



**ADDIS ABABA UNIVERSITY  
COLLEGE OF HEALTH SCIENCES  
SCHOOL OF PUBLIC HEALTH**

**ASSESSMENT OF KNOWLEDGE, ATTITUDE AND PRACTICE OF ADULT WOMEN  
TOWARDS BREAST CANCER SCREENING IN ADDIS ABABA, ETHIOPIA; 2015**

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**SCHOOL OF GRADUATE STUDIES**

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## **ACRONYMS AND AVREVIATIONS**

ANC	Anti Natal Care services
BC	Breast Cancer
BCS	Breast Cancer Screening
BSE	Breast Self-Examination
CBE	Clinical Breast Examination
FNAC	Fine Needle Aspiration Cytology
H/C	Health Center
KAP	Knowledge, Attitude and Practice
MCH	Maternal and Child Health services
SRS	Simple Random Sampling

## **ABSTRACT**

**Background:** Breast cancer has been a worldwide public health problem and it is the most common cancer in women both in the developed and less developed countries. Public and individual awareness can play a vital role in the prevention, early diagnosis and treatment of breast cancer.

**Objective:** To assess the knowledge, attitude and practice of adult women clients (20-49 years of age) towards breast cancer screening in health centers of Addis Ababa, 2015.

**Methods:** A cross-sectional facility based quantitative study complemented by qualitative (in-depth interview) study was conducted on a total of 633 women clients who came to selected health centers for maternal and child health services. Data was collected from January 1<sup>st</sup> to 30<sup>th</sup> February, 2015. For quantitative data Epi-Info version 7 and SPSS Version 21 were used for data entry and analysis, respectively. Cross tabulation of each independent variable with the dependent variable with their 95% confidence interval was done to see if there was any association between them. Those variables associated at binary logistic regression with a significance level of 0.2 were entered into multiple logistic regression to identify determinants by controlling possible confounding effect. The transcribed and translated qualitative data were imported into an Open Code program and coded, categorized, thematically described and the emerged themes were included in the final thesis report.

**Results:** Overall 53% of women have heard about breast cancer and 35.5% knew at least one breast cancer screening method. While among women who were informed of breast cancer, 97% of them indicated that screening improves chance of survival. Generally among the common screening methods; self-breast examination, clinical-breast examination and mammographic examination were practiced by 24.3%, 7.6% and 3.8% of respondents, respectively. Factors like family history of breast illnesses, income, educational status, general knowledge of breast cancer were highly associated with the knowledge, attitude and practices of breast cancer screening. Socio-cultural factors, lack of attention and facilities patient load were among the dominant factors raised by qualitative interviewees.

**Conclusion and Recommendation:** This study has revealed that self-reported breast cancer screening coverage is low. About two-third of studied women had no information of breast cancer screening methods. There is a need to design and implement awareness creation program on screening for breast cancer. Different print and mass media can be engaged in teaching women to undergo regular breast cancer screening for early identification and intervention.

# **1. Introduction**

## **1.1 Background**

Breast cancer(BC) is a proliferation of malignant cells that arises in the breast tissue and the term represents a range of disease, from non-invasive to invasive carcinoma[1].

It is the most common cause of cancer death worldwide for females, and the fifth most common cancer among all other cancers, with around 522,000 deaths from breast cancer in 2012 (15% of female deaths and 6% of the total) annually [2].

It was reported that it is the most commonly diagnosed cancer and the second leading cause of cancer death among women in 2008 in Africa (92,600 cases, 50,000 deaths). It is also estimated the prevalence of breast cancer in women aged 15 and over in sub-Saharan Africa was 23.5 per 100,000 women in 2008[3, 4].

Breast cancer is the second most often occurring cancer next to cervical cancer among women in Ethiopia. It is estimated that around 10,000 Ethiopian women have breast cancer [5].

Data from the Addis Ababa population based cancer registry showed that breast and cervical cancers were the leading cause of cancer comprising 22.6% and 10.8% respectively of all cases of cancers in Addis Ababa[6].

As evidences show, poor awareness of breast cancer symptoms, preventions, risk factors and treatment options have usually been associated with patient delay in seeking help[7].

The causes of breast cancer are not completely known. However, researchers have identified a number of risk factors that increase one's chances of getting breast cancer. These includes; family history of breast cancer, personal history of breast cancer, early menarche, (<12 years), late menopause (>55years), aging, excessive alcohol use, late age at first full-term pregnancy (>30 years), never breast feeding a child, high fat diet, tobacco smoking, post-menopausal obesity, recent and long term use of hormone replacement therapy, high-dose radiation to chest and lack of physical exercises[8, 9].

Breast cancer screening is a means of identifying the occurrence of breast cancers at early stages (before it progresses to the advanced stages). Three main tests are used to screen the breast for

cancer. These are breast self-examination (BSE), clinical breast examination (CBE) and mammography[10].

Breast self-examination is done by a woman herself where she checks her own breasts for lumps, changes in size or shape of the breast or any other changes in the breast or underarm. It doesn't replace regular screening mammograms or clinical breast examination. However, regular performance of BSE does not mean that the breast cancer is necessarily self-detected. Although, the American Cancer Society recommended in 2003 that women beginning in their 20s should be told about the benefits and limitations of BSE, this procedure is not considered the best method for early detection of breast cancer but is the best option for interval screening among women of all ages [11, 12].

Clinical breast examination (CBE) is another kind of screening method which seeks to detect breast abnormalities or evaluate patient reports of symptoms to find palpable breast cancers at an earlier stage of progression and is undertaken by health practitioners[13].

Similarly, a mammogram is the other kind of screening methods used to take x-ray pictures of the breasts. Screening mammography examinations are those designated as such by the ordering of provider or radiologist, and not performed within 9 months of a previous one and is used to check for breast cancer in women who have no signs or symptoms of the disease. Usually two x-ray images make it possible to detect tumors that cannot be felt.

While diagnostic mammographic examinations are those indicated as such when ordered, or by the radiologist, or those performed for a woman reporting breast symptoms to check for breast cancer and takes longer than screening mammography because more x-rays are needed to obtain views of the breast from several angles. The benefits of screening mammography is that treatment can be started earlier in the course of the disease, possibly before it has spread [11, 14]. And studies showed that when combined with appropriate treatment, early detection through breast cancer screening (BCS) activities that include breast self-examination (BSE), clinical breast examination (CBE), and mammography, has been shown to decrease cancer mortality rates by 25–30% [15].

## **1.2. Statement of the problem**

Incidence of breast cancer has been increasing in most regions of the world and remains high in developed countries. However, mortality is higher in less developed countries since the majority of cases are diagnosed late and access to treatment facilities is lower [16].

Survival from breast cancer depends on two main factors. These are early detection and best treatment options. As evidences show, poor awareness of breast cancer symptoms, preventions, risk factors and treatment options have usually been associated with patient delay in seeking services. In developing countries, women present with late stages of disease because of physical barriers, such as geographical isolation, financial as well as psychological problems, including lack of education, belief in traditional medicine and lack of autonomous decision-making in the male-dominated societies resulting in reduced survival, more aggressive disease state and fewer treatment options[7].

Different studies indicated that the women's knowledge, attitude and practice(KAP) about breast cancer screening methods and the existence of such services in the health care system presents a number of challenges for early detection and treatment of breast cancer[17].

## **1.3. Rationale of the study**

Up to the knowledge of principal investigator while searching different literatures, there were limited number of studies done on knowledge, attitude and practice of breast cancer and breast cancer screening methods among women of reproductive age group in our country. Due to the increasing pattern of the disease, high prevalence of the risk factors and low level of knowledge of breast cancer the need for breast cancer screening program is apparent.

The results of the study will be helpful to design appropriate intervention strategies, providing a convenient programmatic approach to address the low level of awareness, and practices of breast cancer screening. Currently Ethiopia has launched national strategic action plan on non-communicable diseases control therefore, it is the right time to undertake such a study to give more emphasis to the disease condition and prevention services. It will also be helpful in providing information as baseline for future studies and for planning intervention programs like that of health education and promotion regarding breast cancer and breast cancer screening. Undergoing this study is also important for the principal investigator as it is needed as a requirement for the partial fulfillment to get the degree.

## **2. LITERATURE REVIEW**

### **2.1. Magnitude of breast cancer**

In 2012, 1.7 million women were diagnosed with breast cancer and there were 6.3 million women alive who had been diagnosed with breast cancer in the previous five years worldwide. Since the 2008 estimates, breast cancer incidence has increased by more than 20%, while mortality has increased by 14%[4].

It was reported that it is the most commonly diagnosed cancer and the second leading cause of cancer death among women in 2008 in Africa (92,600 cases, 50,000 deaths). It is also estimated the prevalence of breast cancer in women aged 15 and over in sub-Saharan Africa was 23.5 per 100,000 women in 2008[3, 4]. Data from South Africa's National Cancer Registry (NCR) show breast cancer as the leading cancer among women. South African women have a 1 in 29 lifetime risk of developing breast cancer, with an age-standardized incidence rate of 30.6 per 100,000 populations. These rates vary by race group, with black women having the lowest (16.3) and white women the highest (69.4) rates of breast cancer diagnosis[2].

Similarly breast cancer is the third commonest cancer in women in Uganda after Kaposi's sarcoma and cervical cancer. Breast cancer incidence of the country is 22:100,000. Five-year survival rate is 56%. While in Nigeria the incidence of breast cancer has been reported to be 33.6/100,000 [18, 19].

The peak age of breast cancer in Nigeria is about ten years earlier than the experience of many western women [20, 21]. This could be attributed to increasing adoption of western life style and diet compounded by poor knowledge and attitude related to cancer issue. Breast Cancer awareness and attitude has been described as a common denominator to several factors determining the stage at which patients with breast cancer present to the hospital[22, 23].

Breast cancer is the second most often occurring cancer next to cervical cancer among women in Ethiopia. It is estimated that around 10,000 Ethiopian women have breast cancer with thousands of more cases unreported as women living in rural areas often seek treatment from traditional healers before seeking help from the modern health system[5].

The findings from a study at Black Lion Specialized Hospital Radiotherapy Center (the only one in the country) showed that breast cancer is the second most prevalent malignancy accounting for 27.8% of all cancer cases referred to the hospital[17].

Data from the Addis Ababa population based cancer registry showed that breast and cervical cancers were the leading cause of cancer comprising 22.6% and 10.8% respectively of all cases of cancers[6].

## **2.2. Knowledge and attitude regarding breast cancer and breast cancer screening**

A study done in Buraidah, Saudi Arabia among 376 female teachers showed that most of participants (58.2%) held pessimistic views about the curability of breast cancer and less than one third (29.0%) agreed to screening for early detection[24].

According to a study done in Nigeria, about 91.6% are aware of that breast cancer could be cured if detected early, however it was only about 28.8% that strongly agreed with the opinion. While about 89.6% favored the opinion that early detection strategies are effective in detecting breast cancer, it was only about 3.4% that strongly agreed with it[25].

A study done in Monastir region of Tunisia among 900 women, it was found 92% had poor knowledge of the specific risk factors for breast cancer and 63.2% had poor knowledge of the screening methods. While 85% had positive attitude towards screening and 15% had negative attitude towards breast cancer screening [26].

A cross-sectional study done on women dwellers in Nigeria; knowledge of the study participants about risk factors for breast cancer was low and only 26.2% were aware that breast cancer could be inherited in some families. Participant's knowledge about symptoms of breast cancer was poor; only 21.4% knew that breast cancer presents commonly as a painless breast lump and only 43.2% of participants were able to correctly identify breast self-examination (BSE) as a method of detection and a very small proportion indicated mammography as a method. Two-fifths (41.4%) of them correctly noted that breast cancer is curable when detected early [27].

Similarly on the study done in northern Ethiopia, overall 34.7% of the respondents had a knowledge score of greater than or equal to the mean knowledge score while 12.7% had a high knowledge level. The proportion of respondents who identified cigarette smoking and alcohol consumption as risk factors for breast cancer was 35% and 23.7% respectively. With regard to symptoms of BC, breast lump 67.4% and breast pain 40.7% are commonly mentioned. Majority

(90.2%) of breast cancer informed women knew that early diagnosis of breast cancer improves chances of survival; and 65% of them indicated clinical breast examination (CBE) as a method of breast cancer detection. Mammography was known by very few 4.6% of the respondents. About 56.7% of the breast cancer informed women said that breast cancer is a curable disease, 45% of the women who reported to have had breast cancer information have ever heard/ read about BSE. The major source of information on BSE for nearly 58.5% of the respondents was media and the contribution of health professionals as a source of breast cancer related information was found to be very minimal 10(1.5%). It is also shown 13.5% of the study participants know that BSE should be started at the age of 20 or less; while 67.1% believed it should be started after the age of 20 years. Nineteen percent of respondents don't know at what age BSE should be began[28].

Many studies have examined the role of health professionals such as physicians and nurses in promoting breast cancer screening. And it is shown that one of the strongest incentives for women to obtain breast cancer screenings is the recommendation of their physicians. And it has also been shown that for health workers to be effective as educators they must possess the appropriate knowledge, attitude and beliefs concerning the health behavior being promoted[29].

### **2.3. Breast Cancer Related Practices**

According to a study done in Nigeria on women dwellers, it was found that only 8.2% indicated visiting alternative health practitioners for breast cancer care. In terms of practice, only 34.9% practice BSE; the source of information about BSE was from the doctors' offices in 21.1%, leaflets 27.1% and televisions in 31.0%. Only 9.1% had clinical breast examination (CBE) in the past year. The main reasons advanced for not having clinical breast examination (CBE) include not having a breast problem in majority of the participants 62.5% and being unaware of the need for CBE 32.2% [27].

According to the Nigerian study the greatest reason given for non-practice of breast cancer screening was „the feeling that they cannot have cancer“, 22.5% followed by lack of awareness and forgetfulness 19.3%. It is also showing that the higher the knowledge level, the higher the tendency to practice any of the early preventive procedures [25].

On the study done in northern Ethiopia the 304 participants who had information on BSE, only 53.6% have ever done BSE and only 29.5% of them reported to practice it on a regular monthly basis. The mean age at which the study participants started BSE is  $24.92 \pm 7.2$ . Among 152 women who practiced BSE only 40.1% practiced it at the age of 20 years or less. The main reasons given for performing BSE were fear of breast cancer & other diseases 64.4% and unusual appearances of their breasts 23.3%. About 54.6% of the BSE performers claimed to have a regular BSE performance of varying frequencies. Absence of symptoms or disease, doubt about its effectiveness and forgetfulness were mentioned as main barriers to perform BSE by 52.3%, 27.5% and 13.4% of the respondents, respectively.

There were only 12.2% of the respondents who have ever had CBE, of whom 42% had it only once before the study. Absence of symptoms or disease and not knowing the need were the main reasons mentioned by 38.7% and 37.6%, respectively, of the respondents who never had CBE. Concerning mammography, only 2.7% have ever had it. The main reasons given by the women for not having mammographic examination were, doubt about its importance 33.8%, lack of knowledge about it 31.9% and unavailability of the service 14.0% [28].

#### **2.4. Determinant factors for breast cancer screening knowledge, attitude and practices**

On a study done in Saudi Arabia participants whose doctors had talked to them about breast cancer and understood the doctor's message were significantly more likely to practice breast cancer screening methods [30].

A study done in Monastir region of Tunisia showed that women with good knowledge of risk factors (AOR=1.65; 95%CI =1.17-2.33) were more likely to undergo breast cancer screening method compared to those who have poor knowledge. Women who had graduated from secondary school (AOR= 1.48; 95% CI =1.01-2.20) or university or other higher educational institutes (AOR= 1.78; 95%CI =1.08-3.94) were more likely to undergo breast cancer screening

compared with women who had received elementary or primary education. And women with good knowledge of screening methods were more likely to undergo breast cancer screening compared to those with poor knowledge (AOR= 2.31 95% CI =1.59-3.37). Women with a positive family history of breast cancer were also more likely to practice BCS compared to those without family history (AOR= 2.67; 95%CI= 1.70-4.21) [26].

While a research done in northern Ethiopia showed, relatively higher percentage (29%) of the women with tertiary education had high knowledge as compared to illiterates and non-formally educated (13.3%) and women with primary, secondary and TVET educational status. Much less percentage of merchants 5.3% and housewives 10% had a high knowledge score relative to government employees 20%, students 19.2%. Other socio-demographic variables were not found to have significant influence on breast cancer knowledge score.

Women with personal and family history of breast cancer practiced BSE as compared to those with no personal and family history of the disease, neither were found to have significant association with BSE practice. Similarly, BSE practice of the women was not found to be significantly affected by their religion and marital status. Histories of breast problems other than breast cancer and breast cancer knowledge score of the respondents were significantly related to their BSE practice[28].

It also indicated that educational level and occupation of the respondents were found to have significant influence on their overall breast cancer knowledge. Among 639 participants with complete information on education and knowledge score, it was found that relatively higher percentage 29% of the women with tertiary education had high knowledge as compared to illiterates and non-formally educated 13.3%. Much less percentage of merchants 5.3% and housewives 10% had a high knowledge score relative to government employees 20%, students 19.2%, daily laborer, jobless and others 19%[28].

### **3. OBJECTIVES**

#### **3.1. General Objective**

To assess the knowledge, attitude and practice of adult women clients towards breast cancer screening in health centers of Addis Ababa, 2015.

#### **3.2. Specific objectives**

- To determine the knowledge of adult women clients on breast cancer screening methods
- To determine the attitude of adult women clients towards breast cancer screening methods
- To determine the practices of adult women clients on breast cancer screening methods
- To identify factors associated with the knowledge, attitude and practices of breast cancer screening among adult women
- To explore health providers' opinion about community's understandings of breast cancer screening in health centers of Addis Ababa, 2015.

## **4. METHODS**

### **4.1. Study area and study period**

The study was conducted in public health centers in Addis Ababa, Ethiopia. The data collection period was from 1<sup>st</sup> January to 30 February, 2015.

Addis Ababa is the largest and capital city in Ethiopia as well as the seat for the African Union and different international offices. It covers an estimated area of 174.4 square kilometers; this region with an estimated density of 5,535.8 people per square kilometer. Based on 2007 census of the Central Statistical Agency of Ethiopia, the total population of Addis Ababa as the projected estimation for the year 2014 was 3.55 million and the proportion of male and female was 49% and 51%, respectively. The number of females in reproductive age group constitutes 35.5% of total population.

The city had ten sub-cities and 116 weredas. In the city there are 6 hospitals managed by Addis Ababa health bureau, 4 by Federal Ministry of Health, 1 by Addis Ababa University, 3 by non-governmental Organization, 3 by defense force and police and 34 by private owners. There were 84 public health centers and there were around 700 private clinics out of which 75 were higher clinics [31].

### **4.2. Study design**

A facility based quantitative and qualitative cross-sectional study designs were employed. Data were collected from the maternal and child health service departments of the health centers between January and February 2015.

### **4.3. Source population**

The source population was all women (20-49) years of age group and who came to health centers in Addis Ababa, Ethiopia.

### **4.4. Study population**

The study population was women who came to health centers for maternal and child health services for any kinds of medical consultation, diagnosis or follow up or treatment during the time of data collection.

## 4.5. Inclusion exclusion criteria

### Inclusion criteria

-Those women who were between 20 and 49 years of age and who were attending public health centers for maternal and child health services during the time of the data collection and who volunteered to participate in the study were included.

### Exclusion criteria

-Those women who were seriously ill or had problems of communication (who had problems of hearing or speaking).

## 4.6. Sample size determination

### Quantitative:

Assuming number of the study subjects as n, the standardized normal distribution curve value for 95% confidence level (1.96), taking 50% of population proportion with the knowledge of breast cancer screening (no previous similar study), and taking the margin of error to be 5% and a design effect (DEFF) of 1.5 (multistage sampling). And applying single population proportion formula for a cross-sectional survey, the sample size was determined to be 635.

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

$$= (1.96)^2 (0.5 \times 0.5) / (0.05)^2$$

$$= 384.2$$

$$= 384 + 10\% \text{ non-response rate}$$

$$= 384 + 39$$

$$= 423$$

$$= 423 \times 1.5 (\text{DEFF})$$

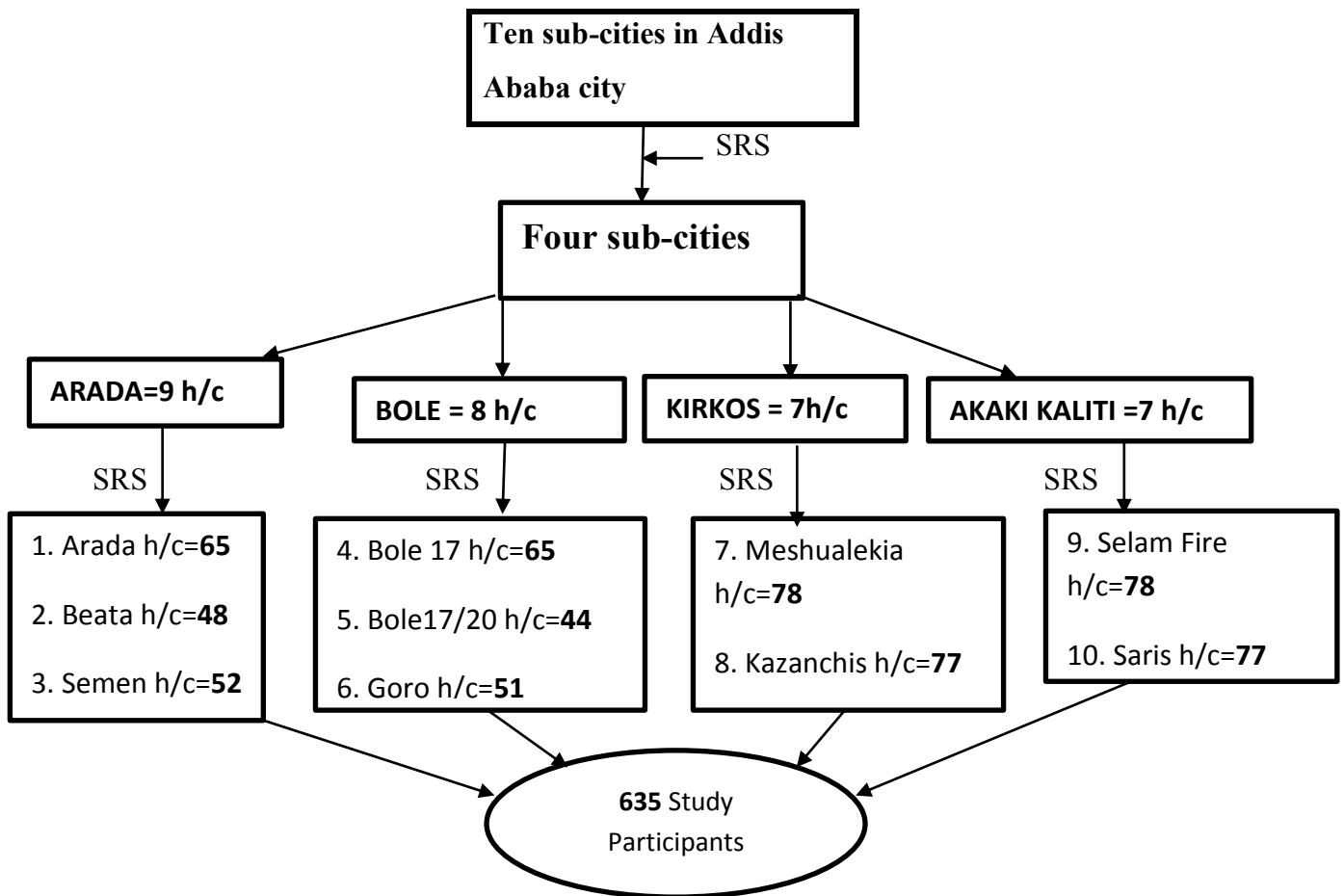
$$= \underline{635}$$

**Qualitative:** in-depth interview was undertaken in the health centers focusing on the health providers working in maternal and child health services until the point of saturation was reached.

## 4.7. Sampling procedures

Sampling focused on health centers where clients get primarily health care services. Since, 84 health centers are distributed in the ten sub-cities of the city; four sub-cities were selected. Then 2-3 health centers were taken from each of the four sub-cities by simple random sampling

method making a total of 10 health centers where the study was conducted. The study participants were recruited proportionally from each of the health center using the patient flow one month prior to the data collection. At the time of data collection all the voluntary women who came to maternal and child health services were interviewed consecutively during the morning of data collection time according to their order of arrival until the required sample size was obtained from each health facility. As shown below the study participants were distributed to the selected ten health centers proportion to the patient load.



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

In-depth interview was conducted with six experienced and volunteer health professionals who were working in maternal and child health departments of the selected health centers. The plan was to conduct 10 in-depth interviews with health professionals from each health centres

interviewed but it was stopped after interviewing 6 individuals since saturation of information was reached.

#### **4.8. Operational definitions**

**Screening**-refers to tests and exams used to find a disease, such as cancer, in people who do not have any symptoms.

**Breast Self-Exam (BSE):** is an exam performed by a woman of her breast to check for lumps or other changes.

**Clinical Breast Examination (CBE):** is an exam of breast performed by a health care provider to check for lumps or other changes.

**Mammography:** The use of X-rays to create pictures of the breast.

**Good knowledge-** is defined as knowledge score of greater than or equal to the mean knowledge score.

**Poor knowledge-** is defined as knowledge score of less than the mean knowledge score.

**Positive attitude** –is defined as an attitude score of greater than or equal to the mean attitude score.

**Negative attitude-** is defined as an attitude score of less than the mean attitude score.

**Practice** – is defined as a practice or use of any of the screening methods like that of SBE, CBE or Mammography.

#### **4.9. Variables**

##### **Independent variables**

- Socio-demographic variables (Age, marital status, house-hold expenditure, educational status and occupational status of the women and their husbands if they have husbands).
- Family history of breast pain/illness
- Family history of breast cancer
- Source of information

##### **Dependent variables**

- Knowledge of breast cancer screening
- Attitude towards breast cancer screening
- Practices of breast cancer screening

#### **4.10. Data collection procedures**

Quantitative data was collected by using a structured questionnaire which was prepared in English and then translated to Amharic. The later version was translated back to English, to ensure its consistency.

Qualitative data was collected by semi-structured discussion guide with important points to explore health providers' opinion about community's understandings of breast cancer screening.

#### **4.11. Data quality management**

To maintain data quality, ten data collectors and 1 supervisor who were health professionals were selected based on their experience of data collection were trained adequately for 3 days. The questionnaire was developed by the principal investigator based on questions used in previous peer reviewed published studies. Some questionnaire was adopted from similar studies that were previously conducted. There was a pre-test on 5% of the total sample size at health centers different from the selected health centers to see for the accuracy of responses, language clarity, appropriateness of the tools and the necessary amendments were done based on the findings of the pretest. The amended tool was used for actual data collection at the selected health centers. The collected data was reviewed and checked for mistakes, legibility of handwriting, completeness and consistency by principal investigator and supervisor on daily basis during data collection. Any mistake or ambiguity was cleared on the spot.

Qualitative data was collected by principal investigator with the assistance of note taker. A study guide was developed by the principal investigator to conduct the in-depth interview. The interview took place in Amharic in a quiet place where it was not overheard by others and where the respondent could comfortably respond to the questions. Each of the interviews was tape recorded, transcribed and then translated to English on the same day of interview.

#### **4.12. Data Analysis procedures**

##### **Quantitative data**

The data collection instruments were coded and data were manually checked and entered using Epi-Info version 7.0. It was cleaned and edited accordingly and exported to SPSS version 21.0 for analysis and data was rechecked for missing values before analysis.

To assess knowledge and attitude of participants towards breast cancer screening multiple questions were asked with 26 questions for assessing the general knowledge of breast cancer, 6 questions for assessing knowledge of breast cancer screening method and 5 questions to assess attitude towards breast cancer screening. For each correct or positive answer a score of „1” was given while “0” was given for every wrong or negative answer. Then a mean score was calculated for knowledge and attitude variables separately. Any score greater or equal to the mean score was defined as high score and hence labeled as “good knowledge” for knowledge variable while it was labeled as “positive attitude” for attitude variable. Any score which is less than the mean score was defined as low score and hence labeled as “poor knowledge” and “negative attitude” for knowledge and attitude variables respectively. Any score greater than the mean knowledge of breast cancer generally was labeled knowledgeable and any score below the mean knowledge was labeled poor “knowledge”. Respondents who practiced any of the screening methods included in the questionnaire were labeled as “those who practiced” while those who did not ever use any of the screening methods were labeled as “those who did not practice”.

Descriptive statistics, numerical summary measures, frequencies, proportions, distributions were used to check for normality and also diagrams for describing the study population in relation to relevant variables. Then cross tabulation of each independent variable and dependent variable with 95% confidence interval was calculated to see existence of an association between dependent and independent variables. Statistical significance was declared at p-value of 0.05 and the predictors of outcome variable were identified accordingly. Those variables associated at binary logistic regression with significance level ( $p=0.20$ ) were entered into multiple logistic regression to identify important determinants by controlling possible confounding effect.

### **Qualitative data**

For the qualitative study each of the in-depth interviews was tape recorded and transcribed and translated. Then open code software was used to code and categorize qualitative data, and then thematic analysis was employed to come up with theme. Finally the emerged theme was included into the final thesis write up of the thesis report.

#### **4.13 ETHICAL CONSIDERATION**

Ethical clearance was obtained from Institutional Review Committee (IRB) of School of Public Health at College of Health Sciences of Addis Ababa University. Following the approval by the REC, Addis Ababa health bureau was informed about the objectives of the study through a support letter from School of Public Health in AAU. Written permission was obtained from Addis Ababa health bureau to respective health facilities.

Informed verbal consent was obtained from each selected women to ensure they voluntarily participated in the study. Each participating woman was informed about the purpose of the study and her right to decline from study at any time. The women were also informed that the interview totally takes about 20 minutes and any information filled will be kept anonymous. No personal identification of the participants was recorded to ensure its confidentiality.

At the end of each data collection explanation regarding the risk factors, sign and symptoms and breast cancer screening including breast self-examination was provided to women who participated with the study questions related to breast cancer and breast cancer screening were entertained.

## **5. RESULTS**

### **5.1 Socio demographic characteristics of the study population**

Response was obtained from 633 adult women making the response rate of 99.7%. Of the study subjects, 366 (57.8%) of clients were between 20-29 years of age. The mean age was  $28.7 \pm 5.44$  years with median age of 28 years.

Most of the respondents were orthodox Christians 422 (66.7%) by religion followed by Muslims which accounts for 90 (14.2%) and protestants 82 (12.9%). One hundred eighty three (28.9%) of the women have attended secondary school, 264 (41.7%) attended primary school and 186 (29.4%) attended college. Of all the respondents 482 (76.1%) were currently married and 118 (18.6%) were never married. One hundred sixty (25.3%) were house wives while 136 (21.5%) of them were government employee. Among those who were married, 130 (27%) of their husbands were private employees and 118 (24.5%) were self-employed. Regarding education of their husbands 174 (36.1%) attended secondary school and 158 (32.8%) attended college.

Thirty six (5.7%) have reported that they have family history of breast illness while only 16 (2.5%) of them mentioned they have family history of breast cancer.

**Table 1 Socio-demographic characteristics of adult women in Addis Ababa may 2015**

<b>Variables</b>	<b>Frequency</b>	<b>Percent (%)</b>
<b>Age</b>		
20-24 years	128	20.2
25-29 years	238	37.6
30-34 years	158	25.0
35-39 years	74	11.7
>=40 years	35	5.5
<b>Religion</b>		
Orthodox	422	66.7
Protestant	82	12.9
Catholic	36	5.7
Muslim	90	14.2
Others <sup>##</sup>	3	0.5
<b>Educational Status</b>		
Primary Education or Below( ≤ 8 <sup>th</sup> grade)	264	41.7
Secondary Education (9 <sup>th</sup> -10 <sup>th</sup> grade)	183	28.9
Tertiary Education (diploma and above)	186	29.4
<b>Marital Status</b>		
Single	118	18.6
Married	482	76.1
Divorced	21	3.3
Widowed	12	1.8
<b>Occupation</b>		
Merchant	79	12.5
Government Employee	136	21.5
Private Employee	78	12.3
Self Employed	102	16.1
House Wife	160	25.3
Others <sup>**</sup>	78	12.3
<b>Husband occupation (N=482)</b>		
Merchant	102	21.2
Government Employee	103	21.4
Private Employee	130	27.0
Self Employed	118	24.5
Others <sup>**</sup>	29	6.0
<b>Husband Educational Status (N=482)</b>		
Primary Education And Below	150	31.1
Secondary Education	174	36.1
Tertiary Education	158	32.8
<b>Family History of Breast Illness</b>		
No	597	94.3
Yes	36	5.7
<b>Family History of Breast Cancer</b>		
No	617	97.5
Yes	16	2.5

##Jehovah witness and non –believers, \*\*jobless, students and day labors

## 5.2 Knowledge on the breast cancer

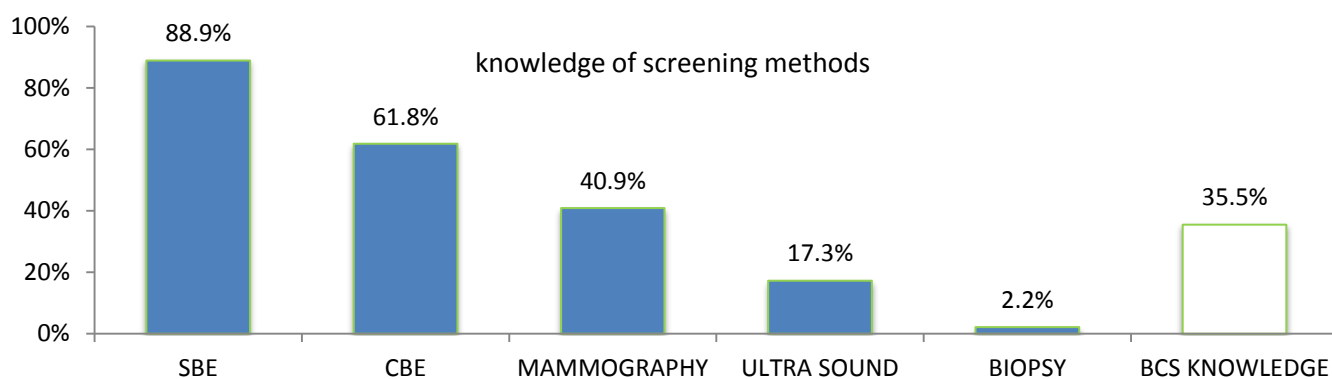
Among all the respondents 336 (53.1%) women have heard about breast cancer. And among women who have ever heard of breast cancer, 259(77.1%) of them have mentioned breast cancer is non-communicable. The table below shows the commonly mentioned sign and symptoms of breast cancer screening methods, risk factors for breast cancer and preventive measures.

**Table 2 General knowledge of breast cancer among adult women in Addis Ababa, May 2015**

	<b>Mentioned variables</b>	<b>FREQUENCY</b>	<b>PERCENTAGE (%)</b>
SIGN AND SYMPTOMS	Breast swelling	206	61.3
	Breast pain	170	50.6
	Discharge	114	33.9
	Nipple retraction	72	21.4
	Redness and engorgement	52	15.5
	Itching	16	4.8
RISK FACTORS	Smoking	150	44.6
	Alcohol	110	32.7
	Aging	71	21.1
	Being female	72	21.4
	Packed food	53	15.8
	Not to bf	32	9.5
	Early menarche	13	3.9
	Late menopause	16	4.8
PREVENTIVE MEASURES	Breast feeding	137	40.8
	No smoking	140	41.7
	Not drinking alcohol	124	36.9
	Regular screening	86	25.6
	Exercising	72	21.4
	Avoid obesity	62	18.5
	Avoid OCP	53	15.8
	Avoid packed foods	43	12.8
Wearing bra	5	1.5	

## 5.3 Knowledge on screening methods

Among all the respondents 225(35.5%) of women knew at least one kind of breast cancer screening methods. Figure 2 illustrates the commonly known breast cancer screening methods among women who had known about breast cancer screening.



**Figure 2 Knowledge on breast cancer screening methods of adult women in health centers of Addis Ababa May 2015**

NB: percent do not add up to 100%(multiple responses)

Among those who have heard of breast cancer screening methods, 159 (70.7%) and 31 (13.8%) of women mentioned SBE should be started above the age of 20 years old and below the age of 20 years old, respectively. Most of the women 170 (75.6%) mentioned the appropriate technique of performing SBE (with at least two fingers and palm). Eighty two women (36.4%) also mentioned that SBE should be performed monthly and 18 (8.0%) of women did not know the frequency of SBE.

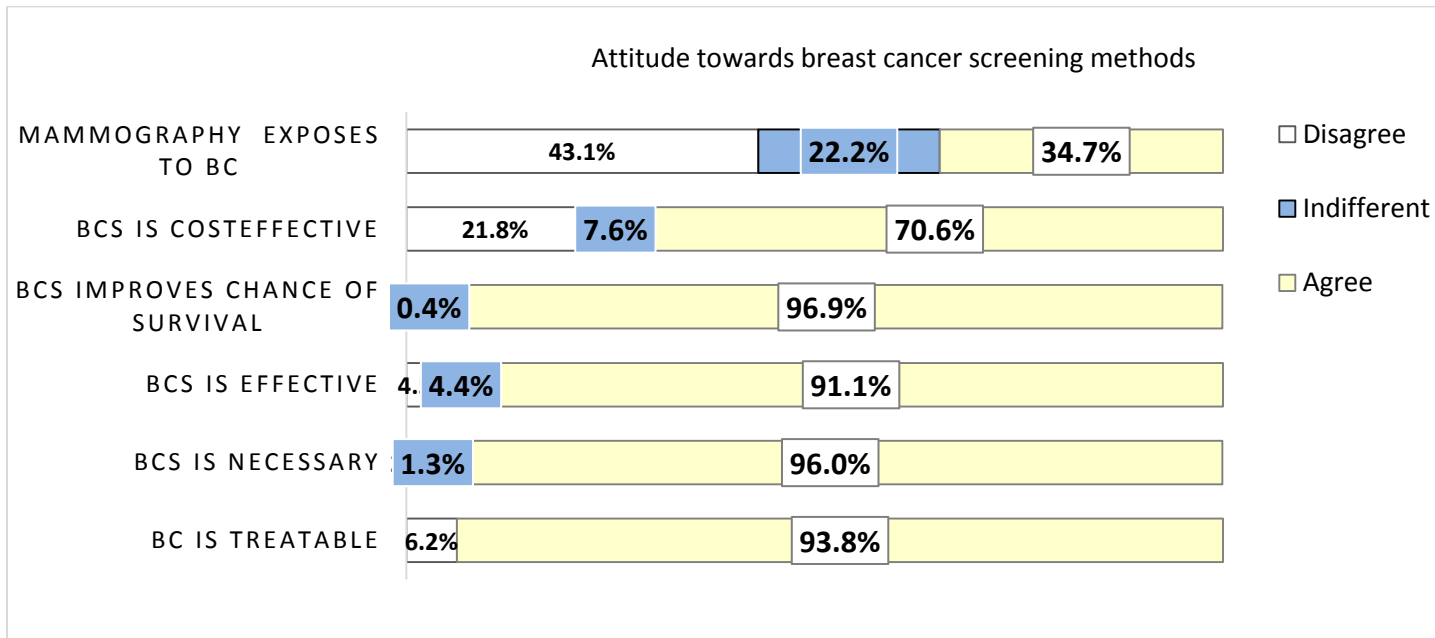
**Table 3 Knowledge on self-breast examination of adult women in Addis Ababa May 2015**

Variables	Response	Frequency	Percent
Age to begin performing SBE	do not know	14	6.2
	below 20 years	31	13.8
	above 20 years	159	70.7
	any time	21	9.3
Technique of SBE	do not know	18	8.0
	with one finger	26	11.6
	at least two fingers and palm	170	75.6
	anyway	11	4.9
Frequency of SBE	do not know	18	8.0
	daily	45	20.0
	weekly	64	28.4
	monthly	82	36.4
	yearly	16	7.1

Among those women who have heard of screening methods their most common source of information were media, health facility, school and family for 148 (66%), 64 (28%), 21% , 10 %, respectively. Peers were the least source of information 8(4%).

#### 5.4 Attitude towards breast cancer and screening

Among those who have heard of breast cancer screening methods, “screening improves chance of survival” was mentioned by 218(96.9%) of participants. And the attitude towards “mammography exposes to breast cancer” was believed by 78 (34.7%) of participants.

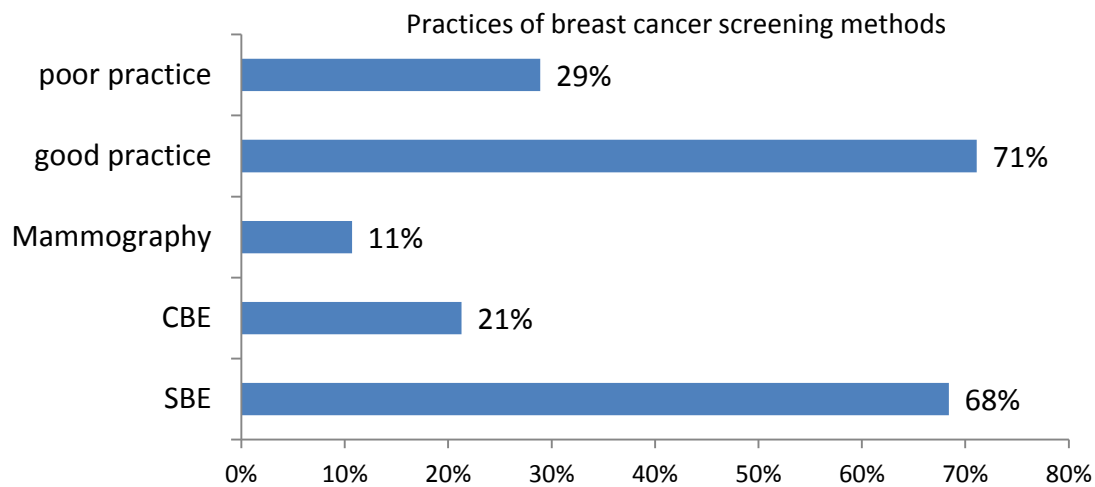


**Figure 3 Knowledge on breast cancer screening methods of adult women in health centers of Addis Ababa May 2015**

Attitude towards breast cancer screening was also computed as positive attitude and negative attitude towards screening. Among women who were informed about breast cancer screening 143(63.6%) had positive attitude and 82(36.4%) had negative attitude.

#### 5.5 Practices of breast cancer screening methods

Among those women who have heard of breast cancer screening SBE, CBE and mammographic examination was practiced by 154 (68%), 48(21%) and 24 (11%), respectively.



**Figure 4 Practices of breast cancer screening methods of adult women in Addis Ababa May 2015**

NB: percent do not add up to 100% (multiple responses)

Among those who knew about breast cancer screening methods 64(28.4%) of them reported that they did SBE 6-12 and 82 (36.4%) conducted 3-5 times a year. Most of them 159(70.7%) mentioned they started SBE when they were 20 years or above, and 85(55.2%) reported they did SBE within the preceding month of the data collection.

Among those who have heard of breast cancer screening the commonest reason mentioned for undergoing CBE was having symptoms on breasts and wanted to check 19(39.6%) for each and having family history of BC 7(14.6%) . Most 34(70.8%) of respondents have undergone CBE long time ago and only 10(20.8%) undergone CBE once a year.

Among those who were aware of BCS the commonest reason for not undergoing CBE was not having symptoms and lack of attention 153 (86%) and 19(11%) respectively.

Among those women who have heard of breast cancer screening the commonly mentioned reason for undergoing mammographic examination was they wanted to check 11(45.8%) and 7(29.2%) having symptoms.

While among those who have heard of breast cancer screening and those who do not undergo mammographic examination the commonly mentioned reason was not having symptom and not thinking to have breast cancer which counted 152(75.6%) and 24(11.9%) respectively.

## **5.6 Factors associated with knowledge, attitude and practice of breast cancer screening**

Cross tabulation and logistic regression analysis was carried out to determine the association between independent variables and the knowledge, attitude and practice of breast cancer screening among the study participants.

Educational status, occupational status, income, husband education and family history of breast illness were found to be significantly associated with the knowledge on BCS on binary logistic regression while income and family history of breast illness remained significantly associated with knowledge on BCS on multivariate logistic regression.

In a binary logistic regression analysis it was found that women who attended secondary education were twice more likely to know at least one breast cancer screening method compared to those who attended primary school or lesser [**COR=1.87; 95%CI (1.04-3.38)**]. Women who were government employees were about 6 times more likely to know at least one breast cancer screening method compared to those who were merchants, [**COR=5.69;95%CI (2.16-14.95)**]. Women who have higher income were twice more likely to know at least one breast cancer screening method than those women with low income, [**COR= 1.94; 95% CI (1.06-3.55)**]. It was also found that those who have no family history of breast illness were 66% less likely to know about breast cancer screening compared to those who had family history of breast illness,[**COR =0.34, 95%CI (0.15- 0.82)**].

In a multivariate logistic regression analysis those who had high level of income were about 3 times more likely to know about breast cancer screening compared to those with low income,[**AOR=2.48; 95%CI (1.04-5.91)**]. Those who had no family history of breast illness were 66% less likely to know about breast cancer screening compared to those who had family history of breast illnesses,[**AOR =0.34; 95% CI of (0.13-0.95)**].

**Table 4 Association between socio-demographic factors and knowledge of breast cancer screening of adult women in Addis Ababa may 2015**

Variables	Mean Knowledge Of Screening		COR(95%CI)	AOR(95%CI)
	Poor knowledge	Good knowledge		
<b>Educational status</b>				
Primary or less	54	30	1.0	
Secondary	50	52	1.87(1.04- 3.38)*	1.350(0.66-2.75)
Tertiary	36	114	5.7(3.18-10.21) **	1.83(0.77-4.33)
<b>Occupation</b>				
Merchant	14	8	1.0	
Gov't employed	28	91	5.69(2.16-14.95)**	2.58(0.85-7.80)
Private employed	18	25	2.43(0.84-7.01)*	1.68(0.53-5.32)
Self employed	28	25	1.56(.56-4.34)	1.94(0.64-5.87)
House wife	40	26	1.14(0.42-3.09)	1.32(0.46-3.75)
<b>Income</b>				
Low income	40	47	1.0	1.0
Middle income	71	83	0.10(0.59-1.69)	1.39(0.64-3.02)
High income	29	66	1.94(1.06- 3.55)*	2.48(1.04-5.90)**
<b>Husband education</b>				
Primary education	27	12	1.0	1.0
Secondary education	50	49	2.21(1.01-4.84)**	1.56(0.68-3.56)
Tertiary education	38	73	4.32(1.97- 9.48)**	1.92(0.78-4.74)
<b>Family history of breast illness</b>				
No	133	170	0.34(0.15-0.82)*	0.34(0.13-0.95)**
Yes	7	26	1.0	1.0

**NB:** \* for p-value < 0.2 and \*\* for p-value < .05

Factors like educational status, marital status, occupation and family history of breast illness were found to be significantly associated with attitude towards breast cancer screening on binary

logistic regression while only family history of breast illnesses and educational status of the women were found to be significantly associated with attitude towards breast cancer screening on a multivariate logistic regression analysis.

In a binary logistic regression analysis it was found that women who were married were 53% less likely to have positive attitude towards breast cancer screening compared to women who were single, while those women who were government employees were about 7 times more likely to have positive attitude towards breast cancer screening compared to those who were merchants [**COR=6.64; 95%CI (1.6-27.6)**] and those women who have attended tertiary education are about 3 times more likely to have positive attitude towards breast cancer screening compared to those who attended primary education or less [**COR =2.93;95%CI (1.34-6.37)**],while those who have no family history of breast illness are about 77% less likely to have positive attitude towards breast cancer screening compared to those who have family history of breast illnesses [**COR =0.23; 95%CI (0.08-0.69)**].

In a multi variable logistic regression analysis, divorced women were 91% less likely to have positive attitude towards breast cancer screening compared to those who were single,[**AOR =0.09;95% CI (0.01-.97)**]. Those who have no family history of breast illnesses were 80% less likely to have positive attitude towards breast cancer screening, compared to those who have family history of breast illnesses [**AOR=0.20; 95% CI (0.06-0.65)**].

**Table 5 Association between socio-demographic factors and attitude towards breast cancer screening of adult women in Addis Ababa may 2015**

Variables	Mean attitude towards breast cancer screening		COR (95%CI)	AOR(95%CI)
	Positive attitude	Negative attitude		
<b>Marital status</b>				
Single	14	46	1.0	1.0
Married	62	95	0.47(0.24-0.92)**	0.49(0.22-1.13)
Divorced	4	1	0.08(0.01-0.74)**	0.09(0.01-0.97)**
Widowed	2	1	0.15(0.01-1.81)	0.32(0.02-4.24)
<b>Family history of breast illness</b>				
No	78	117	0.23(0.08-0.69)**	0.20(0.06-0.65)**
Yes	4	26	1.0	1.0
<b>Occupation</b>				
Merchant	7	3	1.0	1.0
Government employed	26	74	6.64(1.60-27.60)**	3.56(0.77-16.40)
Private employed	11	18	3.82(0.81-17.93)	2.82(0.57-13.93)
Self employed	18	12	1.56(0.33-7.24)	1.17(0.24-5.69)
House wife	11	21	4.46(0.96-20.71)	4.12(0.85-19.90)
Others	9	15	3.89(0.80-18.98)	1.84(0.32-10.63)
<b>Educational status</b>				
Primary and less	18	16	1.0	1.0
Secondary	29	36	1.40(0.61-3.21)	1.31(0.52-3.31)
Tertiary	35	91	2.93(1.34-6.37)**	1.97(0.73-5.29)

**NB:** \* for p-value < 0.2 and \*\* for p-value < .05

On the other hand factors like educational status, religion, occupation, income, educational status of husband, occupation of husband, family history of breast illness, family history of breast cancer, and general knowledge of breast cancer were found to be significantly associated with the practice of breast cancer screening methods on binary logistic regression analysis while general knowledge of breast cancer and educational status of the women were found significantly associated with the practice of breast cancer screening methods on multivariate logistic regression analysis.

In a binary logistic regression analysis it was found that catholic religion followers were 56% less likely to practice breast cancer screening compared to orthodox religion followers, [**COR = 0.44; 95% CI (0.26-0.75)**]. While those women who attended secondary school were about 4 times more likely to practice breast cancer screening methods as compared to those who attended primary school or less, [**COR = 3.73; 95% CI (2.33-5.97)**] those woman who were privately employed were 4 times more likely to practice breast cancer screening methods as compared to those who were merchants, [**COR = 4.08; 95% CI (1.82-9.15)**]. Similarly, those who had higher income were 3 times more likely to practice breast cancer screening methods as compared to those who had low income, [**COR = 2.93; 95% CI (1.87-4.58)**].

And those who were married to government employed husbands were about 4 times more likely to practice breast cancer screening methods compared to those who were married to merchant husbands, [**COR=3.87; 95% CI (2.07-7.21)**]. While those women who were married to secondary school completed husbands were about 5 times more likely to practice breast cancer screening methods as compared to those who were married to those husbands who attended only primary school or less, [**COR=4.98; 95% CI (2.65- 9.39)**]. While those women who had no family history of breast illnesses other than breast cancer were 90% less likely to practice breast cancer screening methods as compared to those who had no family history of breast illnesses, [**COR=0.10; 95% CI (0.040-0.24)**]. While those women who had poor knowledge on breast cancer were 99.1% less likely to practice breast cancer screening methods as compared to those who had good knowledge of breast cancer [**COR=0.01; 95% CI (0.00-0.02)**].

On multivariate logistic regression analysis those women who attended secondary school and tertiary school were 2 times and 4 times more likely to practice breast cancer screening methods compared to those who attended primary school and less [**AOR=2.46; 95% CI (1.12-5.38)**] and [**AOR=4.00; 95% CI (1.48-10.86)**] respectively. And those women who had poor knowledge of breast cancer were 99% less likely to practice breast cancer screening methods as compared to those who had good knowledge of breast cancer [**AOR= 0.01; 95% CI (0.00-0.03)**].

**Table 6 Association between socio-demographic factors and practices of breast cancer screening methods of adult women in Addis Ababa may 2015**

Variables	Practices of screening methods		COR (95%CI)	AOR(95%CI)
	Poor practice	Good practice		
<b>Religion</b>				
Orthodox	262	160	1.0	1.0
Muslim	47	35	1.22(0.76- 1.97)	1.24(0.51-3.00)
Protestant	27	9	0.55(0.25-1.19)	3.17(0.65-15.46)
Catholic	71	19	0.438(0.26-0.75)**	1.35(0.51-3.56)
<b>Educational status</b>				
Primary and less	230	34	1.0	1.0
Secondary	118	65	3.73(2.33-5.97)**	2.46(1.12-5.38)**
Tertiary	60	126	14.21(8.85-22.81)**	4.00(1.48-10.86)**
<b>Occupation</b>				
Merchant	69	10	1.0	1.0
Gov't employed	36	100	19.17(8.92-41.18)**	1.56(0.44-5.61)
Private employed	49	29	4.08(1.82-9.15)**	1.46(0.36-5.83)
Self employed	72	30	2.88(1.31-6.32)**	1.42(0.40-5.07)
House wife	128	32	1.73(0.80-3.72)	1.14(0.34-3.81)
Others	54	24	3.07(1.35-6.96)**	1.21(0.40-10.64)
<b>Income</b>				
Low income	159	55	1.0	1.0
Middle income	177	97	1.58(1.07, 2.35)**	0.93(0.39-2.21)
High income	72	73	2.93(1.87- 4.58)**	1.99(0.75-5.29)
<b>Husband's occupation</b>				
Merchant	82	20	1.0	1.0
Gov't employed	53	50	3.90(2.07-7.21)**	2.21(0.70-6.96)
Private employed	84	46	2.25(1.22-4.12)**	2.08(0.69-6.29)
Self employed	81	37	1.87(1.00-3.50)**	1.48(0.49-4.41)
Others	25	4	0.66(0.21-2.10)	1.27(0.22-7.21)
<b>Husband education</b>				
Primary education	136	14	1.0	1.0
Secondary education	115	59	4.98(2.65- 9.39)**	1.64(0.66-4.07)
Tertiary education	74	84	11.03(5.86-20.76)**	1.50(0.54-4.14)
<b>Family history of breast illness</b>				
No	402	195	0.10(0.04-0.24)**	0.24(0.05-1.15)
Yes	6	30	1.0	1.0
<b>Knowledge of breast cancer</b>				
Not knowledgeable	322	7	0.01(0.00-0.02)**	0.01(0.00-0.03)**
Knowledgeable	86	218	1.0	1.0

**NB:** \* for p-value < 0.2 and \*\* for p-value < .05

### Qualitative result

The interviewees were six health providers in the six health centers of Addis Ababa (Table 10).



**Table 7 Socio-demographic characteristic of respondents for in-depth interview in Addis Ababa, Ethiopia, May 2015**

Respondent	Facility	Age	Sex	Profession	Years of service in the facility
R1	Saris health center	32	F	health officer	7
R2	Meshualekia health center	32	M	midwife	5
R3	Selam fire health center	34	F	midwife	7
R4	Beata health center	28	M	midwife	4
R5	Arada health center	31	F	midwife	4
R6	Bole 19/20 health center	30	F	midwife	6

## Analysis of qualitative data

The table below showed the codes, categories and theme developed during the qualitative data analysis

**Table 8 Theme, Categories and codes identified from the qualitative data, May 2015**

<b>Theme</b> 	understanding knowledge, perception and practices of women regarding breast cancer screening from health professionals perspective		
<b>Categories</b> 	Knowledge and perception	Practices	Socio-economic factors affecting screening practices
<b>Codes</b>	Programs needed <ul style="list-style-type: none"> <li>• Do not like it</li> <li>• Early age</li> <li>• Early screening</li> <li>• Lack of awareness</li> <li>• Low knowledge level</li> <li>• Knowledgeable</li> <li>• Important</li> <li>• School</li> <li>• No training</li> <li>• Treatable and preventable</li> </ul>	<ul style="list-style-type: none"> <li>• No practice</li> <li>• Health facility</li> <li>• No education</li> <li>• Health education</li> <li>• Media</li> <li>• FNAC instead</li> <li>• Few practiced</li> <li>• Little effort</li> <li>• Patient load</li> <li>• With compliant</li> <li>• Willing</li> <li>• Referred appropriately</li> <li>• No follow up and monitoring</li> <li>• Few counseled</li> <li>• Busy</li> <li>• Cases only</li> <li>• Not enough effort</li> <li>• No screening service</li> <li>• No referral</li> </ul>	<ul style="list-style-type: none"> <li>• Economically poor</li> <li>• Cultures and traditions</li> <li>• Expensive</li> <li>• Negligence</li> <li>• Give emphasis</li> <li>• Improve awareness</li> <li>• Needs attention</li> <li>• Never come to health facility</li> <li>• No attention</li> <li>• Not openly discussed</li> <li>• Only SBE and CBE</li> <li>• Motivate patients</li> <li>• Rare case</li> <li>• illiterates</li> </ul>

## **The knowledge, perceptions and socio-cultural aspects that contribute to breast cancer screening**

### **1. Knowledge and perceptions of screening**

Respondents were able to give appreciable ideas regarding what breast cancer screening mean, its importance and frequencies of screening methods. They mentioned the most common breast cancer screening methods. Respondents were able to support the initiation of breast cancer screening as early as 14 years and above.

A 32 years old female health officer said *“It is very important to screen earlier than too late. Better to start breast examination at the age of 14 and above. And the screening techniques are SBE, mammography, clinical breast examination and laboratory”* while another 32 years male midwife said *“Breast examination is important because diseases diagnosed at early stages are treatable and preventable. And it is recommended to do SBE starting at age of 20. And SBE is the most important one in our situation.”* As a whole they described that breast cancer screening is very important and the rest also added *“It is very important to screen ourselves as well as our patients so as to prevent malignancy and late diagnosis. The screening techniques are self-breast examination, clinical breast examination and mammography and also fine needle aspiration cytology (FNAC) are the common ones and the preferred age to undergo screening is starting reproductive age group or above 15 years old.”*

Interviewees were aware of the importance as well as the common methods of breast cancer screening. They have mentioned SBE, CBE, mammographic examination and FNAC as screening methods.

Regarding the perception of the community particularly the reproductive age group; a 34 years old female midwife said *“I don’t think most of the women know about breast cancer. When we tell them about the disease and screenings, they say ok but they don’t practice it. And they don’t know much about the prevention and the severity of the disease.”* While a 32 years old female health officer said *“Comparing to the past years, now a day’s people are having better awareness about breast cancer and breast cancer screening.”* And a 28 years midwife said *“There are women who are coming to the health centers for the first time in their life for ANC.*

*So difficult to say they know about breast cancer and practice breast cancer screening.” The three others also mentioned “most of the women are not aware of the breast cancer screening methods and the disease itself.”*

Interviewees have mentioned that most of the women coming to the health centers are not aware of the disease and the screening methods.

Regarding health professionals’ perception and willingness, a 34 years old midwife said that *“Our health workers are willing to counsel and teach about screening but they are busy with many patients.”* And others also added that *“Health workers are willing but they don’t have enough training and they are also busy on the daily works and it would be better if there is on job training.”*

## **2. Practices of breast cancer screening methods**

Participants were able to raise concerns related to the practices of screening methods and that the women do not practice screening methods and the reasons are: as a 36 years old female midwife said *“the reasons can be the low level of awareness and tradition of not discussing about such a serious disease with anybody else.”* While a 31 years female years old midwife said *“the women don’t have awareness about the severity of the disease, preventability and treatment. We health professionals also don’t give attention like other common diseases. When women come with breast pain or any symptoms we counsel them about the screening and they undergo screening and we tell them if they come early they will be treated and be cured.* And a 28 years old midwife added that *“Most of the women are not aware of the disease and screening and also negligence is the other reason. And there is also a problem with the health workers too. Because when there is high patient load there is no way doing complete physical examination which includes lymphoglandular system examination including breast examination but most of the health workers don’t give much attention to it at all.”*

As the interviewees said most women were not practicing breast cancer screening methods because they are not aware of it and health professionals’ ignorance was mentioned.

And as a health personnel the respondents mentioned of the effort they made about breast cancer screening and the 32 years health officer said *“yeah, we try to tell them about the disease and*

*screening especially about the self-breast examination but I don't think the effort is enough."*

While the 32 years male midwife added *"Our health workers have attended on different reproductive health trainings specially those working on MCH departments. I myself have taken two trainings on breast cancer screening. But I don't think that is enough effort."*

In a contrary the 34 years old midwife said *"To enhance the awareness and the practice, there was no training and we never been discussing about it either since the case is not common in our health facility"*

She also added *"I don't think there is enough knowledge about it. Even though ANC, F/P and PNC are favorable places to raise the issue of screening, the patient load doesn't allow us to work on this."*

And the three others also added *"there is no enough effort made on creating awareness regarding screening methods or not routinely performed it unless they come with signs or symptoms"*

### **3. Socio-cultural factors contributing to practices of breast cancer screening methods**

The common reasons for not undergoing screening were mentioned by the interviewees as the 32 years old male midwife said *"The reason could be the influence of cultures and traditions. Most women are not open to discuss such issues."* And as the 31 years old female midwife added *"Most of the women are scared to hear about the disease and do not want to hear about it at all."* And as she mentioned *"I never sent any patient for mammographic examination. Because there was no patient who can afford the cost and we commonly send them for FNAC instead because it costs less."* And the 28 years old male midwife added that *"Most people coming here are economically poor and they don't even afford for U/S but we do what we can just teach SBE and CBE up on their request."*

And as a recommendation the 32 years old female health officer said *"I think it should have been done a lot because the disease prevalence is increasing more than ever. We have to give attention to the disease. And also there should be awareness creation programs among the community and we need to give attention more than ever!"*

And as the 34 years old female midwife added *“I believe that we should work hard on the issue of breast cancer like we have done on TB and HIV; breast cancer also needs to be told taking more time. Health promotion should be done by medias and health facilities so as the community give attention and able to screen themselves. And also health professionals too should include the issue of breast cancer on our health education programs.”*

And also the 28 years old male midwife has added *“Here women get treated for the specific disease she complaining. I think it would be better if health education given to the mass in the morning. And most women can't read and write. And I hope people who already have the disease if they are encouraged to teach on the Medias it brings a difference I hope.”*

And the 31 years female midwife added *“I think it would be nice to give on job training for the health workers too in order to motivate them.”* In addition to this interviewees have said Medias like TV, magazine and radio should be used to create awareness since they have higher coverage at a time and cancer survivors should be encouraged and empowered to teach about the disease and create awareness.

This analysis has shown different knowledge and perception, practices and socio-cultural factors that contribute to the need of practices of breast cancer screening. Those factors were; low level of awareness, fear of the disease, economic status, educational status, lack of open discussion, lack of health education, lack of trainings, patient load, ignorance from the patient and health provider, prevalence of the disease, and medias.

## 6. DISCUSSION

This study has investigated the knowledge, attitude and practices of breast cancer screening among adult women of health centers in Addis Ababa. Breast cancer was known by 53.1% of the women. While among all the respondents 35.5% of women have known at least one kind of breast cancer screening methods. Among those women who knew about breast cancer 96.9% of the participants indicated “screening improves chance of survival”. While among those who knew about breast cancer screening methods SBE, CBE, and mammographic examination were practiced by 31.6%, 22.0% and 14.5% of respondents.

Income and family history of breast illness were found to be significantly associated with the knowledge score of breast cancer screening. Family history of breast illnesses and marital status of the women were found to be significantly associated with attitude of women towards breast cancer screening. While general knowledge of breast cancer and educational status of the women were found significantly associated with the practice of breast cancer screening methods on multivariate logistic regression.

Accordingly the study has revealed that overall 52% of the study participants had a knowledge score of greater than or equal to the mean knowledge score and in this study the commonly mentioned risk factors were smoking, drinking alcohol, being female and aging accounted for 44.6%, 32.7%, 21.4% and 21.1%, respectively which were higher than the study done in North Ethiopia[28]. Similarly with regard to symptoms of BC, the commonly mentioned symptoms of breast cancer were breast mass and swelling, breast pain, and discharge which were 61.3%, 50.6% and 33.9%, respectively and it was higher than study of north Ethiopia [28]. And the difference could be attributed to the urban nature of this study area since they would have better access to information of breast cancer.

The study revealed that among all of the respondents only 31.6% of participants were able to correctly identify breast self-examination (BSE) and was less than the study result from Nigeria and this could be due to the socio-demographic difference between the two study areas. While in this study 14.5% of women identified mammography as a method of detection for breast cancer screening and was higher than the study done in northern Ethiopia and Nigeria.[27, 28] And this could be due to the time of the study thus there was better awareness at the current study period compared to the previous years.

In this study 92.4 % of respondents favored “breast cancer screening is effective in detecting breast cancer” and 4.9% strongly agreed with it and this was slightly higher than the Nigerian study done on community dwellers[25]. In this study 63.4% had positive attitude towards breast cancer screening which is lower than the study done in Tunisia [26] and this could be due to the better awareness in the Tunisian community. Majority 96.9% of breast cancer screening informed women have agreed that breast cancer improves chance of survival and this is higher than a study done in northern Ethiopia. It was also shown 13.8% of the study participants know that SBE should be started at the age of 20 or less and this was similar to the study done in north Ethiopia. Among those women who have heard of screening methods, the major source of information was media 23.4% which was similar to the study done in north Ethiopia and health facility was source of information was 10.1% of respondents which is about seven times higher than similar study[28]and the reason could be the professionals were more available and relatively abundant in urban areas like Addis Ababa city.

SBE, CBE and mammographic examinations were practiced by 24.3%, 7.6% and 3.8%, respectively. This is lower than the study done in Nigeria. And this could be due to the differences in socio-economic factors between the study areas. And the main reason mentioned for not having clinical breast examination (CBE) was not having symptoms 86.4% which was similar to the study done in Benin Nigeria[25].

Majority of the participants in this study (86.4%) mentioned absence of symptoms as the main reason for not undergoing CBE and this is similar to the study of north Ethiopia[28]. The similarity could be due to the health seeking behavior of the two study areas were similar and this showed women do not practice unless they have symptoms and this is supported by the idea of a 28 years midwife who said *“There are women who are coming to the health centers for the first time in their life for ANC. So difficult to say they know about breast cancer and practice breast cancer screening.”* And other interviewees complimented that the lack of awareness creation on when and how to use screening methods were additional factors that hinder CBE.

This study showed only (3.8%) had mammographic examination slightly higher than the study of North Ethiopia; while the main reasons for non-practice of mammographic examination were not having symptoms, lack of attention to BC, and its expense 75.6%, 11.9% and 6.5% respectively.

While in the study of north Ethiopia the main reasons given by the women for not having mammographic examination were, doubt about its importance 33.8%, lack of knowledge about it 31.9% and unavailability of the service 14.0%[28]. And this difference could be due to the relatively better availability of mammography in urban city.

In this study it was found that those who had higher income(>1500 Ethiopian birr) were 3 times more likely to practice breast cancer screening methods as compared to those who had low income. And this was supported by the idea of a 28 years old male midwife who said *“Most people coming here are economically poor and they don’t even afford for ultrasound but we do what we can just teach SBE and CBE up on their request.”*

In this study it was found that those women who attended secondary school were twice more likely to know about breast cancer screening compared to those who attended primary or lesser school. Those who were government employed women were 5.7 times more likely to know about breast cancer screening compared to those who are merchants. This is consistent with the study done in North Ethiopia and the study of Tunisia. In this study those women who have higher income, were twice more likely to know about breast cancer screening than those women with low income. This was contrary to the study of north Ethiopia [28] and this could be due to the socio-demographic variability nature of the larger city. It was also found that those who had no family history of breast illness were 65.6% less likely to know about breast cancer screening compared to those who had family history of breast illness. And this was similar to the study of Tunisia.[26]

In addition to the above determinant factors, interviewees of the qualitative study mentioned that low level of awareness, fear of the disease, economic status, educational status, lack of open discussion, lack of health education, lack of trainings, patient load, ignorance from the patient and health provider, prevalence of the disease, and coverage of media were another important factors that affect the practice and perception of women towards BCS.

It was found that one of the strongest incentives for women to obtain breast cancer screenings was the recommendation of their health care providers. It has also been shown that for health workers to be effective as educators they must possess the appropriate knowledge, attitude and beliefs concerning the health behavior being promoted[29] therefore on the qualitative part of

this study it was found that many of health professionals were knowledgeable about the breast cancer screening methods, the importance and age to start breast cancer screening as 32 years old male midwife said *“Breast examination is important because diseases diagnosed at early stages are treatable and preventable. And it is recommended to do SBE starting at age of 20. And SBE is the most important one in our situation.”* And regarding health professionals willingness to educate and perform breast cancer screening methods a 34 years old midwife said *“Our health workers are willing to council and teach about screening but they are busy with many patients.”*

## **7. Strengths**

- This study was supplemented by qualitative study which magnified the findings of the quantitative study.
- High response rate was obtained hence the data collectors were trained clearly and precisely about the study
- This study is one of the few studies which identified major factors contributed to the low level of breast cancer screening practice.

## **8. Limitations**

- The cross-sectional nature of the data made it impossible to reach at the causal relationship between the different independent and outcome variables.
- The study was conducted among women who have attended health centers for maternal and child health services therefore it might be difficult to say it was representative of the population residing in Addis Ababa city.
- Lack of literatures from developing countries hinders further discussion and comparison

## **9. Conclusion**

This study has revealed that the prevalence of knowledge, attitude and practices of breast cancer screening is significantly lower. Specifically, the knowledge of women on risk factors, preventive measures, signs and symptoms and knowledge of breast cancer screening methods was poor.

Considerable proportions of women have no information about breast cancer and its screening methods. Among those who have information about breast cancer screening only small proportions are actually practicing.

Income and family history of breast illness were found to be significant factors for the knowledge of breast cancer screening methods.

Family history of breast illnesses and marital status of the women were found significant factors for the attitude towards breast cancer screening.

General knowledge of breast cancer and educational status of the women were found significantly associated with the practicing breast cancer screening methods.

At the same time qualitative findings of in-depth interview in this study revealed that low level of awareness perception and practices of adult women regarding breast cancer screening. Socio-cultural factors, lack of attention, facilities patient load were among the dominant factors raised that hinder women from practicing breast screening methods.

## 10. Recommendations

**Government level:** Government should be focused on increasing women's educational level.

A standard screening guide line needs to be prepared and needs to be implemented in all health facilities.

The media should let a wide range of air time to provide comprehensive information about breast cancer and BCS as it can reach many individuals at a time.

There should be regular monitoring and evaluation program in order to keep the health awareness and promotion program.

**Health facility level:** Health providers and other concerned bodies must put great emphasis on educating communities to increase client's awareness and attitude towards breast cancer screening.

Health providers should also get on job training regarding breast cancer preventive measures, risk factors, treatment options and early detection methods.

**Community level:** The community should give emphasis on this deadly disease and practice early screening methods so as to prevent late diagnosis and other complications.

Breast cancer survivors should be encouraged and empowered to teach and give real life experience to the large community using different press and mass Medias.

**Researchers:** Researchers should conduct further study by using strong study designs at the community level in different parts of the country to identify different socio demographic factors as well as in private institutions, NGOs and manager's views should be assessed.

Generally it needs collaboration between researchers, community leaders, health care professionals, non-governmental organizations, policy makers and other concerned bodies. It is important to ensure the improvement of breast cancer screening awareness, perception, and practices of the women so as to reduce morbidity and mortality related to breast cancer among women of Ethiopia.

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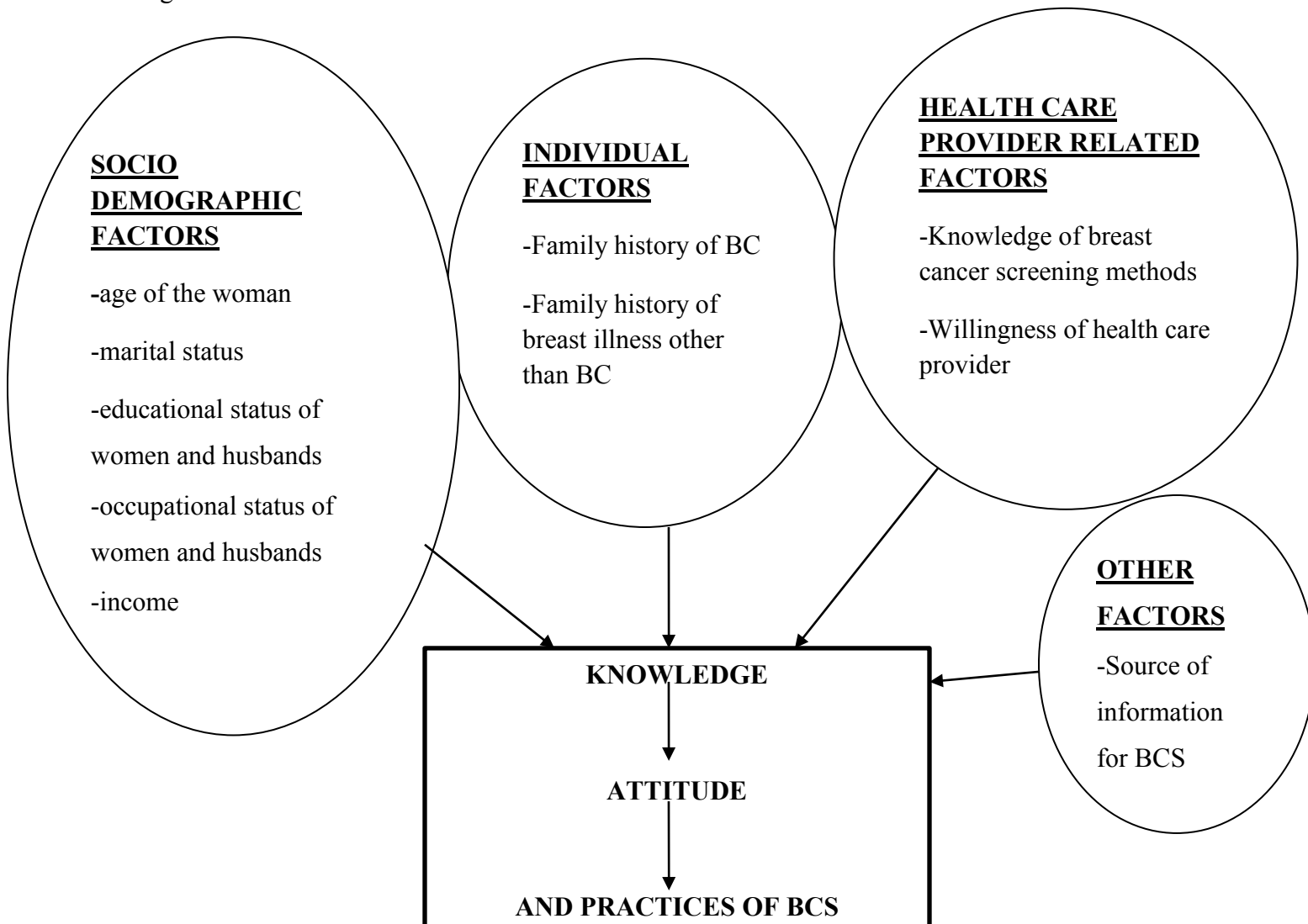
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## 12. ANNEXES

### ANNEX I. CONCEPTUAL FRAMEWORK

Two types of variables were used to assess factors associated with breast cancer screening. The dependent variables were knowledge, attitude and practices of adult women towards breast cancer screening methods. And independent variables were socio-demographic status, individual factors, health care provider related factors and other factors. This conceptual framework was developed using information from different literatures.



**Figure 5 A conceptual framework for knowledge, attitude and practices towards breast cancer screening, Addis Ababa Ethiopia, 2015**

## **ANNEXII. STRUCTURED ENGLISH VERSION QUESTIONNAIRE**

### **Information sheet**

**Principal investigator:** Sandra Abeje

**Title:** Assessment of knowledge, attitude and practices of adult women towards breast cancer and breast cancer screening in selected health centers of Addis Ababa, Ethiopia, 2015.

**Sponsor:** Ethiopian Public Health Association (EPHA)

Hello! My name is..... I am here on behalf of Sandra Abeje student of the school of public health in the Addis Ababa university. She is conducting a research for the partial fulfillment of second degree on „„assessment of knowledge, attitude and practices of adult women towards breast cancer in selected health centers of Addis Ababa city.““ She has received permission from school of public health at Addis Ababa university and from health bureau to conduct this study.

**Objective-** To assess the knowledge, attitude and practices of adult women towards breast cancer screening in health centers of Addis Ababa city,2015.

**Benefit of the study:** the direct benefit to the participants will be getting a short explanation about the disease and breast cancer screening techniques after completing the questionnaire. And the results of this study will help in assessing adult women’s KAP regarding breast cancer screening and as an input in considering a convenient programmatic approach to prevent, early diagnosis and treatment of breast cancer. The result of the study will be disseminated to concerned bodies including Addis Ababa health bureau.

**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 and all the questionnaires will be coded for anonymity. Only the principal investigator will know the details and she will discard it after completing analysis.

### **II-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 and the questions usually take about 15-20 minutes. 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)

**Contact details of principal investigator and the person to whom to contact at any time for further explanation:**

Name of principal investigator: Sandra Abeje

Cell phone No - 0913602291

E-mail: abejasandra780@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 .....

## 1. English version questionnaire

### 1.1. Socio-demographic characteristics of the women participating in the study

Q. No.	Questionnaire	Responses	Skip
101	Where do you live?	Addis Ababa.....1 Out of Addis Ababa.....2	
102	How old are you?( last celebrated birthday)	.....years old	
103	What is your Religion?	Orthodox.....1 Protestant.....2 Catholic.....3 Muslim.....4 Others.....5	
104	What is your current educational level?	Illiterate.....1 Read and write only.....2 Primary school.....3 Secondary school.....4 College.....5 University.....6	
105	What is your current marital status?	Single.....1 Married .....2 Divorced.....3 Widowed.....4 Separated.....5	
106	What is your current occupational status?	Student.....1 Merchant.....2 Government Employed.....3 private job.....4 Self-employed .....5 House wife.....6 day laborer.....7	

		Others.....8 Specify _____	
<b>107</b>	What is your husband's educational status currently?	Illiterate.....1 informal education.....2 Primary school.....3 Secondary school.....4 College.....5 University.....6	
<b>108</b>	what is your husband's occupation currently?	Student.....1 Merchant.....2 Government Employed.....3 Self-employed.....4 day laborer .....5 Others.....6 Specify _____	
<b>107</b>	What is your house hold expenditure in a month?	in Ethiopian Birr _____	
<b>108</b>	Was there any one in your family who had breast pain or illness?	Yes.....1 No .....2	
<b>109</b>	Was there any one in your family with breast cancer?	Yes.....1 No .....2	

### 1.2. Knowledge of the women on breast cancer and breast cancer screening

Qn No.	Questionnaire	Response	Skip
<b>201</b>	Have you ever read or heard of breast cancer?	Yes.....1 No.....2	If no, you are done with the questions thank you!

202	Is breast cancer transmittable disease?	Yes.....1 No.....2	
203	Do you know any of the risk factors? (multiple answers are possible) <b>(Probe)</b>	Gender.....1 Aging.....2 Family history.....3 Smoking.....4 feeding on packed foods.....5 Early menarche.....6 Late menopause .....7 Others.....8 Specify _____	
204	Can it be detected earlier?	Yes.....1 No .....2 I do not know.....3	
205	Do you know any of the preventive measures against breast cancer? (multiple answers are possible) <b>(Probe)</b>	Alcohol abstinence.....1 Promoting physical activity.....2 breast feed.....3 avoiding over weight.....4 Avoiding un-prescribed hormonal therapy.....5 Performing periodic regular breast examinations.....6 Others.....7 Specify _____	

206	Do you know any of the symptoms of breast cancer? (multiple answers are possible) <b>(Probe)</b>	breast pain.....1 Painless and hard mass.....2 Nipple retraction.....3 Breast discharge other than breast milk.....4 Redness, thickening of nipple or breast.....5 Others.....6	
207	Have you ever heard of any kind of breast cancer screening methods? (probe well)	Yes.....1 No .....2	
208	If yes, which of breast cancer screening methods do you know? (multiple answers are possible)	breast self-examination.....1 clinical breast examination...2 mammography.....3 MRI.....4 Others.....5 Specify _____	
209	From where did you hear about it?	Family member.....1 Peer group.....2 Television.....3 Newspaper/Magazine.....4 School.....5 Health facility.....6 Others.....7	
210	At what age should breast self-examination begin?	Less than age of 20.....1 At above age of 20.....2 Any time.....3 Do not know.....4	
211	How often should one perform	Daily.....1	

	BSE?	Weekly.....2 Monthly.....3 Yearly.....4 Do not know.....5	
<b>212</b>	Can you tell me how BSE is performed?	Palpate with one finger.....1 Palpate with palm and Minimum of three finger.....2 Anyhow.....3 Do not know.....4	

### 1.3. Attitude to breast cancer screening

Qn No.	Questionnaire	Response	Skip
<b>301</b>	Breast cancer is preventable and treatable disease if detected earlier	Strongly agree.....1 Agree.....2 Disagree.....3 Strongly disagree.....4 Indifferent .....5	
<b>302</b>	Screening is necessary for early detection and prevention of breast cancer.	Strongly agree.....1 Agree.....2 Disagree.....3 Strongly disagree.....4 Indifferent .....5	
<b>303</b>	Early breast cancer screening procedures are effective in detecting breast cancer	Strongly agree.....1 Agree.....2 Disagree.....3 Strongly disagree.....4 Indifferent .....5	

<b>304</b>	Early detection can improve chances of survival	Strongly agree.....1 Agree.....2 Disagree.....3 Strongly disagree.....4 Indifferent .....5	
<b>305</b>	Screening for breast cancer is cost effective	Strongly agree.....1 Agree.....2 Disagree.....3 Strongly disagree.....4 Indifferent .....5	
<b>306</b>	Undergoing mammographic examination exposes to breast cancer	Strongly agree.....1 Agree.....2 Disagree.....3 Strongly disagree.....4 Indifferent .....5	

**1.4 practice of any screening methods**

<b>Qn No.</b>	<b>Questionnaire</b>	<b>Response</b>	<b>Remark</b>
<b>401</b>	Have you ever seen BSE performed by others?	Yes.....1 No .....2	
<b>402</b>	Have you ever done BSE?	Yes.....1 No .....2	If no skip to Qn no 406
<b>403</b>	If yes, how often do you perform BSE in a year?	More than 12 times.....1 6-12 times.....2 3-5 times.....3 o-2 times.....4 I don't remember.....5	

<b>404</b>	At what age did you start BSE?	At age less than 20.....1 At age above 20.....2	
<b>405</b>	When is the last time you performed BSE?	Less than a week ago.....1 Less than 3-6 months ago.....2 Less than one year ago....3 Long ago.....4	
<b>406</b>	If no, why didn't you do BSE?	I had not thought the proper technique.....1 I am afraid of getting lump.....2 I did not have confidence on my examination.....3 I do not like touching my body like that.....4 Others.....5 Specify _____	
<b>407</b>	Have you ever undergone clinical breast examination?	Yes.....1 No.....2	if no skip to Qn no <b>410</b>
<b>408</b>	If yes, why?	To get my breasts examined Regularly.....1 Breast cancer is in my Family.....2 I had symptoms.....3 Others.....4	
<b>409</b>	How often do you get clinical breast examination?	Twice a year or more.....1 Once a year.....2 Whenever I visit clinics...3 Never.....4	
<b>410</b>	If no, why didn't you	I do not have any	

	undergo clinical breast exam?	symptoms.....1 I think it is expensive.....2 It is embarrassing.....3 I am afraid.....4 I know I can never have cancer.....5	
<b>411</b>	Have you ever undergone mammographic screening?	Yes.....1 No.....2	if no skip to Qn no <b>414</b>
<b>412</b>	If yes why?	I had a breast problem.....1 Breast cancer is in my family.....2 To learn about my health condition.....3	
<b>413</b>	How often do you undergo mammographic examination?	Once in three years.....1 Once in five years.....2 Never.....3	
<b>414</b>	If no, why not?	I do not have any symptoms.....1 I think it is expensive.....2 It is embarrassing.....3 I am afraid.....4 I know I can never have cancer.....5 Unavailability of the service.....6 Others .....7 Specify _____	

## 2. In-depth interview guide for health providers

Greeting!

Hello dear participant!

With the aim of assessing the knowledge attitude and practices of women towards breast cancer, having an in-depth interview with you has become an important idea. I hope that the interview I would be having with you is very much helpful to further improve the awareness, quality, availability and accessibility of breast cancer screening methods and to explore the possible barriers for undergoing any breast cancer screening methods among women aged 20-49 years old.

In doing this interview, I will raise some questions concerning breast cancer and breast cancer screening methods in Addis Ababa in general and specifically in your health center why women do not want to practice breast cancer screening.

Heading to the interview I would like to appreciate you for your voluntary participation in this interview/discussion.

Discussion points

1. In your opinion, what is the perception of the community, particularly women about breast cancer and breast cancer screening?  
(Prob: perception about severity of the disease, its preventability, health care seeking behavior, i.e. importance of examination- self or by health personnel)
2. In your opinion, what do you think are the reasons for women not practicing breast cancer screening? (Knowledge about the existence of the services, attitude towards the services, alternative services etc.)
3. Doyou think your health center/clinic is making effort towards creating awareness about the disease and screening?
4. How important do you think breast cancer screening for diagnosing of breast cancer?  
Regarding these can you mention the major breast cancer screening methods, the right time to start breast cancer screening and the recommended frequency?

5. For what kind of client do you think clinical breast exam necessarily done in your health center?
6. How willing are the health professionals in your health center/clinic to tell clients about BSE and doing CBE?
7. Do you refer clients who want to screen for breast cancer with mammography?  
(Prob: if yes, where? If no, why not?)
8. What do you think are the role of health professionals in creating a better understanding about breast cancer and practicing of breast cancer screening in your community?  
(Prob: frequency of health education, campaigning, pamphlets, use of mass media?)

Finally, I would like to express my heartfelt thanks for your voluntary participation in this in-depth interview.

You have contributed your best!

**ANNEX III. AMHARIC VERSION QUESTIONNAIRE**

**የአማርኛ ቋንቋ መጠይቅ**

ጥናት አድራጊ፡- ሳንድራ አበጀ

**ርዕስ፡-** እድሜያቸው ከ20—49 ዓመት (አዋቂ ሴቶችን) የጡት ካንሰር ቅድመ ምርመራ ጋር በተያያዘ ያላቸውን እውቀት፣ አመለካከት እና ተግባር በአዲስ አበባ የተመረጡ ጤና ጣቢያዎች ውስጥ ማጥናት

ጤናይስጥልኝ! ስሜ ..... እኔ ዛሬ እዚህ የተገኘው የአዲስ አበባ ዩኒቨርሲቲ የህብረተሰብ ጤና አጠባበቅ ተማሪ የሆነችውን ሳንድራ አበጀን በመወከል ሲሆን ጥናቱም የማስተርስ ዲግሪዎን ለማግኘት የሚጠቅማት ነው። ጥናቱንም ለማካሄድ ከአዲስ አበባ ዩኒቨርሲቲ እና ከአዲስ አበባ ጤና ቢሮ አስፈላጊውን ፍቃድ አግኝታለች። የምትሰጡት መረጃ ለወረዳው፣ ለመንግስት አካላት እና ለህብረተሰቡ ከፍተኛ ጥቅም ይሰጣል።

**አላማ፡-** የጡት ካንሰር ቅድመ ምርመራ ጋር በተያያዘ አዋቂ ሴቶች ያላቸውን እውቀት፣ አመለካከት እና ተግባር በአዲስ አበባ የተመረጡ ጤና ጣቢያዎች ውስጥ በ 2015 ዓም እኤአ ማጥናት ነው።

**ለተጠያቂው የሚሰጠው ጥቅም፡-** የጥናቱ ተሳታፊዎች ከዚህ ጥናት በቀጥታ የሚያገኙት ጥቅም ከመጠይቆቹ በኋላ ስለ ጡት ካንሰር አነስ ያለ ገለጻ ይደረግላቸዋል። እንዲሁም ጥናቱ ከተካሄደ በኋላ የጥናቱ ውጤት የአዋቂ ሴቶችን እውቀት፣ አመለካከት እና ተግባር ከጡት ካንሰር እና የጡት ካንሰር ቅድመ ምርመራ ጋር በተያያዘ ያለውን ሁኔታ ለማወቅ ይረዳል። በተጨማሪም በሽታውን ለመከላከል፣ ቅድመ ምርመራ ለማድረግ እና ህክምና ለመስጠት ተገቢውንና አስፈላጊውን ፕሮግራም ለማዘጋጀት ይረዳል።

**ጥናቱ ሊያስከትል የሚችለው ጉዳት፡-** በጥናቱ ላይ መሳተፍ ምንም አይነት ጉዳት አያስከትልም።

**የተጠያቂው መብቶች**

- 1) አንድ ተጠያቂ ጥናቱ እየተከሄደ እያለ ማቋረጥ ወይም ሙሉ መጠይቁን የመጨረስ ሙሉ መብት አለው።
- 2) መጠይቁን ሙሉ በሙሉ ወይም የተወሰነውን ብቻ መልስ መስጠት ይችላሉ። እንዲሁም የማይፈልጉትን ጥያቄ ካለ መርጠው ያለመመለስ መብት አለዎት።
- 3) ያልተረዱትን ጥያቄ ጠያቂውን መጠየቅ ይችላሉ።

**ምስጢራዊነት፡-** ሁሉም መረጃ ምስጢራዊነቱ የተጠበቀ ሲሆን የእርሶ ስም ባለመጻፍ ምስጢራዊነቱን ለመመጠበቅ የምስጢር ቁጥር የምንጠቀም ይሆናል።

**ስምምነት**

ከይላ እንደተጠቀሰው በጥናቱ መሳተፍ ምንም አይነት ጉዳት አያስከትልም። ስምዎም በዚህ መጠይቅ ላይ አይጻፍም፤ መረጃውም ከተተቀሰው ወጪ ለማንም ተላልፎ አይሰጥም። ለመልሱት የማይፈልጉትን ጥያቄ ባለመመለስ በፈለጉት ጊዜ አቋርጠው መሄድ ይችላሉ። ሌላው ልነግርዎት የምፈልገው የእርስዎ እውነተኛ መልሶች ለሚደረገው ጥናት በጣም ጠቃሚ እንደሆነ እንዲሁም ጥያቄዎቹን መልሶ ለማጠናቀቅ ከ15-20 ደቂቃ ሊፈጅ ይችላል። የተሰጥዎትን መረጃ ተረድተው በጥናቱ ሊሳተፉ ስለፈቀዱልኝ እጅግ በጣም አመሰግናለሁ።

ከላይ ያለውን በሙሉ በማውቀው ቋንቋ ተነቦልኝ ተረድቼ ጠቅኛል ካለ፡-

በጥናቱ ለመሳተፍ ፍቃደኛ ነዎት?

1) አይደለውም( አመሰግናለሁ)      2) አዎ(አንቀጥላለን)

ለሚኖርዎት ጥያቄ የሚጠቀሙት አድራሻ እና የጥናት አድራጊ ዋመረጃ

የጥናት አድራጊዎ ስም :ሳንድራ አበጀ

ስልክ ቁጥር 0913602291

ኢ-ሜይል: abejasandra780@gmail.com

የጠያቂው ስም እና ፊርማ. \_\_\_\_\_ የተጠየቀበትቀን (በኢትዮጵያአቆጣጠር) -----/-----/-----

----- የጥናቱውጤት 1. ተጠናቋል 2. መጠየቅ አልፏለችም 3. ተጠያቂው አልተገኘም 4. በከፊል የተጠናቀቀ

በሱፐርቫይዘርተረጋግጧልስም -----ፊርማ----- ቀን \_\_\_\_\_

1.1. የጥናቱ ተሳታፊዎች የጥናት መለያና ስነህዝባዊ መረጃ

ተ.ቁ	መጠይቅ	መልስ	ዝልል
101	አድራሻዎ የትነው ?	አዲስ አበባ.....1 ከአዲስ አበባውጪ.....2	
102	እድሜዎ ስንት ነው?(ለመጨረሻ ጊዜ ያከበሩት ስንተኛ ልደትዎን ነው?)	_____ ዓመት	
103	የሚከተሉት ሃይማኖት ምንድን ነው?	ኦርቶዶክስ.....1 ፕሮቴስታንት.....2 ካቶሊክ.....3 ሙስሊም.....4 ሌላከሆነይጥቀሱ.....5	
104.	የትምህርት ደረጃዎን ይንገሩኝ	ማንበብናመጻፍየማይችል.....1 ማንበብናመጻፍብቻ.....2 መጀመሪያደረጃትምህት.....3 ሁለተኛደረጃትምህርት.....4 ኮሌጅ.....5 ዩኒቨርሲቲ.....6	
105	የጋብቻ ሁኔታዎ እንዴት ነው ?	ያላገባች.....1 ያገባች.....2 የፈታች.....3 ባሏ የሞተባት.....4 የተለያዩ.....5	
106	የእርስዎ የስራ ሁኔታ እንዴት ነው?	ተማሪ.....1 ነጋዴ.....2 የመንግስትተቀጣሪ.....3 የግልተቀጣሪ.....4 የግል ስራ.....5 የቀን ስራ.....6 የቤትአመቤት.....7 ሌላከሆነይጠቀስ.....8	
107	የትዳር አጋርዎ የስራ ሁኔታ እንዴት ነው?	ተማሪ.....1 ነጋዴ.....2 የመንግስትተቀጣሪ.....3 የግልተቀጣሪ.....4 የግል ስራ.....5 የቀን ስራ.....6 ስራ የሌለው.....7 ሌላከሆነይጠቀስ.....8	
108	የትዳር አጋርዎ የትምህርት ሁኔታ እንዴት ነው?	ማንበብናመጻፍየማይችል.....1 ማንበብናመጻፍብቻ.....2 መጀመሪያደረጃትምህት.....3 ሁለተኛደረጃትምህርት.....4 ኮሌጅ.....5 ዩኒቨርሲቲ.....6	
109	በወር ዉስጥ የቤት ዉስጥ ወጪዎ ምን ያህል ይሆናል ?(የአስቤዛ ወጪ፣የቤት ኪራይ ወጪ፣የትምህርት ቤት	የኢ/ትብር _____	

	ወጪ.....)		
110	በቤተሰብዎ ውስጥ የጡት ህመም የነበረበት ሰው አለ?	አለ.....1 የለም.....2	
111	በቤተሰብዎ ውስጥ የጡት ካንሰር የነበረበት ሰው አለ?	አለ.....1 የለም.....2	

1.2 በጡት ካንሰርና በጡት ካንሰር ቅድመ ምርመራ ላይ አዋቂ ሴቶች ያላቸውን እውቀት የተዘጋጀ መጠይቅ

ተ.ቁ	መጠይቅ	መልስ	ዝላል
201	ከዚህ በፊት ስለ ጡት ካንሰር ሰምተው/አንብበው ያውቃሉ?	አዎ.....1 አላውቅም.....2	አላወቅም/ካሉ-ወደጥያቄቁጥር 207
202	የጡት ካንሰር ከሰው ወደ ሰው የሚተላለፍ በሽታ ነው	አዎ.....1 አይደለም.....2	
203	እርስዎ የሚያውቁቸው ለጡት ካንሰር ሊያጋልጡ የሚችሉ ሁኔታዎችን ይጥቀሱልን (ብዙ አማራጮች አሉ፣ ምርጫዎቹ አይነበቡም)	ፆታ.....1 የእድሜ መጨመር.....2 በቤተሰብ የበሽታ ታሪክ ካለ.....3 ሲጋራ ማጨስ.....4 አልኮል መጠጣት.....5 የታሸጉ ምግቦችን አዘውትሮ መመገብ.....6 እድሜ ሳይደርስ የወር አበባ ማየት.....7 የወር አበባ ዘግይቶ ማቆም.....8 ሌሎች ካሉ ይጠቀሱ.....9	
204	የጡት ካንሰርን ቀድመን በምርመራ ማወቅ እንችላለን ?	አዎ.....1 አይቻልም.....2 አላውቅም.....3	
205	እርስዎ የሚያውቁቸው የጡት ካንሰርን ለመከላከል የሚያስችሉ መንገዶች ካሉ ይዘርዘሩ (ብዙ አማራጮች አሉ፣ ምርጫዎቹ አይነበቡም)	አልኮል መጠጣት ማቆም.....1 ሲጋራ ማጨስ ማቆም.....2 የአካል ብቃት እንቅስቃሴ ማድረግ.....3 ጡት ማጥባት.....4 የክብደት መጨመርን መከላከል.....5 በሃኪም ያልታዘዙ የወሊድ መከላከያዎችን አለመጠቀም.....6 የታሸጉ ምግቦችን አዘውትሮ አለመመገብ.....7 ወቅታዊና ተከታታይ የጡት ካንሰር ቅድመ ምርመራ ማድረግ.....8 ሌላ ካለ ይግለጹ.....9	
206	እርስዎ የሚያውቁቸው የጡት ካንሰር ምልክቶች ካሉ ይጥቀሱልን (ብዙ አማራጮች አሉት፣ ምርጫዎቹ አይነበቡም)	የጡት ህመም.....1 ጠጣር እብጠት በጡት ውስጥ መኖር.....2 የጡት ጫፍ መሰርጎድ.....3 ከጡት የሚወጣ ፈሳሽ.....4 የጡት ጫፍ መቅላትና መደደር.....5 አላውቀውም.....6 ሌላ ካለ ይጥቀሱ.....7	

207	ከዚህ በፊት ስለ ጡት ካንሰር ቅድመ ምርመራ ዘዴዎች ሰምተው ያውቃሉ? (በደንብይጠየቅ)	አዎ.....1 አላውቅም.....2	አላውቅም ካሉ ወደ ጥያቄ ቁጥር 301
208	አዎን ካሉ የትኞችን የጡት ካንሰር ቅድመ ምርመራ ዘዴዎች ያውቃሉ? (ብዙ አማራጮች አሉ፣ ምርመራዎቹ አይነበቡም)	የራስን ጡት በራስ የመመርመር ዘዴ.....1 ጡትን በህክምና ባለሙያ እርዳታ መመርመር.....2 ማሞግራፊ(የጡት ራዲዮሎጂ).....3 በማሽን መታየት (አልትራሳውንድ).....4 ሌሎች ካሉ ይግለጹ.....5	
209	ስለ ጡት ካንሰር ቅድመ ምርመራ ዘዴዎች በመጀመሪያ ከየት ሰሙ?	ከቤተሰብ አባላት.....1 ከእኩዮች.....2 ከመገናኛ ብዙሃን(ጋዜጣ፣ቴሌቪዥን).....3 ከትምህርት ቤት.....4 ከጤና ተቋም.....5 ሌላ ካለ ይጠቀስ.....6	
210	የራስን ጡት በራስ የመመርመር ዘዴ በስንት ዓመት መጀመር አለበት ብለው ያስባሉ?	ከ20 ዓመት በታች.....1 ከ20 ዓመት በላይ.....2 በማንኛውም ጊዜ.....3 አላውቅም.....4	
211	አንድ ሰው የራስን ጡት በራስ የመመርመር ዘዴ በየስንት ጊዜ ወላ ማደረግ አለበት ብለው ያስባሉ?	በየቀኑ.....1 በየሳምንት.....2 በየወሩ.....3 በየመቱ.....4 አላውቅም.....5	
212	የራስን ጡት በራስ የመመርመር ዘዴ እንዴት ይከናወናል?	ባንድ ጣት በመዳሰስ.....1 በመዳፍና ቢያንስ በሶስት ጣቶች በመዳሰስ.....2 እንዴትም ቢሆን.....3 አላውቅም.....4	

1.3 እድሜያቸው ከ20-49 ዓመት የሆኑ ሴቶች ስለ ጡት ካንሰር ቅድመ ምርመራ ያላቸውን አመለካከት ለማጥናት የተዘጋጀ መጠይቅ

ተ.ቁ	ጥያቄ	መልስ	ዝለል
301	የጡት ካንሰር ቀድሞ ከታወቀ ሊከላከሉትና በቀላሉ ሊታከሙት የሚችል በሽታ ነው።	በጣም እስማማለው.....1 እስማማለው.....2 አልስማማም.....3 በጣም አልስማማም.....4 አላውቅም.....5	
302	የጡት ካንሰር ቅድመ ምርመራ የጡት ካንሰርን ለመከላከልና ቀድሞ ለማወቅ በጣም አስፈላጊ ነው።	በጣም እስማማለው.....1 እስማማለው.....2 አልስማማም.....3 በጣም አልስማማም.....4 አላውቅም.....5	
303	በጡት ካንሰር ቅድመ ምርመራ ማድረግ ዘዴዎች የጡት	በጣም እስማማለው.....1	

	ካንሰርን መለየትና ማረጋገጥ ይቻላል።	እስማማለው.....2 አልስማማም.....3 በጣም አልስማማም.....4 አላውቅም.....5	
304	በሽታውን ቀድሞ ማወቅ ህይወትን ለመታደግ ይረዳል።	በጣም እስማማለው.....1 እስማማለው.....2 አልስማማም.....3 በጣም አልስማማም.....4 አላውቅም.....5	
305	የጡት ካንሰር ቅድመ ምርመራ ለማድረግ ብዙ ወጪ አይጠይቅም።	በጣም እስማማለው.....1 እስማማለው.....2 አልስማማም.....3 በጣም አልስማማም.....4 አላውቅም.....5	
306	በጨረር ወይም በራጅ (ማሞግራፊ) ምርመራ ማድረግ ለጡት ካንሰር ያጋልጣል	በጣም እስማማለው.....1 እስማማለው.....2 አልስማማም.....3 በጣም አልስማማም.....4 አላውቅም.....5	

1.4 እድሜያቸው ከ20-49 ዓመት የሆኑ ሴቶች የጡት ካንሰርን ቅድመ ምርመራ ተግባርን በተመለከተ የተዘጋጀ መጠይቅ

ተ.ቁ	ጥያቄ	መልስ	ዝላል
401	ከዚህ በፊት እርስዎ የራስን ጡት በራስ የመመርመር ዘዴ አይተዉ ያውቃሉ ?	አዎ.....1 አላውቅም.....2	
402	ከዚህ በፊት እርስዎ የራስን ጡት በራስ የመመርመር ዘዴ አድርገዉ ያውቃሉ ?	አዎ.....1 አላውቅም.....2	አላውቅም ካሉ ወደ ቁጥር 406
403	አዎ ካሉ በዓመት ውስጥ ስንት ጊዜ ይተገብራሉ ?	>12 ጊዜ.....1 6-12 ጊዜ.....2 3-5 ጊዜ.....3 0-2 ጊዜ.....4 አላውቅም.....5	
404	በስንት እድሜዎ የራስን ጡት በራስ የመመርመር ዘዴን መተግበር ጀመሩ ?	<20 ዓመት.....1 >20 ዓመት.....2	
405	ለመጨረሻ ጊዜ የራስን ጡት በራስ የመመርመር ዘዴ የተገበሩት መቼ ነው ?	<1 ዓመት.....1 <1 ወር.....2 2-6 ወር.....3 <1 ዓመት.....4 በጣም ቆይቷል.....5	
406	የራስን ጡት በራስ የመመርመር ዘዴን እስካሁን ካላከናወኑ ምክንያትዎ ምን ነበር ?	ትክክለኛውን ዘዴ ስላርተማርኩ.....1 ጡቴ ውስጥ ባዕድ ነገር እንዳላገኝ ስለምፈራ.....2 የራሴ ምርመራ ስለማያስተማምኝ.....3 የአራሴን ሰውነት በዚህ መንገድ መዳሰስ ስለማልወድ.....4 ሌላ ካለ ይጠቀስ.....5	
407	እርስዎ ከዚህ በፊት በጤና ባለሙያ የታገዘ	አዎ.....1	አላውቅም ካሉ ወደ ቁጥር

	የጡት ካንሰር ቅድመ ምርመራ አድርገው ያውቃሉ ?	አላውቅም .....2	410
408	አዎ ካሉ ምክንያትዎ ምን ነበር ?	በወቅቱ መመርመር ስለፈልግኩ.....1 በቤተሰብ የጡት ካንሰር ታሪክ ስላለ.....2 የምልክቶች መኖር.....3 ሌሎች ምክንያቶች ካሉ.....4	
409	በየሰንት ጊዜው በጤና ባለሙያ የታገዘ የጡት ካንሰር ቅድመ ምርመራ ያደርጋሉ ?	በዓመት አንዴ.....1 በአመት ሁለቱ.....2 ወደ ጤና ተቋም በሄድኩ ቁጥር.....3 በጣም ቆይቻለሁ.....4	
410	እስካሁን ካልተመረመሩ ለምን ነበር ያልተመረመሩት ?	ምንም ምልክት አልነበረኝም .....1 ውድ ስለሚመስለኝ.....2 ስለምፈራ (ስለማፍር).....3 ካንሰር ይኖርብኛል ብዬ ስለማስብ.....4 ሌላ ካለ ይጠቀስ.....5	
411	እርስዎ ከዚህ በፊት የማሞግራፊ (የጡት ራጅ) ተነስተው ያውቃሉ ?	አዎ .....1 አላውቅም .....2	አላውቅም ካሉ ወደ ጥያቄ ቁጥር 414
412	አዎካሉ ለምን ነበር የማሞግራፊ ምርመራ ያደረጉት ?	ጡቴ ላይ ችግር ነበር.....1 በቤተሰብ የጡት ካንሰር ታሪክ ስላለ.....2 ስለ ጤናዬ ሁኔታ የማወቅ ስለምፈልግ.....3 ሌላ ካለ ይግለጹ.....4	
413	በየሰንት ጊዜው የማሞግራፊ (የጡት ራጅ) ምርመራ ያደርጋሉ ?	በሶስት ዓመት አንዴ.....1 በአምስት ዓመት አንዴ.....2 አንዴ ብቻ.....3	
414	ምርመራውን አድርጌ አላውቅም ካሉ ምክንያትዎ ምን ነበር ?	ምልክት የለኝም.....1 ውድ ስለሆኑ.....2 ስለ ምፈራ.....3 ስለ ማፍር.....4 ካንሰር አይኖርብኝም ብዬ ስለማስብ.....5 መመርመሪያ ስለሌለ.....6 ሌሎች ካሉ ይጥቀሱ.....7	

**ለጤና ባለ ሙያዎች የተዘጋጀ ጥልቀት ያለው መጠይቅ**

ስላም ጤና ይስጥልኝ ውድ ተሳታፊዎችን!

ይህ ጥናት የአዋቂሴቶች (እድሜያቸው ከ 20-49 ዓመት የሆኑ ሴቶች) የጡት ካንሰር ቅድመ ምርመራ ጋር በተያያዘ ያላቸውን እውቀት፣ አመለካከት እና ተግባር በአዲስ አበባ የተመረጡ ጤና ጣቢያዎች ውስጥ በማጥናት ላይ ሲሆን ይህን መጠይቅ ከጤና ባለሙያዎች ጋር ማድረግ አስፈላጊ ሆኖ ስለተገኘ ነው። እንደሚታሰበው ከእናነተ ጋር የማድረግው ቃለ መጠይቅ እድሜያቸው ከ20 ዓመት በላይ የሆኑ ሴቶች በጡት ካንሰር ቅድመ ምርመራ ላይ ያላቸውን እውቀት፣ የአገልግሎቱን ጥራትና ተደራሽነትን ለማሻሻል ጠቃሚ ይሆናል።

በዚህ ቃለ መጠይቅ የማነሳቸው ጥያቄዎች የሚያተኩሩት ስለጡት ካንሰር እና የጡት ካንሰር ቅድመ ምርመራ መንገዶች ጋር በተያያዘ በከተማችን እንዲሁም በእናነተ የጤና ተቋም ውስጥ ምን እንደሚመስል እና ታካሚ ሴቶች ለምን የጡት ካንሰር ቅድመ ምርመራ እንደማይረጉ እንወያያለን።

የመወያየት ጥቦታ : \_

1. በእርስዎ አመለካከት የህብረተሰቡ በተለይም ከ 20 ዓመት በላይ ያሉ አዋቂ ሴቶች በጡት ካንሰርና በጡት ካንሰር ቅድመ ምርመራ ላይ ያላቸው አመለካከት ምን ይመስላል? (ስለ በሽታው ክብደት፣ መከላከል መቻሉንና የህክምና ፍላጎት መኖር ለምሳሌ፡- ራስን በራስ የመመርመርና በጤና ባለሙያ በመታገዝ የሚደረግ ምርመራ ጥቅም መገንዘብ)
2. በእርስዎ አመለካከት ከ20 ዓመት በላይ ያሉ ሴቶች የጡት ካንሰር ቅድመ ምርመራ በብዛት የማያካሄዱበት ምክንያት ምን ይመስልዎታል? (ስለ አገልግሎት መኖር ያላቸው እውቀት፣ አመለካከትና የአገልግሎት አማራጮች)
3. እርስዎ በሚሰሩበት የጤና ተቋም ውስጥ ስለ ካንሰርና የካንሰር ቅድመ ምርመራ መንገዶች ላይ እውቀትን የማዳበር ስራ ተሰርቷል ብለው ያስባሉ?
4. በጡት ካንሰር ቅድመ ምርመራ በሽታውን ለማዋቅ እና ለመከላከል ምን ያህል ይረዳል ብለው ያስባሉ.... ከዚህ በመነሳት ዋና ዋናዎቹን የጡት ካንሰር ቅድመ ምርመራ የማድረጊያ ዘዴዎች፣ መሰራት ያለበትን ወቅት እንዲሁም ቅድመ ምርመራው መጀመር ያለበትን እድሜ ሊጠቅሱልን ይችላሉ
5. እርስዎ በሚሰሩበት የጤና ተቋም ውስጥ ለምን ዓይነት ታካሚ የጡት ካንሰር ቅድመ ምርመራ ያስፈልጋል ብለው ያስባሉ ?
6. እርስዎ በሚሰሩበት የጤና ተቋም ውስጥ የሚገኙት ጤና ባለሙያዎች ለታካሚዎቻቸው የራስን ጡት በራስ መመርመርና በህክምና ባለሙያ ስለሚደረግ የጡት ምርመራ ግንዛቤ ለመስጠት ምን ያህል ፍቃደኛ ናቸው ብለው ያስባሉ?
7. ከታካሚዎቻቸው ውስጥ የማሞግራፊ ምርመራ የሚፈልጉትን ወይም የሚያስፈልጋቸው ሰዎች ምርመራ ወደ ሚስጥበት ቦታ ይላካሉ (አዎ ካሉ ወዴት፣ አይ ካሉ ለምን?)
8. በእርስዎ አመለካከት የጤና ባለሙያዎች የህብረተሰቡን አመለካከት እና እውቀት (ከጡት ካንሰር እና ከጡት ካንሰር ቅድመ ምርመራ ተግባር ጋር በተያያዘ) ለማሻሻል ያለው አስተዋጽኦ ምንድን ነው ብለው ያስባሉ? (የጤና ትምህርት የሚሰጥበት ..... ዘመቻ፣ በራሪ ወረቀቶች፣ የመገናኛ-በዙሃን አገልግሎት)

በመጨረሻም ለዚህ ቃለ መጠይቅ ስለ ተሳተፉ ከልብ አመሰግናለሁ።

## **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.

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

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