acquiring infection that causes cervical cancer ____ 1. Yes 2. No

4. Cigarettes smoking ____ 1. Yes 2. No

5. Poor hygiene to the genital area ____ 1. Yes 2. No

6. Lack of cervical screening from time to time ____ 1. Yes 2. No

7. Don't know ____ 1. Yes 2. No
 8. Other (please specify).....

18. Which symptoms do you think cervical cancer patient may present?

1. Painful coitus _____ 1. Yes 2. No
 2. Vaginal bleeding during or after sexual intercourse____ 1. Yes 2. No
 3. Foul smelling vaginal discharge_____ 1. Yes 2. No
 4. Facial swelling and peeling hair _____ 1. Yes 2. No
 5. New bleeding after menopause _____ 1. Yes 2. No
 6. Don't know ____ 1. Yes 2. No
 7. Others (please mention).....

19. What are the methods/ways for preventing cervical cancer?

1. Limiting number of sexual partners____ 1. Yes 2. No
 2. Delaying sexual debut _____ 1. Yes 2. No
 3. Using barrier contraception (e.g. condoms) __ 1. Yes 2. No
 4. Avoiding cigarettes smoking ____ 1. Yes 2. No
 5. Performing routine cervical cancer screening ____ 1. Yes 2. No
 6. Wearing charms and using traditional herbs ____ 1. Yes 2. No
 7. Depending on God's grace _____ 1. Yes 2. No
 8. Don't know ____ 1. Yes 2. No
 9. Other (please mention).....

Section D: Cervical cancer screening practice

20. Have you ever screened for cervical cancer? ____ 1. Yes 2. No (If no go to question 26)

21. What type of screening was done?

1. Screening using table vinegar _____ 1. Yes 2. No
 2. Pap smear _____ 1. Yes 2. No
 3. Don't know ____ 1. Yes 2. No
 4. Other (please specify).....

22. What was the reason for you to do cervical cancer screening? (You may choose more than one answer)
1. I wanted to know if I have cervical cancer ____1. Yes 2. No
 2. The attending Dr advised me at gynae clinic ____1. Yes 2. No
 3. wanted to know why delayed conception ____1. Yes 2. No
 4. My fellow woman who screened advised me ____1. Yes 2. No
 5. Other (please specify).....
23. Who is supposed to do cervical cancer screening?
1. Women with many children's ____1. Yes 2. No
 2. Women with multiple sexual partners' ____1. Yes 2. No
 3. Postmenopausal women ____1. Yes 2. No
 4. Others (please specify) ____1. Yes 2. No
24. Cervical cancer screening is preferred after what time
1. Every after one year
 2. After three years
 3. Once after five years
 4. Other (please mention).....
25. What are the costs for cervical cancer screening in this country?
1. It is free of charge ____1. Yes 2. No
 2. It has a very minimal coast ____1. Yes 2. No
 3. It has minimum affordable costs ____1. Yes 2. No
 4. The costs are to high ____1. Yes 2. No
 5. Don't know
26. If you have never been screened cervical cancer, what was the reason?
1. Had no information on cervical cancer screening ____1. Yes 2. No
 2. Fear of costs ____1. Yes 2. No
 3. Others (explain).....

Section E: Perceived susceptibility to cervical cancer

27. Who is more susceptible of getting cervical cancer?

1. Women below 30 years of age—— 1. Yes 2. No
2. Women between 30-40 years of age —— 1. Yes 2. No
3. Women between 40-50 years of age —— 1. Yes 2. No
4. Women above 50 years of age —— 1. Yes 2. No

28. Women who are HIV positive have increased risks of getting cervical cancer

1. Strongly agree —— 1. Yes 2. No
2. Agree—— 1. Yes 2. No
3. Disagree —— 1. Yes 2. No
4. Strongly disagree —— 1. Yes 2. No
5. Don't know

29. Women with multiple sexual partners/early sexual debuts are at higher risk of getting cervical cancer

1. Strongly agree —— 1. Yes 2. No
2. Agree—— 1. Yes 2. No
3. Disagree —— 1. Yes 2. No
4. Strongly disagree —— 1. Yes 2. No
5. Don't know

Section F: Perception about seriousness/severity of cervical cancer

30. Cervical cancer causes severe pain and distressing moment

1. Strongly agree —— 1. Yes 2. No
2. Agree—— 1. Yes 2. No
3. Disagree —— 1. Yes 2. No
4. Strongly disagree —— 1. Yes 2. No
5. Don't know

31. Is there any treatment for cervical cancer?
- 1. No treatment _____ 1. Yes 2.No
 - 2. It can be treated with radiotherapy ____1.Yes 2.No
 - 3. Even if you get treatment you will die_____ 1.Yes 2.No
 - 4. Don't know
 - 5. Other (please mention).....

Section G: Perceived benefits of cervical cancer screening

32. Regular cervical cancer screening enhances quality of life to women
- 1. Strongly agree _____ 1. Yes 2. No
 - 2. Agree _____ 1.Yes 2.No
 - 3. Disagree _____ 1. Yes 2.No
 - 4. Strongly disagree _____1. Yes 2.No
 - 5. Don't know
33. Cervical cancer screening
- 1. Can detect early changes in the cervix and get treated before full blown cancer
 - 2. Can detect any other cervical/gynae problem & treat it
 - 3. Can leave detected changes un treated
 - 4. Other (please explain).....
 - 5. Don't know

Section H: Perceived barriers to cervical cancer screening

34. Not knowing where to go for cervical cancer screening is one the reason of not doing screening.
- 1. Strongly agree _____ 1. Yes 2. No
 - 2. Agree _____ 1.Yes 2. No
 - 3. Disagree _____ 1.Yes 2. No
 - 4. Strongly disagree _____ 1. Yes 2. No
 - 5. Don't know

35. Luck of money to support them (as for bus fair) to go screening is one of the reason of not doing cervical cancer screening

1. Strongly agree _____ 1. Yes 2. No
2. Agree _____ 1. Yes 2. No
3. Disagree _____ 1. Yes 2. No
4. Strongly disagree _____ 1. Yes 2. No
5. Don't know

36. Does not fill ill to go for cervical cancer screening

1. Strongly agree _____ 1. Yes 2. No
2. Agree _____ 1. Yes 2. No
3. Disagree _____ 1. Yes 2. No
4. Strongly disagree _____ 1. Yes 2. No
5. Don't know

37. Lack of women's decision making is a barrier to go cervical cancer screening

1. Strongly agree _____ 1. Yes 2. No
2. Agree _____ 1. Yes 2. No
3. Disagree _____ 1. Yes 2. No
4. Strongly disagree _____ 1. Yes 2. No
5. Don't know

38. Fear of pain during cervical cancer screening

1. Strongly agree _____ 1. Yes 2. No
2. Agree _____ 1. Yes 2. No
3. Disagree _____ 1. Yes 2. No
4. Strongly disagree _____ 1. Yes 2. No
5. Don't know

39. Fear of being infected with cervical cancer during screening

1. Strongly agree ____ 1. Yes 2. No
2. Agree ____ 1. Yes 2. No
3. Disagree ____ 1. Yes 2. No
4. Strongly disagree ____ 1. Yes 2. No
5. Don't know

40. Fear of being diagnosed /found with cervical cancer

1. Strongly agree ____ 1. Yes 2. No
2. Agree ____ 1. Yes 2. No
3. Disagree ____ 1. Yes 2. No
4. Strongly disagree ____ 1. Yes 2. No
5. Don't know

41. feeling ashamed of being screened with a male provider

1. Strongly agree ____ 1. Yes 2. No
2. Agree ____ 1. Yes 2. No
3. Disagree ____ 1. Yes 2. No
4. Strongly disagree ____ 1. Yes 2. No
5. Don't know

42. It is embarrassing to show private parts

1. Strongly agree ____ 1. Yes 2. No
2. Agree ____ 1. Yes 2. No
3. Disagree ____ 1. Yes 2. No
4. Strongly disagree ____ 1. Yes 2. No
5. Don't know

43. What are the attitudes of health workers towards the clients attending for screening?

- 1. Welcoming and friendly _____ 1. Yes 2. No
- 2. Supportive and encouraging ___ 1. Yes 2. No
- 3. Too harsh and discouraging ____ 1. Yes 2. No
- 4. Too ignoring and stigmatizing — 1. Yes 2. No
- 5. Other (please explain).....

Section H: Cues to action to cervical cancer screening

44. Obtaining information from media/relatives/health care workers reminds women to go for cervical cancer screening services.

- 1. Strongly agree ____ 1. Yes 2. No
- 2. Agree ___ 1. Yes 2. No
- 3. Disagree ____ 1. Yes 2. No
- 4. Strongly disagree ____ 1. Yes 2. No
- 5. Don't know

45. Witnessing someone suffering from cervical cancer reminds me to go for cervical screening

- 1. Strongly agree ____ 1. Yes 2. No
- 2. Agree ___ 1. Yes 2. No
- 3. Disagree ____ 1. Yes 2. No
- 4. Strongly disagree ____ 1. Yes 2. No
- 5. Don't know

Section I: Questions on self efficacy

46. In your opinion, what should be done to increase of utilization of cervical cancer screening?

- 1. Educating the community on cervical cancer risk factors ____ 1. Yes 2. No
- 2. Increase awareness on utilization of cervical cancer screening ___ 1. Yes 2. No
- 3. Other explain

Appendix 4: Questionnaire - Kiswahili version

UTAFITI KUHUSU UPIMAJI WA SARATANI YA MLANGO WA KIZAZI NA SABABU ZITOKANAZO NA UTUMIAJI WA HUDUMA HIYO WILAYANI- KISARAWE

Jina la kijiji/eneo.....

Mtaa/Kitongoji.....

Kata.....

Jina la anayehojiwa.....

Tarehe...../...../2014.

Kifupi cha jina la anayehoji.....

Namba ya dododso.....

Sehemu A: Taarifa binfsi (Jaza jibu kwenye nafasi iliyowazi au zungushia jibu/majibu sahihi

1. Una umri gani?(taja miaka)

2. Eleza hali yako ya ndoa kwa sasa

1. Sijaolewa
2. Nimeolewa
3. Nimeachika
4. Tumetengana
5. Mjane

3. Eleza kiwango chako cha juu cha elimu?

1. Sijasoma
2. Elimu ya msingi
3. Elimu ya secondary
4. Elimu ya kidato
5. Mafunzo ya chuo baada ya elimu ya shule ya msingi
6. Mafunzo ya chuo baada ya elimu ya shule ya sekondari

7. Chuo kikuu
8. Elimu zinginezo.....
4. Taja madhehebu/dini yako
 1. Muislamu
 2. Mkiristu
 3. Nyinginezo (taja)
5. Unafanya kazi gani (chagua jibu mojawapo)
 1. Sina Kazi
 2. Mkulima
 3. Nimeajiriwa
 4. Msitaafu
 5. Mfanya biashara ndogondogo
 6. Kazi nyinginezo (taja).....

Sehemu B: Taarifa za hali ya uzazi

6. Ulianza kushiriki tendo la ngono ukiwa na umri gani
7. Uliposhika ujauzito mara ya kwanza ulikuwa na umri gani
8. Umekuwa na wapenzi wangapi ulioshiriki nao tendo la ngono maishani mwako.....
9. Umezaa mara ngapi.....

Sehemu C: Taarifa za upimaji na upatikanaji wa vituo vya saratani ya mlango wa kizazi (awareness and availability)

10. Umewahi kusikia kuhusu upimaji wa saratani ya mlango wa kizazi? ___1. Ndiyo 2.

Hapana

11. Ikiwa jibu ni ndio, taarifa za upimaji ulizipata wapi?

1. Kwenye mikutano ya kijiji/jamii ___1. Ndio 2. Hapana
2. Sehemu za ibada (Msikitini/Kanisani) ___1. Ndiyo 2. Hapana
3. Kwa watumishi wa afya hospitalini/kituo cha afya/ zahanati ___1. Ndiyo
2. Hapana
4. Jamaa/marafiki ___1. Ndiyo 2. Hapana

5. Radio/Luninga ____ 1. Ndiyo 2. Hapana
 6. Magazetini ____ 1. Ndiyo 2. Hapana
 7. Kwingineko (taja).....

12. Je kuna vituo vya upimaji wa saratani ya mlango wa kizazi karibu na unapoishi? 1. Ndiyo
 2. Hapana 13. Kama jibu ni ndiyo je kuna vituo vingapi vya upimaji wa mlango wa kizazi
 karibu unapoishi?

1. Kipo kimoja
 2. Vipo viwili
 3. Hakuna
 4. Sielewi

14. Inachukua muda gani kufika kwenye kituo cha upimaji wa saratani ya mlango wa kizazi

1. Chini ya nusu saa
 2. Nusu saa mpaka dakika moja
 3. Ni zaidi ya saa moja

15. Huduma za upimaji wa saratani ya mlango wa kizazi zinatolewa wapi?

1. Kwenye zahanati ____ 1. Ndiyo 2. Hapana
 2. Kwenye kituo cha afya __ 1. Ndiyo 2. Hapana
 3. Hospitalini ____ 1. Ndiyo 2. Hapana
 4. Kwingineko (taja).....

16. Je mume wako au familia yako inakuruhusu kufanyiwa uchunguzi wa saratani ya mlango
 wa kizazi?

1. Ndiyo 2. Hapana 3. Sina hakika

Sehemu D: Ufahamu kuhusu ugonjwa wa saratani ya mlango wa kizazi (knowledge)

17. Eleza ni nini kinasababisha saratani ya mlango wa kizazi (unaweza kuchagua jibu zaidi ya
 moja)

1. Kuanza kufanya ngono katika umri mdogo chini ya miaka 17 ____ 1. Ndiyo 2. Hapana

2. Kuwa na wapenzi wengi ____ 1. Ndiyo 2. Hapana

3. Kupata maambukizi yanayosababisha saratani ya mlango wa kizazi __ 1. Ndiyo

2. Hapana

4. Kuvuta sigara ____ 1.Ndyio 2.Hapana
 5. Kutofanya usafi sehemu za siri ____ 1.Ndiyo 2.Hapana
 6. Kutofanya upimaji wa kizazi mara kwa mara ____ 1.Ndiyo 2.Hapana
 7. Sielewi
 8. Sababu zinginezo (eleza).....
18. Ni nini dalili za saratani ya mlango wa kizazi? (Unaweza kuchagua zaidi ya jibu moja)
1. Kupata maumivu wakati wa tendo la ngono ____ 1.Ndiyo 2.Hapana
 2. Kutokwa damu ukeni wakati/baada ya kufanya tendo la ngono ____ 1.Ndiyo 2.Hapana
 3. Kutokwa na majimaji ukeni yenye harufu mbaya ____ 1.Ndiyo 2.Hapana
 4. Kuvimba uso na kunyonyoka nywele ____ 1.Ndiyo 2.Hapana
 5. Kuanza kutokwa na damu ukeni baada ya kukoma hedhi 1.Ndiyo 2.Hapana
 6. Sielewi
 7. Dalili zinginezo (taja).....
19. Ni ni kifanyike ili kuzuia saratani ya mlango wa kizazi saratani ya mlango wa kizazi?
1. Acha kuwa na wapenzi wengi ____ 1.Ndiyo 2.Hapana
 2. Usianze tendo la ngono mapema (chelewesha ngono) ____ 1.Ndio 2.Hapana
 3. Tumia njia za uzazi wa mpango (kama vile condom) ____ 1.Ndiyo 2.Hapana
 4. Acha kuvuta sigara __ 1.Ndiyo 2.Hapana
 5. Pima saratani ya mlango wa kizazi mara kwa mara ____ 1.Ndiyo 2.Hapana
 6. Kuvaa hirizi kiunoni na ktegemea miti shamba ____ 1.Ndiyo 2.Hapana
 7. Tegemea neema ya Mungu ____ 1.Ndiyo 2.Hapana
 8. Sielewi
 9. Sababu zinginezo (taja)

Sehemu D: Utumiaji wa huduma ya uchunguzi wa mango wa kizazi (practice)

20. Umewahi kufanyiwa uchunguzi wa saratani ya mlango wa kizazi?
1. Ndiyo 2. Hapana (kama jibu ni hapana nenda suali la 26)

21. Ni aina ipi ya uchuguzi ilifanyika (Chagua jibu mojawapo)

1. Kupima kwa kutumia siki (vinega) ____ 1.Ndiyo 2.Hapana

2. Kupima kwa utoaji wa ute ukeni na kuupima maabara (Pap smear) __1.Ndiyo

2.Hapana

3. Sielewi ____ 1.Ndiyo 2.Hapana

4. Aina zinginezo (eleza).....

22. Eleza sababu ya kufanyiwa uchuguzi? (unaweza kuchagua jibu zaidi y moja)

1. Nilifanyiwa kwa lengo la kujua afya yangu na kuzuia saratani ya mlango wa kizazi

2. Mganga alinishauri nipime, nilipohudhuria clinic ya magonjwa ya kike

3. Nilitaka nijue kwanini sipati ujauzito

4. Wanawake wenzangu waliopima walinishauri nami nipime

5. Sababu zinginezo (taja).....

23. Ni nani anatakiwa afanyiwe uchuguzi?

1. Wanawake waliozaa watoto wengi ____ 1.Ndiyo 2.Hapana

2. Wanawake wenye wapenzi wengi ____ 1.Ndiyo 2.Hapana

3. Wanawake waliokoma hedhi ____ 1.Ndiyo 2.Hapana

4. Wengineo (taja).....

24. Uchunguzi wa saratani ya mlango wa kizazi unatakiwa ufanyike kila baada ya muda gani?

1. Kila baada ya mwaka ____ 1.Ndiyo 2.Hapana

2. Kila baada ya miaka mitatu ____ 1.Ndiyo 2.Hapana

3. Mara moja baada ya miaka mitano ____ 1.Ndiyo 2.Hapana

4. Muda mwingineo (taja).....

25. Unadhani huduma hizi zina gharama kiasi gani hapa nchini?

1. Hakuna gharama yeyote ____ 1.Ndiyo 2.Hapana

2. Gharama zake zina nafuu ____ 1.Ndiyo 2.Hapana

3. Gharama zake ziko juu kiasi ____ 1.Ndiyo 2.Hapana

4. Gharama zake ziko juu sana ____ 1.Ndiyo 2.Hapana

5. Sielewi

26. Ikiwa hujafanyiwa upimaji wa shingo ya kizazi eleza ni kwa nini?

1. Sijawahi kusikia kuhusu upimaji wa saratani ya mlango wa kizazi___1.Ndiyo

2.Hapana

2. Naogopa huenda gharama ni kubwa ___1.Ndiyo 2.Hapana

3. Sababu zinginezo (taja).....

Sehemu E: Ufahamu kuhusu wanawake walio katika kundi hatarishi kupata sarataani ya mlango wa kizazi

27. Eleza umri hatarishi kupata saratani ya mlango wa kizazi (unaweza kuchagua zaidi ya jibu moja)

1. Wanawake walio chini ya miaka 30
2. Wanawake walio kati ya miaka 30-39
3. Wanawake walio kati ya miaka 40-49
4. Wanawake walio na miaka 50 na kuendelea
5. Sielewi

28. Akina mama walio na maambukizi ya virusi vya ukimwi wako kwenyehatari zaidi ya kupata mabadiliko ya saratani ya mlango wa kizazi (Chagua mojawapo)

1. Nakubaliana kabisa ___ 1.Ndiyo 2.Hapana
2. Nakubaliana kwa kias fulani ___ 1.Ndiyo 2.Hapana
3. Sikubaliani ___ 1.Ndiyo 2.Hapana
4. Sikubaliani kabisa ___ 1.Ndiyo 2.Hapana
5. Sielewi

29. Wanawake walioanza ngono wakiwa wadogo au wenye wapenzi wengi wako kwenye hatari

ya kupata maambukizi ya virusi vinavyosababisha saratani ya shingo ya kizazi

1. Nakubaliana kabisa ___ 1.Ndiyo 2.Hapana
2. Nakubaliana kwa kias fulani ___ 1.Ndiyo 2.Hapana
3. Sikubaliani ___ 1.Ndiyo 2.Hapana
4. Sikubaliani kabisa ___ 1.Ndiyo 2.Hapana
5. Sielewi

Sehemu F: Ufahamu kuhusu uzito/ugumu wa ugonjwa wa saratani ya shingo ya kizazi

30. Ugonjwa wa saratani ya mlango wa kizazi unasababisha maumivu makali na mateso

1. Nakubaliana kabisa ____ 1.Ndiyo 2.Hapana
2. Nakubaliana kwa kias fulani ____ 1.Ndiyo 2.Hapana
3. Sikubaliani ____ 1.Ndiyo 2.Hapana
4. Sikubaliani kabisa ____ 1.Ndiyo 2.Hapana
5. Sielewi

31. Unafahamu kuhusu matibabu ya saratani ya mlango wa kizazi?

1. Saratani ya hina tiba ____ 1.Ndiyo 2.Hapana
2. Saratani inatibika kwa mionzi ____ 1.Ndiyo 2.Hapana
3. Saratani haitibiki hata ukipata tiba ya mionzi ____ 1.Ndiyo 2.Hapana
4. Sielewi
5. Mengineyo (eleza).....

Sehemu G: Ufahamu kuhusu faida za kupima saratani ya mlango wa kizazi

32. Upimaji wa saratani ya mlango wa kizazi mara kwa mara husaidia kuboresha afya na kuongeza thamani ya maisha kwa akina mama

1. Nakubaliana kabisa ____ 1.Ndiyo 2.Hapana
2. Nakubaliana kwa kias fulani ____ 1.Ndiyo 2.Hapana
3. Sikubaliani ____ 1.Ndiyo 2.Hapana
4. Sikubaliani kabisa ____ 1.Ndiyo 2.Hapana
5. Sielewi

33. Saratani ya mlango wa kizazi husaidia...

1. Kugundua dalili mapema na kuzitibu kabla hazijawa saratani
2. Husaidia kugundua matatizo mengine ukeni na kuyatibu
3. Huachwa bila kutibiwa na kusababisha saratani.
4. Sababu zingine (eleza).....

Sehemu H: Ufahamu kuhusu vikwazo vya upimaji wa sartani ya mlango wa kizazi

34. Kutojua ni wapi huduma ya upimaji inapatikana, husababisha akina wengi mama wasipime

1. Nakubaliana kabisa ____ 1.Ndiyo 2.Hapana
2. Nakubalianakwa kiasi fulani ____ 1.Ndiyo 2.Hapana
3. Sikubaliani ____ 1.Ndiyo 2.Hapana
4. Sikubaliani kabisa ____ 1.Ndiyo 2.Hapana
5. Sielewi

35. Kutokupa nauli ya basi kwenda kwenye kituo cha upimaji ni mojawapo ya kikwazo

1. Nakubaliana kabisa ____ 1.Ndiyo 2.Hapana
2. Nakubalianakwa kiasi fulani ____ 1.Ndiyo 2.Hapana
3. Sikubaliani ____ 1.Ndiyo 2.Hapana
4. Sikubaliani kabisa ____ 1.Ndiyo 2.Hapana
5. Sielewi

36. Sijisikii kuumwa hivyo siwezi kwenda kupima

1. Nakubaliana kabisa ____ 1.Ndiyo 2.Hapana
2. Nakubalianakwa kiasi fulani ____ 1.Ndiyo 2.Hapana
3. Sikubaliani ____ 1.Ndiyo 2.Hapana
4. Sikubaliani kabisa ____ 1.Ndiyo 2.Hapana
5. Sielewi

37. Wanawake wengi hatuna maamuzi ya kwenda kupima bila ya rufusa ya waume/familia zetu

1. Nakubaliana kabisa ____ 1.Ndiyo 2.Hapana
2. Nakubalianakwa kiasi fulani ____ 1.Ndiyo 2.Hapana
3. Sikubaliani ____ 1.Ndiyo 2.Hapana
4. Sikubaliani kabisa ____ 1.Ndiyo 2.Hapana
5. Sielewi

38. Naogopa maumivu wakati wa kupima

1. Nakubaliana kabisa ____ 1.Ndiyo 2.Hapana

2. Nakubalianakwa kiasi fulani ____ 1.Ndiyo 2.Hapana
3. Sikubaliani____ 1.Ndiyo 2.Hapana
4. Sikubaliani kabisa ____ 1.Ndiyo 2.Hapana
5. Sielewi
39. Naogopa kuambukizwa saratani wakati wa upimaji
1. Nakubaliana kabisa ____ 1.Ndiyo 2.Hapana
2. Nakubalianakwa kiasi fulani ____ 1.Ndiyo 2.Hapana
3. Sikubaliani____ 1.Ndiyo 2.Hapana
4. Sikubaliani kabisa ____ 1.Ndiyo 2.Hapana
5. Sielewi
40. Kuogopa kukutwa na ugonjwa wa saratani ni mojawapo ya vikwazo vya kutokupima
1. Nakubaliana kabisa ____ 1.Ndiyo 2.Hapana
2. Nakubalianakwa kiasi fulani ____ 1.Ndiyo 2.Hapana
3. Sikubaliani____ 1.Ndiyo 2.Hapana
4. Sikubaliani kabisa ____ 1.Ndiyo 2.Hapana
5. Sielewi
41. Ni aibu kupimwa au kutazamwa ukeni na mtumishi mwanauume
1. Nakubaliana kabisa ____ 1.Ndiyo 2.Hapana
2. Nakubalianakwa kiasi fulani ____ 1.Ndiyo 2.Hapana
3. Sikubaliani____ 1.Ndiyo 2.Hapana
4. Sikubaliani kabisa ____ 1.Ndiyo 2.Hapana
5. Sielewi
42. Ni fedheha mwanamke kuonyesha sehemu za siri
1. Nakubaliana kabisa ____ 1.Ndiyo 2.Hapana
2. Nakubalianakwa kiasi fulani ____ 1.Ndiyo 2.Hapana
3. Sikubaliani____ 1.Ndiyo 2.Hapana
4. Sikubaliani kabisa ____ 1.Ndiyo 2.Hapana
5. Sielewi

43. Mtazamo wako kuhusu watumishi wa afya ukoje?

1. Wana urafiki na wanatia moyo ____ 1.Ndiyo 2.Hapana
2. Wanatoa mafundisho na maelekezo mazuri ____ 1.Ndiyo 2.Hapana
3. Niwakali sana wanafokea wagonjwa ____ 1.Ndiyo 2.Hapana
4. Hawatujali wanajizungusha na kupoteza muda ____ 1.Ndiyo 2.Hapana
5. Sababu zingine.....

Sehemu I: Ufahamu kuhusu mwendelezo wa upimaji wa saratani ya mlango wa kizazi

44. Kupata taarifa mara kwa mara kwenye vyombo vya habari, kukumbuswa na familia au watumishi wa afya kunasaidia kuwa na tabia ya upimaji wa saratani ya mlango wa kizazi.

1. Nakubaliana kabisa ____ 1.Ndiyo 2.Hapana
2. Nakubalianakwa kiasi fulani ____ 1.Ndiyo 2.Hapana
3. Sikubaliani ____ 1.Ndiyo 2.Hapana
4. Sikubaliani kabisa ____ 1.Ndiyo 2.Hapana
5. Sielewi

45. Kuona wanawake wanaougua saratani ya mlango wa kizazi husaidia kuchukua hatua za uchunguzi wa mara kwa mara wa saratani ya mlango wa kizazi

1. Nakubaliana kabisa ____ 1.Ndiyo 2.Hapana
2. Nakubalianakwa kiasi fulani ____ 1.Ndiyo 2.Hapana
3. Sikubaliani ____ 1.Ndiyo 2.Hapana
4. Sikubaliani kabisa ____ 1.Ndiyo 2.Hapana
5. Sielewi

Sehemu J: Maelezo kuhusu mtazamo wa upimaji wa saratani ya mlango wa kizazi (self efficacy)

46. Toa maoni yako ni nini kifanyike kuhusu upimaji wa mlango wa kizazi?

1. Jamii ielimishwe kuhusu saratani ya mlango wa kizazi
2. Jamii ifahamishwe ni wapi vipimo vinapatikana na garama zake
3. Maoni mengineyo