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Knowledge Attitude and Practice on Cervical Cancer and Screening among Reproductive health Service Clients, Addis Ababa, Ethiopia, 2015

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Acronym

CC.....Cervical Cancer

CCS.....Cervical Cancer Screening

FMOH..... Federal Ministry of Health

HC.....Health Center

KAP.....Knowledge Attitude Practice

LBC.....Liquid-Based Cytology

VIA.....Visual Inspection with Acetic acid

VILI.....Visual Inspection with Lugol’s iodine

WHO.....World Health Organization

Abstract

Background: worldwide there is an estimated 493,000 annual cases of cervical cancer and 273,500 annual deaths, women in developing countries account for about 85% of both its morbidity and mortality. To have early screening and early detection, having knowledge is important. Women with a better knowledge of cervical cancer were more likely to attend cervical cancer screenings. In Ethiopia practice of cervical cancer screening is below 1%.

Objectives: The objective of this study was to assess the knowledge, Attitude and Practice on cervical cancer and screening among reproductive health service clients at health centers in Addis Ababa.

Methodology: A facility based cross sectional study which contain quantitative and qualitative methods were conducted at 13 public health centers in Addis Ababa, from February to March2015. Totally 520 samples were taken For Quantitative study and a multi-stage sampling technique was employed to address the study subjects. Four focused group discussions were conducted among the clients in the qualitative part. Data was analyzed using descriptive statistics and logistic regression model was used to identify factors associated with the outcome variable and the result is presented using the OR with the corresponding 95% CI. The transcribed and translated qualitative data was coded using Open Code software. Then finally the codes were categorized and thematically described.

Result: Over all knowledge of cervical cancer was 43.8% and knowledge of cervical cancer screening were 27% and 56% of participants had positive attitude towards cervical cancer screening. And over all practice of cervical cancer screening was 3.5%. Being knowledgeable of cervical cancer (AOR=5.0,95% CI;2.7-3.0) and source of information from health professionals (AOR= 1.8, 95% CI (1-3.2)) were found to be statistically significant towards knowledge of cervical cancer screening and Knowing someone diagnosed with cervical cancer (AOR= 2.1, 95 CI (1.2-3.4)) and being knowledgeable of cervical cancer (AOR=3, 95%CI (1.8-5.3)) were statistically significant predictors for positive attitude towards cervical cancer screening. women who know someone diagnosed with cervical cancer (AOR= 3.2, 95% CI; 1.0-10.0) and source of information from health professionals (AOR =3.5, 95%CI; 1.2-10.2) were the significant determinants of cervical cancer screening practice.

Conclusion and Recommendation: More than half of the participants were not knowledgeable of cervical cancer and screening, however they had positive attitude. Cervical cancer screening practice was very low. Lack of knowledge, accessibility of services with affordable price and absence of gynecological signs were among common perceived barriers for not to undergo cervical cancer screening practices. Service should be available and accessible with reasonable price to the clients and health education and awareness creation regarding cervical cancer should be in place.

1. Introduction

1.1 Background

Cervical cancer is a cancer arising from the cervix, which is due to the abnormal growth of cells that have the ability to invade other part of the body. It is almost always caused by human papilloma virus (HPV), specifically two strains HPV 16 and HPV 18. Other risk factors include giving birth to many children, smoking, using oral contraceptives for long time, low immune system and first sexual intercourse initiation at early age. Cervical cancer screening is a way to detect abnormal cervical cells, including precancerous cervical lesions, as well as early cervical cancers. Routine cervical screening has been shown to greatly reduce both the number of new cervical cancers diagnosed each year and deaths from the disease. According to guidelines, women ages 21 through 29 should be screened every three years. And women with certain risk factors should screen more frequently (1, 2).

There are several cervical cancer screening tests in use or being studied around the world traditional and modern screening methods. They are Cervical cytology, Liquid-based cytology (LBC), New screening methods like, HPV DNA test and Visual tests: VIA and VILI (2).

According to the report from WHO, globally in 2012, cervical cancer incidence was 7.9%, mortality 7.5% and five year prevalence was 9%. In sub-Saharan Africa the incidence was 25.2%, mortality 23.2% and five year prevalence was 27.6% (1). In Ethiopia the incidence was 17.3%, mortality 16.5% and five year prevalence was 18.2% (3).

Cervical cancer trend is significantly reduced in high income countries due to early diagnosis and treatment. And because of poor access to quality screening and treatment service, the trend is increasing in developing countries (4). According to trend analysis on cervical and breast cancer between the year 1980 and 2010, Cervical cancer trend is increasing from 378 000 (256 000–489 000) to 454 000 (318 000–620 000) an average annual increase of 0.6% (4). New cases of cervical cancer occur more often in developing countries than in developed countries in all age groups. In developing countries, among individuals aged 15–49 years, there were 154 000 (106 000–208 000) cases of cervical cancer (4). In 2010, 76 100 (17%) of these cases were in sub-

Saharan Africa. The number of cases of cervical cancer has been increasing for all regions except in high-income countries (4).

Generally worldwide trends show that developing countries going through rapid societal and economic changes, the shift towards lifestyles like that of industrialized countries leads to a rising burden of cancers associated with reproductive, dietary, and hormonal risk factors (5).

In 2013, WHO launched the Global Action Plan for the Prevention and Control of Non communicable Diseases from 2013-2030, that aims to reduce premature mortality from Cancer, Cardiovascular diseases, Diabetes and Chronic respiratory diseases by 25% (6). In Ethiopia though there was no separate cervical cancer prevention strategy and screening program, cancer of reproductive organ is one component of the Ethiopian reproductive health strategy. There was also project named "Adis tefa" by pathfinder international in Ethiopia that support comprehensive facility services, educate the community about cervical cancer prevention, and establish lasting alliances with local partners. Together with the Federal ministry of health (FMOH) and Stanford University Program for International Reproductive Education and Services (SPIRES), the project aim to establish services in 14 health institutions (including five Cervical Cancer Prevention Centers of Excellence) in the regions of Addis Ababa, Amhara, Oromia, Tigray, and Southern Nations, Nationalities, and People's Region (SNNPR) (7). Recently FMOH launches guide line for cervical cancer prevention which aims to provide healthcare providers, implementing partners and other stalk holders involved in the prevention and control of cervical cancer in Ethiopia with standardized cervical cancer prevention and control health service delivery directive (8). And From the pilot project with path finder, FMOH planned to scale up screening service in to public health care facilities (8).

1.2. Statement of the problem

Cervical cancer is the commonest cancer affecting reproductive organ and also, leading cause of death from cancer among women. It was estimated that 20.9 million women were at risk of developing cervical cancer in Ethiopia with an estimated 4648 and 3235 annual number of new cases and deaths respectively (12).

Cervical Cancer screening could reduce at least 50% of Cervical Cancer deaths (9). For early screening and early detection, having knowledge is important. Women with a better knowledge of cervical cancer were more likely to attend cervical cancer screenings. Lack of knowledge about cervical cancer remains an important factor that affects the participation of women in these screening practices (10). Level of knowledge about cervical cancer and screening, perceived health behavior is higher in urban settings than in rural settings (11).

According to Institute catala`d'Oncologia Human papiloma virus (ICO HPV) Information Centre, Ethiopia has Total fertility rate of 4.8, median age at first intercourse in females was 16 years, among women age 15-24 who had sex before age 15 was 16%, and high HIV prevalence and the low socioeconomic status that makes a population of 27.19 million women ages 15 years and older at risk of developing cervical cancer (12). However study done in northwest Ethiopia shows, Knowledge of risk factor, symptoms and preventive option regarding cervical cancer were very low (13). Even the knowledge and screening practice was very low in educated women and study done in Addis Ababa show that knowledge and practice of cervical cancer screening was very low among nurse population (14).

In most developed countries studies shows on average, practice of cervical cancer screening was 23% which was low and in Ethiopia it is 0.6% (15, 16, and 12). Most study findings show practice of screening is followed by knowledge of cervical cancer and screening (10). And study in north Ethiopia shows among the participants who have knowledge about cervical cancer screening only 14.7 of them had practiced cervical cancer screening (13). This all show the need of information regarding knowledge attitude and practice on cervical cancer screening and factors associated with it. Hence, this study is aimed to assess knowledge attitude and practice on cervical cancer screening and factors associated with it.

1.3. Rationale of the study

Despites the growing number of cervical cancer cases in Ethiopia, still there is gap in knowledge with low screening practice. Knowledge about cervical screening is low. By considering the increasing pattern of the disease, low practice of screening and high prevalence of risk factors, the need for cervical cancer prevention program is evident. Data from the primary health care facilities are also scarce to see the problem for better intervention. To establish and improve any program and strategy, understanding knowledge attitude and practice of eligible clients is important. In the country Information related to cervical cancer like knowledge of the disease, attitude and practice towards screening is very limited. The findings from this study will provide the necessary information to fill this gap particularly for the primary care system strengthening to tackle this growing public health problem.

The study will moreover, helps policy makers and programmers to strength the existing screening programs in the country to improve the life of the women by providing information about the level of knowledge and attitude with practice on cervical cancer screening. In addition, the study will give insight and serve as base line data for researchers and planning of other intervention plan like; health education and promotion regarding cervical cancer care activities.

2. Literature review:

2.1. Magnitude of cervical cancer and screening

In developing countries, cervical cancer is the leading female malignancy, but cervical screening is rare (17). There are an estimated 473,000 annual cases of cervical cancer worldwide and 253,500 annual deaths, women in developing countries account for about 85% of both its morbidity and mortality (8). There are an estimated 10,000 women who are diagnosed with cervical cancer annually in the United States, 3,900 die from the disease. In developed countries, however, including the United States, death rates from cervical cancer have been dropping because regular cervical screening and treatment is available and accessible (18).

Estonia is one of the countries in Eastern Europe with the highest incidence and mortality rates for cervical cancer. In the year 2008, the estimated world age standardized incidence rate of cervical cancer was 19.1 per 100, 000 women-years in Estonia with 151 new cervical cancer cases being detected. The 5-year age-standardized relative survival among cervical cancer patients diagnosed from 1990 to 1994 is 63% in Europe, and 53% for Estonia (19).

India holds one-fourth of global burden of cancer of cervix with estimates of 134,420 women developing cervical cancer every year and 72,825 die from the disease (20). In India it is the second most frequent cancer with an age-standardized incidence rate of 27%, while globally the ages standardized incidence rate of cervical cancer is 15.2 % women (20). In India cancer incidence in rural area is lower, patterns are different and population based survival was lower. which can be explained by lower access to health service in rural areas and relatively low health seeking behaviour (21).

Cancer of the cervix is also common form of cancer amongst South African black women with incidence of over 40 per 100,000 but fourth in white women (22). It is estimated that approximately one in every 29 women in their lifetime may develop this form of cancer (23).

Deaths due to cervical cancer in South Africa have been seen to outnumber the maternal deaths during 2000 (24).

Cervical cancer is preventable, but most women in poorer countries do not have access to effective screening programs (6). Acute lack of awareness and knowledge among the concerned population is particularly noted in rural areas of the low income countries (3). Disparities between populations in cancer incidence and outcomes are influenced by differences in exposures to risk and protective factors, differential access to preventive services, screening, early diagnosis, timely and effective treatment, support services, and palliative care (25).

Cervical cancer incidence and mortality rates varied widely, with many African countries such as Guinea, Zambia, Comoros, Tanzania, and Malawi having at least 10-to-20-fold higher rates than several West Asian, Middle East, and European countries, including Iran, Saudi Arabia, Syria, Egypt, and Switzerland. high development index (HDI), poverty rate, health expenditure per capita, urbanization, and literacy rate were all significantly related to cervical cancer incidence and mortality and poverty rate explaining >52% of the global variance in mortality. Both incidence and mortality rates increased in relation to lower human development and higher gender inequality levels. A 0.2 unit increase in HDI was associated with a 20% decrease in cervical cancer risk and a 33% decrease in cervical cancer mortality risk. Higher health expenditure levels were independently associated with decreased incidence and mortality risks (21).

In Ethiopia cervical cancer is second common cancer and It is second leading cause of mortality with 4732 death annually following breast cancer (1). And data compiled by Tikur Anbesa Hospital shows that 30.3% of all cancers diagnosed from 1996-2008 in the hospital were cervical cancer (8).

2.2. Knowledge of cervical cancer and screening:

In southeast Nigeria knowledge of cervical cancer about its preventable nature, cervical screening and screening centers were all below 40% (11). Study done on South African university student’s shows that 33% of the participants heard of cervical cancer screening and

33% knew that cervical cancer screening can prevent cervical cancer (26). Another study in rural South Africa, nearly half (49%) of the respondents mentioned ever heard of Pap smear test. And from the rest 51% almost half of the respondents (43%) received information on Pap smear mainly from health care workers. South Africa has a national policy on pap smear (27).

In Ethiopia, community based study done in Gonder 47% did not know about the risk factors of cervical cancer, 39.6% did not know about the symptoms, 36.1% did not know the preventive measures, 33.9% did not know treatment options and 63.9% know it can be prevented. According to this study only 13.7% of the women had heard about Pap smear (13).

The results of this study revealed that knowledge about cervical cancer was poor though, majority of the women had heard about the disease. Specifically, the knowledge of women on risk factors, signs and symptoms was poor. Education about the disease must include information on risk factors, sign and symptoms of cervical cancer (13). In Addis Ababa most respondents (81.2%) had never heard of Pap smear testing. From those who had heard of Pap smear, only 38 out of 52 (27%) had reasonably detailed knowledge of Pap smear testing (10). A KAP study of Pap smear among nurses in Addis Ababa showed a low knowledge among these groups of health care providers (14). In Ethiopia most participants from Addis Ababa had heard of “cancer" but none spontaneously mention cervical cancer. In contrast, rural participants had limited awareness about any type of cancer. In particular, awareness about cervical cancer was almost non-existent (28).

2.3. Attitude toward cervical cancer and screening

Study In rural India show 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 having knowledge about the cervical cancer and screening. Those who have heard about cervical cancer and screening have positive attitude about cervical screening than those who have not heard about it (10). There are deferent beliefs and perception regarding cervical cancer screening. 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". And increase in positive belief was significantly associated with fivefold increase in the likelihood of accessing cervical screening (29). Another study in Tanzania suggested that 79.2% of study participants were agreed that cervical cancer screening can prevent cervical cancer and also on similar study in Kenya 87% of respondents agree (30, 31).

2.4. Practice of screening services

According to study conducted In Botswana cervical cancer screening rate is far too low and do not reach the Ministry of Health's goal of cervical cancer screening of at least 75% or more. In the same study only 40.0% of study participants had ever had a Pap smear test (29). This low participation of cervical cancer screening and low follow-up of screening is consistent with other studies done in less developed countries which reported an average participation rate of 23% and follow up rates of 46% within 3 years interval (15, 16). Result from study in Tanzania and Kenya Shows that practice of cervical cancer screening is 14% and 22% respectively (30,31). Nigerian study describes that absence of gynecologic symptoms, fear of outcome of screening, lack o information and lack of health workers request as common reason for not undergoing screening practice (32). In contrary in Ethiopia prevalence of cervical cancer screening is only 0.6% (12). And study had done in Gonder, Ethiopia from the participants that have knowledge about cervical cancer screening only 14.7% of them had the test (13). In Addis Ababa, facility based cross sectional study that assesses KAP, only 6.5% of all the respondents had ever had a Pap smear test. This is by far low even compared to other developing countries (10).

2.5. Primary Health facilities and cervical screening

The cancer prevention and control sub-programs stated that health care providers who work at the First referral hospitals especially village or town physicians, family group practitioners and Midwives should be trained in performing acetic acid test and perform acetic acid test for all Women from 30 to 60 years old every three years. If the test results are positive then local Physicians and midwives are instructed to refer them to province and district hospitals for further Diagnostic work-up (21).

Women are seeking care for screening mainly due to, increased health care provider's cancer related information. And to improve health seeking behavior, health professionals' support and counseling is important. Primary health care units are the first point of contact between clients and health care providers but in most developing countries, the first and the second referral level health care centers are not providing cancer screening (33). Ethiopia is also not immune from this scenario and most of the primary health care setups are not practicing this service for clients demanding the service.

2.6. Factors associated with cervical cancer screening

In different studies different factors were associated with cervical cancer screening knowledge, attitude and practice. Age was a significant factor towards accessing cervical cancer screening services. Women aged + 45 years had a 90% less chance of accessing cervical screening compared with women between 25 and 34 years old. The participants' occupations were a significant factor. Females who worked as market vendors had 96% less chance of accessing cervical screening compared with females who were peasant farmers (33). 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 were more likely to access screening services(33). Also women with higher education and income levels had higher levels of knowledge (P, 0.01) (34). Study in Botswana shows that knowledge of cervical cancer screening tests and cervical cancer was inadequate among women in low income groups (29).

Level of knowledge about risk factors and purpose and availability of screening, higher educational status and positive family history of cervical cancer has been associated with screening practice (34).

Studies of the various areas of knowledge have demonstrated that the lack of knowledge about cervical cancer appears to be an important barrier to participation in cervical cancer screenings (33, 34).

Study in Congo, Kinshasa, showed that the place of residence was associated with the women's knowledge about cervical cancer. Role of the media is high in the transferring of knowledge (35).

From study in Zimbabwe barriers to accessing cervical cancer screening were identified and included the following: (1) lacked knowledge about cervical screening tests and cervical screening, (2) most females lacked access to cervical screening, (3) most females could not afford the cost of cervical screening because of lack of health insurance, (4) most females had no access to cervical screening because it was not offered at their nearest health center, even at a 6-week postnatal examination, and (6) some females did not believe in their risk for cervical cancer because it was not in their family history (33).

In Ethiopia secondary and above educational status, knowing someone with cervical cancer and visit to a health institution were shown to be significant predictors of knowledge when adjusted for variables p value less than 0.2. Participants with secondary and above education were also about 1.2 times more likely to be knowledgeable than women with no formal education (AOR=2.18, 95%CI (1.20-3.95)). In addition knowing someone with cervical cancer (AOR=4.91, 95%CI (3.16-7.62)) and ever visit to health institution (AOR=8.13, 95%CI (3.19-20.75)) were also factors that are more likely to increase knowledge of cervical cancer (13).

Given this overall acute lack of awareness, a significant association was seen between the level of education and their awareness of the disease only in the urban areas. Those who had received higher education had greater knowledge of the disease and this was evident among the urban women (12).

3. Objectives

3.1. General objective

To assess the knowledge, Attitude and Practice on cervical cancer and screening among reproductive health service clients in the public health centers of Addis Ababa, 2015

3.2. Specific objectives

1. To determine knowledge of cervical cancer and screening among reproductive health service clients in the public health centers of Addis Ababa, 2015.
2. To determine attitude towards cervical cancer screening among reproductive health service clients in the public health centers of Addis Ababa, 2015.
3. To determine practice of cervical cancer screening among reproductive health service clients in the public health centers of Addis Ababa, 2015.
4. To assess factors associated to cervical cancer screening among reproductive health service clients in the public health centers of Addis Ababa, 2015.

4. Methods

4.1. Study design: A facility based cross sectional study was conducted using both quantitative and qualitative methods.

4.2. Study area and Period: The study was conducted in Addis Ababa city. Addis Ababa is a capital city of Ethiopia and a seat of African union. According to 2007 population census from the central statistical agency of Ethiopia, The total population of Addis Ababa was 2,738,248 of which 1,304,518 are males and 1,433,730 are females which makes a proportion of male and female 49% and 51% respectively while the projected estimation for the year 2014 is 3.55 million. Number 0f females in reproductive age group constitute 35.5% of total population. Addis Ababa consists 10 sub cities and totally it has 86 currently functional health centers. The study was conducted in 13 health centers. The public health centers generally give preventive and curative services to the people. The health service coverage in Addis Ababa with regard to geographical accessibility is almost 100%. Study was conducted from February to March 2015.

4.3. Population

4.3.1. Source population:

All 15-49 years old reproductive health service clients residing in Addis Ababa.

4.3.2. Study population:

All 15-49 years old reproductive health service clients' who were attending health centers of Addis Ababa.

4.4. Inclusion and exclusion criteria

Inclusion Criteria: Reproductive health service clients who attend ANC, Family Planning and Post natal care services were included to the study.

Exclusion criteria: women with known mental illness, women who are in labor and within two hours interval after delivery.

4.5. Sample size determination and sampling procedure

4.5.1. Sample size:

Sample size was calculated using a formula for single proportion with the assumption of knowledge about cervical cancer screening 19% (10), 95% confidence interval, the margin of error taken 0.05 rate=5% and 80% detection power. The sample size was 236, after adding 10% none respondent rate and multiplying with a design effect of 2 it became 520.

$n=z^2p\ (1-p)/d^2$

$= (1.96)^2(0.19x0.81)/(0.05)^2$

=236.3

= (236.3+10% non-response rate)*2

= (236.3+23.6)*2

=520

Where

n= number of the study subjects (sample size)

Z= is standardized normal distribution curve/value for the 95% confidence level (1.96)

p= 19% of population proportion with knowledge of cervical cancer screening (10)

d= the margin of error taken (0.05 taken) rate=5%

Based on this assumptions, the sample size become 236, but adding none response rate of 10% and design effect of 2 the final sample size become 520.

4.5.2. Sampling procedure

Multi-stage sampling technique was utilized. From the ten sub cities four sub cities were selected using simple random sampling, from the four selected sub cities totally 13 representing health centers were selected based on lottery method. Proportional allocation was assigned to the respective health centers based on their patient flow and finally, study subjects selected using systematic sampling technique by taking every other day as interval based on average daily flow from the respective health centers, and include every eligible clients coming to the facility in the selected days of the week till the required sample size was achieved.

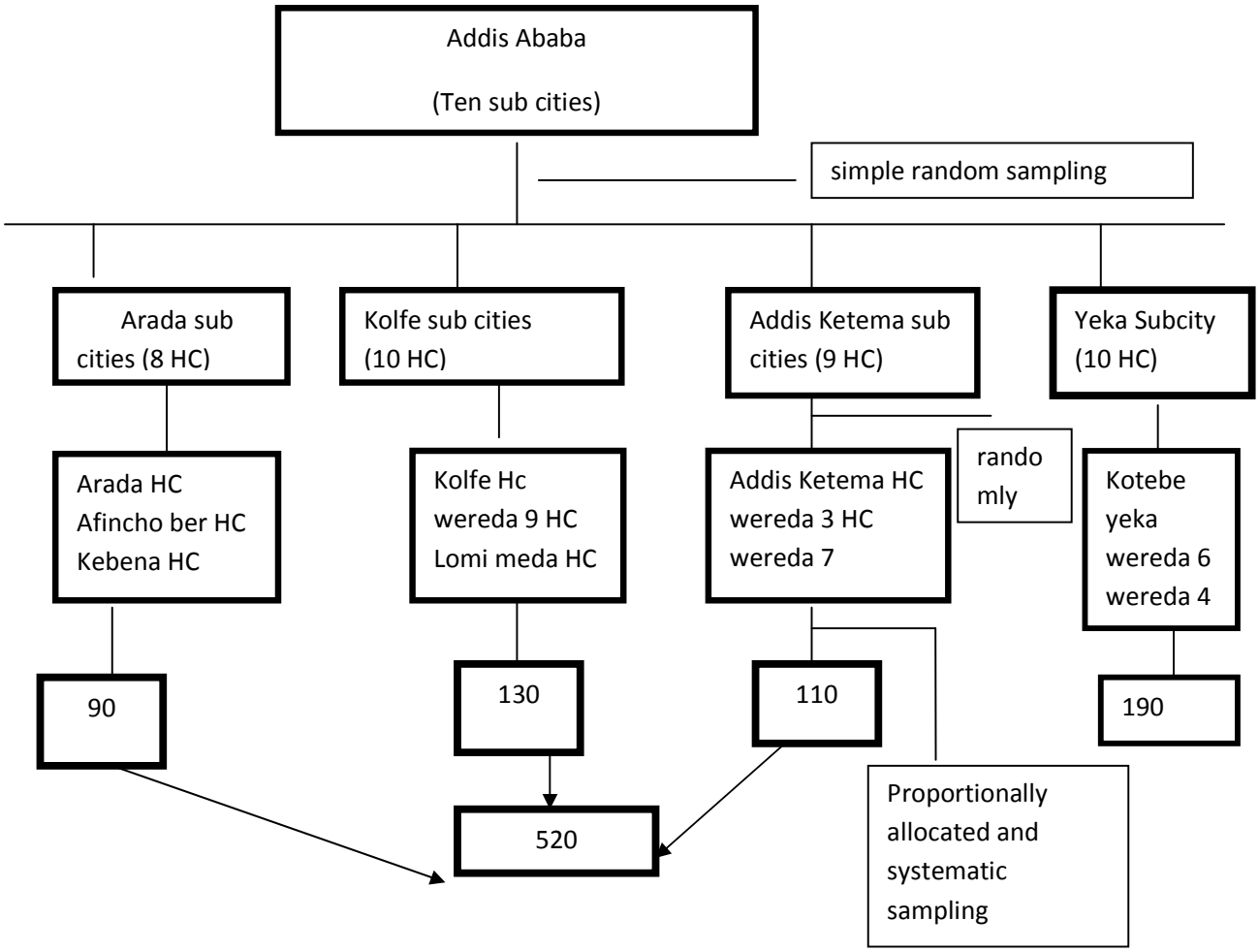


Figure 1. Schematic presentation of the sampling procedure used in the study Addis Ababa, Ethiopia, 2015

Qualitative Part

The total numbers of Focus group discussion were determined by the level of saturation. One focus group discussions was held from each selected sub city representing health centers. The participants were chosen from the selected health centers who were waiting for their turn to get reproductive health services using purposive sampling and a total of 8-10 participants were considered. The participants were told about the objective of the study and appointed for another day for actual focus group discussion.

4.6. Data collection procedures

Quantitative: Data was collected using a structured interview based questionnaire that is adopted from similar study in Tanzania (30) and modified by the investigator which had five parts (Annex III). The first part had socio demographic characteristics, the second part had risk exposure assessing questions, the third, fourth and the fifth part assessed the knowledge, attitude and practice on cervical cancer and screening. Data was collected by 13 trained nurses that deliver reproductive health service at the time of data collection. The data collectors and supervisors were trained before the actual data collection regarding the approach, objective of the study and Ethical issue. The questionnaire was prepared in English and translated to Amharic. To check for consistency of the meaning the Amharic was translated back to English language again.

Qualitative part:

Based on the purposive sampling method, sample sizes were determined on the basis of theoretical saturation—the point in data collection when new data no longer bring additional insights to the research questions. The discussion process continued until that point was obtained. And eventually that point reached after four focus group discussions The discussions carried out by principal investigator with the assistance of a note taker. A discussion/topic guide was developed by the principal investigator to conduct the focus group discussions. The interview was tape recorded, and translated and transcribed in the same day of the interview. Participants were encouraged to speak and express their ideas freely and describe their experience with cases related to the topic.

4.6.1. Study variable

Dependent variables

Knowledge of cervical cancer screening

Attitude of cervical cancer screening

Practice on cervical cancer screening services.

Independent variables

Socio demographic Characteristics	Reproductive History	Other factors
• Age • Sex • Educational status • Occupation • religion • Residence	• Parity • Age at start of sexual intercourse • Oral contraceptive use	• Knowing someone with cervical cancer • History of previous cervical cancer screening • Source of information about cervical cancer • Knowledge of cervical cancer

4.6.2. Operational definitions:

knowledgeable of cervical cancer: Those respondents who score above median score of 4for the cervical cancer knowledge assessing questions.

Not knowledgeable of cervical cancer: Those respondents who score below median score of 4 for the cervical cancer knowledge assessing questions.

Knowledgeable about cervical cancer screening: Those respondents who score above median score of 1for the cervical screening knowledge assessing questions.

Not Knowledgeable of cervical cancer screening: Those respondents who score below median score of 1for the cervical screening knowledge assessing questions.

Positive attitude: Those respondents who score above median score of 25 for the attitude assessing question.

Negative attitude: Those respondents who score below median score of 25 for the attitude assessing question

Practice: Those respondents who screen for cervical cancer at least once.

Good practice: Those respondents who screen for cervical cancer at more than once.

4.6.3. Data quality management: To ensure the quality of the data. The data collectors and supervisors were trained. The supervisor had routine checkups for completeness and consistency of the data. Both qualitative and quantitative data tools were pre tested before the actual data collection to check for the accuracy of responses, language clarity, and appropriateness of the tools. The study was pre tested by testing 10% of the total sample size which is 52. It was done before a week of the actual data collection period on the different public health facilities selected for the actual study. And the necessary changes was done based on the findings of the pre test.

4.6.4. Data Processing and Analysis:

Quantitative: The data collection instruments coded and checked before entry. The data was entered using Epi-info version 7.1 and after it cleaned it exported to SPSS Version 21 for further analysis. Descriptive statistics like; numerical summary measures, frequencies and graphs (diagrams), chi square test were used for describing the study population in relation to relevant variables. Median was used to classify the scores of knowledge and Attitude. Those who score of greater than or equal to the median knowledge and attitude of cervical cancer and screening assessing questions will be considered knowledgeable and positive attitude respectively. Binary logistic regression analysis with odds ratio along with their 95% confidence interval was used to assess the degree of association between dependent and independent variables and test significance of the association. And variables which had significant association with the outcome variable were entered into multivariate analysis to form the model. Multivariate analysis model using adjusted odd ratio (AOR) applied to identify the important determinant factors of practice of cervical cancer screening and used to control for possible confounding effects. Level of significance below 0.05 was considers to determine the association. Hosmer-lemeshow goodness of fit was used to check the goodness of the applied models.

Qualitative: The tape recorded data was transcribed to Amharic and translated to English. Open code software was used to code and categorize qualitative data, and then content analysis was employed to analyze the qualitative data. The exported raw data in open code was read thoroughly text by text and codes were labeled. After that codes were categorized into four different categories. Then every category has been explained below to conceptualize the interpretations of the whole data using the raw data. Finally a theme which fits all the categories was formulated.

4.6.5. Ethical consideration:

Ethical clearance was obtained from research Ethics committee of school of public health in Addis Ababa University. Following this Addis Ababa health office informed on study aim and objective and study permission was obtained. Then a written consent secured from the study subjects through informed consent. The participants assured that the information that they were giving used only for the purpose of the study and confidentiality will be kept.

The participants had long and short term benefits. The long term benefit would be, the result of the study will be useful to expand and implement screening programs which could be very beneficiary for the participants and also for the overall community. The short term benefit would be the study participants get an insight about cervical cancer and screening during the data collection period. There would be no serious harm to the participants. Though having conversation about cervical cancer might cause anxiety. But to handle such conditions the data collectors assured the participants well about the objective of the study.

4.7. Dissemination of results: After completion of research, the results of the study will be presented in Addis Ababa University School of Public Health as partial fulfillment of masters degree in public health. In addition to this, the final result document will be presented to Addis Ababa health office and other responsible bodies working in the area. Beside to this, the findings of the study will be published through peer reviewed journals as scientific outputs.

5. Result

5.1.1.Socio demographic characteristics of the study population

A total of 520 women participated in the study with response rate of 100%. The age distribution of the respondents shows that 187 (36%) were between 25-29 years of age. The mean age of participants was 27.7±5.49SD years, with minimum of 20 and maximum of 49 years.

Three hundred nine (59.4%) of the study subjects were orthodox Christian followers, 121 (23.3%) were Muslims. Of the study subjects 369 (71%) were married and 20 (23%) were single. Concerning their educational status 172 (33.1%) were with the highest educational level of primary schooling whereas 142 (27.3%) of them were at secondary schooling and 128 (24.6%) at college. Majority of participants 205 (39.4%) were house wives, 131 (25,5%) were private employees and 80 (15.4%) were government employees. More than half of study participants have household monthly income of below 1000 Ethiopian birr. Regarding parity 162(31.2%) were nullpara (Table 1)

Table 1 Percentage distribution of the study population by selected socio demographic characteristics, Addis Ababa, Ethiopia, 2015

Characteristics	Frequency	Percentage
n=	**520**	
Age		
20-24	157	30.2
25-29	189	36.3
30-34	104	20
35-39	53	10.2
40-44	11	2.1
45-49	6	1.2
Marital status		
Married	369	71.0
Single	120	23.1
Divorced	13	2.5
Separated	10	1.9
Widowed	8	1.5
Religion		
Orthodox	309	59.4
Muslim	121	23.3
Protestant	76	14.6
Catholic	14	2.7
Educational status		
No schooling	77	14.8
Primary schooling	172	33.1
Secondary schooling	142	27.3
College/university	128	24.6
Technical vocational	1	0.2
Occupational status		
Housewife	205	39.4
Private employee	131	25.2
Government employee	80	15.4
Daily laborer	29	5.6
Merchant	40	7.7
Student	35	6.7
Monthly income		
<1000	306	58.8
1000-2000	110	21.2
>2000	104	20.0
Parity		
0	162	31.2
1-4	344	66.2
4+	14	2.6

Risk exposure among the study subjects

Of all the participants 409 (78.7%) had used modern contraceptives. Of those who used modern contraceptives 199 (48.6%) used injectable and 110 (26.8%) used oral contraceptives. And from those who used Oral contraceptives 61 (55.5%) used for less than one year. Mean value of using OCP was 1.89±1.74 years and maximum of 8 years. Among the respondents who use modern contraceptive 63 (15.4%) of them currently use OCP. Over all participants, 6 (1.2%) smokes cigarette. Mean age of initiation of sexual intercourse was 19.2±3 with minimum of 13 and maximum of 30 years. And among the respondents 130 (25%) know someone diagnosed with cervical cancer (table 2)

Table 2. Description of Risk exposure among the study subjects, Addis Ababa, Ethiopia, 2015

Variables	**Frequency**	**percentage**
Modern contraceptive use		
Yes	409	78.7
No	111	21.3
Use of oral contraceptive		
Yes	110	26.8
No	299	73.2
Length of contraceptive use		
Less than one year	61	55.5
More than one year	45	44.5
Current OCP use		
Yes	63	15.4
No	346	84.5
Smoke		
Yes	6	1.2
No	514	98.8
Age at First sexual intercourse		
Below 16	87	16.8
16 and Above	433	83.2

5.1.2. Knowledge about cervical cancer

Among all the study subjects 478 (91.9%) had heard about cancer and 348 (66.9%) had heard of cervical cancer. The median knowledge score was 4. When they were asked about the source of information, Among those who heard of cervical cancer, media was the predominant source 211 (60.6%) followed by health professionals 97 (27.8%) and friends/relatives 91 (25%). One hundred thirty (25%) of the respondents also knew someone who had cervical cancer. Figure 2 below shows source of information of respondents regarding cervical cancer.

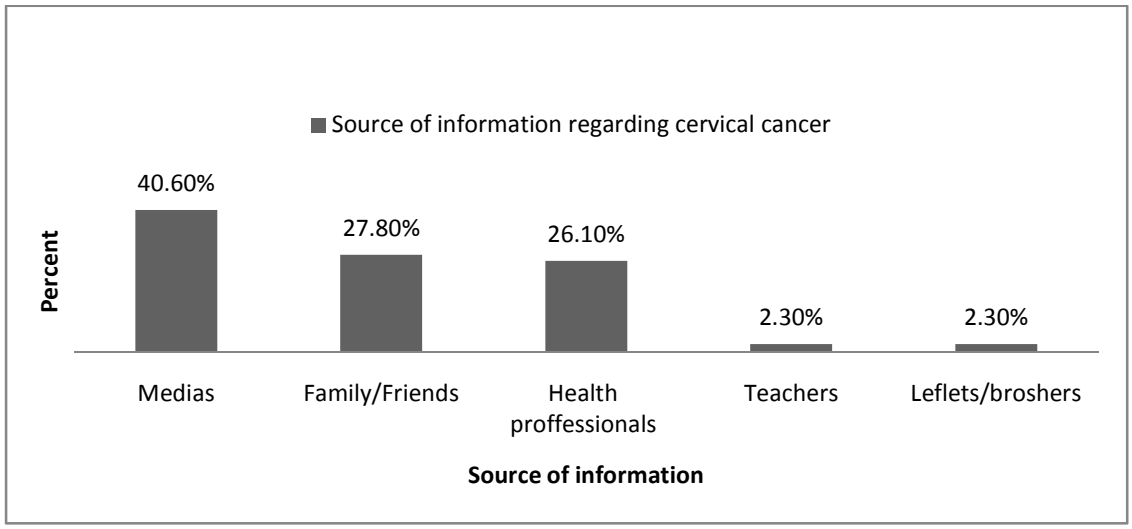


Figure 2 Source of information of respondents regarding cervical cancer, Addis Ababa, Ethiopia, 2015

1.2.1. Knowledge about risk factors, main symptoms, treatment options and prevention

From the series of questions regarding cause, risk factors, main symptoms, treatment options and prevention and early detection measures of cervical cancer, among those respondents who heard of cervical cancer, 79 (22.7%) respond that they know cause of cervical cancer, of those 26 (33.3%) mentioned HPV as a cause. Two hundred twenty five (64.6%) mentioned at least one risk factor for cervical cancer. And 123 (35.3%) did not know about the risk factors whereas 131(37.6%) mentioned that having multiple sexual partner and 29 (8.3%) mentioned HPV virus as risk factors. Two hundred twenty six (64.9%) mentioned at least one prevention method and 122 (35%) did not know about the prevention methods. And 123 (35.3%) know that avoid

having multiple sexual partners is preventive methods and 14 (4%) mention HPV vaccine as prevention method. Regarding treatment options, 122 (35.4%) did not know any type of treatment option (Table 3).

Table 3 Knowledge of women about main presenting symptoms, risk factors, Prevention measures and treatment options of cervical cancer among those who heard of cervical cancer, Addis Ababa, Ethiopia, 2015

variables	**Frequency**	**Percent**
n=	**348**	
Prevention methods		
HPV vaccine	14	4
Avoid having multiple sexual partners	123	35.3
Avoid multi-parity	33	9.5
Avoid sexual initiation at early age	69	19.8
Condom use	80	23
Prolonged use of OCP	22	6.3
Cervical screening	66	19
Keeping personal hygiene	53	15.2
Avoid smoking	61	17.5
Eating vegetable	23	6.6
Risk factors		
HPV	29	8.3
Multiple sexual partner	131	37.6
Multi-parity	23	6.6
Initiation f early sexual intercourse	58	16.7
Prolonged use of OCP	16	4.6
HIV infection	75	21.5
Personal hygiene	64	18.3
Cigarette smoking	63	18
Alcohol drinking	46	13.2
Do not know	123	35
Treatment options		
Traditional treatment	19	5.5
Specific drug treatment	134	38.5
Surgical treatment	72	20.7
Radiotherapy	97	27.9
Do not know	122	35
Symptoms		
Offensive vaginal discharge	119	34.2
Vaginal bleeding	139	40
Unknown	9	2.6

Over all knowledge of cervical cancer

Questions regarding knowledge of risk factors, symptoms, treatment options and prevention and early detection measures for cervical cancer were scored and pulled together and the median score was computed to determine the overall knowledge of respondents. Respondents scored above the median score knowledge considered as knowledgeable, in this case respondents who score above median value which was 4, was 228 (43.8%), the rest 251 (48.3%) were not knowledgeable.

5.1.3. Knowledge about cervical cancer screening

From all the respondents, 222 (42.7%) heard of cervical cancer screening and the rest 298 (57.3%) never heard of cervical screening. Among the 222 respondents who heard of cervical screening, 104 (46.8%) mention frequency for screening practice once every year, 32 (14.4%) once every five years, 17 (7.6%) once every three years. Regarding age of screening from those who heard of cervical cancer screening, 113 (50.9%) replied that a women age 25 and above should screen. Of all the respondents 36 (16.2%) mentioned as they know type of screening options and from these 35 (6.7%) mentioned pap smear test.

Table 4 Knowledge of women about Type of cervical cancer screening, Frequency of cervical cancer screening and age of undergoing screening among those who heard of cervical cancer screening, Addis Ababa, Ethiopia, 2015

Variables	Frequency	Percentage
Heard of cervical cancer screening		
Yes	222	42.6
No	298	57.3
Type of cervical cancer		
Yes	36	16.2
No	186	83.8
Frequency of cervical screening		
Once every year	104	46.8
Once every three years	17	7.6
Once every five years	32	14.4
Once every six months	21	9.4
Do not know	48	21.6
Age of screening		
Women who starts sexual intercourse	3	1.4
Women age 25 and above	113	51
Women age 30 and above	8	3.6
Women age 18 and above	18	8
Elderly women	49	22
Do not know	31	14

Questions regarding knowledge about age of screening, type of screening and frequency of screening were scored and pulled together and the median score was computed to determine the overall cervical screening knowledge of respondents. Median score of cervical screening knowledge was 1 with maximum value 5 and minimum value 0. Based on this overall 144 (27.7%) had knowledge on cervical cancer screening whereas the rest 376 (72.3%) had no knowledge. And from those 222 respondents who heard of cervical cancer screening, 144 (64.8%) were found to be knowledgeable of cervical cancer screening.

5.1.3.1. Knowledge of cervical cancer screening across different variables

Socio demographic status of the participants in relation to knowledge of cervical cancer screening shows that out of total 114 (27.7%) participants who were knowledgeable of cervical cancer screening, 46 (31.9%) were between 20-24 year age group 39 (27.8%) age 25-29 the rest 37 (25.7%), 18 (12.25%), 2 (1.3%), lie between the age group 30-34, 35-39, 40-44 and 45-49 respectively. Half of the respondents 74 (51.3%) were employees, 91 (63.2%) where married and 113 (78.4%) were at primary school level in their educational status. Occupation (p=0.00) and educational status (p=0.00) of the respondents showed relation with knowledge of cervical cancer screening. From the total 144 respondents who were knowledgeable of cervical cancer screening, 124 (81.6%) were knowledgeable about cervical cancer and the rest 20 (13%) were not knowledgeable of cervical cancer. And from those who were knowledgeable of screening most of the respondents 57 (58.8%)were mentioned health professionals as their source of information. And those who were knowledgeable of cervical cancer shows more relation with an increased knowledge of cervical cancer screening knowledge (p=0.00) (Figure 3).

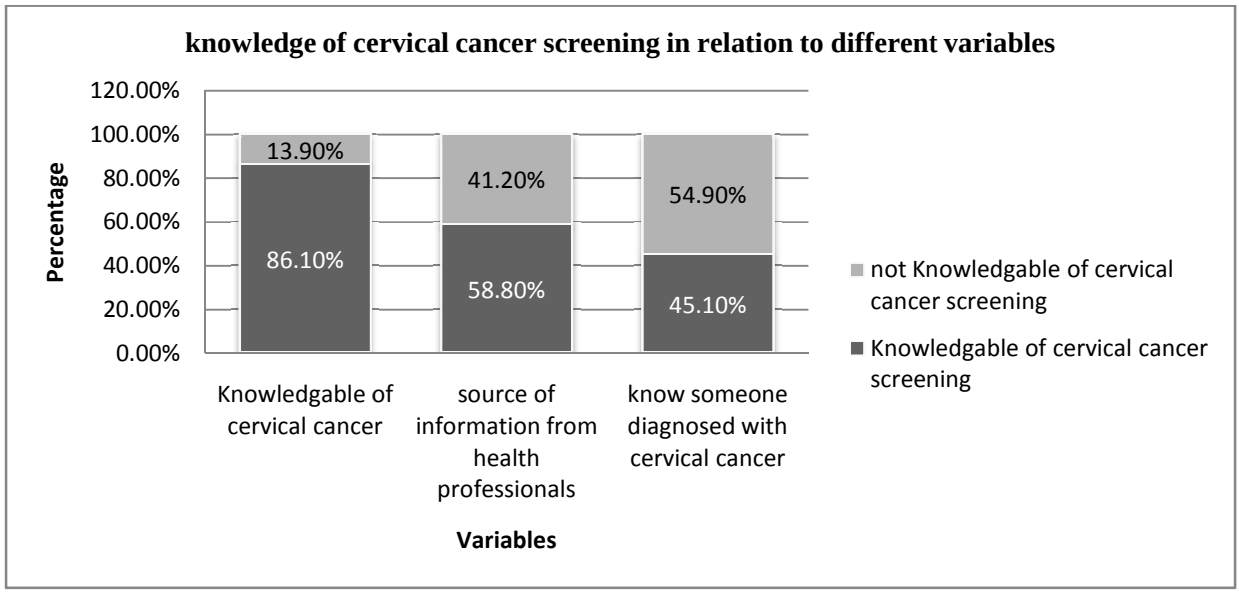


Figure 3, knowledge of cervical cancer screening in relation to cervical cancer knowledge, knowing someone with cervical cancer and source of information from health professionals, Addis Ababa, 2015

Table 5 knowledge of cervical cancer screening in relation to socio demographic status of respondents, Addis Ababa, 2015

Variables	Cervical cancer screening knowledge		P value
	Knowledgeable Frequency(%)	Not knowledgeable Frequency(%)	
Age			
20-24	46 (31.9)	60(29.4)	0.2
25-29	39 (27)	77(37.7)	
30-34	37(25.7)	34(16.6)	
35-39	18(12.5)	27(13.2)	
40-44	2(1.4)	2(0.9)	
45-49	2(1.4)	4(1.96)	
Marital status			
Married	91(63.2)	147(72)	0.15
Single	47(32.6)	37(18.1)	
Divorced	2(1.4)	9(4.4)	
Separated	2(1.4)	7(3.4)	
Widowed	2(1.4)	4(1.9)	
Occupational status			
Hose wife	38(26.3)	85(41.7)	0.00
Employed	82(56.9)	82(40.2)	
Daily laborer	0(0)	12(5.9)	
Merchant	12(8.3)	16(7.8)	
Student	20(13.9)	9(4.4)	
Educational status			0.00
No school	10(6.9)	32(15.7)	
Primary school	34(23.6)	79(38.7)	
Secondary school	36(25)	49(24)	
College/university	64(44.4)	44(21.6)	
Monthly income			0.02
<1000	63(43.7)	126(61.8)	
1000-2000	34(23.6)	39(19.1)	
>2000	47(32.7)	39(19.1	

5.1.4. Attitude towards cervical cancer and screening

There were seven questions that assess attitude of participants. And by computing the seven attitude questions median score value was obtained to classify respondents as positive and negative attitude. Based on this median score of attitude of respondents were 25 with maximum value of 35 and minimum 14. Based on this among those who heard of cervical cancer, 173 (49.7%) had positive attitude and 175 (50.3%) had negative attitude towards cervical cancer screening. From all the respondents 75 (21.5%) strongly agreed that cervical cancer is becoming prevalent disease and also 109 (31.3%) of them strongly agreed that anyone including themselves can have cervical cancer and majority 132 (37.9%) of participants strongly agreed that cervical cancer screening prevents cervical cancer, and 158 (45.4%) of women were willing to undergo cervical cancer screening. the summarized response of participants described by table 6 hear under.

Table 6 The summarized response of participants for attitude questions regarding cervical cancer and screening, Addis Ababa, 2015

No	Variable	Frequency	percent
	n=	348	
1	Carcinoma of the cervix is becoming highly prevalent in our country.		
	Strongly agree	75	21.5
	Agree	138	39.7
	Neither agree nor disagree	57	16.3
	Disagree	62	17.8
	Strongly disagree	16	4.6
2	Any adult woman including you can acquire cervical carcinoma		
	Strongly agree	109	31.3
	Agree	153	44
	Neither agree nor disagree	42	12
	Disagree	36	10.3
	Strongly disagree	8	2.3
3	Carcinoma of the cervix cannot be transmitted from one person to another		
	Strongly agree	47	13.5
	Agree	100	27.8

	Neither agree nor disagree	76	21.8
	Disagree	97	27.9
	Strongly disagree	28	8
4	Screening helps in prevention of carcinoma of the cervix		
	Strongly agree	132	38
	Agree	119	34.2
	Neither agree nor disagree	77	21.1
	Disagree	16	4.6
	Strongly disagree	4	1.2
5	Screening causes no harm to the client		
	Strongly agree	84	24.1
	Agree	111	31.9
	Neither agree nor disagree	100	28.7
	Disagree	44	12.6
	Strongly disagree	9	2.6
6	Screening for premalignant cervical lesions is not expensive		
	Strongly agree	47	13.5
	Agree	83	23.8
	Neither agree nor disagree	135	38.8
	Disagree	64	18.4
	Strongly disagree	19	5.5
7	If screening is free and causes no harm, will you screen		
	Strongly agree	158	45.4
	Agree	105	30.2
	Neither agree nor disagree	71	20.4
	Disagree	13	3.7
	Strongly disagree	1	0.3

5.1.4.1. Attitude of cervical cancer screening across different variables

From the total of 173 respondents who have positive attitude towards cervical cancer screening, 46 (26.5%) lay between the age group of 20-24, 53 (30.6%), 25-29, 42 (24.2%) 30-34. And age pattern in relation to attitude shows that, generally as age group increases the attitude is declining with p value of 0.07 (figure 4). Most of them 120 (69.3%) were married and more than half 98 (56.6%) were employed and 68 (39.3%) were attended college/university level. More than half of them with positive attitude were monthly income above 2000 Eth birr. And as monthly income increases the more positive the respondents were with p valve of 0.01. Among

the respondents that have positive attitude towards the cervical cancer screening, most of the respondents score above the median knowledge score of knowledge for cervical cancer.

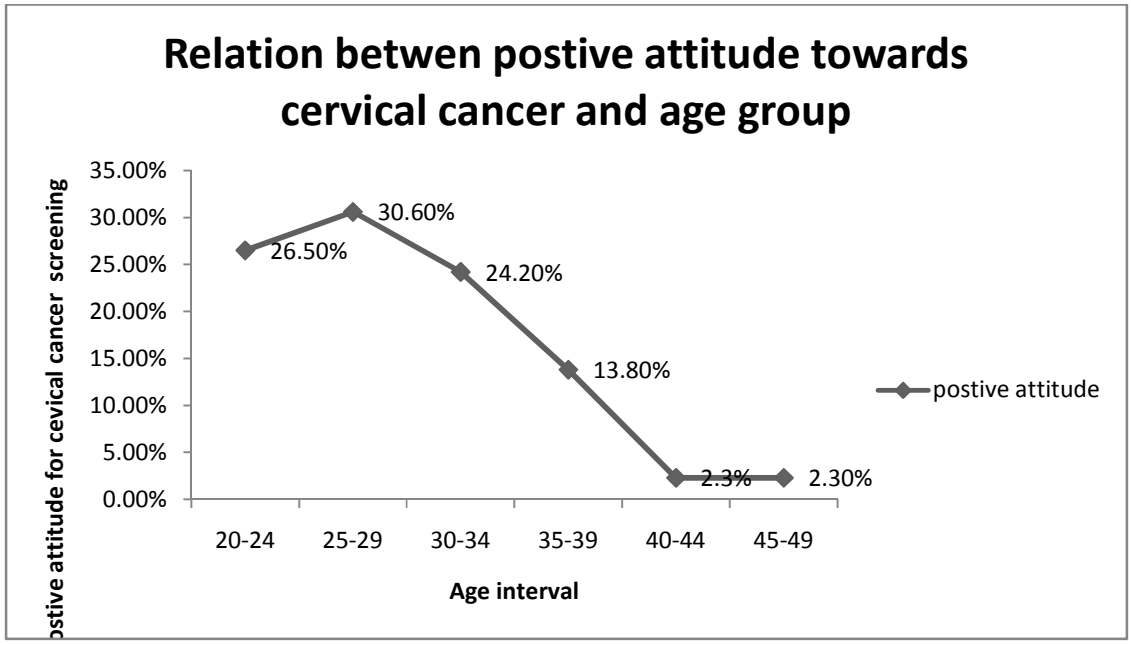


Figure 4, Relation between positive attitude towards cervical cancer and age group, Addis Ababa Ethiopia, 2015.

5.1.5. Practice of cervical cancer screening

Among all the respondents of the study only 18 (3.5%) had cervical cancer screening. But among respondents who heard of cervical cancer screening (222) only 8% were screened. Of those who screened for cervical cancer 12 (66.6%) screened in hospitals and the rest 6 (33.3%) screened at family guidance associations clinics. Two third (66.7%) of them were screened by initiation of health professionals and the rest 6 (33.3%) were self-initiated. All of them had only one time exposure for screening. Respondents who have no screening practice where asked for their reasons for not to screen and among those who heard of screening 126 (57%) mentioned absence of sign and symptoms, 125 (56.3%) do not know screening, 94 (42.2%) no screening service around as reason for not practicing (Figure 6).

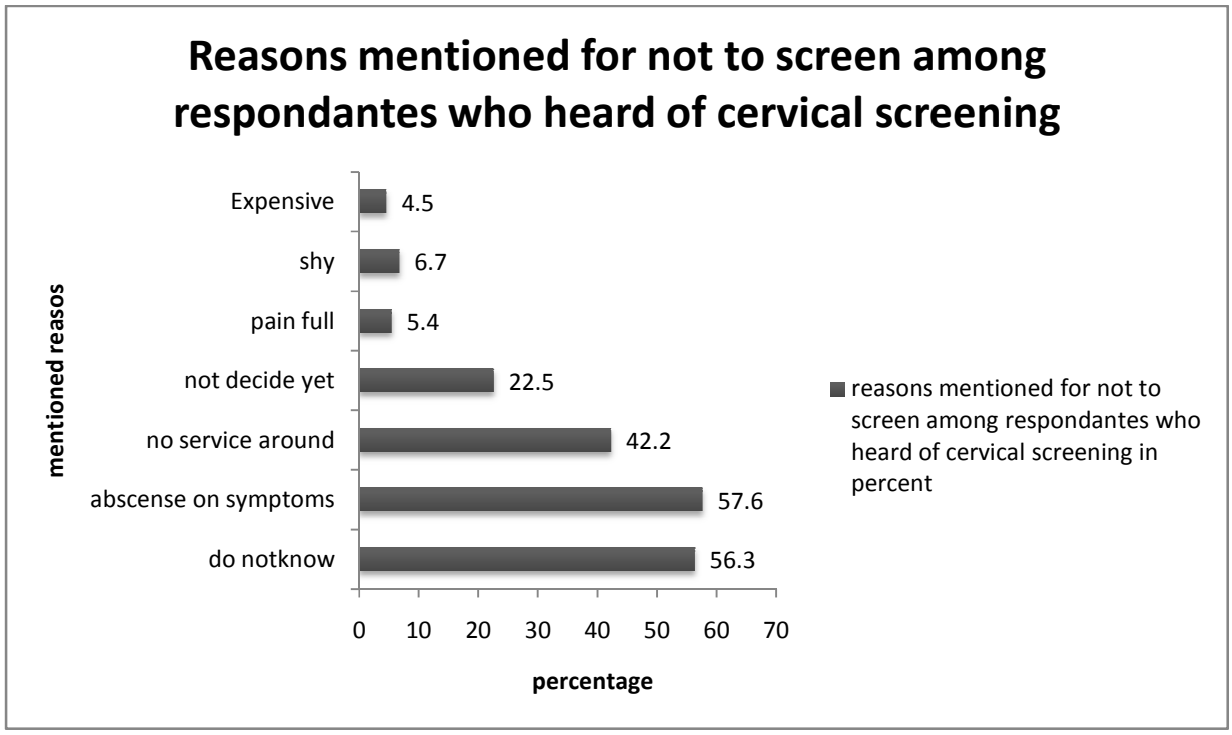


Figure 5 Reasons mentioned for not to screen among respondents who heard of cervical screening, Addis Ababa, 2015.

5.1.5.1. Practice of cervical cancer screening across different variables

Among the total 18 women who undergo cervical cancer screening, almost all (17) are knowledgeable about cervical cancer, 13 know someone with cervical cancer,16 married and the rest were singles, 11 were employees and 5 house wives, 8 were attend college/university and all of them mentioned that cervical cancer can be treated if diagnosed at the earliest stage. Majority of them were between age group of 25-44. Age distribution regarding the practice of cervical screening shows, as Age increases screening practice increases then when it reach to the middle age group then it starts to decline again. The age groups in the middle were practice screening than those respected extreme values. Age had relation with practice for cervical cancer (P value of 0.02 with χ^2 13.5) (Figure 6).

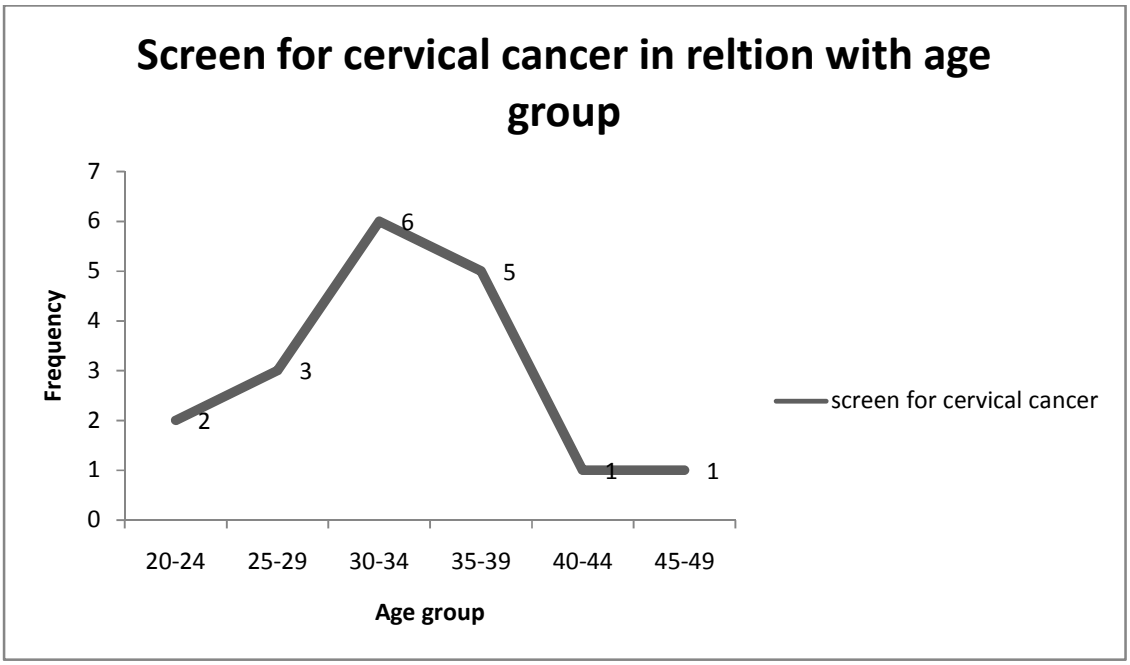


Figure 6, Practice of cervical cancer screening in relation to respondents age , Addis Ababa, 2015

5.1.6. Factors associated with cervical cancer screening knowledge

According to the bivariate analysis the socio-demographic variables i.e. education, marital status and monthly income were significantly associated with knowledge of cervical cancer screening. And having knowledge about cervical cancer, knowing someone diagnosed with cervical cancer and those women, that the source of information about cervical cancer were health professionals found to be associated with cervical cancer screening knowledge relative to their respective reference group.

In multivariate analysis being single, having knowledge about cervical cancer and women who mention source health professionals as source of information were found to be significantly associated with knowledge of cervical cancer screening.

Women who were knowledgeable of cervical cancer were five times more likely to have knowledge of cervical cancer screening than those who were not knowledgeable(AOR=5, 95% CI (2.7-9)). And those women who were single were two times more likely to have knowledge of cervical cancer screening than those who were married (AOR= 1.8, 95% CI (1-3.2)) And having source of information from health professionals were two times more likely to be knowledgeable of cervical cancer screening than those women who don't mention health professionals as source of their information (AOR= 1.8, 95% CI (1-3.2))

Table 7, The Association between knowledge of cervical cancer screening with different characteristics of women, Addis Ababa, 2015

Variables	**Knowledge of cervical cancer screening**		**COR, 95% CI**	**AOR , 95% CI**
	Knowledgeable (%)	Not knowledgeable (%)		
Educational status				
No schooling	10 (23.8)	32 (76.2)	1	1
Primary schooling	34 (30.1)	79 (69.9)	1.4(0.7-3.1)	0.9 (0.4-2.1)
Secondary schooling	36 (42.4)	49 (57.6)	2.3(1-5.4)	1.8(0.7-4.4)
College/university	64 (59.3)	44 (40.7)	4.6(2.1-10.4)	1.8(0.7-4.6)
Knowledge of cervical cancer				
Knowledgeable	124 (54.4)	104 (45.6)	5.9(3.4-10.3)**	**5.018(2.7-9.1)****
Not Knowledgeable	20 (16.7)	100 (83.3)	1	1
Know someone diagnosed with cervical cancer				
Yes	65 (54.2)	55 (45.8)	2.3(1.4-3.5)**	1.2(0.7-2.1)
No	79 (34.6)	149 (65.4)	1	1
Source of information from health professionals				
Yes	57 (58.8)	40 (41.2)	2.7(1.6-4.3)**	**1.9(1.1-3.2)***
No	87 (34.7)	164 (65.3)	1	1
Marital status				
Married	91(38.2)	147 (61.8)	1	1
Single	47 (56)	37 (44)	2(1.2-3.4) **	**1.8(1.1-3.3)***
Separated	2 (18.2)	9 (81.8)	0.4(0.1-1.7)	0.4(0.1-2.2)
Divorced	2 (22.2)	7 (77.8)	0.5(0.1-2.3)	0.3(0.1-1.9)
Widowed	2 (33.3)	4 (66.7)	0.8(0.1-4.5)	0.9(0.1-6.1)
Monthly income				
<1000	63 (33.3)	126 (66.7)	1	1
1000-2000	34 (46.6)	39 (53.4)	1.7(1-3)*	1.4(0.7-2.8)
>2000	47 (54.7)	39 (45.3)	2.4(1.4-4)**	1.4(0.8-2.6)

NB * p-value < .05 and ** p-value < .001

COR= crude odds ratio, AOR=adjusted odds ratio

5.1.7. Factors associated with attitude towards cervical cancer screening

According to the bivariate analysis the socio-demographic variables i.e. education, occupational status and monthly income of participants were significantly associated with Attitude on cervical cancer screening. And having knowledge about cervical cancer, knowing someone diagnosed with cervical cancer, and that the source of information from health professionals found to be associated with cervical cancer screening attitude relative to their respective reference group.

In multivariate analysis those respondents who know someone with cervical cancer, and those who were knowledgeable of cervical cancer were found to be statistically associated with attitude towards cervical cancer screening.

Those women who happened to know someone diagnosed with cervical cancer were two times more likely to have positive attitude towards cervical cancer screening (AOR= 2.1, 95 CI (1.2-3.4)).And women who were knowledgeable of cervical cancer were three times more likely to have positive attitude than those who are not knowledgeable with (AOR=3, 95%CI (1.8-5.3)).

Table 8 Factors associated with attitude on cervical cancer screening, Addis Ababa, Ethiopia May, 2015

Variables	Attitude for cervical cancer screening		Crude odd ratio 95% CI	Adjusted odds ratio 95% CI
	Positive Attitude(%)	Negative Attitude(%)		
Educational status				
No schooling	13 (31)	29 (69)	1	1
Primary school	48 (42.5)	65 (57.5)	1.6(0.8-3.5)	1.1(0.5-2.6)
Secondary school	44 (51.8)	41(48.2)	2.4(1.1-5.2) *	1.6(0.6-3.9)
College/university	68 (63)	40 (37)	3.8(1.7-8.1) **	1.7(0.6-4.8)
Knowledge of cervical cancer				
Knowledgeable	138 (60.5)	90 (39.5)	3.7(2.3-5.9) **	**3.1(1.8-5.3)****
Not Knowledgeable	35 (29.2)	85 (70.80	1	1
Know someone diagnosed with cervical cancer				
Yes	81(67.5)	39 (32.5)	3(1.9-4.5) **	**2(1.2-3.4)***
No	92 (40.4)	136 (59.6)	1	1
Source of information from health professionals				
Yes	63 (64.9)	34 (35.1)	2.4(1.4-3.8) **	1.5(0.8-2.5)
No	110 (43.8)	141 (56.2)	1	1
Occupational status				
House wife	53 (43.1)	70 (56.9)	1	
Private employee	50 (55.6)	40 (44.4)	1.6(0.9-2.8) *	1.2(0.6-2.3)
Government employee	48 (72.7)	18 (27.3)	3.5(1.8-6.7) **	1.7(0.7-3.9)
Daily laborer	0 (0)	12 (100)	0.000(0.000-.)	.000(000
Merchant	11(39.3)	17 (60.7)	0.8(0.4-1.9)	0.8(0.3-2.2)
Student	11(37.9)	18 (62.1)	0.8(0.3-1.8)	0.4(0.2-1.2)
Monthly income				
<1000	77 (40.7)	112(59.3)	1	1
1000-2000	46 (63)	27 (37)	2.4(1.4-4.3)*	1.3(0.7-2.5)
>2000	50 (58.1)	36 (41.9)	2(1.2-3.4)*	0.9(0.5-1.8)

NB * for p-value < .05 and ** for p-value < .001

COR= crude odds ratio, AOR=adjusted odds ratio

5.1.8. Factors associated with practice of cervical cancer screening

According to the bivariate analysis the socio-demographic variables i.e. age group was significantly associated with practice of cervical cancer screening. And having knowledge about cervical cancer, knowing someone diagnosed with cervical cancer, and the source of information from health professionals found to be associated with cervical cancer screening practice relative to their respective reference group.

In multivariate analysis knowing someone diagnosed with cervical cancer and source from health professionals were found to be statistically significant.

Women who know someone diagnosed with cervical cancer were three times more likely to practice cervical cancer screening than women who did not know (AOR= 3.764, 95% CI (1.072-10)). Women those who got the information from health professionals were three times more likely to practice screening than those who did not mention health professionals as source of information (AOR= 95% CI (1-10)) (table 9)

Table 9- The Association between practice of cervical cancer screening and different characteristics of women, Addis Ababa, 2015.

Variables	**Cervical cancer screening**		**COR 95% CI**	**AOR 95% CI**
	Screened	Not Screened		
Age group				
20-24	2 (1.9)	104 (98.1)	1	1
25-29	3 (2.6)	113 (97.4)	1.4(0.2-8.4)	1.4(0.2-9.1)
30-34	6 (8.5)	65 (91.5)	4.8(0.9-24.5)*	3.9(0.7-20.6)
35-39	5 (11.1)	40 (88.9)	6.5(1.2-34.8) *	4.8(0.8-27.5)
40-44	1(25)	3 (75)	17.3(1.2-247.9) *	15.2(0.7-315)
45-49	1 (16.7)	5 (83.3)	10.4(0.8-134.8)	15.2(0.8-285)
Knowledge on cervical cancer				
Knowledgeable	17 (7.5)	211 (92.5)	9.5(1.2-72.9) **	5.6(0.7-46.9)
Not Knowledgeable	1 (0.8)	119 (99.2)	1	1
Know someone diagnosed with cervical cancer				
Yes	13 (10.8)	107(89.2)	5.4(1.8-15.6) *	**3.3(1.2-10.1)***
No	5(2.2)	223 (97.8)	1	1
Source of information from health professionals				
Yes	12 912.4)	85 (87.6)	5.8(2.1-15.8) **	**3.5(1.2-10.2)***
no	6 (2.4)	245(97.6)	1	1

NB * p-value < 0.05 and ** p-value < 0.001

COR= crude odds ratio, AOR= adjusted odds ratio.

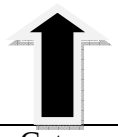
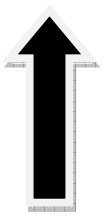
5.2. Result for qualitative study

Four FGDs conducted and each FGD comprise eight to eleven participants. Participants were purposely selected. A total of 37 female participants were included in the discussion. The age of the discussant ranged from 21 to 42 years. All the discussant engaged well with the topic and responded enthusiastically to the questions. The findings are presented in four thematic groups: awareness of cervical cancer (CC), awareness of cervical cancer screening, perceived barriers screening and recommendation. The table 10 below shows Characteristics of women discussants in focus group discussion and table 11 shows the codes, categories and theme developed during the qualitative data analysis.

Table10 Characteristics of women discussants in focus group discussion, Addis Ababa, 2015

characteristics	frequency	Percentage
N	37	100
Marital status		
married	30	81
Single	7	18.9
Occupation		
Housewife	26	70.2
Employee	7	18,9
Students	4	11.8
Educational status		
Primary school	20	54
Secondary school	12	32.4
Above secondary school	5	13.5
Reproductive health service provided		
ANC	14	37.8
PNC	7	18.9
Family planning	16	43

Table 11 The codes, categories and theme developed during the qualitative data, Addis Ababa, 2015

Themes 	Knowledge, attitude, perceived barriers of screening practices			
Category 	Awareness of cervical cancer	Awareness of cervical cancer screening	Perceived barriers for screening	Recommendation
Code 	Heard of cancer Heard of cervical cancer Symptom Cause Treatment options Severity Risk	Heard of cervical screening Eligible women Type Perception Use Initiation willingness	Individual factors Community factors Professional related factors facility related factors Government related factors Knowledge related factors	Individual level Community level Health facility level Government level

5.2.1. Awareness about cervical cancer

Respondents were discussed about cancer of the uterus and cervical cancer. Most of them were familiar with the word uterine cancer and some of them were confused when they heard about cervical cancer. Most of the participants say that cervical cancer is a deadly disease that cannot be cured. They get the information from Medias and from neighbors and relatives. Even though most respondents heard about the disease, they have no detail knowledge. A 32 years old pregnant women states that

"I heard from the media and people talk about it. But I don't have enough knowledge about prevention and other things in detail".

Discussants also try to explain the difference between cervical cancer and cancer of the uterus. They said that cervical cancer is type of cancer that specifically occurs at the tip of the uterus. Others mentioned that both cervical cancer and uterine cancer are the same and people use the name interchangeably. The uterus was understood to be a single organ with no partition made between cancer of the uterus and cancer of the cervix. A 27 years old house wife states that

"I heard that there will be little growth at the gate of the uterus if that little growth bursts there will be cancer of the uterus"

When cause, symptoms, risk factors and prevention methods discussed, most of the discussant state bleeding from the uterus and foul smell of vaginal discharge as major symptom but some discussants do not agree that it has its own specific symptom rather it is similar to other sexually transmitted diseases. Some of them also mentioned that most women they know who got cervical cancer were told that they have the disease when they seek treatment for another disease. A 30 years old employee women states that

"*I know someone in my village who told that she had cervical cancer, and at first she was complaining of a back pain and after wards the doctors told her to check her uterus and then they told her that she can have cancer of the uterus. So i think it has different symptoms…. cervical cancer do not have specific symptom.*"

In relation with the symptom other discussant mentioned that cervical cancer have similar symptom as other sexually transmitted diseases but it can be differentiated from other sexually transmitted disease by getting checked for cervical cancer and mentioned cervical cancer screening.

Regarding risk factors and causes of cervical cancer majority of the respondents mention having multiple sexual partners as risk factor and very few two participants state that HPV is a risk and that they heard it from the television but they don't know what it really is. Some of discussants mentioned women urinate at open space during hot or sunny area and when they sit on stone that was exposed to sun is at risk of cervical cancer. Others say that having family history of any type of cancer, uterine infection and uterine tumor as risk factor in fact most of the participants think that if women got uterine tumor will going to have uterine cancer. Almost all of the participant’s

state keeping personal hygiene can help to prevent cervical cancer and any disease related with uterus.

Treatment options were discussed thoroughly and participants think that cervical cancer can be treated if it detected early. And some of them argued that there might be temporarily solution but there will be no permanent treatment for the disease. Those who say it can be treated mention surgical removal of the uterus as main treatment option. Generally participants think it can be treatable if it detected early, but during further discussion about when is the time that we say "early", most of the participants states that before it become "cancer". They describe that once women told that she has cancer there would be no treatment. 26 and 23 years old pregnant women mentioned

"*Medias and health workers say that cancer can be cured and I also heard that but I have never seen a women with cancer get cured."*

"If it did not change to cancer there might be treatment but if it changes to cancer there is no cure I have never heard cancer get cured. It can't be cured i never heard a person cured of cancer"

5.2.2. Awareness on cervical cancer screening

Some of the participants heard of cervical cancer screening and others heard of it but they did not think it really exists specially in Ethiopia. There were different misconceptions regarding cervical cancer screening. Some of the women thought that cervical cancer screening is kind of screening that one undergoes if a woman face difficulty of bearing a child and others think it is screening procedure that give to the mothers during ANC follow ups. And they think they also get cervical screening at the same time. Regarding this a 24 and 35 years old postpartum mothers stated,

"Yes, there are many types of screening services it might be there but i don't think it exists here in Ethiopia"

"It is screening of cervix for cancer if couples get married and difficult to bear children and when there is symptom appear"

"I heard about it but I don't have deep information but I think it is kind of screening during pregnancy. And it is procedure done during pregnancy follow up and i have screened too."

But when the procedure of screening was raised as discussion point and discussed, only few participants had relatively correct understanding of cervical cancer screening. They mentioned that cervical cancer screening is done for women who starts sexual intercourse and it is done at the hospital level and regarding the procedures most of them has no awareness but some of them think procedure is done by taking fluid from the uterus and there is special device for the screening some of them also say blood test and vaginal fluid examination. After procedures of screening discussed most of respondents agreed that they only heard of the name cervical cancer screening and have no detail knowledge of it. Regarding use of screening most almost all respondents thinks that it is useful. And they were relating cervical cancer screening use with pregnancy and with child health. 32 year old pregnant mother states,

“It helps if a women plan to have a baby she should know her health status for the health of both mother and her baby

It is useful, to avoid complication during birth, help us to know what we should not done"

A 27 year old mother who came for family planning also adds,

"It is useful, can prevent late detection, and helps to detect the disease early and if it detected early it is curable. if it did not detected early germs will spread fast. After the disease spread it cannot be cured"

“it is useful, because if someone knows his status i is easy to plan for the future and helps to protect yourself by avoiding things that contribute to the initiation or occurrence of the disease"

Participants were willing to undergo screening if it will be available at the nearest place with reasonable price.

5.2.3. Perceived barriers for screening

The discussant have mentioned about barriers they faced not to undergo screening and barriers for not to screen were divided in to four based on idea of concentration in to knowledge related barriers, government related barriers, health facility and health professionals barriers and individual barriers. The discussant mentioned that knowledge barriers as main obstacle. They mentioned that they lack adequate information regarding cervical cancer itself, about the existence of cervical screening, who were eligible for screening, where should they screen and when they screen. And they agreed that if they know detail information about those issues they will be screened for it. Some discussants were even getting angry when the issue was raised. They said that raising this issued is not even appropriate because they do not even know where it is given and they also mentioned the way the media is telling just a highlight and they do not have detail information. A 26 years old pregnant mother states,

> *"there is lake of awareness about the service for example i want to check for uterine cancer because i had repeated uterine related symptoms but i do not know where to go whom to ask and how much it costs. So I go to the nearby health center and they gave me some pills and they do not even offer me the test and then I thought it might not be there in Ethiopia. But i still heard about it in Medias but i do not have any information and i am sure there are many women that have similar situation like me."*

Another mentioned barrier for cervical cancer screening was individual factors. Majority of discussants mentioned absence of symptoms as barrier for screening. They explained as they gave priority to diseases that shows symptoms. A 31 years old postpartum women states that,

> *"let alone something that do not have symptom, for other diseases that reveal symptoms, first I try to get better by taking different medicines traditional or modern and if the symptom persists, that is the time when I seek health professionals help because most symptoms disappear by traditional home treatments."*

Discussant also mentioned on other barrier which is related to health system. Majority of women says that the service is not available at the nearest health center and it is not even available at all hospitals. Only selected hospitals give the service to the clients so availability issue made it difficult for women to practice screening. They add that health professionals did not offer the

screening service and they don't even initiate women to undergo screening. If something is offered or initiated by health professionals they will consider undergoing because they believe that health professionals know better. Related to this a 29 years old came for family planning service said,

> *"Most screening services are undergone by the initiation of health professionals, and health professionals didn't initiate cervical cancer screening at all."*

Availability, accessibility and affordability with reasonable price were some of the barriers from the health system side influencing the screening practice according to the discussant.

Recommendation from participants

Participants recommend that they need to have detail information regarding cervical cancer screening and the disease itself and to have the service available at the nearest place and more counseling and discussion with health professionals regarding the issue. One participant mention the scenario of HIV/AIDS prevention as an example, A 30 year old pregnant mother said,

> *"There is no awareness about the disease for example different educations and awareness creation services are given regarding HIV even in the bars/restaurants and other places but no one talk about cervical cancer for the last decades. i think house to house education is necessary for women age 18 and above. If we see the scenario of HIV, back in the days many people know themselves that they had HIV when they have another disease and when they seek treatment for that disease. But due to increased awareness creation, currently people voluntarily screen for HIV without presentation of any symptoms. so if awareness creation is done there will be no chance that no one can't screen for cervical cancer. It is also important to make the service available and accessible at reasonable price."*

6. Discussion

This study tries to assess knowledge attitude and practice on cervical cancer and screening with their associated factors. Knowledge of cervical cancer was assessed by combining responses regarding risk factor, cause, preventive measures and treatment option assessing questions. Based on this, generally knowledge of respondents about cervical cancer found to be 43%. This finding is consistent with the study done in Congo which was 43% and slightly higher than the similar study in Gonder (35, 13). This can be explained due to the fact that the Gonder study was a community based study and this study was facility based, the respondents in this study might have relatively higher contact with health professionals that could increase their knowledge about the disease. According to this study more than half of the respondents 66.7% heard about cervical cancer. This finding was higher when compared to similar study in South Africa which was 33% and consistent with the study in Gonder Ethiopia 78% (26, 13). The higher finding compared with the South African study might be due to the difference in time period, which was conducted in 2008 and the growing awareness currently might create such difference. Howe ever, the focus group discussants answered that more women have a chance to hear cervical cancer but there was a chance of using the word cervical cancer and uterine cancer interchangeably, by considering both as similar disease with two different names. Majority of respondents in this study mention Medias as their source of information regarding cervical cancer, Followed by health professionals and family and friends. This finding is consistent with other studies in Gonder Ethiopia, South Africa and Nigeria (13, 26, 32).

Regarding risk factor for cervical cancer over all 25% respondents mentioned having multiple sexual partner as risk factor and this result was consistent with the study findings in Tanzania which was 23% and higher from study done in Gondar Ethiopia which was 7.6% (30,13). This difference can be explained due to the fact that this study is facility based and study in Gondar was community based and health seeking behavior of respondents who visit health facility is expected to be higher, that increase their contact to health professionals and which could have impact on their knowledge of cervical cancer related issues. Focus group discussant also supports this finding. Participants discussed that having multiple sexual partner is major risk factor for cervical cancer. But most participants did not know the logical reason behind having multiple sexual partners, that HPV is risk factor and cause of cervical cancer. According to this study only

8.3% of the respondents mention HPV as risk factor for cervical cancer. Which is lower when it compared to study in South Africa which was 32% this gap can be explained by the fact that South Africa has national policy on cervical cancer prevention (26).

Among all the respondents more than half of the participants 56.6% did not know the treatment options and 3.7% believe traditional treatment as an option. And the rest mentioned surgical treatment, radiotherapy and specific drug treatments related with the disease. This finding was higher than the findings in Tanzania that only 12% of participants do not know about the treatment options (30). This could be due to the fact that there was a belief in Ethiopia that cervical cancer cannot be treated. The idea of the Discussants of the focus group discussion in this study also support this explanation, that some participants think that these mentioned treatments are only temporary and that there will be no permanent cure for cancer and death is certain once the disease occurs. This finding was also consistent with another qualitative study done in Jimma and Addis Ababa, that participants believed that modern medicine cannot cure CC (28).

Overall knowledge of cervical cancer screening in this study was 27%. This finding was a little bit higher when it compared to Addis Ababa study which was done at hospital level that was over all 13.6% (10). This gap can be explained due to the time and setting difference among the studies. Although the former result of screening knowledge was lower from the present study, the little difference between these results showed, much has not been done regarding knowledge of cervical cancer screening among reproductive health clients in Addis Ababa for the past nine years.

Those who heard of cervical cancer screening were 47.7% which was higher from study done in South Africa which was 33% (26). This difference might be due to the difference from the study settings. This study was facility based study, in which participants in the study might have relatively higher health seeking behavior and will have contact with health professionals that might expose them for different information regarding cervical screening. In this study only 12.7% of participants knew that cervical cancer screening prevent cervical cancer, but in the southern African study almost all that heard of screening know that cervical cancer screening

prevent cervical cancer. This showed the knowledge of participants of this study regarding cervical cancer screening was low and the fact that South Africa has a cervical cancer prevention policy have an effect on the knowledge of South African participants.

Regarding factors Associated with knowledge of cervical cancer screening, According to the present study women who were single have greater knowledge of cervical cancer screening than those who were married and this is statistically significant predictor for knowledge of cervical cancer screening. The finding was consistent with Malaysian study in which being single were associated with having greater knowledge of cervical cancer screening than those who were married (36). And who were knowledgeable of cervical cancer and those women who mentioned health professionals as their source of information were another statistically significant predictor for knowledge of cervical cancer screening and those women found to have more knowledge about cervical cancer screening than those who were not knowledgeable and with other source of information. This could be explained due to the fact that information gained from health professionals could be comprehensive and detail than other sources of information.

Fifty percent of participants had positive attitude towards cervical cancer screening. This finding was consistent with study in Tanzania that 56% of all participants had positive attitude towards cervical screening (30). And in the present study 75.6% of participants agreed to screen for cervical cancer. Focus group discussants saying also supported this, almost all of participants wanted to screen if they had been provided with adequate knowledge. This finding was consistent with different studies including study done in Addis Ababa that, almost all respondents were willing to undergo the screening test in the future when information was provided on the importance of the test (10).Similarly study in rural India also 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 72% of participants agreed that cervical cancer screening prevents cervical cancer this finding was consistent with the finding in the Tanzania in which 79.2% of participants agreed that cervical cancer screening prevent cervical cancer(30).Regarding factors associated with attitude towards cervical cancer screening, Knowledge of cervical cancer was statistically associated with positive attitude. Women who were knowledgeable of cervical cancer were found to have positive attitude than those who were not knowledgeable. This finding

was also consistent with the Tanzanian study in which level of knowledge of cervical carcinoma was associated with attitude on screening. Those with good knowledge were more positive with p-value of 0.001 (30). Those women who happened to know someone diagnosed with cervical cancer were more likely to have positive attitude towards cervical cancer screening. This could be due to the reason that those women with cervical cancer can have chance of getting information regarding the use of early detection, and those participants who happened to know women with cervical cancer might have an opportunity to get information regarding cervical cancer and the use of early detection that can increase their knowledge regarding cervical cancer, which is associated with positive attitude.

In this study only 3.5% of the respondents had undergone screening. This was also a problem of many African countries. In a study done in Kenya, 22% of respondents were screened (31). Another study done in Tanzania showed that 14% of the respondents had undergone screening (30). And on similar study done in Addis Ababa Ethiopia practice of cervical screening was 6.8%. Although all screening practices among all countries were low, the finding of this study tends to be lower (10).

Common reason mentioned for not to screen was absences of symptoms and lack of knowledge. Similarly studies from Addis Ababa reported that reasons not to undergo screening practice were absence of gynecologic symptoms (41.2%) and unable to know place where it is done (32.4%). And on another similar study in Nigeria, respondents identified fear of outcome of screening, lack of information and public awareness, lack of health worker request, high cost of screening and lack of personnel at the screening centers as the reasons why people did not practice cervical screening (32). This also supported by qualitative finding from the focus group discussion since most discussant said that most women did not screen because of absence of symptom and lack of information. They stated that they give priority to diseases that shows symptoms. One of focus group discussant idea supports this.

> *"let alone something that do not have symptom, for other diseases that reveal symptoms, first I try to get better by taking different medicines traditional or modern and if the symptom persists, that is the time when I seek health professionals help because most symptoms disappear by traditional home treatments."*

In addition focus group discussant also mentioned other barriers related with health professionals and health facilities and majority of discussant said that the service was not available at the nearest health center and even it was not available at hospitals. Only selected hospitals give the service so availability issue made it difficult to practice screening.

In this study women who have got the information about cervical cancer from health professionals screen for cervical cancer than those who did not mention health professionals as source of information. And knowing someone with cervical cancer were statistically associated with screening practice in which Women who knew someone diagnosed with cervical cancer were more likely to practice cervical cancer screening than women who did not know anyone diagnosed with cervical cancer This finding was consistent with study finding in Gondar that women knowing someone with cervical cancer were more likely to practice cervical cancer screening.

7. Strength and limitation of the study

7.1. Strength of the study

- The study Used both quantitative and qualitative method
- It Included more primary health care facilities

7.2. Limitation of the study

- Due to the fact that the study was cross sectional study describing cause and effect relationship of the exposure and outcome variables is difficult.

8. Conclusion

More than half of reproductive health service clients in the primary health care setup of Addis Ababa were not knowledgeable about cervical cancer and screening. Women's knowledge regarding risk factors, cause and prevention methods were still very low. More than half of Women have positive attitude towards cervical screening whereas the practice of cervical cancer screening was generally very low however; their willingness to practice cervical cancer screening was high.

Lack of knowledge, accessibility of services with affordable price and absence of gynecological signs were among common perceived barriers for not to undergo cervical cancer screening practices.

Knowledge of cervical cancer and source of information about cervical cancer from health professionals were associated with greater knowledge of cervical cancer screening. Knowing someone diagnosed with cervical cancer and knowledge of cervical cancer were significant determinants of positive attitude towards cervical cancer screening. Knowing someone with cervical cancer and source of information from health professionals were significant factors associated with screening practice.

9. Recommendations

With respect to the findings and objectives of the study, some recommendations have been made at different levels.

At federal and regional health offices level

- There is a need to design policy and guide lines which is applied at primary health care level on the prevention and control of cancer among women's particularly cervical cancer.
- Design Health education and awareness creation regarding cervical cancer at primary health care.

Health Facilities and health professionals

- Health education and awareness creation regarding cervical cancer should be implemented at the health facility especially at primary health care units.
- Health professionals should be able to offer screening cervices and should counsel all patients who came with symptom of sexually transmitted diseases about cervical cancer screening
- Educating women with cervical cancer and care givers about the disease should be considered since; they are part of the community they can serve as source of information when they go to the community.

Researchers

- More studies should be done regarding cervical cancer screening and other facility related factors.
- National level studies in the wider population regarding knowledge Attitude and Practice on cervical cancer screening should be considered
- Studies should also be done related with readiness of health facilities

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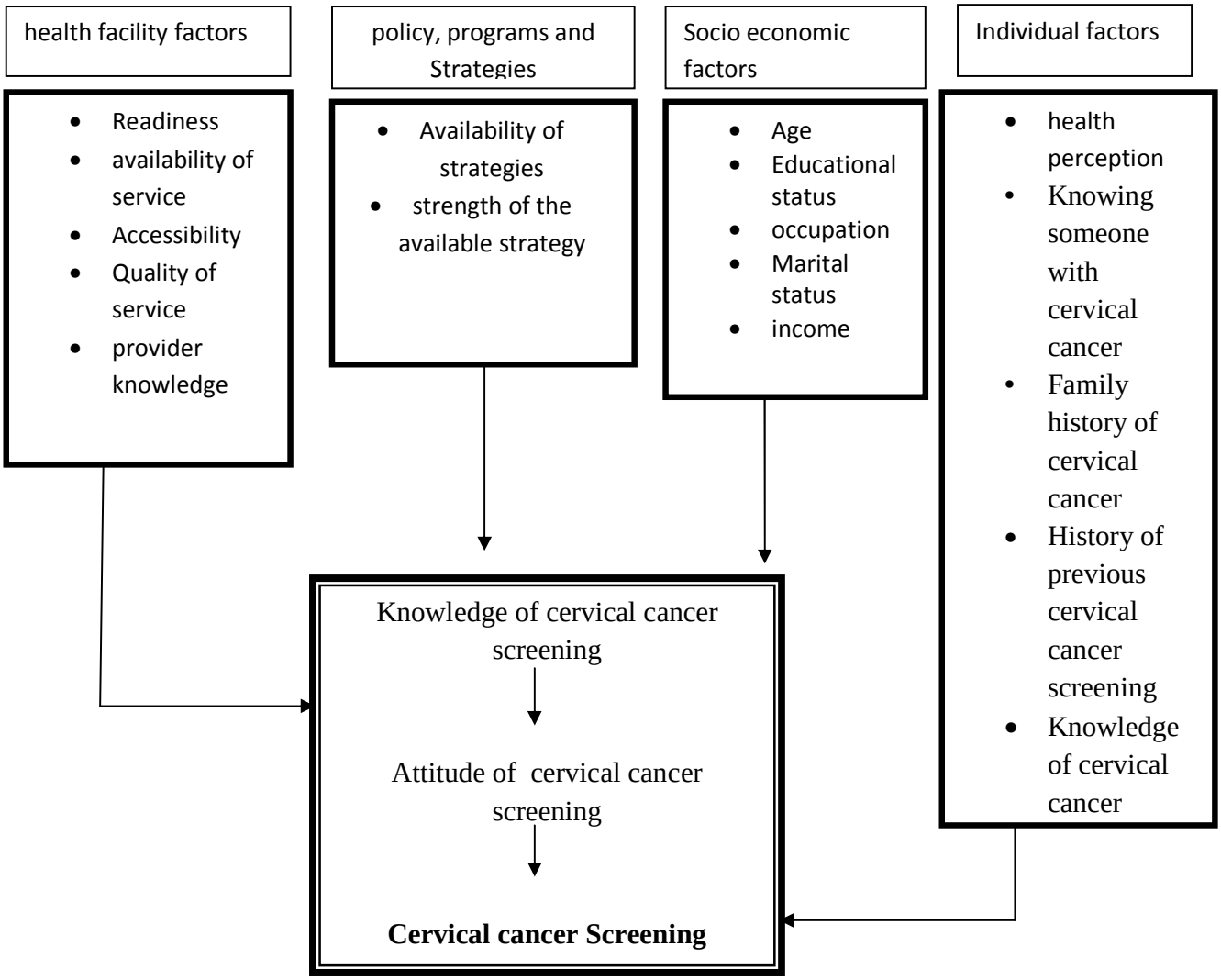
Annex I Conceptual frame work



Annex-II Information sheet

I-Information sheet

Greeting: Good morning/afternoon!

Hello. My name is _____. I am data collector for master of public health student project in Addis Ababa University. I am conducting a study with the aim of assessing the knowledge, Attitude and practice on cervical cancer and screening among reproductive health service clients in selected health centers of Addis Ababa. The information I collect will help to your sub city and the government at large to plan health services. Now you are randomly selected for the survey. The questions usually take about 15 to 20 minutes.

Objective of the study: assessing the knowledge, Attitude and practice on cervical cancer and screening among reproductive health service clients among selected health centers, Addis Ababa.

Benefit of the study: The participants will have long and short term benefits. The long term benefit would be, the result of the study will be useful to expand and implement screening programs which could be very beneficiary for the participants and also for the overall community. the short term benefit would be the study participants will get an insight about cervical cancer and screening after the data collection.

Risk of the study: Participating in this study will not have any risk or harm.

Rights of Participants: You have full right either to Participate or decline participation in this study as participant. You may respond to all the questions or you may not answer to questions you don't want to and you may end the interview at any time you want. You can ask any question which is not clear for you.

Confidentiality: Any information forwarded will be kept confidential and names will not be written or specified.

Annex III, Informed consent

As to the information given ahead, Participating in this study has no any risk. Your name will not be written on this form and the information you give will never be shared to others. You may not answer any questions that you don't want to answer and you may end this interview at any time you want. Now I would like to tell you that you are selected randomly to be participant of the study. Your genuine response to the interviews will be very important for the purpose of the study. At the same time we would like to appreciate your voluntarily participation in the survey after a thorough understanding of the information given to you.

I have read this form or it has been read to me in the language i comprehend and understand all conditions stated above.

Are you willing to participate in this study?

1- No (say thank you) 2- Yes (continue interviewing)

Name of principal investigator: Eyerusalem Getachew

Cell phone No - 0913474412

E-mail: jerrydebo.eg@gmail.com.

Name of health facility……..

Name of interviewer_____ signature_____

Date of interview (Ethiopian calendar) _____/_____/_____

Result of interview:

1- Completed…… 2- Refused …….

3- Respondent not available…….. 4- Partially completed …….

Checked by supervisor;

Name …….. Signature …… Date ……..

Annex IV ,English version of the quantitative data tool

Questionnaire

Part 1 Socio demographic status

No	Questions	Answers	Skip
101	Age in years		
102	Religion	Orthodox.....1 Muslim.....2 Protestant.....3 Catholic.....4 Other.....5	
103	Marital status	single... .....1 Married.....2 Divorce.....3 Widowed.....4 separated.....5	
104	Educational status	illiterate.....1 primary.....2 secondary.....3 college.....4 other.....5	
105	Occupation	House wife.....1 Private employee.....2 Farmer.....3 Government employee..... 4 5.Daily laborer.....5 6.Merchant..... 6 7.Student.....7 8.Others(specify) 8	
106	Monthly Income in Birr		
107	Do you know anyone with cervical cancer	Yes.....1 No.....2	
Part 2 Risk exposure among the study subjects			
108	How many children do you have	_____In numbers	
109	Age at first sexual intercourse in years	_____ In years	
110	Did you use any contraceptive methods	yes.....1 No.....2 → To114	
111	If yes what type?	Oral contraceptive pills.....1 Injectables.....2 Norplant .....3 Barrier methods.....4	If the answer is other than 1 no go to qustion no

		Other specify 5	`114
112	If the response to the above question is 1, for how long did you use oral contraception?	.....Years	
113	Are you currently using oral contraception?	Yes.....1 No.....2	
114	Do you smoke?	Yes.....1 No.....2	

Part 3 Knowledge about cervical cancer and screening

No	Questions	Response	Skip
201	Have you ever heard about cancer	Yes.....1 No.....2 →	End the question here
202	Have you ever heard about cervical cancer	Yes.....1 No.....2 →	End the question here
203	Where did you first learn about carcinoma of the cervix *Multiple answer possible*	News Media.....1 Brochures, posters and other printed materials.....2 Health workers.....3 Family, friends, neighbors and colleagues.....,.....4 Religious leaders.....5 Teachers.....6 Other (please explain).....7	
204	What are the symptoms of carcinoma of the cervix? *Multiple answer possible*	Vaginal bleeding.....1 foul smelling of Vaginal discharges.....2 Do not know.....3 Other.....4	
205	What are the risk factors for cancer of the cervix? *Multiple answer possible*	Acquiring HPV virus.....1 Having multiple sexual partners.....2 Early sexual intercourse.....3 Avoid having to many children.....4 Avoid using oral contraceptives for long time.....5 Cigarette smoking.....6	

		Do not know.....7 Other (please explain).....8	
206	How can a person prevent getting cancer of the cervix? *Multiple answer possible*	through vaccination of HPV vaccine.....1 Avoid multiple sexual partners.....2 Avoid early sexual intercourse.....3 Avoid having to many children.....4 Avoid using oral contraceptives for long time.....5 Quit smoking.....6 Screening for cervical cancer.....7 Other (please explain)..... .....8 Do not know.....9	
207	Can cancer of the cervix be cured in its earliest stages?	Yes.....1 No .....2 Don't know 3	
208	How can someone with cancer of the cervix be treated? *Multiple answer possible*	Herbal remedies.....1 surgery.....2 Specific drugs given by hospital.....3 radiotherapy.....4 Do not know.....5	
209	How expensive do you think cancer of the cervix treatment is in this country?	It is free of charge.....1 It is reasonably priced.....2 It is somewhat/moderately expensive.....3 It is very expensive.....4 Don't know.....5 other(specify) 6	
210	Are there screening procedures to detect premalignant cervical lesion?	Yes.....1 No.....2	if no 301
211	How frequent is screening for premalignant cervical lesion done?	Once every year.....1 Once every three years.....2 Once every 5 years.....3 Any other(mention).....4	

		Don't know.....5	
212	Who should be screened?	Women of 25years and above.....1 Prostitutes.....2 Elderly women.....3 Other.....4 Don't know.....5	
213	Do you know procedures used in screening for premalignant cervical lesions	Yes.....1 No.....2	
214	Can you mention any of the procedures used in screening for premalignant cervical lesions? *Multiple answer possible*	VIA.....1 VILI.....2 Pap Smear.....3 other……4 don't know.....5	

Part 4 Attitude Questions

No	Questions	Response	Skip
301	Carcinoma of the cervix is highly prevalent in our country and is a leading cause of deaths amongst all malignancy in Ethiopia.	strongly agree.....1 agree.....2 neither agree nor disagree.....3 disagree.....4 strongly disagree.....5	
302	Any adult woman including you can acquire cervical carcinoma	strongly agree.....1 agree.....2 neither agree nor disagree.....3 disagree.....4 strongly disagree.....5	
303	Carcinoma of the cervix cannot be transmitted from one person to another	strongly agree.....1 agree.....2 neither agree nor disagree.....3 disagree.....4 strongly disagree.....5	

304	Screening helps in prevention of carcinoma of the cervix	strongly agree.....1 agree.....2 neither agree nor disagree.....3 disagree.....4 strongly disagree.....5	
305	Screening causes no harm to the client	strongly agree.....1 agree.....2 neither agree nor disagree.....3 disagree.....4 strongly disagree.....5	
306	Screening for premalignant cervical lesions is not expensive	strongly agree.....1 agree.....2 neither agree nor disagree.....3 disagree.....4 strongly disagree.....5	
307	If screening is free and causes no harm, will you screen	strongly agree.....1 agree.....2 neither agree nor disagree.....3 disagree.....4 strongly disagree.....5	

Part 5. Practice Questions

No	Questions	Response	Skip
401	Have you ever heard of screening	yes.....1 No.....2	
402	Have you ever screened for any reproductive health screenings like HIV, STIs....	yes.....1 No.....2	If your answer is NO go to question number 407
403	Have you ever screened for cancer of the cervix	Yes.....1 No.....2	If your answer is NO go to question number 407

404	Where did you screen	Hospital(Mention).....1 private(Mention).....2 Health centers. (Mention).....3	
405	What was the indication	Self-initiated.....1 offered by the health professionals.....2 other(specify) 3	
406	If yes how many times in since you become sexually active	Once.....1 More than once.....2	
407	When was the last time you screened	within the past three years .....1 More than three years ago. 2	
408	If no, why?	It may be painful. .....1 I feel shy.....2 I am healthy.....3 My husband would not agree.....4 I am afraid a screening test would reveal cervical cancer.....5 it is expensive.....6 I am not informed/knowledge.....7 I haven't just decided.....8 other.....9	

Annex V. Informed consent for the qualitative study

Greeting: Good morning/afternoon

My name is i am moderator

this is a study done by Eyerusalem Getachew A student in Addis Ababa university,study has an objective of assessing the knowledge, Attitude and practice on cervical cancer and screening among reproductive health service clients among selected health centers, Addis Ababa.

Participating in this study has no any risk. Your name will not be written. You may not answer any questions that you don't want to answer and you may end this interview/discussion at any time you want. We use tape recorder only to capture full idea of the discussion and after analyzing it recorded voice will be deleted. Your genuine discussion will be very important for the purpose of the study. At the same time we would like to appreciate your voluntarily participation in the study after a thorough understanding of the information given to you.

I have read this form or it has been read to me in the language i comprehend and understand all conditions stated above.

Are you willing to participate in this study?

1- No (say thank you) 2- Yes (continue interviewing)

Name of principal investigator: Eyerusalem Getachew

Cell phone No - 0913474412

E-mail: jerrydebo.eg@gmail.com.

Name of health facility……..

Name of interviewer_____ signature_____

Date of interview/FGD (Ethiopian calendar) _____/_____/_____

Annex VI, Qualitative tool for the Focus group discussion

Topic guide for discussion

1. Have you ever heard of cancer of the uterus?

2. Where did you heard?

3. What do you know about the disease? symptoms treatment, screening, severity...

4. Have you heard of cervical cancer screening?

5. Do you think screening is important, how?

6. Have you ever screened for any reproductive health screenings, HIV, STIs...., if no why

7. Have you ever think to screen

8. What do you think is the reason not to screen for cervical cancer and any other RH screenings in your community

9. Are you willing to undergo cervical cancer screening, if no why

10. What do you recommend for the health facilities regarding cervical cancer screening

የመረጃ መስጫ

ጤና ይስጥልኝ ስሜ——— ይባላል። እኔ የጥናቱን ባለቤት ኢየሩሳሌም ጌታቸውን ወክዬ ስገኝ እርሷም የአዲስ አበባ ዩኒቨርሲቲ በህብለተሰብ ጤና ድህረ ምረቃ ተማሪ ስትሆን የመመለቂያ ጥናቷን የማህፀን ካንሰር እና ቅድመ ምርመራ ጋር በተያያዘ ያለውን እውቀት፣አመለካት እና የቅድመ ምርመራ ተሳትፎ በሚል ርእስ ላይ በመስራት ላይ ትገኛለች።ስለሆነም የምንሰበስበው መረጃ ለክፍለ ከተማው፣ለመንግስት አካላት እና ለህብረተሰቡ ከፍተኛ ጥቅም ይሰጣል።ጥያቄዎቹን ለመመለስ ከ15 እስከ 20 ደቂቃ ይወስዳል።

አላማው፦ ጥናቷን የማህፀን ካንሰር እና ቅድመ ምርመራ ጋር በተያያዘ ያለውን እውቀት፣አመለካት እና የቅድመ ምርመራ ተሳትፎ ማወቅ ነው።

የጥናቱ ልዩ ጥቅም፦ የጥናቱ ተስታፊዎች የአጭር እና የረጅም ጊዜ ጥቅም ይኖራቸዋል።የረጅም ጊዜ ጥቅሙም ጥናቱ ተሰርቶ ከተጠናቀቀ በኋላ ለፖሊሲ አውጪዎች እንደ ግብአት በመሆን ጠማህፀን ካንሰርን መከላከል ጋር በተያያዘ እቅዶችን ለማውጣት ይጠቅማል።የአጭር ጊዜ ጥቅሙ ደግሞ ከጥያቄዎቹ በኋላ ለተሳታፊዎቹ ስለ ማህፀን ጫፍ ካንሰር አነስ ያለ ገለፃ ይደረግላቸዋል።

የጥናቱ የጎን ጉዳት፦ጥናቱ የጎን ጉዳት የለውም

የጥናቱ ተሳታፊዎች መብት፦በጥናቱ ላይ ያለመሳተፍ መብት አሎት።መመለስ የማይፈልጉትን ጥያቄ እንዲመልሱ አይገደዱም።በፈለጉት ሰአት ጥናቱን ማቋረጥ ይችላሉ።ያልገባዎት ማንኛውንም ጥያቄ የመጠየቅ መብት አሎት።

የጥናቱ ሚስጥራዊነት፦ ጠሚመልሷቸው ጥያቄዎች ሁሉ ሚስጥራዊነታቸው የተጠበቀ ሲሆን የተሳታፊዎች ስም አይጠቀስም።

የፈቃደኝነት መጠየቂያ ቅፅ(For Quantitative study)

ከላይ በተጠቀሰው መረጃ መሰረት በዚህ ጥናት ላይ መሳተፍ ምንም ጉዳት የለውም. የሚሰጡት መረጃ ለማንም አይነገርም ስሞትም አይጠቀስም. መመለስ የማይፈልጉትን ጥያቄ እንዲመልሱ አይገደዱም..በፈለጉት ጊዜ ጥያቄውን ማቆም ይችላሉ.ለዚህ ጥናት የሚያደርጉት ትብብር ለጥናቱ መሳካት ጠቃሚ ነው. የጥናቱን ዐላማ ከተረዱ በኋላ በፈቃደኝነት ጥናቱ ላይ ስለሚሳተፉ እናመሰግናለን.

ይሄ መረጃ በሚገባኝ ቋንቋ ተነቦልኝ ወይም ዐንብቤ የተገለጹትን ነገሮች ተረድቻለሁ

ጥናቱ ላይ ለመሳተፍ ፈቃደኛ ኖት?

1. ፈቃደኛ ዐይደለሁም(አመስግነው ይሸኙ)

2. ፈቃደኛ ነኝ(ቃለ ምልልሱን ቀጥል)

የጥናቱ ባለቤት ስም ኢየሩሣሌም ጌታቸው

ስልክ ቁጥር 0913474412

ኢ-ሜይል አድራሻ jerrydebo.eg@gmail.com

የጤና ድርጅቱ ስም_____

የጠያቂው ስም _____ ፊርማ_____

የመጠይቁ ቀን _____

የመጠጥቁ ውጤት

1. ተጠናቋል _____ 3. መላሹ አልተገኙም _____

2. ፈቃደኛ አይደሉም _____ 4. በግማሽ ተጠናቋል _____

በተቆጣጣሪው ታይቷል

ስም..... ፊርማ..... ቀን.....

የአማርኛ መጠይቅ

ክፍል 1

ተራ ቁጥር	ጥያቄዎች	መልስ	ዝለል
101	እድሜ(በአመት)		
102	ሐይማኖት	ኦርቶዶክስ.....1 ሙስሊም.....2 ፕሮቴስታንት.....3 ካቶሊክ.....4	
103	የጋብቻ ሁኔታ	ያገባች.....1 ያላገባች.....2 የፈታች.....3 የተለያየች.....4 ባሏ የሞተባት.....5	
104	አሁን ያሉበት ትልቁ የትምህርት ደረጃ	አልተማርኩም.....1 የመጀመሪያ .....2 ሁለተኛ ደረጃ.....3 ኮሌጅ.....4 ሌላ ይጠቀስ.....5	
105	የስራ ሁኔታ	የቤት እመቤት.....1 የግል ተቀጣሪ.....2 የመንግስት ተቀጣሪ.....3 የቀን ሰራተኛ.....4 ነጋዴ .....5 ተማሪ.....6 ሌላ ይጠቀስ.....7	
106	የወር ገቢ በብር		
107	ስንት ልጆች አሎት		
108	የማህፀን ካንሰር የተያዘች ሴት ያውቃሉ	አዎ.....1 አላውቅም.....2	
ክፍል 2			
109	ለመጀመሪያ ጊዜ የግብረ ስጋ ግንኙነት የፈፀምሽው በስንት አመት እድሜሽ ነው		
110	ማንኛውንም አይነት የእርግዝና መከላከያ ዘዴ ተጠቅመሽ ታውቂያለሽ	አዎ.....1 አልጠቀምም.....2 ⟶ 114	
111	ተጠቅመሽ የምታውቂ ከሆነ ምን	የሚዋጥ.....1	

	አይነት	በመርፌ የሚሰጥ.....2 በክንድ ሚቀመጥ.....3 ሌላ ካለ ይጠቀስ.....4	
112	ለፊተኛው ጥያቄ መልስሽ የሚዋጥ ከሆነ ለምን ያህል ጊዜ(አመት) ተጠቀምሽ	.....አመት	
113	አሁን የሚዋጥ የእርግዝና መከላከያ ትጠቀሚያለሽ	አዎ.....1 አልጠቀምም.....2	
114	ሲጋራ አጭሰሽ ታውቂያለሽ	አዎ.....1 አላጨስም.....2	

ክፍል 3 ስለ የማህፀን ካንሰር እና ቅድመ ምርመራ ጋር በተያያዘ ያለውን እውቀት መመዘኛ መጠይቆች

ተራ ቁጥር	ጥያቄዎች	መልስ	ዝለል
201	ካንሰር ስለሚባል በሽታ ሰምተሽ ታውቂያለሽ	አዎ.....1 አላውቅም.....2	አላውቅም ከሆነ ጨርስ
202	የማህፀን ጫፍ ካንሰር በሽታ ሰምተሽ ታውቂያለሽ	አዎ.....1 አላውቅም.....2	አላውቅም ከሆነ ጨርስ
203	ለመጀመሪያ ጊዜ ስለ ማህፀን ጫፍ ካንሰር የሰማሽው የት ነው *ብዙ አማራጮች አሉት*	መገናኛ ብዙሃን.....1 በራሪ ወረቀቶች.....2 ከጤና ባለሙያዎች.....3 ቤተሰብ፣ጓደኛ፣ ጎረቤት.....4 ከሀይማኖት መሪዎች.....5 አስተማሪዎች.....6 ሌላ ይጠቀስ.....7	
204	ማህፀን ጫፍ ካንሰር ምልክቶች ምን ምን ናቸው *ብዙ አማራጮች አሉት*	ከማህፀን ደም መፍሰስ.....1 መጥፎ የሆነ የማህፀን ፈሳሽ ሽታ.....2 አላውቅም.....3 ሌላ ይጠቀስ.....4	
205	ለማህፀን ጫፍ ካንሰር አጋላጭ የሆኑ ሁኔታዎች ምን ምን ናቸው	በ HPV ቫይረስ መያዝ.....1 ከብዙ ሰዎች ጋር ወሲብ መፈፀም.....2 በልጅነት እድሜ የግብረ ስጋ ግንኙነት መጀመር.....3 ብዙልጆችን መውለድ.....4	

	ብዙ አማራጮች አሉት	ለረጅም ጊዜ የሚዋጥ የእርግዝና መከላከያ መጠቀም.....5 ሲጋራ ማጨስ.....6 ሌላ ይጠቀስ.....7 አላውቅም.....8	
206	የማህፀን ጫፍ ካንሰርን እንዴት መከላከል ይቻላል ብዙ አማራጮች አሉት	በ HPV ቫይረስ ክትባት መውሰድ.....1 ከብዙ ሰዎች ጋር ወሲብ መፈፀም ማስወገድ.....2 በልጅነት እድሜ የግብረ ስጋ ግንኙነት አለመጀመር.....3 ብዙልጆችን አለመውለድ.....4 ለረጅም ጊዜ የሚዋጥ የእርግዝና መከላከያ አለመጠቀም.....5 ሲጋራ አለማጨስ.....6 ቅድመ ካንሰር ምርመራ ማድረግ.....7 ሌላ ይጠቀስ.....8 አላውቅም.....9	
207	የማህፀን ጫፍ ካንሰርን በቶሎ ቢታወቅ መፈወስ/ማከም ይቻላል	አዎ.....1 አይቻልም.....2 አላውቅም.....3	
208	የማህፀን ጫፍ ካንሰርን እንዴት ማከም ይቻላል ብለሽ ታስቢያለሽ ብዙ አማራጮች አሉት	የባህል መዳኒት.....1 የቀዶ ጥገና ህክምና.....2 ዘመናዊ መድሃኒቶች.....3 የጨረር ህክምና.....4 አላውቅም.....5	
209	የካንሰር ህክምና ምን ያህል ውድ ነው ብለሽ ታስቢያለሽ	በነፃ ነው.....1 የተመጣጠነ ዋጋ ነው.....2 ትንሽ ውድ ነው.....3 በጣም ውድ ነው.....4 አላውቅም.....5	
210	ስለ ቅድመ ካንሰር ምርመራ ሰምተሽ ታውቂያለሽ	አዎ.....1 አላውቅም.....2	አላውቅም ከሆነ ወደ 301
211	በየስንት ጊዜ የቅድመ ካንሰር ምርመራ መደረግ አለበት ትያለሽ	በአመት 1 ጊዜ.....1 በሶስት አመት 1 ጊዜ.....2 በአምስት አመት 1ጊዜ.....3 ሌላ ይጠቀስ.....4 አላውቅም.....5	
212	በምን ያህል እድሜ	25 አመት እና ከዚያ በላይ.....1	

	የቅድመ ካንሰር ምርመራ መደረግ አለበት ትያለሽ	እድሜያቸው ገፋ ያለ ሴቶች.....2 ሌላ ይጠቀስ.....3 አላውቅም.....4	
213	ስለ ቅድመ ካንሰር ምርመራ አይነቶች ታውቂያለሽ	አዎ.....1 አላውቅም.....2	
214	ቅድመ ካንሰር ምርመራ አይነቶች ምን ምን ናቸው *ብዙ አማራጮች አሉት*	1. ቪ አይ ኤ(VIA).....1 2. ቪ አይ ኤል ኤ(VILA).....2 3.pap smear.....3 4. ሌላ ይጠቀስ.....4 5. አላውቅም.....5	

ክፍል 4 አመለካከትን መመዘኛ ጥያቄዎች

ተራ ቁጥር	ጥያቄዎች	መልስ	ዝለል
301	በኢትዮጲያ ውስጥ የማህፀን ጫፍ ካንሰር ከሌሎች የካንሰር በሽታዎች በበለጠ ቀዳሚ ሞት አምጪ በሽታ ነው	በጣም እስማማለሁ.....1 እስማማለሁ.....2 መስማማትም አለመስማማትም አልችልም.....3 አልስማማም.....4 በጣም አልስማማም.....5	
302	ማንኛዋም ሴት አንቺን ጨምሮ የማህፀን ጫፍ ካንሰር ሊይዛት ይችላል	በጣም እስማማለሁ.....1 እስማማለሁ.....2 መስማማትም አለመስማማትም አልችልም.....3 አልስማማም.....4 በጣም አልስማማም.....5	
303	የማህፀን ጫፍ ካንሰር ከአንድ ሰው ወደ ሌላ ሰው ሊትላለፍ አይችልም	በጣም እስማማለሁ.....1 እስማማለሁ.....2 መስማማትም አለመስማማትም አልችልም.....3 አልስማማም.....4 በጣም አልስማማም.....5	
304	የቅድመ ካንሰር ምርመራ የማህፀን ጫፍ ካንሰርን ለመከላከል ይረዳል	በጣም እስማማለሁ.....1 እስማማለሁ.....2 መስማማትም አለመስማማትም አልችልም.....3 አልስማማም.....4 በጣም አልስማማም.....5	

305	የቅድመ ካንሰር ምርመራ ምንም አይነት ጉዳት የለውም	በጣም እስማማለሁ.....1 እስማማለሁ.....2 መስማማትም አለመስማማትም አልችልም.....3 አልስማማም.....4 በጣም አልስማማም.....5	
306	የቅድመ ካንሰር ምርመራ ዋጋ ውድ አይደለም	በጣም እስማማለሁ.....1 እስማማለሁ.....2 መስማማትም አለመስማማትም አልችልም.....3 አልስማማም.....4 በጣም አልስማማም.....5	
307	የቅድመ ካንሰር ምርመራ ነፃ ከሆነ እና ጉዳት ከሌለው ትመረመሪያለሽ	በጣም እስማማለሁ.....1 እስማማለሁ.....2 መስማማትም አለመስማማትም አልችልም.....3 አልስማማም.....4 በጣም አልስማማም.....5	

ክፍል 5 የተግባር ጥያቄዎች

ተራ ቁጥር	ጥያቄዎች	መልስ	ዝለል
401	በስነ ተዋልዶ ዘርፍ ያሉ ቅድመ ምርመራዎችን አድርገሽ ታውቂያለሽ(ለምሳሌ፣ ኤ ች አይ ቪ፣የአባላዘር በሽታ ምርመራ...	አዎ.....1 አላውቅም.....2	አላውቅም ከሆነ ወደ 408
402	የቅድመ ካንሰር ምርመራ አድርገሽ ታውቂያለሽ	አዎ.....1 አላውቅም.....2	አላውቅም ከሆነ ወደ 408
403	የቅድመ ካንሰር ምርመራውን የት አደርግሽ	ሆስፒታል(ይጠቀስ) .....1 ጤና ጣብያ.....2 ሌላ ይጠቀስ.....3	
404	የቅድመ ካንሰር ምርመራውን ለማድረግ ምን አነሳሳሽ	በራሴ ተነሳሽነት.....1 በጤና ባለሙያዎች አነሳሽነት.....2 ሌላ ይጠቀስ.....3	
405	ስንት ጊዜ ተመረመርሽ	አንድ ጊዜ.....1 ከአንድ ጊዜ በላይ.....2	

406	ለመጨረሻ ጊዜ የተመረመርሽው መቼ ነው	ያለፈው አመት.....1 ያለፈው 3 አመት.....2 ከሶስት አመት በፊት.....3 ሌላ ይጠቀስ.....4	
.407	ለምን አልተመረመርሽም	ስለማላውቅ.....1 በአካባቢዬ አገልግሎቱ ስለማይሰጥ.....2 ጤነኛ ስለሆንኩ.....3 ምርመራው ህመም ስላልው....4 ሌላ ይጠቀስ.....5	

የፈቃደኝነት መጠየቂያ ቅፅ(For Qualitative study)

ደህና አደራቹ/ደህና አረፈዳቹ

ስሜ_____ ይባላል አወያይ ነኝ

ይህ ጥናት የአዲስ አበባ ዩኒቨርስቲ የድህረ ምረቃ ተማሪ በሆነችው በኢየሩሳሌም ጌታቸው የሚሰራ ሲሆን አላማው ስለ ማህፀን ጫፍ ካንሰር እውቀት፣ አመለካከት እና የቅድመ ካንሰር ምርመራ ተግባር በአዲስ አበባ ነዋሪ በሆኑ ሴቶች ላይ ምን ያህል እንደሆነ ነው።በዚህ ጥናት ላይ መሳተፍ ምንም ጉዳት የለውም።የሚሰጡት መረጃ ለማንም አይነገርም ስሞትም አይጠቀስም። መመለስ የማይፈልጉትን ጥያቄ እንዲመልሱ አይገደዱም።በፈለጉት ጊዜ ጥያቄውን ማቆም ይቸላሉ።

የውይይቱን ሙሉ ሃሳብ ለማግኘት ሲባል በቴፕ ድምፃችሁ ሊቀዳ ይችላል። የውይይቱን ሃሳብ ከመዘገብን በኋላ የተቀረፀው ድምፅ እንዲጠፋ ይደረጋል። ለዚህ ጥናት የሚያደርጉት ትብብር ለጥናቱ መሳካት ጠቃሚ ነው።የጥናቱን ዐላማ ከተረዱ በኋላ በፈቃደኝነት ጥናቱ ላይ ስለሚሳተፉ እናመሰግናለን።

ይሄ መረጃ በሚገባኝ ቋንቋ ተነቦልኝ ወይም ዐንብቤ የተገለጹትን ነገሮች ተረድቻለሁ

ጥናቱ ላይ ለመሳተፍ ፈቃደኛ ኖት?

1. **ፈቃደኛ ዐይደለሁም(አመስግነው ይሸኙ)** 2. **ፈቃደኛ ነኝ(ቃለ ምልልሱን ቀጥል)**

የጥናቱ ባለቤት ስም <u>**ኢየሩሣሌም ጌታቸው**</u>

ስልክ ቁጥር <u>0913474412</u>

ኢ-ሜይል አድራሻ <u>jerrydebo.eg@gmail.com</u>

የጤና ድርጅቱ ስም_____

የአወያዩ ስም _____ ፊርማ_____

የውይይቱ ቀን _____

የውይይቱ ውጤት

1. **ተጠናቋል** _____ 3. **መላሽ አልተገኙም** _____

2. **ፈቃደኛ አይደሉም**_____ 4. **በግማሽ ተጠናቋል**_____

በተቆጣጣሪው ታይቷል ስም..... **ፊርማ**..... **ቀን**.....

ለቡድን ውይይት መሪ የሆኑ ጥያቄዎች (For qualitative study)

1. ስለ ማህፀን ካንሰር ሰታቹ ታውቃላቹ?

2. ስለ ማህፀን ካንሰር የት/ከማን ሰማቹ?

3. ስለ ማህፀን ጫፍ ካንሰር በሽታ ምን መረጃ አላቹ?

4. ቅድመ ካንሰር ምርመራ ሲባል ሰምታቹ ታውቃላቹሁ?

5. ቅድመ ካንሰር ምርመራ አስፈላጊ ነው ብላቹ ታምናላቹ?

6. ለማንኛውም አይነት የስነ ተዋልዶ ጤና ጋር በተያያዘ ቅድመ ምርመራ አድርጋቹ ታውቃላቹ? ለምሳሌ፥ የአባላዘር በሽታ...

7. ቅድመ ካንሰር ምርመራ ለማድረግ ታስባላቹሁ?

8. ቅድመ ካንሰር ምርመራ እንዳታከናውኑ የሚያግዱዋቹ ነገሮች ምን ምን ናቹው?

9. ቅድመ ካንሰር ምርመራ ለማድረግ ፍቃደኛ ናቹ? ካልሆነ ለምን?

10. በዚህ ዙሪያ ጤና ተቋማት ምን ማድረግ አለባቹው ትላላቹ?

DECLARATION

I the undersigned, declare that this thesis is my original work, has never been presented in this or any other university, and that all the resources and materials used for the thesis development, have been acknowledged as complete references.

Name: Eyerusalem Getachew

Signature: _____

Date of submission: _____

This thesis work has been submitted for examination with my approval as University primary advisor.

Name:

Signature: _____

Date: _____