**THE KNOWLEDGE, ATTITUDE AND PRACTICES OF ADULT FEMALES ON PREVENTION OF CERVICAL CANCER IN BOSASO, BARI SOMALIA**

**BY**

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##

## DECLARATION

I declare that this research report is my original work and has not been presented for examination in any other University.

Signature……………………. Date …………………..............

**ABDALLAH ABDULLAHI ALI**

## APPROVAL

This is to certify that this research was conducted under my supervision and guidance and is submitted to the University with my approval.

Signature **……………………………**

**SUPERVISOR HENRY NSEREKO**

**Date …………………/…………………../…………………**

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## DEDICATION

I dedicate my work to my family.

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##

## ACKNOWLEDGMENT

My gratitude first goes to Allah who has given me the strength to undertake this research.

I would like to express my sincere thanks to my parents, family and friends who have showed theirlove, encouragementand the financial support and care, accorded to me throughout this success in which without them I wouldn’t be what I am.

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## LIST OF ACRONYMS

ACS American Cancer Society

BCC Behaviour Change Communication

HPV Human Papilloma Virus

IARC International Agency for Research on Cancer

IBSCC International Biological Study on Cervical Cancer

IEC Information Education and Communication

MOH Ministry of Health

WHO World Health Organization

WRA Women of Reproductive Age

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**ABSTRACT**

The study was set to examine the knowledge, attitude and practices of adult females on prevention of cervical cancer in Bosaso, Bari Somalia. The study focused on three (3) specific objectives: To establish the prevalence of cervical cancer among adult females in Bosaso; to determine the knowledge, attitude and practices of preventing cervical cancer among adult women in Bosaso and to identify the relationship between the knowledge, attitude and practices of adult females and prevention of cervical cancer in Bosaso.

The study population in this research targeted 200 women and men and the sample size was 133; considered women to be the reproductive age, attending health care services in the targeted facilities in Bosaso. The research employed a descriptive cross sectional survey design and both quantitative and qualitative approaches of data collection were used.

The study findings revealed that the level of awareness/women’s knowledge on cervical cancer as well as screening services, the study findings revealed that, most women (97.7 %) had ever heard and were aware of the cancer of cervix disease; 88.4% of the women understood that women in the age should be screened for cancer of cervix and 40.9% of the respondents reported that cervical cancer is transmittable. They therefore reported that cervical cancer can be transmitted through sexual intercourse as well as through contact with the sick.

The concluded that women in Bosaso have not taken up cervical cancer examination. This is so despite knowledge of the availability of the services within the health facilities. This therefore shows that the uptake of screening services for cervix cancer among women is low. Women majorly seek the services when asked to do so by the health officers as well when they doubt their health status; the low uptake of screening services among women has been attributed to the fear of the outcomes. Other women think it is embarrassing because the screening method in place is invasive.

The study recommended that there is need for the Ministry of Health to enhance education on cancer of cervix at the health facilities especially lower cadre facility to promote responsiveness towards cancer of cervix and cervical cancer examination. This is because most of the interviewed obtained their information from the health facility. The study also recommends that awareness campaigns and education programme to enlighten the general public about cancer of cervix to put more emphasis on signs and symptoms, ways of transmission and risk factors.

## CHAPTER ONE

## INTRODUCTION

## 1.0 Introduction

This chapter highlights the background of the study, statement of the problem, purpose of the study, specific objectives, research questions, research hypothesis, scope of the study, significance of the study, hypothesis of the study and operational definitions of key terms.

## 1.1 Background to the study

The background of the study is presented on four perspectives namely historical, theoretical, conceptual and contextual perspectives.

## 1.1.1 Historical background

Cancer of Cervix is said to be the most widespread cancer within the developing countries; where more than 75 percent of the projected 500,000 new incidents of cancer of cervix are reported yearly. The highest case is seen in less developed countries comprising sub-Saharan Africa. The high cases result from the inadequate programs for screening and also from the lack of knowledge of cervical cancer in developing countries. The condition remains to be a big health concern of the reproductive system amongst women and especially in less developed countries where services for screening services are wanting or not accessible for most of people (Ferlay, 2014).

In sub-Saharan Africa, 34.8 new cases of cervical cancer are diagnosed per 100,000 women annually, and 22.5 per 100,000 women die from the disease. This figure is higher when compared with 6.6 and 2.5 per 100 000 women, respectively, in North America. The marked differences can be explained by low preventive health behavior, lack of access to effective screening services that facilitate early detection and treatment (Ervik, Dikshit, 2013).

In Somalia, cancer of cervix is major source of death in Women Of Reproductive Age (WRA) and also remains second amongst all kinds of cancer affecting women. Presently in Somalia, the predictable annual testified cases of cervical cancer are 1854 and fatalities associated with it every year 1076. By year 2025, Somalia will report about 2261 new diagnoses (WHO, 2010). Data from registries in the hospitals in Somalia suggest that close to 80 percent of illness related with the genital tract are resultants from cancer affecting the cervix. Estimates that Mogadishu records between 10-15 new cases. This is according to theSomalia Cancer registry occurrence report (2014).

Cancer has continued to be gradually fatal more so in young women in Mogadishu. This results from the thought in women that cancer leads to unavoidable death. Thus Women choose to keep away from screening and remain unconscious of their state of health. Awareness and sensitization regarding cancer affecting the cervix as well as breast continued to reduce and fatality risen as a result of women being ignorant (Al Sairafi ,2013).

Despite cervical cancer control guidelines available, lack of communication strategy on cancer, lack of awareness of risk factors, lack of coordinated prevention activities and ownership, lack of Information Education and Communication /Behaviour Change Communication (IEC/BCC) materials on cancer in general and cervical cancer in particular,and lack of immunization against HPV are some of the challenges faced in Somalia. The current strategy on cancer in general and cervical cancer in particular focuses on prevention and control of smoking and other modifiable risk factors and enhancing health promotion, education and advocacy to improve public understanding (MOH,2015)

## 1.1.2 Conceptual perspective

Cancer is increasingly growing as a major public health problem in both developed and developing countries amongst the chronic diseases (Kumar, 2013). Cancer can impose health, heavy economic and social burden. It is a global pandemic affecting both developed and developing regions, but it is rapidly increasing in low and middle-income countries, where resources for prevention, diagnosis and treatment are limited or non-existent. Cervical cancer is one of the most frequently diagnosed cancer with an estimated 527,600 new cases in 2012 (Fact sheet on Cancer, 2013). It is the fourth leading cause of cancer death with 265,700 deaths among women worldwide in 2012(Global Burden of Cancer in Women, 2015).

Cervical cancer is a malignant neoplasm arising from cells originating in cervix uteri. It may be completely asymptomatic in early stages (Kuamr, 2007). In advanced stages, it may present as persistent pelvic pain, unexplained weight loss, bleeding between periods, unusual vaginal discharge, bleeding, and pain after sexual intercourse. Infection with human papillomavirus (HPV) types 16 and 18 cause 75% of cervical cancer globally (Wallboomer,1999). Other risk factors include tobacco consumption, multiple sexual partners, early age of sexual intercourse, increasing parity, prolonged use of oral contraceptive pills, and sexually transmitted diseases.

With access to HPV vaccine and early detection, most cases of cervical cancer are preventable. Pap smear test has been credited with dramatically reducing the number of cases of cervical cancer in developed countries. Unfortunately, despite the availability of methods for prevention, >95% of women in India have never been screened for cervical cancer (Rajkumar,2010). There are several barriers to cervical cancer screening uptake for women in low resource areas like India that include-low level of awareness and knowledge of risk factors and early signs and symptoms of disease, prevention services, stigma and misconceptions about female cancer and gynecological diseases, socioeconomic limitations, and an overall lack of national cervical cancer screening guidelines and policies (Curado,2007).

Despite cervical cancer being curable and easily noticeable in the early phase, merely 5% of women in less developed countries undertakes routine check-up for cancer of cervix against over 40% that of countries that are developed. Countries that have manifested a reduction in rates of cervical cancer, over 70% of women undergo screening for cervical cancer. This explains why in African where access to screening is dismal most women go to health facility when the disease has advanced to invasive stage. Only 3.2% of women are reported to have undergone screening (WHO, 2013).Cervix cancer results from the Human Papilloma Virus (HPV) passed through sex, commonly the male is a carrier of the virus that is passed to females. Both the females and males do not seem to be alert of the virus and the dangers associated with it. (Roland *et al*, 2011).

## 1.1.3 Contextual perspective

Knowledge, attitude and practice level of the community is very essential about the signs and symptoms of cervical cancer, risk factors, benefits of early diagnosis and treatment, availability of health services and prevention methods (HPV vaccination) (Broute,2012). The women’s knowledge and attitude about the disease is influenced by socio demographic factors and the availability and accessibility of health services. In turn, screening behavior is a complex outcome of many factors operating at individual, family, and community levels (Chadza 2012).

Cervical cancer is mainly caused by sexually transmitted Human Papilloma Virus (HPV), which is the most common viral infection of the female reproductive tract. Almost all sexually active individuals will be infected with HPV at some point in their lives and some may be repeatedly infected (WHO, 2013). Cervical cancer is one of the most easily preventable forms of female cancers. Yet, lack of knowledge about the disease and risk factors, beliefs about the disease, poor access to preventive services, affordability of the service and current health service system can affect decision to be screened for cervical cancer(WHO,2013).

Worldwide, cancer of the cervix accounts for approximately10% of all new cases of cancer in women (about 471,000) and233,000 deaths, making cervical cancer the second most commoncancer among women (Parkin, 2001). There will be an estimated10, 520 new cervical cancer cases in the United States in 2004(American Cancer Society, 2004). The United Kingdom has a highrate of incidence and mortality from cervical cancer for a developed country, with a rate second only to Denmark within theEuropean Union (Patnick, 2000).

Cervical cancer is, however,preventable by cytological screening. Laboratory examination of cells removed from the cervix and smeared onto a slide may identify changes in the epithelium usually referred to ascervicalintraepithelial neoplasia (CIN; Richart, 1980). CIN may beclassed as mild (1), moderate (2), or severe (3) representingdifferent stages in the probability of progression to invasive cervical cancer (Miller, 2004). These abnormal cells may be excised by a variety of treatment methods. Because screening is primarilydirected toward the detection of precursors, the development of invasive cancer should be prevented, reducing not only mortality but also cancer incidence (Cuzick, 2004). The effectiveness of screening is related to the implementation of organized programs ensuring adequate population coverage. The International Agency for Research on Cancer (IARC Working Group, 1986) estimated that three yearly screenings in women aged 20–64 years would reduce the incidence of cervical cancer by 97% in women with at least one prior negative screen, assuming 100% compliance with the screening schedule.

In Somalia, there is limited information regarding knowledge, attitude and practices and associated factors for cervical cancer prevention and control at community level as mentioned by the national strategic plan on prevention and control of non-communicable diseases to design and implement any intervention (Woldeamanuel, 2013). To the best of our knowledge, there are no community based studies conducted so far on target populations except few facilities based studies on cervical cancer screening. Therefore, the objective of this study is to determine level of knowledge, attitude, practice and factors affecting these behavioral elements for prevention and control of cervical cancer among women in Somalia.

## 1.1.4 Theoretical Perspective

The decision to attend colposcopy appointments for treatment can be conceptualized as a behavior motivated by self-protection. Two alternative theoretical approaches to understanding the source of motivation to undergo treatment might be derived from consideration of self-regulation theory (Leventhal et al., 1980; Leventhal,Nerenz, & Steele, 1984) and the theory of planned behavior (TPB;Ajzen, 1985). Although the self-regulation model would propose that motivation to attend for treatment of a cervical abnormality might be understood by reference to a person’s attitudes toward the cervical abnormality, the TPB would propose that motivation to attend for treatment might be understood by reference to a person’s attitudes toward coming to an appointment.

When a woman receives an abnormal smear result, she learns for the first time that she has a potentially health threatening condition. According to self-regulation theory (Leventhal *et al*.,1980; Leventhal *et al*., 1984), information about a health threat, beit somatic (i.e., the onset of symptoms) or communicated by a doctor, as in this case, activates a schematic representation of illness, comprising cognitive representations of its symptoms and label (identity), how long it will last (timeline), how serious it is or is likely to become (consequences), what might have caused it cause, whether it can be treated or controlled (control cure).

Recent operationalizations of the model have distinguished between treatment control and personal control and included theconcept of illness coherence (Weinman, Petrie, Moss-Morris, &Horne, 1996). This schematic representation of the health threat isin turn proposed to activate coping responses to modify or dealwith the threat. Thus, in the present context the decision to attendclinic appointments for treatment after an abnormal cervical smearresult may be viewed as an active problem-solving coping response motivated by a patient’s particular cognitive representation of cervical abnormalities.

Self-regulation theory has been studied in a range of health contexts such as diabetes (Hampson, Glasgow, & Foster,1995), chronic fatigue syndrome ( Heijmans, 1998), muscularskeletal injuries ( Hagger, Chatzisarantis, Griffin, &Thatcher,in press), asthma (Horne &Weinman, 2002), osteoarthritis(Orbell, Johnston, Rowley, Espley, & Davey, 1998), andmyocardial infarction (Petrie, Weinman, Sharpe, & Buckley,1996). In a recent meta-analytic review of 45 studies, Hagger andOrbell (2003) obtained weighted average correlations ranging from .01 to .27 between illness representations and a range of coping responses. The review also showed that there is a paucity of (a) prospective research, (b) research in patient populations with newly diagnosed as opposed to preexisting chronic conditions, and(c) research concerning active problem-solving coping responses.

The present study seeks to address each of these limitations by investigating the ability of illness representations to predict an active coping response in a prospective study of people with anewly diagnosed health threatening condition.A second, alternative conceptualization of the decision to attend colposcopy appointments for treatment might be derivedfrom the TPB (Ajzen, 1985). According to this approach, themost immediate determinant of behavior is the strength of a person’s intention to perform the behavior (e.g., “I intend to do”). Intentions, in turn, are predicted by attitude, subjective norms, and perceived behavioral control.

## 1.2 Problem Statement

Somalia has a population of 2.92 million women ages 15 years and older who are at risk of developing cervical cancer. [Cervical cancer](https://www.webmd.com/cancer/cervical-cancer/ss/slideshow-cervical-cancer-overview) occurs when abnormal cells on the [cervix](https://www.webmd.com/women/cervix-18980) grow out of control. The [cervix](https://www.webmd.com/women/picture-of-the-cervix) is the lower part of the uterus that opens into the Vagina. Most cervical cancer is caused by a virus called [human papillomavirus](https://www.webmd.com/hw-popup/human-papillomavirus-hpv), or HPV. You can get HPV by having [sexual contact](https://www.webmd.com/hw-popup/sex) with someone who has it.

World Health Organization (2017) reported that every year 967 women are diagnosed with cervical cancer and 546 die from the disease. Cervical cancer ranks as the 2nd most frequent cancer among women in Somalia and the 2nd most frequent cancer among women between 15 and 44 years of age. Data is not yet available on the HPV burden in the general population of Somalia. Cancer of cervix is easily avoidable by way of vaccination before it sets on using HPV vaccine. It can also be averted through regular screening to detect any abnormality in the cervix. Inspection of the cervix has limited access in most of the health facilities in Somalia. Bearing in mind of what has been stated in the above paragraphs and the various ways to prevent cervical cancer, it is still a problem being faced by adult females in Bosaso Bari. It is against this background that the study intends to carry out an investigation focusing on the knowledge, attitude and practices of adult females on prevention of cervical cancer.

The low uptake for screening has been observed as a cause for illness and death. Through consistent cervix screening and timely management, mortality and morbidity resulting from the condition can be greatly achieved. Uptake of cervical cancer screening services still remain low despite efforts made by the government to incorporate screening programs in the regular patient care through the nationwide cervical cancer prevention strategy that is focusing on primary avoidance, screening and early detection and treatment (MOPHS, 2012-2015).

Existing gaps need attention to help combat enhance cervix cancer in Somalia (Henley, 2012). For timely checkup and timely detection, it helps to have knowledge. Women with a better familiarity of cancer of cervix were highly likely to seek screenings. Lack of knowledge about cancer of cervix remains a critical barrier in women’s access to the screening services (Terefe&Gaym, 2008). Knowledge level regarding cancer of cervix and screening, perceived behavior in health is higher in the city compared to the country side (Eze, *et. al.,* 2012), however, little is known regarding level of knowledge regarding cancer of cervix in the urban informal settlement such as Bosaso.

## 1.3 Research Objectives

## 1.3.1 General objective

To find out the knowledge, attitude and practices of adult females on prevention of cervical cancer in Bosaso Bari, Somalia.

## 1.3.2 The specific objective

1. To establish the prevalence of cervical cancer among adult females in Bosaso.
2. To determine the knowledge, attitude and practices of preventing cervical cancer among adult women in Bosaso.
3. To identify the relationship between the knowledge, attitude and practices of adult females and prevention of cervical cancer in Bosaso.

##

## 1.3.3 Research Questions

This study sought to answer the following research questions:

1. What is the prevalence of cervical cancer among adult women in Bosaso Bari Somalia?
2. What are the knowledge, attitude and practices of preventing cervical cancer among adult women in Bosaso Bari Somalia?
3. Is there relationship between the knowledge, attitude and practices of adult women and prevention of cervical cancer in Bosaso.

## 1.4 Justification

There has been notably better accessibility of treatment for patients with infectious diseases such as malaria, tuberculosis and AIDS due to an increase in global and national attention to these diseases and afterward an increase in financial resources towards their fight. This study will increase on the awarenessregarding the cause of cervical cancer and its prevalence among women in Somalia.

This study will establish the level of knowledge, attitude and practice of cervicalprevention measures among women living in Somalia and which help in establishing strategies towards fighting the disease among women in Somalia and elsewhere. Information derived from this project should inform health authorities so as appropriate steps can be seized to save women’s lives by educating them and provide several screening opportunities. Of importance, this study ishelpful to the health care providers to organize awareness program associated to cervical cancer and its inspection and finally lessening affliction of cancer of cervix amongst womenfolk in Bosaso Bari. Further the results can facilitate the evaluation of current cervical cancer screening programs particularly those that target resource poor settings.

## 1.5 Significance of the study

The research study will help health planners and health promoters in the Somali government because they will use this information in the research study to identify the areas that have to be focused on when it comes to improving the quality of life of the individuals especially in the study area.

To the future students of Health Science, the research study will help them by giving them more information regarding of prevention of cervical cancer. Lastly the research will help the (researcher) personally in knowing the prevention of cervical cancer. It will be useful for policy analysts and other stakeholders in providing strategies that will target the solving of cervical cancer among women through increasing knowledge and awareness.

The study will help the researcher and other researchers to carry out other research by acting as an important resource for information in the future and also help in policy making and decision making in this country.

## 1.6 Scope of the study

## 1.6.1 Time scope

This study had a time scope of 6 months.

## 1.6.2 Geographical scope

The research was conducted in Bosaso Bari Somalia, the researcher chosen this area because it is easily accessible to the researcher and therefore it’s easy when it comes to data collection.

## 1.6.3 Content scope

The content of the research study was to find out the knowledge, attitude and practices of adult females on prevention of cervical cancer in Bosasso Bari, Somalia. This is because adult females are normally the most at risk of cervical cancer.

## 1.7Conceptual Framework

The conceptual framework demonstrates the interlink age amongst between the independent and dependent variables, the awareness level cervical cancer and examination determines the accessibility of the primary health care services among the women, negative attitude towards the screening for precancerous lesions amongst women determine their level of interest for attending the primary health care facilities. With a positive attitude towards some activity, it is likely that this is accompanied with positive intents of participating in these activities. Similarly, the positive altitudes may influence knowledge about the cancer of cervix and screening amongst the women in age of reproduction. Finally perceived barriers for the cervical cancer among women influence their choice to attend the primary health care services (Sheathe,2013).

## Figure 1. Conceptual Frame work

**Independent variable Dependent variable**

* Knowledge
* Attitude
* Practice
* Level of awareness

 **Cervical cancer prevention**

* Prevalence of Cervical cancer
* Level prevention
* Level of applicability Prevention techniques

**Social demographic characteristics**

* Age
* Level of education
* Marital status
* Gender
* Level of income

Source (Sheathe, 2013)

The framework was derived from the literature by Sheathe, (2013) where he defined the causes of cervical cancer. According to framework, knowledge, attitude and practice define the independent variables. The people knowledge or awareness of cervical cancer and the presentational measures and the attitude towards preventing the issues are the major concern of the study.

The framework identifies social demographic factors as major factors that can influences one’s level of knowledge, attitude and practice of prevention of cervical cancer. Factors such as age, gender, marital status and level of education have been pointed out in this framework as influences of people’s level of awareness of cervical cancer, applicability of the prevention methods and the level of prevalence of the disease.

## 1.9 Definition of Significant terms and Concepts

Attitude: the certainty and sensation of the respondents about screening for cancer of cervix.

Awareness: Knowing that something does exist and is of importance, being captivated in something (Cormack, 1987).

Cancer: A disease characterized by malignant tumor formation or proliferation of a plastic cell (James, 2008).

Cervix Cancer: This is a malignant condition that occurs when the cells of the cervix proliferate to abnormal cells and can upset layers of cell that are deeper or increase to other parts of the body and cause harm.

Abnormal cells: This is when the cervix begins as slight abnormal squamous cellular change which may develop into severe dysplasia if left untreated (Ferlay, 2004).

Human Papilloma Virus: This is a virus that triggers alterations at the cells of the cervix, which can trigger the growth of cancer of the cervix (Cormack, 1987).

Knowledge: the understanding the respondents have regarding cancer of cervix in relation to disposing factors, signs, prevention and treatment, screening method.

Pap smear: A test in which cervix cells are taken and inspected underneath a microscope (James, 2008)

Practice: the action taken by individual respondents to go for screening

Precancerous cells: These are cells that may become cancer if not managed (Ferlay, 2004)

Social stigma: A feeling of disapproval that women with cancer feel (Cormack, 1987)

Uptake: This is the rate or number of times of which women undertake Pap smear test (Ferlay, 2004).

Women of Reproductive Age: All women from ages 18-49 years

## CHAPTER TWO

## LITERATURE REVIEW

## 2.0 Introduction

This section reviews literature from the relevant sources on the cancer f cervix prevalence, risk perceptions for cervical cancer, and cervical cancer prevention strategies, screening strategies, pre-cancer treatment and the factors associated with high incidence of cancer.

## 2.1 Cervical cancer prevalence

Cervical cancer is an important health problem for all women, especially for those of diverse ethno-racial origins. Cervical cancer is the second most common cancer among women worldwide. According to 2002 Global Cancer Statistics, there are 493,000 new cases identified globally every year. Out of this estimate, 274,000 women died in the year 2002 (Parkin, Bray, Ferly &Pisani, 2005). Cervical cancer accounts for 15% of female cancers and are more common in developing countries than in the developed countries. The risk of developing cervical cancer before the age of 65 is 1.5%. Survival rates are fair and mortality rates are lower than incidence (Parkin *et al.,* 2005). The Papanicolaou smear (Pap test) as a screening test for cervical cancer has been available in Canada for over 50 years. Screening for cancer has resulted in an ample decrease in mortality and incidence rates. The Pap test can identify precancerous lesions before leading to cancer. It can also help in detecting cancer at early stages where treatment is most effective (Canadian Cancer Statistics, 2006)

Cervical cancer is preventable as well as cost effectively treatable, when screening for early, timely diagnosis in asymptomatic females (Lewis, 2004). Cancer of cervix prevalence in the developed nations very low but very high in less developed where it is a key health concern. While the incidence is going down in the developed states, it is going high in less developed states. The burden of cancer is high in Sub-Sahara Africa globally affecting women at the prime of their age. There is lack of programs for screening for early recognition of cancer in most states in Sub Sahara Africa. Most programs are undertaken as pilots and close when the pilot period is over. Only South Africa runs a nationwide intervention for screening in sub Saharan Africa. The program has been since 2001 however focus is wanting and impact is not known (Louie *et al*.2009). The increased cancer of cervix incidence has been attributed to rise in HIV/AIDS epidemic in the sub region. This has been made worse by the unavailability of resources.

Actual statistics for cervix cancer in many nations in Africa is unknown. Not known because of under-reporting. Cancer registries in most countries are lacking and documentation is wanting where available. A number of statistics in literature reviews are informed by hospital registries which accounts to a small proportion of women with cancer of cervix. Most of the women have no access to hospital and would die at home. Eastern African has a mortality rate of 35 per 1000 whereas the developed states are barely more than 5 per 100,000 women (Chokunonga *et al*., 2002).

Cervical cancer is the main contributor of mortality in women globally, but it is not the case for countries using Pap test (Ferlay, 2004). The woman’s opening to the uterus has cells which may develop into cancer. Cervical cancer arises when there is change in the cells, which may also affect other cell layers or spread to other body organs near the cervix through movement in the blood and cause damage (James, 2008). For the cells to progress from normal to cancerous, it does take many years. Early screening many a times does detect abnormalities and can be treated before advancing into cancer (James, 2008). Close to 90% of women who are found with cancer can be cured if found early and treated (Parham, 2004).

## 2.1.1 Factors responsible for high prevalence of cervical cancer among women.

There are multitudes of factors which are responsible for the high pervasiveness of the cancer of the cervix; the following are among the factors behind the pervasiveness of cancer of cervix.

**Social cultural factor,** many a times the papilloma virus (HPV) has been isolated in most countries in the world where cancer of cervix is high. The association of the papilloma virus (HPV) with the cervix cancer is grounded as depicted by studies in epidemiology in a number of nations. In a study by led by Bosch, in 1995 under the International Biological Study on Cervical Cancer (IBSCC) Study Group, communicated that virus that cause cancer of cervix was observed in 93 percent of the growths, and no major difference in results showing HPV presence between nations. The HPV virus is widespread in Africa. Thomas *et al*., (2004) research in Ibadan, Nigeria examining on factors associated with cervical cancer infectivity with HPV virus interrogated and got cervical cell samples from 932 women who been sexually active for over 15 years. Thirty-two (32) diverse HPV types were isolated. Overall, a 26.3% HPV prevalence was established and 24.8% among women that had no sign of cervical lesions.

In analysis classifying less developed countries as per pervasiveness of MC published by Drain et al., in 2006, it showed the categories in Sub- Saharan Africa to be as low, 20%, intermediate 20-80% and high > 80%. This report suggested that male circumcision, was linked with lower rates of some type of STIs, HIV and cancer of cervix (a proxy for HPV), but not with contamination that is transmitted through routes that a not sexual. By and large, increased male circumcision was significantly associated to lower rates of cancer of the cervix less cases of HIV, not dependent of any religion. Additionally, male circumcision was linked with HIV in countries where HIV is transmitted heterosexually. Theresult indicates that circumcision of the male folk that male circumcision shields against Papilloma Virus and HIV without correlation of religion (Auvert et al., 2009).

Socio-economic factors, globally there are high chances of getting cancer of cervix among women that are socio­economically. Cancer of cervix is mostly known as infection of the poor woman. Research done in West Africa, targeting a sub-group that had high HPV infections indicated significant number of child birth, wanting social conditions as well as poor standards of hygiene as the major causes for cancer of cervix (Palacio-Mejia and friends 2003). Africa additionally has extensive circumstances which promote poor state of living. Such include political instability, conflicts, famine, natural catastrophe, internal fights, and drought. These mostly contribute to displacement of large populations both internally and externally extended durations. In such like refugee conditions, there is increased spread of social vices that contribute to the spread of HPV. War is closely linked with promiscuity among the male, this consequently leads to thedevelopment of cancer of cervix in women that are monogamous sexually. In a case-controlled study done in 1996 and supported by Stanford University documentation had it that the fight in Vietnam substantially added the concern of cervical cancer in Vietnam. This led to establishment a program to prevent cancer of cervix. Data that attributed the war to the infection was deferred for a period of 8 years so as to reach a compromise to avoid accusation (Suba et al., 2006).

Due to difficulties in accessing treatment services, high rates of high grade cancer were identified in coastal areas of Coasta Rica. The difficult terrain characteristic of majority of nations in Africa hinders access treatment and care. The success of efforts to reduce deaths due to cervical cancer would be influenced by women’s health care practices, including adoption of preventive measures and utilization of Pap smear services (WHO, 2006). Countries like Mauritius that have worked hard to promote Pap smear services have often been rewarded by dramatically lowered levels of cancer of cervix. In Mauritius the rates are as low as 18%, since it adopted more widespread access to Pap smears compared to Tanzania whose incidence is 68.6% and Zambia whose incidence is 53.7% (WHO, 2006).

Biological Factors, Poor state of nutrition and diseases such HIV, Tuberculosis and malaria destroying sub-Saharan Africa and led to many people becoming immune suppressed. Many research’s shave depicted the association of HPV illness and HIV. A projection has it that the pervasiveness of high grade cancer to be high as 20-40% among women that are HIV-positive (Wright *et al*., 1994). The possibility f contraction HPV illness by HIV positive is greater in comparison to those that are HIV-negative. A study done in Abidjan among 2,198 women attending clinic for gynecology found prevalence rates for cervical cancer to be higher among women that were HIV- (La Ruche *et al*., 1998). In another study by Temmerman *et al* (1999) conducted in Somalia in a family planning facility, established a five times greater risk of invasive cancer among 513 women that were HIV exposed. From other studies, it has been established that HIV-positive women get cancer of cervix ahead in age compared to those not having HIV virus (Moodley 2001). In a study by Gichangiet, al. (2003) in Somalia, it was established that womenfolk below 35 years of age with invasive cancer had higher likelihood of being HIV infected as opposed to control of same age group.

The incidence rate of HIV sub type 1, in a research in Tanzania was found to be greater among patients with cancer of cervix (21.0%) than it was in the control group (11.6%). (Moodley *et al*., 2006). According to (Buga; 1998) 67 percent of all persons infected with HIV and AIDS in the world are in Su-Saharan Africa.

## 2.2 Knowledge, attitude and practice of cervical cancer prevention

## 2.2.1 Knowledge

General awareness on cancer of cervix, screening knowledge and knowledge of places to visit for services were all below 40% in South East part of Nigeria (Eze, *et al*., 2012). Study done on South African university students shows that 33% of the participants heard of screening for cancer of cervix and 33% knew that screening for cancer of cervix can prevent it (Hoque, 2010). A research done in South Africa, nearly half-49% of those investigated mentioned to have heard of Pap smear exam. And of the 51% slightly more than half of the 43% were mentioned to have gotten information on inspection cervix cancer majorly from physicians. South Africa has a national policy on pap smear (Hoque M *et al*, 2008).

In Somalia, community based study done in Gender by Getahun et al., (2013), 47% of its participants had no knowledge of risk factors of cancer of cervix, 39.6% did not know about the symptoms, 36.1% didn’t know the preventive measures, 33.9% did not know treatment options and 63.9% know it can be prevented. As per the study 13.7 percent of womenfolk respondents mentioned having gotten information regarding Papanicolau test (Getahun, *et al*, 2013).

Cervical cancer has been relegated into a less health concern sub-Saharan Africa and precedence put on illnesses such tuberculosis, respiratory infections, malaria, diarrheal illnesses as well as HIV/AIDS which have clear prevention and management plans. A number of researches depict low awareness of cancer of cervix in Africa and this is reflected across diverse level of literacy. A paltry 4.3 % of 500 women visiting clinics for treatment of children and women were established as having some knowledge of cancer of cervix (Anorlu et al., 2004). Still in Lagos- Nigeria in the year 2004, 81.7% of 139 patients with high grade cancer of cervix were established to know nothing about cancer of cervix before and 20%, 30% and 10% correspondingly held the belief that it was as result of menstrual recurrence, lower abdominal and menses that were irregular. A majority of the women 98% held the view that the illness was treatable, 12% did not view it as anything of concern and a paltry 9% knew it was cancer and hence a terrible disease (Ajayi *et al*., 1998). In a comparable research in Tanzania and Somalia similarly showed the knowledge of the illness among patients to be very low (Gichangi and friends. 2003&Kidanto and friends. 2002). Health care providers as well as patients have been reported to have very limited knowledge about the disease. In Lagos Nigeria, untimely referral for cancer of cervix cases was the basis presenting at referral facility with cancer at advanced stage. An average of 9 to 12.9 months is what the health professionals would take in detecting cancer in women and does a referral a hospital for further care (Anorlu *et al.,* 2004).

Increased awareness and uptake for prevention against cancer of cervix is attributed to proper education. In a research conducted in amongst 375 female students in a university in Northern Nigeria as regards cancer of cervix awareness and HPV vaccine acceptability 133 of 375 (35.5%) were found to be knowledgeable of HPV, 202 (53.9%) of the interviewed had gotten message on cancer of cervix from some sources and a majority 74%, 277 were ready to take up the vaccine for HPV (Ilyasu *et al*., 2010). In a study on beliefs and knowledge about cancer of cervix screening among 157 college students over 18 years in Accra, Ghana, Apaches and colleague (2009) established that the interviewed appreciated that screening for cancer of cervix was beneficial. Slightly over a half, 64 percent held the view that the screening would help detect abnormalities in the cervix before advancing to invasive cancer 78.5 percent believed that the detected alterations could be treated. Perceived barrier as mentioned by half of the interviewed was the belief that the essence of screening was to detect cancer, 40.6 percent said their partner would not give them consent to screen for cancer of cervix. Other barriers mentioned include; not knowing where to get services 24.3 percentage, cost 23.2 percent, and people would think of them to be active sexually 24.6 percent. Very few 9.4 percent mentioned the process to be painful. A majority 68 percent held the view that women that were younger are more prone cancer of cervix, a small proportion 52.5 percent though they are at risk.

## 2.2.2 Attitude toward cervical cancer

In a study done in rural of India show that 84.6% of the interviewed were willing to take the check up for cancer of cervix as they felt it would benefit them in the long run and 62.5% were willing to be screened. Having good attitude is mostly followed by having understanding about the cancer of cervix and also screening. Those who have heard regarding cancer of cervix and screening have good attitude regarding cervical screening than those who have not heard about it (Terefe, 2008). There are deferent beliefs and perception regarding cervix screening for cancer. Some negative beliefs mentioned among rural areas are "cervical cancer screening is only for commercial sex workers" and other positive beliefs like "pap smear decrease early death". Good attitude was strongly linked with increase in chances of undertaking screening services. There was a five times chance of increase (McFarland, 2003). Another study in Tanzania suggested that 79.2% of study participants were agreed that cervical cancer screening can prevent cervical cancer (John J, 2011) and also on similar study in Somalia 87% of respondents agreed (Gichangi, *et al,* 2003).

A very insignificant proportion of female are undertaking screening for cancer of cervix in Africa. Of the 500 women from the poor village in Lagos visiting the health facility for mother and baby care not one has never done a Pap test. A paltry 9 percent of health professionals from treatment facilities have undertaken a Papanicolau test. Explanations leveled against taking the test include the following: Feeling healthy, absence of symptoms, negligence, intrusive examination, lack of interest, unpleasant procedure and feeling young for the test. Furthermore, 25% of the were uncomfortable taking test from a male service provider (Mutyaba*etal*. 2006). In another comparable research in Hospital in Tanzania regarding screening practice experience on the cervix cancer amongst female physician’s significant number, 116 of 137 of the respondents had not taken Papanicolau exam. The reasons levelled for not taking Pap test among them was not being aware of places that offer the test mentioned by 54.7 percent of the respondents, poor attitude for exam (13.1%), fearing procedure 9.5% percent and scared of positive result 7.3 percent (Urasa&Darj, 2009).

## 2.2.3 Practice of cancer prevention

According to study conducted in Botswana the rates of cancer screening are very low and is even way below the targets of the Ministry of Health of 75% coverage or more. In the very research less than have, 40.0% of the participants have knowledge of Pap exam (McFarland, 2003). The findings showing low uptake for screening for cancer of cervix is in tandem with researches undertaken in less developed nations which showed a mean rate of 23 percent in uptake for screening and 46 percent rate for follow up within an interval of 3 years (Carry *et al* 1993). Result from study in Tanzania (John, 2011) and Somalia (Gichangi and others 2003) shows that habit of cervical cancer screening is 22% respectively.

Nigerian study describes that absence of gynecologic symptoms, fear for positive result, unavailable information and failure by health providers to suggest as reason for not taking up screening practice (Aliyu, *et al.,* 2013). In contrary in Somalia prevalence of cervical cancer screening is only 0.6% (WHO/ICO 2014). And study has done in Gender, Somalia from the participants that have awareness of cancer of cervix test only 14.7% had the test (Getahun, *et al*, 2013). In Addis Ababa, facility based cross sectional study that assesses KAP, only 6.5% of the interviewed have done a Papanicolau test. This is by far low even compared to other developing countries (Terefe, *et al*. 2008).

## 2.3 Factors associated with cervical cancer

In different researches different aspects were connected with screening for cancer of cervix knowledge, attitude and practice. Age was a significant factor towards accessing cervical cancer screening services. Chances of going for screening services for cancer of cervix among women aged 45 years and above were established 90% less compared to young women of between ages 25 and 34 years old. Screening is high among women of ages 30-39 and tend to be married and who admit to take up screening are youthful (aged 30-39), in marriage, has been expectant and with good education and has been on some form of family planning (Were *et al*, 2011). The professions of the respondents were an important aspect. Women who labored as traders in the marketplace had 96 percent less likelihood for taking up screening services for cancer of cervix compared with women who were farmers (Sylvia C. *et al*, 2011). On same study, health facility factors like accessibility, affordability and availability of screening service at the possible nearest place is related to screening practice among women. Socio economic factors also play significant role in access and utilization of screening service, Females who were financially independent, who have formal education and aged 25-34 have higher affinity to access cancer screening service (Slvia, *et al*, 2011). Knowledge levels on cancer of cervix and screening has been found to have strong association with literacy level as well as income levels (P, 0.01) (Gu, *et al*, 2010). A Study in Botswana shows that cancer of cervix awareness, uptake of screening was inadequate amongst women in groups with low revenue (McFarland 2003).

Number of child birth has been established as being directly correlated with participation in cancer of cervix test suggesting that earlier contact with health care providers does increase positive attitude towards health (Sankaranarayanan, *et al*., 2007).As a result of economic challenges females tend to prioritize other financial and social responsibilities related to their families, other than their health resulting to self-neglect (Singh *et al*, 2012).

Awareness levels for risk factors and purpose and availability of screening, higher educational status and history of cancer of cervix in the family has been associated with participation in cancer of cervix test practice (Gu, *et al*., 2010). Various studies have established lack of knowledge on cancer of cervix as a critical hindrance for practice of screening for cancer of cervix (Sylvia, *et al*., 2011 and Gu, *et al*., 2010).Some of the barriers as mentioned in study in Bangladesh regarding perception of the community on cervical cancer and examination of cervix include: lack of urgency to seek for care for signs suggestive of cancer of cervix, short staffing and inadequate health care services (Ansink, *et al*., 2008).

In a study in Nigeria, lack of knowledge, low levels of literacy, not feeling to be at risk, negative attitude towards own health and lack of finance and being afraid of a positive screening result are among main barriers to service utilization (Ndikom&Ofi, 2012).

In Brazil, the research established embarrassment as the biggest barrier to health seeking of services among women irrespective of education status. Not having time, commitments of work, taking care of children, fear of a positive result, partner’s not consenting and financial constraints are other barriers mentioned in the research (Lyimo&Beran; Were *et al*, 2011; Sudenga *et al*, 2013; Augusto *et al*, 2013).

## CHAPTER THREE

## RESEARCH METHODOLOGY

## 3.0 Introduction

The chapter describes the research methods that used. This includes the research design, target population, sampling size, data collection and techniques, data analysis and limitations of the study.

## 3.1 Research Design

The research employed a descriptive cross sectional survey design. This design is cheap, less time consuming and easy data collection and analysis (Amin 2005). Both qualitative and quantitative data collection are used. Quantitative research is explaining phenomena by collecting numerical data that is analyzed using mathematically based methods while qualitative research is based on nonnumeric data (Aliaga and Gunderson, 2000). As noted by Aliaga and Gunderson (2000) qualitative research is an umbrella term encompassing several methods some of which are interviews, case studies and discourse analysis

## 3.2 Study area and population

The study conducted in Bosaso, is the city in Bari province of Somalia. Itprovides various services ranging from primary to specialized care and serves urban, pre-urban and village populations from near and far. Most of the women diagnosed with the cervical cancer are transferred to health care centre of the districts.

## 3.2.1**Study population**

Mugenda (2008) stipulates that a target population is the whole cluster of individuals, objects or events having prevalent observable distinctiveness. The study population in this research targeted 200women and men, considered women to be the reproductive age, attending health care services in the targeted facilities in Bosaso.

## 3.3 Study Sample size

A sample size selected using simple random sampling and purposive sampling. A representative sample, according to Gall (1996) gives results that can be generalized to the study population.

 The sample selected basing on Solven’s sampling formula as expressed below. Based on it a sample of 133 respondents will be selected from the population of 200 people.

$$n= \genfrac{}{}{0pt}{}{N}{1+N(e)2}$$

Equation 1: Slovene's Formula

Where n = minimum sample size

N = research population

e = significance level

$$n = \frac{200}{1+200(0.05)2}\frac{200}{ 1.5}=133 respondents$$

## 3.4. Sampling Procedure

Nachmias (1996), define a sample as a subset of a population. Sampling is simply the procedure of choosing the objects to be examined in the course of the study. Cooper and Schindler (2003), defines sampling as the technique of picking a number of individuals for study in such a manner that the persons chosen represents the big bunch from which they are chosen. The research employed a probability sampling technique to select a sample of women seeking healthcare services in healthcare facilities in Bosaso. Simple random sampling employed ensuring that all the individuals have equal chances of participating in the study and the selection willbe on chance basis to avoid biasness of the researcher in selecting the sample.

The participants selected by simple random sampling. These formed the population (N). In order to choose a sample (n) of women and men respondents from the population, simple random sampling will be chosen.

## 3.5 Data collection instruments

**Questionnaire**

Questionnaire designed in the most understandable way and in simple language for the respondents to understand it. It is both closed ended and open ended. The Closed questions are used because of their ability to reduce any bias and the collection of authentic data important for data analysis.

 Questionnaire is used because they are reliable and from the targeted respondents. They are also easy to interpret and easily edited for the purpose of making final decisions.

## 3.5.2 Data collection procedure

The researcher used questionnaires which administered to carefully chosen respondents. Oral interviews with managers, Accountants, supervisors and other employees are also carried out. The researcher took the questionnaires to respondents proceed by a briefing them about the purpose of the questionnaires and asks them to fill them on their convenience to allow them more time and flexibility. Later the researcher made a follow-up and collected the filled questionnaires.

## 3.5.3 Data processing and analysis

The data filled in the questionnaire is copied and analyzed by tallying it and tabling it in frequency tables, identifying how often certain responses occurred and later evaluation will be done. The information later presented in terms of percentages, and frequency polygons like graphs, pie-charts are used for presentation. The collected data entered in a computer package called MS- Excel for analysis.

## 3.6 Validity and Reliability

**Reliability**

Reliability refers to the consistence, stability, or dependability of the data. The reliability of an instrument is increased by identifying the precise data needed and repeated use of the instrument in field testing. In order to ascertain reliability of this study a pilot study conducted to administrators the bank whereby questionnaire is distributed to respondents. This is in order to identify questions that might be unclear to them. The questions that give ambiguous answers revised and formatted again so that they could give reliable answers during the final process of data collection.

**Validity**

Validity refers to the extent to which a measurement does what it supposed to do (Kothari, 2003). Data need not only to be reliable but also true and accurate. If a measurement is valid, it is also reliable but if is reliable, it may or may not be valid. In this study data where computerized and checked for its accuracy to make sure that they give valid results.

## 3.7 Ethical considerations

It is important during the process of research for the researcher to understand that participation is voluntary; participants were free to refuse to answer any question and may with draw any time.

Another important consideration, involves getting the informed consent of those going to be met during the research process, which involve interviews and observations

Accuracy and honesty during the research process is very important for academic research to proceed. The researcher treated the project with utmost care, in that there is no temptation to cheat and generate research results, since it jeopardizes the conception of research.

Personal confidentiality and privacy are very important since the thesis will be public. If individuals have been used to provide information, it is important for their privacy to be respected. If private information has been assessed, then confidentiality has to be maintained.

## 3.8 Limitations

Lack of co-operation by some respondents was constraint to this study. In Somalia it is common that researchers are viewed in a negative way, usually staff thinks it is a problem of finding exercise that rendered most of the jobless at the end of the exercise.

The cost of the research was high in regard to the incurred cost of accessing relevant stationary, printing and the yet the incurred cost of photocopying, binding, transport, and telephone charges. The problem of insufficient time was solved by making sure that the researcher gets enough/ sufficient time and maximum concentration.

## CHAPTER FOUR

## PRESENTATION DISCUSSION AND INTEPRETATION OF FINDINGS

## 4.0 Introduction

This chapter presents data findings from the field, its analysis and interpretations. The information was gathered through the use of questionnaires and analyzed using both descriptive and inferential statistical analysis techniques. The discussion of these findings has also been presented under this chapter where the results are compared with the previous research.

## 4.1 Response Rate

The study realized a response rate of 98%. This was achieved as the researcher was able to collect data from 130 out of 133 targeted women that were considered valid and reliable to be used in the study.

## 4.1 Demographic characteristics of respondents

The researcher intended to find out respondents’ biographic data in order to evaluate the material provided by them based on their gender, age, education level and experience. Respondents were asked to provide this information on the questionnaires distributed to them and during interviews. Their responses are summarized in the table 4.1 below;

## Table 4.1: Demographic characteristics of Respondents

| **Category** | **Frequency** | **Percentage** |
| --- | --- | --- |
| **Gender**MaleFemale | 4882 | 36.763.3 |
| **Total** | **130** | **100** |
| **Age** 19 - 29 years 30 - 39 years 40 - 49 years  | 714118 | 54.531.813.7 |
| **Total** | **130** | **100** |
| **Education level**Primary Secondary DiplomaDegreeMasters  | 2225423011 | 16.520.232.122.98.3 |
| **Total** | **130** | **100.0** |
| **Occupation** Employed Full time Employed part time Unemployed Self employed Housewife  | 3824211532 | 29.5 18.2 15.9 11.4 25.0  |
| **Total**  | **130** | **100** |
| **Marital status** Married Single Divorced  | 271003 | 20.577.32.3 |
| **Total**  | **130** | **100** |

 **Source:** Primary Data (2018)

Study findings indicated that majority (63.3%) of the participants were females and only (36.7%) were males. Unlike other similar studies where the number of participants tend to be higher among males, this study had more female participants perhaps owing to the fact that the targeted population were the victims of cervical cancer in Bosaso who amongst their populations women are higher in numbers. This is in conformity with Goda (2015) when he cited that in recent decades, majority of people suffering from Cervical Cancer and other health challenges are mostly women and children.

The findings show that majority of the respondents were below 30 years of age. This category represented 54.5% of the respondents where all the respondents under this category were found aware of the cervical cancer. The age group 30 -39 years had 31.8% of the respondents who were aware of cervical cancer whereas 2.3% were not aware. A total of 13.7% of the respondents were aged between 40 – 49 years representing the eldest age group among the respondents. Age has been found to be a significant factor towards accessing cervical cancer screening services. Women aged + 45 years in some studies have been found to have a 90% less possibility of accessing cervical screening compared with women between 25 and 34 years old. Women who agree to screen tend to be younger (aged 30–39), married, had mostly been pregnant, better educated and had ever used contraception (Were *et al,* 2011).

Regarding education levels, findings indicated that (16.5%) of the respondents were primary school drop outs, 20.2% secondary school drop outs while 36.6% and 11.9% were diploma and degree holders respectively and only 10.9% of the participants were from post graduate studies. To this, much as a significant number of respondents were primary school drop-outs, they could read, understand and write, secondly, among the categories of the study targeted population were representatives on official duties i.e. local government officials, representatives from UNHCR, local politicians who by requirement are expected to have a minimum education qualification.

A total of 29.5% of the respondents were full time employees whereas 18.2% were employed on a part time basis. 15.9% were unemployed, 11.4% were self-employed and 25.0% were house wives. On their marital status, 20.5% were single, majority were married representing 77.3% of the respondents whereas 2.3% were divorced.

Socio economic factors to play a significant role in access and utilization of screening service. According to some studies, females who are financially independent, who have formal education and aged 25-34 have a higher likelihood of accessing screening services (Slvia, *et al*, 2011). Also women with higher levels of education and income also had higher levels of knowledge (Gu, *et al*, 2010). Study in Botswana shows that knowledge of cervical cancer and cervical cancer screening tests was inadequate amongst women in low income groups (McFarland 2003).

## **4.2** Knowledge on Cervical Cancer

The researcher sought information regarding the level of knowledge and awareness of respondents on cervical cancer and the findings were presented in the figure below. The researcher asked respondents to show how they got to know about cervical cancer.

## Figure 4.1: Knowledge in Cervical Cancer (n=130)

Figure 4.1 presents the channels through which cervical cancer awareness has been disseminated. Among the contributing factors to awareness creation, radio and television had 20%, 10% of the women were able to learn from printed materials, 43.2% had learnt from the health facilities, 25% from family friends and neighbors, 20.5% from community health workers and 11.4% learned from other sources. No one reported their awareness from the religious leaders. Thus, from the findings, health facilities were the main sources of information to the women on the cervical cancer.The findings that health facility screening is the source of knowledge for those that were affected as reported, suggests the need of interventions at lower tier facilities to be improved to support in early screening for early detection to enhance early treatment. Greater emphasis should be placed on the need for system spiraling to assist provision of primary deterrence, screening, early detection, diagnosis and appropriate management

## 4.2.1 Knowledge on Signs and Symptoms of Cervical Cancer

The researcher sought information regarding whether the respondents had knowledge on the signs and symptoms of cervical cancer and the findings are presented in 4.2.1 table.

## Table 4.2.1 Knowledge on Signs and Symptoms of Cervical Cancer

|  |  |  |
| --- | --- | --- |
| **Sign and symptom**  | **Frequency**  | **Percentage**  |
| Vaginal bleeding between periods  | 6 | 4.5% |
| Vaginal bleeding after menopause  | 6 | 4.5% |
| Persistent vaginal discharge  | 21 | 15.9% |
| Discomfort during sex  | 15 | 11.4% |
| Persistent lower back pain  | 6 | 4.5% |
| Don’t know  | 74 | 56.8% |
| Others  | 3 | 2.3% |
| **Total**  | **130** | **100** |

Source Primary data 2018

The respondents were further asked about the signs and symptoms of cancer cervix. The findings revealed that, majority of the respondents did not know the symptoms as reported by 56.8% of the respondents. The cervical cancer, according to 15.9% of the respondents, is characterized by persistent vaginal discharge. Other signs that were reported were discomfort or pain during sex, persistent lower back pain, vaginal bleeding between periods, as well as vaginal bleeding after the menopause all with 4.5% each. These results reveal that knowledge about cervical cancer risk factors, signs and symptoms was scanty though, greater parts of the women were aware of cancer of cervix. Emphasis about the disease should include information on risk factors, sign and symptoms of cervical cancer.

## **4.2.2 Knowledge on the causes of cervical cancer**

The researcher asked respondents if they had knowledge on the causes of Cervical Cancer. The responses were presented in the pie chart below.

## **4.2.2 Knowledge on the causes of cervical cancer**

As shown in the above figure, according to 43% of the respondents, the major cause of cervical cancer is having multiple sexual partners. 14% reported that long term use of contraceptive pills is the cause of cervical cancer and 4.5% reported that not going for regular screening can be a cause. However, 39% of the respondents reported that they were not aware of the causes of cervical cancer as shown in the table.

Cancer of the cervix is linked to a virus known as Human papilloma virus which can be transmitted sexually. Risk factors to Human Papilloma Virus (HPV) infection comprise the number of sexual partners, the sexual partner's number of preceding sexual partners, immune system status and partner's circumcision status. Some of the reported risk factors associated with HPV infection and cancer of the cervix include and not limited to high parity, tobacco smoking, long term use of oral contraceptives (WHO/IARC 2002) co-infection with HIV and other STIs. From the above figure, a majority of the respondents were found to be knowledgeable of multiple partners as a risk factor; however, it is also evident that there is need for intensified education on the risk factors associated with cervical cancer.

## 4.3 Knowledge on Prevention and Screening Uptake

The respondents were asked whether they knew of the cervical cancer test and screening services offered at different health facilities. The responses are shown on table 4.3:

## Table 4.3: Women’s Knowledge on Cervical Cancer Test (n=130)

|  |  |  |
| --- | --- | --- |
| **Knowledge on Cervical Cancer Test**  | **Frequency (n)**  | **Percentage (%)**  |
| Yes  | 127 | 97.7  |
| No  | 3 | 2.3  |
| **Total**  | **130**  | **100.0**  |

Source Primary data 2018

Table 4.3 presents the results on the women’s knowledge on cervical cancer test. According to the findings, a majority, 97.7% (n= 127) of the respondents were aware of cervical cancer test. 2.3% (n=3) on the other hand were found unaware of cervical cancer test. From the response, it is clear that health facilities played a significant role. This could be associated with the campaigns that were undertaken by the health facilities both at the community and the health facility level. This should inform the authority on the need for supporting similar initiatives in health facilities at the community level to improve awareness.

## Table 4.4 : Sources of Information Regarding Cervical Cancer Screening

|  |  |  |
| --- | --- | --- |
| **Cervical cancer information source**  | Frequency (n)  | Percentage (%)  |
| Television/Radio  | 21 | 15.9  |
| Printed materials  | 12 | 9.1  |
| Health facilities  | 74 | 56.8  |
| Family friends, neighbors  | 15  | 11.3  |
| Community health workers  | 30  | 22.7  |
| Others  | 9 | 6.8  |
| **Total**  | **130** | **100** |

Source Primary data 2018

The women were also examined on their awareness on cervical cancer screening. The response as well as the channels through which they had learnt is as presented in table 4.4. According to the results, the health facilities were the major contributors to the knowledge among the women. This is good news to the government and considerable amount of effort employed by the health facilities to enhance awareness. Again this would also be linked with the heightened campaigns conducted by the health personnel during their interactions with patients. The health facilities informed 56.8% of the respondents who were found to have knowledge on cancer screening. Community health workers had contributed to knowledge creation to 22.7% of the respondents which was the second knowledge creation tool followed by television/radio with 15.9% and family friends and neighbors with 11.3% . Printed materials had informed 9.1% of the respondents whereas 6.8 % were able to learn of the service from other sources. Sources other than print media seem to be more effective.

## Table 4.5: Women’s Knowledge on Cervical Cancer Screening Services

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Knowledge on Cervical Cancer Screening  | **Yes** | **No** | **Total**  | **Total** |
| Frequency (n) | Percentage (%)  | Frequency (n)  | Percentage (%)  | Percentage  | Frequency  |
| Can cervical cancer be detected through screening  | 118 | 90.9  | 12 | 9.1  | 100  | 130 |
| Cervical cancer is treatable after screening  | 121 | 93.2  | 9 | 6.8  | 100  | 130 |
| Awareness of health facilities offering screening services  | 106 | 81.8  | 24 | 18.2  | 100  | 130 |
| Awareness on recommended frequency for screening of cervical cancer  | 71 | 54.6  | 59 | 45.4  | 100  | 130 |

Source Primary data 2018

According to the results as presented in Table 4.4, majority of the respondents were found to be aware of the cancer treatment as they reported that it is possible to detect cervical cancer through screening /routine checkup before symptoms appear. This had knowledge of 90.9% among the women interviewed. From this table also, a major proportion of the respondents were aware of the cervical cancer treatment where 93.2% of the respondents reported thatcervical cancer is treatable if detected early. Further, 81.8% of the women had awareness of the places where they could access cancer screening services in Bosaso. However, 18.2% were not aware of health facilities that offered such services.

It is evident that expanded screening is a viable option in low resource settings option where sufficient infrastructure and health system access exist. And that mobilization and education at the health facility and community level are important to achieve increased knowledge and awareness on service availability, detection and treatment of cancer of cervix.

## Table 4.6: Best Place to reach women with cervical cancer screening messages

|  |  |  |
| --- | --- | --- |
| **Best place to reach women with cervical cancer screening messages**  | Frequency (n)  | Percentage (%)  |
| women’s groups  | 62 | 47.7  |
| Places of worship  | 18 | 13.6  |
| Health facilities  | 59 | 45.5  |
| At home  | 12 | 9.1  |
| Market  | 21 | 15.9  |
| Others  | 6 | 4.5  |
| **Total**  | **130** | **100** |

**Source Primary data 2018**

Findings in Table 4.5 show that, women groups were the most preferred places to reach women with cervical cancer screening messages/information. This was reported by 47.7% of the respondents which had the highest respondents followed by 45.5% who reported that health facilities were the best places and 15.9% who reported market places as the best sources of cancer screening information among women. 13.6% reported the places of worship whereas home places were reported by 9.1% of the women. 4.5% reported other places other than the above discussed.

From the findings, consideration should be made by programs and health institutions to develop multiple strategies for mobilization. Use of existing structures to improve public awareness and support such as health facilities, women groups, Community Health Volunteers, Mosques among others is critical if cervical cancer prevention services and support use of accessible services is to be achieved. The client-provider association significantly affects client contentment. For instance, the surroundings under which counseling takes place, how effectively and deferentially the provider passes information to the woman, the woman's capacity to ask questions, the respect for privacy and confidentiality could all be imperative factors that influence the woman's encounter with care. The results may be suggesting the significance of providers taking time to communicate with women at their comfort and disposal, answering questions, explaining procedures, and51 giving encouragement where they are. This could have informed the need for awareness communication at women groups and health facility.

## 4.5 Attitude and Practice

There was research on the attitude and practice of women with issues concerned with cervical cancer and the findings are presented in the graph 4.6.

## Figure 4.6: Women’s Willingness to consult a health care provider

As illustrated in Figure 4.6, most of the respondents (98 %,) have the will to recurrently confer with a health care provider for cervical cancer screening. However, 2% of the women who participated in the study were not willing. This indicates that, an important number of women were concerned about their health and were much willing to undertake the screening services provided with the details and availability of the services.

Positive belief is considerably linked to increase in the probability of accessing cervical cancer screening and thus an important area for health care providers to support in offering the right message to promote positive attitude towards the service.

## Table 4.7: Women’s Knowledge of who should be screened

|  |  |  |
| --- | --- | --- |
| **Women’s Knowledge of who should be screened** | **Frequency (n)**  | **Percentage (%)**  |
| All women of child bearing age  | 114 | 88 |
| women with symptoms indicative of cancerous cervix | 3 | 2 |
| women with promiscuous life cycle | 3 | 2 |
| Don’t know  | 10 | 8 |
| **Total**  | **130** | **100** |

Source Primary data 2018

As shown in figure 4.7, most of the women (88 %,) felt that all women of child bearing age should be screened for cervical cancer. Others suggested that only women with symptoms indicative of cancerous cervix should be screened (2%) as well that only women with promiscuous life cycle need to be screened (2%). However, 8% of the respondents were not aware of who should be screened for cervical cancer. It is evident from the findings that, despite the number of women with knowledge on cervical cancer screening, there is poor knowledge about who is eligible for cervical cancer screening among age of reproduction women.

## Table 4.7: Level of Cervical Cancer Screening Uptake among Women of Reproductive Age

|  |  |  |
| --- | --- | --- |
| **Screening uptake**  | **Frequency (n)**  | **Percentage (%)**  |
| Have you been screened  | Yes | 80 | 61.4  |
| No | 50 | 38.6  |
| **Total** | **130** | **100**  |
| When was the last time screening was done?  | 3 months ago  | 15  | 18.5  |
| six months ago  | 0  | 0.0  |
| 1 year ago  | 39 | 48.1  |
| 3 years ago  | 21 | 25.9  |
| Over 5 years ago  | 6 | 7.4  |
| **Total**  | **80** | **100**  |
| What made you go for screening?  | Friend/Family encouraged me  | 3 | 3.7  |
| Health care providers suggested  | 12 | 14.8  |
| Community health workers encouraged me  | 15  | 18.5  |
| The services were free of charge  | 24 | 29.6  |
| Need to clear doubt  | 12 | 14.8  |
| Had symptoms that made me want to screen  | 3 | 3.7  |
| Awareness that if found early it is treatable  | 12 | 14.8  |
| **Total**  | **80** | **100**  |

Source Primary data 2018

Findings also revealed that 61.4% of the women who participated in the research had been screened for cancer of the cervix. A significant number of the women (38.6%) had however never been screened in the past. Among those who had been screened, only 18.5% had undergone the screening for less than five months as at the time of study. 48.1% had undergone screening for a year before the time of study. This could be as a result of the recent campaign that the facilities have been undertaking as regards the service. The findings also indicated that 25.9% had been screened 3 years before the study. 7.4% of these also had been screened five years before the period of study. Consequently, the study results revealed that the uptake of the screening services among age of reproduction women is not adequate despite their response that majority had been screened. This is evidenced by the findings that only 18.5% had been screened within a span of less than a year prior to the study period whereas majority had the screening services previously for a period of more than a year prior to the study period.

The respondents were further asked on their decision (what contributed to their decision) to undertake the screening services. The findings revealed that, of the 61.4% most of the women were encouraged to take up the test since the services were offered free of charge (29.6%). 18.5% reported that they were encouraged by the community health workers, 14.8% went for the services since it was suggested by the health care providers, they needed to clear doubts as well that they had the awareness that if found early it can be treated. Others were encouraged by their family and friends (3.7%,) as well as those who had symptoms that made them look for the services (3.7%,).

Thus, according to the findings, the socio-economic status of the women as well as their awareness of the services and the perceived importance of the services influenced their uptake of the screening services. The fact that the services were not paid for attracted a majority of women to undertake the screening services. Women would always tend to prioritize other financial and social responsibilities related to their families, other than their health resulting to self-neglect due to economic challenges. Cost as a blockade to health need to be tackled to promote prompt health seeking behavior.

The Ministry of Health focus is aimed at achieving at least 70% coverage among age of reproduction women. Going by the result findings only 61.1% of women in the age cluster with the uppermost risk-benefit proportion had been screened at the time of the research. For this target to be achieved programs and the Ministry of Health should endeavor to involve communities to build awareness and support.

## Table 4.8: Hindrances to the Women’s Uptake of the Screening Services

|  |  |  |
| --- | --- | --- |
| **Hindrances to the Women’s Uptake of the Screening Services**  | Frequency (n)  | Percentage (%)  |
| Costly  | 6  | 4.5  |
| Not know where to be screened  | 30  | 22.7  |
| No time  | 18  | 13.6  |
| I am healthy  | 9  | 6.8  |
| It is painful  | 50 | 38.6  |
| Fear of a positive outcome  | 68 | 52.3  |
| Fear of exam process  | 27 | 20.5  |
| Not allowed by religion  | 6 | 4.5  |
| Not suggested by health care workers  | 3 | 2.3  |
| Attitude of health worker  | 9 | 6.8  |
| Lack of convenient clinic time  | 3 | 2.3  |
| It is embarrassing  | 12 | 9.1  |

Source Primary data 2018

Findings as shown in table 4.8 revealed some reasons why women forfeit screening services. According to the findings, 52.3% of the women do not have courage to undergo the screening tests due to the fear of positive outcomes that one might be diagnosed with cancer. Another proportion (38.6%) of the women has the perception that cervical cancer screening is a painful process that would hurt them making them uncomfortable to undertake the screening test. A number of women 22.7% have no awareness of where to be screened. This indicates that the women need to be informed of the screening services and the availability of the services in their areas as some women of reproductive age lack the awareness of whether the services exists and are open to all the women at no cost.

It is also evident that some women have the fear of examination process (20.5 %,) due to some perception and altitude on the screening test services. Others (14.3%,) do not value the screening test services as of importance hence could not create time to attend the screening from the nearby service center whereas others think that it is an embarrassing process (9.1%,). The health workers’ attitude had some influence on the women’s intent to undertake the screening services (6.8%,). Thus, the friendliness of the service providers determines the extent of uptake and the women’s ability to seek the services.

Also as Table 4.8 indicates, some women had the perception that they were healthy and did not deserve to be screened (7.1%,). This affected their uptake levels regardless of their lack of knowledge of their health status. It is also clear from the findings that the women’s religion affected their level of uptake of the cervical cancer screening services. This, religious matters where women were not allowed by their religion to undertake the screening test had influenced 4.5% of the women who took part in the study who were unable to undertake the services despite of the services availability in their reach. The women’s perceived that the screening testing should be as a suggestion from the health workers (2.3%,) hence did not see the need for them to seek for the services as they had never been unwell or detected some cancerous infection. As well, some women had tightly schedules hence they lacked convenient clinic time that they could visit the health facility for the screening (2.3%,). These results suggest that there were specific gaps in knowledge about the procedure for cervical cancer screening that need to be addressed to overcome the barriers to access. This is especially important since a majority of the respondents mentioned fear of exam, painful procedure and fear of positive as the major hindrances. With proper education on cervical cancer, studies have shown good utilization of the screening and treatment services for cervical cancer. Meaning that it is possible for such challenges to be overcome where mass awareness campaign coupled with accessibility of service is availed.

It is crucial for programs to understand who is presently utilizing the amenities that are offered, and find out the factors preventing those who do not seek care from seeking.

## Table 4.9: Women’s Knowledge on the Transmission of Cervical Cancer

|  |  |  |
| --- | --- | --- |
| **Transmission of Cervical Cancer**  | Frequency (n)  | Percentage (%)  |
| Is cervical cancer transmittable?  | Yes  | 54 | 40.9  |
| No  | 38 | 29.5  |
| Do not Know  | 38 | 29.5  |
| **Total**  | **130** | **100.0**  |
| How is it transmitted?  | Sexually transmitted  | 51 | 94.4  |
| Through contact with the sick  | 3 | 5.6  |
| **Total**  | **54** | **100.0**  |

Source Primary data 2018

According to the response given, 40.9% of the respondents reported that cervical cancer is transmittable. 29.5% were for the view that cervical cancer cannot be transmitted whereas 29.5% were not aware whether the disease is transmittable or not. They were further asked to give the channels of transmission. The findings revealed that, according to the respondents, cervical cancer can be transmitted through sexual intercourse as reported by 94.4% of the respondents who felt that the disease is transmittable whereas 5.6% of these reported that the disease can be transmitted through contact with the sick.

## Table 4.10: Cervical Cancer diagnosis and treatment

|  |  |  |
| --- | --- | --- |
| Cervical Cancer diagnosis and treatment  | Frequency (n)  | Percentage (%)  |
| Do you know someone diagnosed with cervical cancer  | Yes  | 56 | 43.2  |
| No  | 65 | 50.0  |
| Do not Know  | 9 | 6.8  |
| Total  | 130 | 100.0  |
| Were they able to get treatment?  | Yes  | 21 | 36.8  |
| No  | 35 | 63.2  |
| Total  | 56 | 100.0  |

**Source Primary data 2018**

From the Table, 43.2% of the respondents reported some cases of some individuals who had been diagnosed with cervical cancer. Of these, only 36.8% were able to get treatment while the rest 63.2% did not get treated. From the findings, ability of individuals to judge when care should be sought and knowledge of what care is available and its potential benefits may be incomplete or totally unknown. That could have informed the high percentage (63.2%) of those reported to not have got the required treatment. A single based approach that requires treatment same when screening test suggests need for treatment should be applied by health providers and programs to avoid missed opportunities.

## Table 4.11: Reasons for the Women’s Non-Uptake of the Cervical Cancer treatment (N=35)

|  |  |  |
| --- | --- | --- |
| **Reasons for not accessing treatment**  | **Frequency (n)**  | **Percentage (%)**  |
| Late diagnosis  | Yes  | 12 | 33.3  |
| No | 23 | 66.7  |
| Did not follow up treatment  | Yes  | 4 | 11.8  |
| No | 31  | 88.2  |
| Did not have money for treatment  | Yes  | 17 | 47.1  |
| No | 18 | 52.9  |
| Do not Know  | Yes  | 6 | 17.6  |
| No | 29 | 82.4  |
| Other  | Yes  | 6 | 5.9  |
| No  | 29 | 94.1  |

Source Primary data 2018

According to the study findings in Table 4.10, the reason as to why they were not treated according to the respondents was late diagnosis (33.3 %,), lack of money for treatment (47.1%,) as well as failure to follow up on treatment (11.8%). From the findings above the following can be deduced: The poor are at a bigger risk of being diagnosed and treated for cancer at late stages of disease and are less likely to subsist a diagnosis of cancer. This is because cost burdens of health care may discourage or holdup healthcare use or encourage use of less effective healthcare sources or practices. Late presentation occurs because amongst this group, screening and early treatment is uncommon because of cost implication and also because of lack of awareness. Patients may fail to seek care or delay treatment because of economic disadvantage.

Estimating and projecting the economic load of cancer, counting health care expenditures, output loss, and morbidity for patients and their families, are increasingly important issues for health care policy makers, health care systems, health providers and the society overall. To address timely access to treatment services a multiple factors need to be looked into and not just cost, even though it was suggested as the biggest barrier.

## CHAPTER FIVE

## SUMMARY CONCLUSION AND RECOMMENDATIONS

## 5.1 Introduction

The chapter presents a summary of the study results as discussed in chapter four, conclusions that were done in line with the results as well as the recommendations that the investigator made with regard to the study results. The chapter also presents the recommendations that were made for further areas of research.

## 5.2 Discussions of the Findings

The study was undertaken with an aim of determining the awareness, attitude, practice and the perceived hindrances uptake of screening for cancer of cervix amongst women of ages 18-49 years seeking healthcare services in primary health facilities in Bosaso.

## 5.2.1 Knowledge on cervical cancer and screening services

On the level of awareness/women’s knowledge on cervical cancer as well as screening services, the study findings revealed that, most women (97.7 %) had ever heard and were aware of the cancer of cervix disease whereas only 2.3% were unaware. Findings also revealed that health facilities were the main basis of knowledge on the cervical cancer followed by family and friends, community health workers, radio and television and other printed materials.

 The result was dissimilar with that of Anorlu *et al.* (2004) whose research found low levels of awareness among women visiting healthcare facilities. The findings were also inconsistence to research done in Tanzania and Kenya by Gichangi *et al.,* (2003) and Kidanto et al., (2002) respectively where the findings also illustrated low awareness of cervical cancer and screening services among women. This may be attributed to the fact the facilities have played a critical role in sensitization at the facility and community level cervical cancer cases that were reported were diagnosed majorly through hospital screening while others were able to learn through suggestive symptoms.

However, majority of the respondents were established not to know the symptoms and signs of cancer of cervix. Comprehension on signs and indications of cancer of cervix was found to be low in this study with up to 56% of the respondents not familiar with indications and signs of cancer of cervix. This agrees with a research done by Ajayi *et al*., (1998) that found lower rates of awareness of symptoms and signs associated with cancer of cervix amongst the interviewed. Those found to have some knowledge on the signs reported persistent vaginal discharge, discomfort or pain during sex, persistent lower back pain, vaginal bleeding between periods, as well as vaginal bleeding after the menopause. Symptoms and signs are not reliable in the prevention of a given disease. By time the signs set on the disease will have spread. On the causes, 38.6% of the respondents that were unaware of the causes of the cancer of cervix. 43.2% of the women who participated in the research reported the major cause of cancer of cervix as having multiple sexual partners. Other causes reported included long term use of contraceptive pill as well as absence of regular screening.

Findings as well established that all women in the study were knowledge of cancer of cervix screening/test. The knowledge was majorly from the health facilities, community health workers, television/radio, family friends and neighbors, and Printed materials. 90.9% of the women reported that cancer can be diagnosed through screening whereas 9.1% believed that it cannot be diagnosed. This is in line with a research in South Africa by Hoque (2010) where close to half 49 percent of the interviewed stated to have ever heard of screening test. And from the rest 51% close to half of the interviewed (43%) got information on screening test majorly from health providers. With good assistance and regular health education on cancer of the cervix screening when clients are with health care providers, inspection for cancer of cervix need to be enhanced.

Findings further illustrated that 93.2% of the respondents who took part in the research were knowledgeable that cancer of cervix is treatable when diagnose early. From the findings, it is evident that among the women who participated, 81.8% were aware of the health facilities where they could access cancer screening services in Bosaso. However, there was a general lack ofknowledge among women on the recommended frequency within which adult women should undergo checkup for cervical cancer. This resonates with a study conducted by John (2011) in Tanzania which suggested that 79.2% of study participants were agreeable to the fact that routine cervical cancer screening can prevent cervical cancer which was also the case in a similar study in Kenya where 87% of respondents were in agreement (Gichangi, *et al*., 2003).

## 5.2.2 Attitude and practices

With regard to the attitude and practices, majority of the women were found to be willing to seek frequent advice of health professional as regards cancer of cervix screening. From the findings, 88.4% of the women understood that women in the age should be screened for cancer of cervix. However, others perceived women who have signs symptoms that suggest one to have cancerous cervix should be the ones to be screened as well that only women with promiscuous life cycle need to be screened. Due to this, a number of the women in the research had not been inspected though 61.4% had undergone screening for cancer of cervix.

However, only 18.5% of the respondent who took part in the research had undergone the screening for less than five months prior to the time of study, 48.1% had undergone screening for a year before the time of study whereas 25.9% had been screened for 3 years prior to the study. 7.4% of the women also had been screened five years prior to the period of study. Most of the women were encouraged to seek the services since they were offered free of charge. This result agrees with investigation by Singh, *et al.,* (2012) that suggested economic challenges as a major barrier to access to care. As well, women tend to prioritize other financial and social responsibilities related to their families, other than their health resulting to self-neglect. Others sought the service since they were encouraged by the community health workers, 14.8% went for the services since it was suggested by the health care providers, they needed to clear doubts as well that they had the awareness that if found early it can be treated. Others were encouraged by their family and friends whereas others had symptoms that made them look for the services.

These study results appear to be in agreement with other studies conducted in rural India by Terefe (2008) which showed that 84.6% of the respondents were willing to undergo cervical screening test as they felt it would benefit them in the long run and 62.5% were willing to be screened. Having good attitude is mostly followed by being knowledgeable on the subject about the cancer of cervix as well as on screening. Those who have heard of cancer of cervix and screening have good attitude of cervical screening than those who have not heard about it. And having belief that was positive was greatly associated with participation in screening for cancer of cervix (McFarland, 2003). Another study in Tanzania suggested that 79.2% of study participants agree that cervical cancer screening can prevent cervical cancer (John, 2011).

## 5.2.3 Barrier to screening

The study established the major reason as to why women do not attend the screening services as the fear of positive outcomes that one might be diagnosed with cancer. Other reasons were that some women think that it is a painful process, lack of awareness of where to be screened, fear of examination process, lack of time to go for screening, having the thought that it is an embarrassing process, attitude of health workers, the feeling that one is healthy and did not deserve to be screened as well as some religious matters where some women were not allowed by their religion while others believe that it should be suggested by health workers.

 The barriers to screening reported have been found to be similar with those mentioned in studies conducted in Tanzania by Urasa and Darj (2009) and that in Uganda by Mutyaba *et al*., (2006) as well as in a research done in Nigeria by Ndikom and Ofi (2012) which showed the main aspects mentioned by the respondents that affect participation examination of the cervix were lack of understanding, low levels of literacy, not feeling to be at risk, negative attitude towards own health and lack of finance and being afraid of a positive screening result are among main barriers to service utilization. Further studies and consistent with this finding also show not having time, commitments of work, taking care of children, fear of a positive result, partners not consenting and financial constraints are other barriers mentioned in the research (Lyimo&Beran; Were *et al*, 2011; Sudenga *et al*, 2013; Augusto *et al*, 2013).

The study results further indicated that, only 40.9% (n= 18) of the respondents reported that cervical cancer is transmittable. They therefore reported that cervical cancer can be transmitted through sexual intercourse as well as through contact with the sick.

On the health system status, most of the women felt that the health system is not well equipped for management of cancer of cervix. This was attributed to that there are inadequate personnel to offer the services as well that there is the lack of equipment for screening. With some cases reported of cervical cancer, only 31.6% (n= 14) of these were able to get treatment. The reason as to why these were not treated were found to include; late diagnosis, lack of money for treatment as well as failure to follow up on treatment. Other options that were sought for treatment were modern treatment options, traditional treatment and prayers. These results are affirmed by a research in Bangladesh that established lack of urgency to seek for care for signs suggestive of cancer of cervix, short staffing and inadequate health care services to be amongst barriers mentioned towards access to screening (Ansink, *et al*., 2008).

## 5.3 Conclusion

The research in accordance with the results and discussions made concludes that;

The study revealed awareness of cancer of cervix and examination of cancer of cervix among the interviewed was high but their knowledge of the symptoms and signs regarding risk factors linked with cancer of cervix were found to be low.

The health facilities and the community health workers in the community have contributed positively to dissemination of information regarding cervical cancer among the women as per the responses.

Women are willing to seek the services for screening services regardless of their level of knowledge. However, some of the women do not know the importance of undergoing screening as they have the mentality that only women showing symptoms of cancer of cervix ought to be screened. Therefore, there is a negative attitude among some of the women towards screening services.

Majority of women in Bosaso have not taken up cervical cancer examination. This is so despite knowledge of the availability of the services within the health facilities. This therefore shows that the uptake of screening services for cervix cancer among women is low. Women majorly seek the services when asked to do so by the health officers as well when they doubt their health status.

The low uptake of screening services among women has been attributed to the fear of the outcomes. Other women think it is embarrassing because the screening method in place is invasive.

Not understanding that cancer of cervix progression has no symptoms, not feeling at risk and waiting for symptoms is a major barrier.

Awareness of cancer cervix, awareness of cancer of cervix screening and knowledge of mode of prevention of cancer of cervix were found to be critical in determining uptake of cancer of cervix screening among women of reproductive age.

## 5.4 Recommendation

Following the outcome of this research, suggestions are made as follows;

There is need for the Ministry of Health to enhance education on cancer of cervix at the health facilities especially lower cadre facility to promote responsiveness towards cancer of cervix and cervical cancer examination. This is because most of the interviewed obtained their information from the health facility.

 For the Ministry of Health to run successful programs on cervical cancer prevention there is need to make a deliberate effort to invest in the well trained personnel and equipment. Special emphasis is given in facilities at tier 1 and tier 2 where most clients visit for immediate care and have little knowledge of cervical cancer.

Awareness campaigns and education programme to enlighten the general public about cancer of cervix to put more emphasis on signs and symptoms, ways of transmission and risk factors.

Women as well require being equipped with knowledge on the significance of early and regular screening. This can be attained by using multiple strategies that will reach women at their convenience such as during their visit in the health facilities, women groups and churches. Media such as televisions and radio stations that most of the people listen to and community health volunteers would facilitate creation of awareness and encourage more women to seek for the screening services regardless of their health status.

## 5.5 Suggestion for Further Studies

There is need for further studies to be undertaken covering Bosaso at large to study the women’s use of examination services for cancer of cervix for generalization of results.

A study to understand the disconnect between low utilization of services for screening and high knowledge of cancer of cervix and screening.

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## Appendix I: Questionnaire

Dear Respondent

I am Abdallah Abdulahi Ali, a student of Nkumba University doingMaster’s Degree of science in Environmental Health and am carrying out an academic research in the district. The information acquired will be strictly used for academic purposes and it will be treated with highest confidentiality. I kindly request you to give me about 20 minutes of your time so as to answer this questionnaire. Thank you very much for your time and co-operation.

The purpose of this study is to determine the knowledge, attitude, practice and the perceived barriers towards screening for cervical cancer among women visiting healthcare facilities in Bosaso. The findings will be used by the policy makers to make decisions regarding cervical cancer prevention and treatment among women.

This is a descriptive survey and will involve use of a questionnaire which will be administered by the investigator and the research assistants.

You were selected at random to participate in the study. Other participants were also selected randomly and they are women who are seeking healthcare at this facility.

Your participation in this research is entirely voluntary. It is your choice whether to participate or not. You may change your mind later and stop participating even if you agreed earlier.

## SECTION A: DEMOGRAPHIC CHARACTERISTICSOF RESPONDENTS

## Sex

Male

Female

**2. Area of residence**

[ ] 1. Bosaso

[ ] 2. Other (specify)

**3. 3. Level of education**

[ ] 1. no formal education

[ ] 2.primary education

[ ] 3.secondary education

 [ ] 4.college education

 [ ] other (specify)

**4. Occupation**

[ ] 1.Employed full time

[ ] 2.Employed part-time

[ ] 3.Unemployed

[ ] 4.Self employed

[ ] 5. Housewife

**5. Marital status**

[ ] 1. Single

[ ] 2. Married

[ ] 3. Divorced

[ ] 4. Separated

[ ] 5. Widowed

**B. Knowledge on Cervical Cancer**

8. Have you ever heard about cervical cancer?

 [ ] 1. Yes (go to 9)

[ ] 2. No (go to 10)

9. How did you come to learn about it**?**

[ ] 1. Television/Radio

 [ ] 2. printed materials, Brochures, posters

 [ ] 4. Health facility

 [ ] 5. Family, friends, neighbors and colleagues

[ ] 6. Religious leaders

[ ] 7. Community Health Workers

[ ] 8. Other (please explain):

10. In your close circle of acquaintances, do youknow someone who has had cervical cancer?

 [ ]1.Yes

 [ ]2. No

[ ]3.Dont Know

11. How did they come to know they had it?

 [ ]1.Through screening in hospital

 [ ] 2.They had symptoms suggestive

[ ] 3.Do not Know

[ ] 4. Other specify.

12. What are the signs and symptoms of cervical cancer?

[ ] 1.Vaginal bleeding between periods

 [ ] 2.Vaginal bleeding after the menopause

 [ ] 3.Persistent vaginal discharge

[ ] 4.Menstrual periods that are heavier or longer than usual

[ ] 5.Discomfort or pain during sex

[ ] 6.Persistent lower back pain

[ ] 7. Do not know

[ ] 7.Others

13. What are the causes of cervical cancer (risk factors)?

[ ] 1. Having multiple sexual partners

[ ] 2.Early sexual intercourse

[ ] 3.Cigarette smoking

[ ] 4.Long-term use of contraceptive pill

[ ] 5.Not going for regular screening

[ ] 6.Do not know

**C. Knowledge on prevention and screening uptake**

14. Have you ever heard of cervical cancer screening/test?

 [ ] 1. Yes

 [ ] 2. No

15. If yes to question 14, Where did you come to learn of it?

 [ ] 1. Television/Radio

 [ ] 2. printed materials Brochures, posters and other

 [ ] 3. Health facility

 [ ] 4. Family, friends, neighbors and colleagues

 [ ] 5.Community Health Workers

 [ ] 6. Other (please explain):

16. Is it possible to detect cervical cancer through screening/routine check up before symptoms appear?

[ ] 1. Yes

[ ] 2. No

[ ] 3.Do not Know

17. Is cancer of cervix treatable if detected early?

[ ] 1. Yes

[ ] 2. No

[ ] 3.Do not Know

18. Do you know how often it is recommended for adult women to do check up for Cervicalcancer.

[ ] 1. Yearly

[ ] 2. Every 3 years

[ ] 3. Every 5 years

[ ] 4. Do not know

19. What would be the best place to reach women’s groups with cervical cancer screening messages? **Tick all appropriate.**

 [ ] 1.women Group

 [ ] 2.Places of worship (mosque)

[ ] 3.Health facilities

[ ] 4.At home

 [ ] 5.Markets

 [ ] 6.Others (Specify)………………..

**D. Attitude and Practice**

20. Are you willing to regularly consult a health care provider for screening of cervical Cancer?

 [ ] 1. Yes

 [ ] 2. No

21. In your opinion, who should bescreened?

 [ ] 1.All women of child bearing age

 [ ] 2. Only women with symptoms suggestiveof cancerous cervix

[ ] 3.Only women with promiscuous life style

 [ ] 4. Do not know

23. Have you ever been screened forcervical cancer?

 [ ] 1. Yes

 [ ] 2. No

24. If yes to Qn18, when wasthe last time screening was done?

 [ ] 1. Less than 1 month ago

 [ ] 2. 3 months ago

 [ ] 3. Six months ago

[ ] 4. 1 year ago-

[ ] 5. 3 years ago

 [ ] 6. Over 5 years ago

25. What made you go for the screening?

[ ] 1. Friend/family encouraged me

[ ] 2. Health care providers suggested

[ ] 3. Community health workers encouraged me

[ ] 4. The services were free of charge

[ ] 5. Need to clear doubt

 [ ] 6. Had symptoms that made me wish toscreen

[ ] 7. Age factor

[ ] 8. Awareness that if found early it is treatable

 26. Are there reasons as to why women don’t go for screening/check up for cancer of cervix?

[ ] 1. Yes

 [ ] 2. No

27. If yes to Qn 26, what are reasons? Check all that apply

[ ] 1. It is costly

 [ ] 2. Do not know where to get screening

 [ ] 3. Do not have time

[ ] 4. They feel healthy

[ ] 5. Cervical cancer screening is painful

[ ] 6.Fear of a positive outcome

[ ] 7. Fear of the process of exam

[ ] 8.Lack of husband/partner approval

[ ] 8. Not allowed by religion/culture

[ ] 9. Not suggested by the health care workers

[ ] 10. Lack of female screeners at the health facility

[ ] 11. Attitude of health care worker

[ ] 12. Lack of convenient clinic time

[ ] 13. It is embarrassing

28. Do you think Cancer of the cervix can be transmitted from one person to another?

 [ ] 1. Yes

 [ ] 2. No

 [ ] 3. Do not know

29. If yes, above, how is it transmitted?

[ ] 1. Sexually transmitted

[ ] 2. Through contact with the sick

[ ] 3. Through air

[ ] 4. Don’t know

[ ] 5. Other (specify)………..

30. Do you think our health system is well equipped to diagnose and treat cancer of cervix?

[ ] 1. Yes

 [ ] 2. No

 [ ] 3. Do not know

31. If no to Qn 30, what is missing?

[ ] 1. Lack of adequate personnel (Doctors/Nurses)

 [ ] 2. Lack of equipment for screening/treatment

 [ ] 3. Do not know

 [ ] 4 Others

32. Do you know of someone who was diagnosed with Cancer of cervix?

 [ ] 1. Yes

 [ ] 2. No

 [ ] 3. Do not know

33. If yes to Qn 32, were they able to get required treatment?

[ ] 1. Yes

[ ] 2. No

[ ] 3. Do not know

34. If no to Qn 32, what in your opinion were the reason it was not successful

 [ ] 1. Diagnose late

 [ ] 2. Did not follow up for treatment

 [ ] 3. Did not have money for treatment

 [ ] 4. No services nearby for treatment

 [ ] 5. Don’t know

 [ ] 6. Other (specify)…………

35. What treatment option did they try?

[ ] 1. Modern treatment (In health facility/hospital)

[ ] 2. Traditional treatment

 [ ] 3. Prayers

 [ ] 4. Do not know

**Thank you for your participation**