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BREAST SELF EXAMINATION PRACTICE AND ASSOCIATED FACTORS AMONG WOMEN SEEKING CARE IN PUBLIC HEALTH CENTERS OF ADDIS ABABA, ETHIOPIA, 2016.

PRINCIPAL INVESTIGATOR: SALWA AMAN (BSc)

ADVISOR: Mr. LEUL DERIBE (MPH, BSc)

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Abstract

Background: Breast cancer is the most common cancer among women of developed and developing countries. Among the screening methods, breast self-examination is the physical examination of the women's breasts that is conducted by oneself that is easy, safe and requires no cost or specific equipment. However, in resource limited countries like Ethiopia, the figure appears to be much less. Therefore, Breast self-examination should be encouraged as early detection means of breast cancer in order to avert the related morbidities and mortalities.

Objective: To assess the practice of Breast self-examination and its associated factors among women seeking care in public health centers of Addis Ababa.

Method: An institution based cross-sectional study design on sample size of 422 was used to collect data from March 01-30, 2016. A simple random sampling technique was employed for the selection of Health centers and then informants were selected by using systematic random sampling method. Epi data version 3.5 and SPSS version 22 was used for data entry and analysis respectively. Moreover, Logistic regression analysis was fitted and odds ratios with 95% Confidence intervals were computed and p values less than 0.05 were considered significant.

Result: There were 403 respondents, which gives a 95.5% response rate from the expected 422. Below one fourth 18.6% of the respondents regularly practiced BSE. The most common reason for not practicing BSE was "I don't have breast problem" 92(36.9%). Regarding the questions designed to assess BSE knowledge of the respondents, 239(59.3%) of the participants were found knowledgeable. Two hundred fourty four (60.5%) of the women were found to have good attitude towards BSE. The odds of women to practice BSE who are cohabiting with their partner were 0.4 times lower than those who are not. On the other hand the likelihood of practicing BSE is 3 times higher among women who have good attitude towards BSE [AOR=3.1 (0.12, 0.78)]. There was also significant association between good practicing of BSE and ever being examined by a health professional [AOR=5.22(2.62, 10.41)] and having ever discussed the importance with other people [AOR=2.95(1.43,6.08)].

Conclusion: this study revealed low level of BSE practice. In order to improve women's health seeking behavior and screening practice, it is vital to initiate interventions that seek to provide health education, and to encourage preventive practice.

Keywords: breast self-examination, breast cancer, knowledge, perception, screening.

Acknowledgement

Abbreviations and Acronyms

ACS	American Cancer Society
AOR	Adjusted Odd Ratio
BSE	Breast Self-Examination
CI	Confidence Interval
COR	Crude Odd Ratio
CSA	Central Statistics Agency
ECA	Ethiopian Cancer Association
GLOBOCAN	Global Burden of Cancer
HC	Health Center
HEW	Health Extension Workers
HP	Health Professional
SRS	Simple Random Sampling
SPSS	Statistical Package for Social Science
WHO	World Health Organization

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1. Introduction

1.1. Background

Cancer is the second leading cause of death in the world (1). More than 70% of all cancer deaths occurred in low and middle-income countries (2) and Breast cancer is the most common cancer among women of developed and developing countries. The American cancer society (ACS) estimated that 231,840 new invasive cases will be diagnosed among women in 2015 (3). Its incidence has also been on the rise in many parts of Africa. Studies from Cameron (4) and Ghana (5) revealed that it is the most common malignant cancer among women. Another study in Cameroon estimated the incidence of breast cancer to be 2625 per 100,000 in 2012 (6). It was also reported the second out of the top ten cancers registered in the Radiotherapy center of Tikur Ambesa Hospital (7).

Concerning the different screening methods for breast cancer; the common ones include breast self-examination (BSE), clinical breast examination and mammography, which are usually done in combination. BSE is the physical examination of the women's breasts that is conducted by oneself (8). It is an easy self-care practice that is convenient, private, safe and requires no cost or specific equipment (9). ACS also stated that it is an option for women starting from the early twenties (7).

BSE happens to be part of many women's routine self-care practice in America (10). For instance, in a study on black American woman, it is indicated that eighty nine percent of study informants were found to practice BSE (11). But on the contrary, in the resource poor countries like Ethiopia where advanced screening methods are not feasible, the figure appears to be much less. According to various studies, only 24.2% of Malaysian women (12), 35 % of Cameroonian woman (4) and 12 % of sampled school female teachers in kaffa zone, Ethiopia (13) were found to carry out BSE at a particular time interval.

1.2. Statement of the problem

Breast self-examination is of great potential value for the early detection of breast cancer, especially in areas where regular examinations by physicians and mammography are not practicable. According to the recommendation of ACS, women should be able to appreciate how their breasts normally feel and to report on time for any changes to their health care providers (7).

A study done in Nigeria revealed that 70-80 % of breast cancer cases were diagnosed by women themselves on self-examination (9). In another study done in California, death as a result of breast cancer was considerably reduced in those who perform BSE, and the survival distribution differs significantly, with a lead-time penalty for the performing group of up to 36 months. The stage of the disease at the time of diagnosis has been shown to be notably associated with survival likelihood; it is a suitable index for the effectiveness of BSE. As the effects of conducting BSE on stage of tumor were assessed, the results were in general indicative of a positive effect of BSE practice. It is proven that the performance of the BSE increases the chances of early tumor detection as compared to the accidental ones (11).

Most Ethiopian health care facilities luck advanced laboratory investigations and screening services for diagnosing breast cancer. Therefore, BSE should be encouraged as early detection means of breast cancer in order to avert the related morbidities and mortalities (14).

Despite the many benefits of BSE, only few practice it and lots of women are not even familiar with how to perform it. As a result of this, many women miss early detection as well as treatment opportunities due to lack of information, knowledge, and awareness, as well as cancer screening practices (15).

To the best of the author's knowledge, little is known about the practice of BSE and important factors affecting it among Ethiopian women. This might hamper the effort being done to fight the growing incidence of the disease. The author strongly believes that a research on this issue can be an important step forward in providing concerned bodies with an input in promoting BSE as part of the strategy which reduces disparities in breast cancer death and illness.

Therefore, this study aims to answer the research questions; what does the practice of breast self-examination looks like and what are the factors affecting it among women seeking care in public health centers of Addis Ababa, Ethiopia.

1.3. Significance of the study

In Ethiopia, the incidence of cancer is rising considerably. Since the morbidity and mortality resulting from breast cancer could be reduced if detected early, various screening methods and culture of seeking routine screening needs to be developed as part of the women's health care practice. It would take a great deal of time, resource and effort to establish an outstanding coverage of advanced early detection and treatment system throughout the country. Therefore, an easy means of screening that requires no cost and equipment like breast self-examination practice needs to be promoted among women.

Therefore, this study is vital to show how the practice looks like and addresses the significant factors that make women fail to develop the practice. It will be essential for policy makers to integrate BSE in the strategy to control the morbidity and mortality related to the disease.

Furthermore, it is important for health care providers to promote the practice and influence the community through health education and to develop culture of seeking screening practice.

In addition, it can be used by other researchers as a base line for additional researches on this topic and related issues.

2. Literature Review

According to several reviewed literatures, BSE practice of different groups of women in different countries is described. In addition the determinant factors that affect BSE practice are also discussed as categorized into sub groups of socio demographic characteristics, knowledge factor, perception factor and health facility related factors.

2.1. Breast Self-Examination Practice

A four year study done on a group of Latino, Vietnamese, African American and White-American women at an urban community health center of Massachusetts in 2014, revealed that majority (85.2%) of participants performed breast self-examination on regular basis, at particular time of the month (10). In another cross-sectional survey of a total of 520 women who attended primary care for maternity and child care on Kuwait, a fifth of the study participants claimed that they had practiced BSE which accounts for 12% (15).

Findings of studies done in Malaysia (16) and Jordan (17) showed a low rate of practice (19% and 11% respectively). In 2008, the majority 77.7 % of female workers in Turkey community were found to have never performed BSE (18). In another study done in Turkey in 2006, 10.2% of the participants reported practicing BSE on a regular monthly basis while 29.5% stated that they examined themselves irregularly (19) .

In a study done on Cameroonian women, 95% of them recognized BSE and its importance very well but only 35% stated performing BSE on monthly basis (4). In a hospital in Uganda, it was found that majority (66%) of the women disclosed frequent practice (20).

In another study on Angolan university students, results showed that 40.2% of female medical students and 38.7% non-medical female students reported that they could confidently perform BSE and that they do (21). And forty one percent of undergrad students in a study of Beau university in Cameron that was done in 2015 had ever performed BSE and 29.5% in a year (22).

In Ethiopia, a study was done in HEWs in bahirdar. Of all HEWs only 14.4% performed BSE on monthly basis and ever practice of BSE was reported by 37.3% of HEWs (14).

2.2. Factors associated with BSE

Whether or not a person practices breast self examination depends on that person's age, socio-cultural status, interaction with peers, the existence of breast cancer in the family, the fear of diagnosing breast cancer by BSE, and by the effects of the mass media (23).

2.2.1. Socio demographic factors

In a study done among high school students in Turkey, there was a significant relation between breast self-examination practice and age, school grade (24). Similarly, a study done on Korean American women found that, most middle aged participants lacked the time for breast examination because they cared for their family. Most of these Korean American elderly were unfamiliar with preventive health practices, such as those for the early detection of cancer (25). In another study done on diverse groups of Massachusetts residents, a significant association was found between BSE use and ethnicity (10) .

Significant associations were also identified between performing BSE and income level among Malaysian teachers and those who were married were more likely to perform BSE than those who were not (16).

Based on the results of a research done on a community in Turkey it was concluded that as education levels of women increase, the rates of practice of early diagnosis methods such as BSE also increases. Low levels of education of women in this research (5 and 8 years of education in general) seem to negatively affect rates of BSE practice (18). A study done in a Ugandan hospital, level of literacy, occupation and marital status were significant on bivariate analysis (20). Another study done in Iran found employment and education to be important factors (26).

2.2.2. Knowledge factor

A significantly higher proportion of practicing women compared to non-practicing group had sufficient level of awareness about breast cancer and screening methods and was also more likely to perform BSE on regular basis. (15, 16, 18). Participants' beliefs regarding some warning signs and symptoms were among significant factors. In comparison with non-practicing women, practicing females believed that bloody discharge from the nipple, presence of masses in the breasts, abnormal arm swelling, nipple retraction and discoloration of the breast were signs and symptoms of breast cancer. These differences were statistically significant. Breast pain was encountered as a warning sign by about two-thirds of practicing and non-practicing women (15). Similarly, on a study on HEWs in Ethiopia, among the three main factors identified for not doing BSE, two were not knowing importance of BSE and its technique (14).

Women who stated that they have ever practiced BSE were aware of the specific steps of the procedure. The most frequently endorsed steps were squeezing the nipple of each breast to look for discharge, use of right hand to examine the left breast and left hand to examine the right breast, when examining the breast, feeling for lumps, hard knots, or thickening, examining one breast at a time, when looking at a breast in the mirror looking for swelling, dimpling of skin, or changes in the nipple, looking at both the breasts in the mirror with arms raised over the head, examining the breasts at the end of the menstrual period, examining the breasts in a circular, clockwise motion moving from outside in, looking at the breasts in the mirror with arms at the sides, examining the breasts while lying down, place the hand above the head before examining the breasts on that side (15).

Factors constituent, in another study, were found to be adequate knowledge of breast self-examination 35.5%, the presence of feeling able to do self- examination by the person 42.2%, the disease family record being effective in encoding self- examination 73%, breast cancer record in the person being effective to motivate and induce her to do breast self- examination 39.5%, believing that self- examination increases health 93%, and doing self- examination can help to detect breast cancer early 77.4% (26).

2.2.3. Perception factors

In the study done on Korean American women, many of the participants thought that cancer screening tests were needed only after symptoms of cancer occur and that they should only seek care when they become sick (25). Other negative perceptual factors constituent cover: fear of detecting breast cancer via self- examination, and increased worry due to self- examination while believing that woman alone is capable to do self- examination was identified as enabling factor (26) and a believe that they wouldn't get cancer (23).

2.2.4. Health related factors

It was revealed that having information on BSE from health professional is a predictor of BSE practice, and those who examined their breast by health professional were also a significant predictor of BSE practice (14). Whether or not a person practices breast self examination depends on the existence of breast cancer in the family (23) .

Summary

All in all, the reviewed literatures show that the developed countries have a much higher figure of BSE practice as compared to the developing ones. Even though, there is no study found to be done on a similar population of Ethiopian women, the researches done show that it's a small number of performance. In the literatures certain factors were found to significantly determine the practice of BSE.

2.3. Conceptual Framework

The conceptual framework is developed by extensively reviewing literatures.

Health related factors:
- **Family history of breast cancer**
- **History of examination by HP**
- **Being informed by HP**

Socio demographic factors;
- **Age**
- **Educational status**
- **Income**
- **Marital status**

BSE Practice

Knowledge on:
- **Breast cancer**
- **Sign and symptom**
- **Screening methods**
- **How to perform BSE**

Perception factor:
- **Perceiving that detection is needed only after becoming sick**
- **Fear of detecting breast cancer**
- **Increased worry due to self- examination**
- **Believing that woman alone is capable to do self- examination**
- **Belief that they wouldn't get cancer**

Figure 1 conceptual framework of BSE and its associated factors, Addis Ababa, Ethiopia,2016.

3. Objectives of the study

3.1. General Objective

- To assess the practice of BSE and its associated factors among women seeking care in public health centers of Addis Ababa, Ethiopia.

3.2. Specific Objectives

- To measure the magnitude of BSE practice among women seeking care in public health centers of Addis Ababa, Ethiopia.
- To identify factors associated with BSE practice among women seeking care in public health centers of Addis Ababa, Ethiopia.

4. Methodology

4.1. Study Design and period

An institution based cross-sectional study design was employed to collect the data from March 01-30, 2016.

4.2. Study Setting

The study was carried out in public health centers that are under Addis Ababa city administration. Addis Ababa is the capital city of Ethiopia as well as the diplomatic capital of Africa with consular representatives where African Union and Economic Commission for Africa headquarters are found. It covers 540 km^2 with a total population of 3,048,631, of which 1,595,968 are females. The city comprises 10 sub cities, 116 woredas. Each sub-city is expected to serve a total population of 300,000 and each woreda for 30,000 (27). Addis Ababa has A total of 11 government owned hospitals, 95 health centers, 31 private hospitals and 700 different level private clinics. Each sub-city has more than one health centers. Health centers are easily accessible for the community. They are supposed to provide a package comprising both preventive public health and essential curative services. They have a capacity of ten beds, and are open for 24 hours in a day to provide curative health, emergency service and maternal and child health services. Health centers are usually staffed by health officers or/and a doctor, clinical nurses, midwives, and other health personnel including administrative Staff (28).

4.3. Population

4.3.1. Source population
All women seeking care in public health centers of Addis Ababa, Ethiopia.

4.3.2. Study Population
All women seeking care in sampled public health centers of Addis Ababa at the time of data collection.

4.3.3. Study subjects
All sampled women seeking care in sampled public health centers of Addis Ababa at the time of data collection.

4.4. Inclusion and Exclusion Criteria

4.4.1. Inclusion Criteria

- Women aged 20 years and above who came seeking care to the sampled public health centers of Addis Ababa.

4.4.2. Exclusion Criteria

- Severe medical problem preventing participation
- Clients who come for revisit and have been already interviewed

4.5. Sample size determination

Sample size was determined using the formula for single population proportion

$$n = \frac{z_{\alpha/2}^2 p(1-p)}{d^2}$$

Where P= proportion of BSE among reproductive age women which is assumed to be 50%, $Z\alpha/2$ at 95% CI (1.96) and d= 5% margin of error. With a non-response rate of 10 %, the final sample size was calculated to be 422.

4.6. Sampling Procedure

The health centers were selected by simple random sampling technique. During the study period, there were a total of 95 health centers in Addis Ababa. Among those, 24 health centers (25% of the total HC) were selected randomly. The sample size in each health center was proportional to population size. The study participants were selected using Systematic Random Sampling Technique.

To calculate the sampling interval (K), the average number of women who visited selected health centers per day was divided by number of women required in each HC. Then every k^{th} women visiting the health center were selected from card registry. Using the lottery method, the starting point was chosen and the next participant was determined by sampling interval. Whenever the chosen woman didn't fulfill the inclusion criteria, immediate next woman was chosen without changing the interval.

4.7. Variables of the Study

4.7.1. Dependent Variable

- Breast self examination practice

4.7.2. Independent Variables

- Socio demographic characteristics (age, educational status, income, family history)
- Knowledge (on breast cancer, screening methods and signs and symptoms)
- Perception (perceiving that detection needed only after becoming sick, fear of detecting breast cancer, increased worry due to self- examination, believing that woman alone is capable to do self- examination, belief that they wouldn't get cancer)
- Health related factors (history of examination by health professional, being informed by health professional)

4.8 Operational definition

- **Breast self examination practice:** if reported as ever practiced BSE.
- **Regular breast self examination practice:** if reported as practiced BSE monthly.
- **Knowledgeable:** those participants who scored the mean and above value from the provided 24 questions about knowledge of BSE and breast cancer were considered knowledgeable.
- **Not knowledgeable:** those participants who scored below the mean value from the provided 24 questions about knowledge of BSE and breast cancer were considered not knowledgeable.
- **Favorable Perception:** those participants who scored the mean and above value from the provided 12 questions about perception of BSE and breast cancer were considered favorable perception.
- **Unfavorable Perception:** those participants who scored below the mean value from the provided 12 questions about perception of BSE and breast cancer were considered favorable perception.

4.9. Data collection tool

A structured interviewer administered questionnaire was used to collect information from study informants. the tool was extracted from a tool used in Ethiopian HEWs (14) and modifications were made according to the reviewed literatures. The questionnaire was prepared in English language and then translated to local Amharic language and then back translated to English by a third person to check for consistency. The tool includes six sections. Section one is about socio demographic characteristics of respondents, sections two, three and four are about breast self examination practice and sections five and six are about knowledge of breast cancer. There are 12 perception questions and 24 knowledge questions regarding BSE and breast cancer.

4.10. Data Analysis procedure

Epi data version 3.5 and SPSS version 22.0 was used for data entry and analysis respectively. After cleaning the data, frequencies and percentages will be calculated to all variables which are related to the objectives of the study.

For the knowledge questions, a score 2 had been given for correct response and if answered incorrectly or ''don't know'', a score 1 had been given. Whereas for the perception questions, for the positive statements, a score 3 has been given for the option agree and 2 for neutral and 1 for the option disagree. For the negative statements a score 3 has been given for the option agree and a score 1 for disagree.

Odds ratio with 95 % confidence interval was computed to assess the presence and degree of association between dependent and independent variables. P-value less than 0.05 was considered significant. Those variables found significant on bivariate analysis, those with a p-value of less than 0.2 as well as those variables commonly found significant in many literatures were further analyzed on multivariate. Moreover, logistic regression analysis was also employed to control the possible confounding effect and assess the separate effects of the variables.

4.11. Data collection procedure

Data was collected with a pre-tested interviewer administered questionnaire to gather information from women who come seeking care to the sampled health centers. Data was checked for completeness daily.

Data collectors: Data was collected using six trained female unemployed high school graduates and two supervisors with previous experience of data collection. Training had been given for two days.

4.12. Data quality control management

The data collection instrument was pre-tested by using 5% of sample size in woreda 12 health center the necessary modifications in the questionnaire were made accordingly.

Data collectors and supervisors had received a two days training on data collection techniques and how to approach participants as well as explaining benefits of the study to participants prior to interview. Mechanisms of maintaining confidentiality of informants as well as obtaining informed consent prior to data collection had been discussed during the training. The principal investigator checked the completeness and consistency of the questionnaires at the end of each day.

4.13. Ethical Consideration

Ethical clearance was obtained from research ethical committee of the department of Nursing and Midwifery of Addis Ababa University. Permission was also sought from Addis Ababa health bureau and from each health center. Written informed consent was obtained from the study participants right before data collection. The purpose and benefits of the study was explained to all participants. Names or any form of identifications were not used. Interviews were held in private rooms and different measures were taken to assure the confidentiality of study subject's. Those informants, who have never practiced BSE, were given short explanation about the benefits and procedures of BSE by the data collectors.

4.14. Dissemination of Results

The findings of the study was presented to Addis Ababa University scientific community and submitted to the department of Nursing and Midwifery. The result will be publicly defended following submission. The findings will also be disseminated to local health planners and other relevant stake holders working on the area to enable them take recommendations in to consideration during their planning process. Publication in peer reviewed, national or international journals will also be considered.

5. Result

5.1. Characteristics of the Respondents

A total of 403 women aged 20 years and above participated in the study, yielding a response rate of 95.3 %.

With the mean age of 30 and standard deviation of 7.511, 207 (51.4 %) of the respondents were in the age group of <=29 years. Majorities 259(64.3%) were Christians and 136 (33.7%) of the participants belong to Amhara in ethnicity, followed by Oromo (30%). One hundred thirty four of the study participants (33 %) have less than primary education and144 (35.7%) have reached secondary education.

Table 1 Sociodemographic characteristics of women attending public health centers ,Addis Ababa, Ethiopia, 2016.

Characteristics	Frequency N=422	Percentage (%)
Age		
20-29	210	52.1
30-39	148	36.7
40+	43	10.7
Current marital status		
Currently living together	262	65
Currently not living together	141	35
Educational status		
Can't read and write	46	11.4
Grade1to 8	87	21.6
Grade 9 to10	144	35.7
Diploma and above	126	31.3
Ethnicity		
Amhara	136	33.7
Oromo	121	30.0
Tigrai	84	20.8
Gurage	52	12.9
Other	10	2.5
Religion		
Christian	259	64.3
Muslim	143	35.5
Other	1	0.2
Family history of breast cancer		
Yes	62	15.4
No	341	84.6

5.2 Women's attitude towards breast self-examination

In order to explore women's attitude towards breast self-examination, a series of questions were asked to all respondents. The first set of questions asked women if they agreed or disagreed with a number of statements that explored ideas about BSE.

As shown in table 2 below higher proportion of woman denied that they prefer to go to a traditional healer if they find mass in their breast. Seventy four percent and 61.5% of women reported that every women should perform breast self-examination and that it should be done every month respectively. Similarly, (73.1%) of women admitted that they do all the necessary care for their breast.

Table 2 Distribution of women's attitude towards breast self-examination among women seeking care in public health centers, Addis Ababa, Ethiopia, 2016.

Women's opinions	Agree (%)	Neutral (%)	Disagree (%)
Every women should perform breast self-examination	298(73.9)	74(13.4)	31(7.7)
Examining one's breast by oneself is takes too much time	54(13.4)	119(29.5)	230(57.1)
The thought of breast cancer scares me	254(63.0%)	53(13.2)	96(23.8)
Breast self-examination should be done every month	248(61.5%)	118(29.3%)	37(9.2%)
Women alone is capable of breast self-examination	244(60.5%)	112(27.8%)	47(11.7%)
Examining one's breast by oneself is difficult	85(21.1%)	132(32.8%)	186(46.2%)
Examining one's breast by oneself is painful	63(15.6%)	152(37.7%)	188(46.7%)
I do all the necessary care for my breast	294(73.1%)	81(20.1%)	27(6.7%)
If I ever find a mass in my breast, I prefer to go to a traditional healer	25(6.2%)	64(15.9%)	314(77.9%)

For the positive statements, a score 3 has been given for the option agree and 2 for neutral and 1 for the option disagree. For the negative statements a score 3 has been given for the option agree and a score 1 for disagree. There are nine statements and the mean value is 22.4 and the standard deviation is 3.3. Accordingly, 244 (60.5%) of the women were found to have good attitude and 159(39.5%) of the women to have poor attitude about BSE.
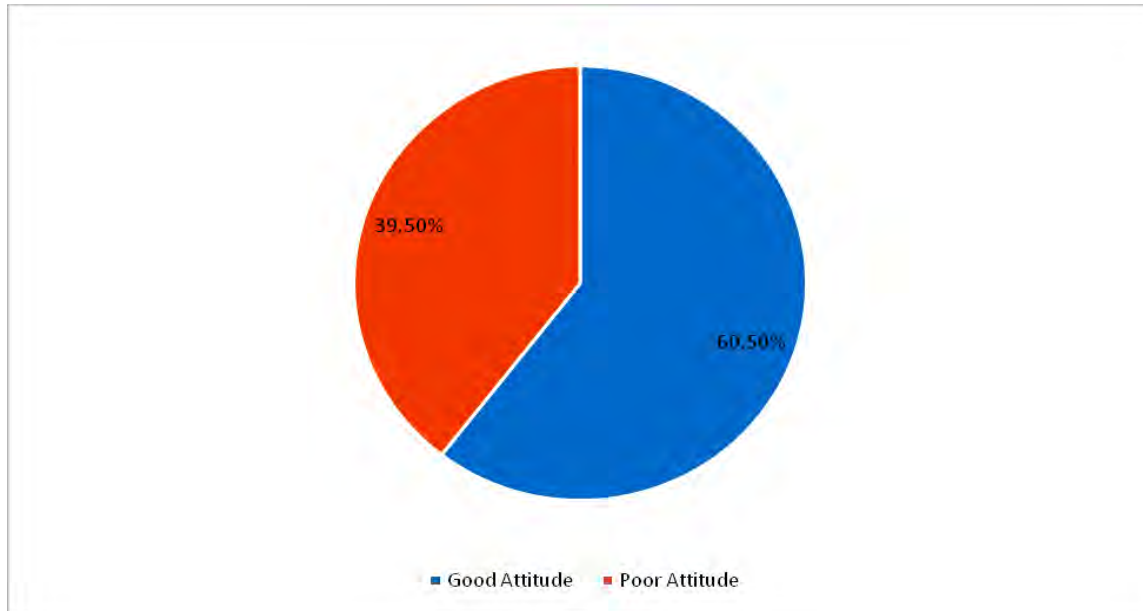
Figure 2 womens' attitude regarding BSE in public health centers of Addis Ababa, Ethiopia, 2016.

5.3 knowledge about BSE

In order to assess knowledge of women regarding BSE, thirteen questions were asked. The response options were true, false and I don't know. True is considered as a correct response and false and I don't know as incorrect responses. A score 2 has been given for the correct answers and 1 for the incorrect ones. Mean value for knowledge of BSE is 18 with a standard deviation of 3.6. Those who scored 18 and above were considered as knowledgeable and they were found to be 239(59.3%) about BSE. The rest 164 (40.7%) of them scored less than 18 and were considered as not knowledgeable.

Table 3 womens' knowledge regarding BSE among public health centers in Addis Ababa, Ethiopia, 2016

Women's knowledge about BSE	Correct(%)	Incorrect(%)	Don't know (%)
Breast self-examination should be done every two months	146(36.2)	86(21.3)	171(42.4)
Examining one's breast is done 7-10 days after the end of menstrual period	148(36.7)	21(5.2)	234(58.1)
Breast self-examination is done by looking at breasts in the mirror	221(54.8%)	41(10.2%)	141(35%)
Breast self-examination is done with arms raised over head	213(52.9%)	27(6.7%)	163(40.4%)
Examining one's breast is possible while lying down	172(42.7%)	42(10.4%)	189(46.9%)
Examining one's right breast is done while lying down on left side	133(33%)	71(17.6%)	199(49.4%)
In breast self-examination, the woman needs to look for lumps using tips of finger	210(52.1%)	18(4.5%)	175(43.4%)
Breast self-examination is done in a circular clockwise motion moving from outside in	150(37.2%)	15(3.7%)	238(59.1%)
The women needs to squeeze the nipples of each breast to look for discharge	205(50.9%)	13(3.2%)	185(45.9%)
When examining breast, feel for lumps, hard knots, or thickening	251(62.3%)	7(1.7%)	145(36.0%)
When examining breasts, women need to look for lumps under armpits	184(45.7%)	26(6.5%)	193(47.9%)
Examining breast using hands is very painful	167(41.4%)	42(10.4%)	194(48.1%)
Examining breast should begin at age 40	175(43.4%)	18(4.5%)	210(52.1%)

5.4 Knowledge about breast cancer and screening methods

Higher proportion if respondents identified cigarette smoking (294) and alcohol (258) as risk factors of breast cancer. On the contrary, lesser proportion of woman recognized early onset of menses (138) and late menopause (150).

Table 4Distribution of women's perceived susceptibility and knowledge of sign and symptoms of breast cancer among women attending public health centers of Addis Ababa, Ethiopia, 2016.

Characteristics	Frequency N=422	Percentage (%)
Self grade of chance of acquiring breast cancer		
None	69	17.2
Minimal	57	14.2
Modrate	110	27.4
High	8	2.0
I don't know	58	39.3
Identified risk factors of Breast Ca		
Old age	244	60.5
Family history	234	58.1
Cigarette smoking	294	73.0
High fat diet	192	47.6
First child after the age of 30 yrs recommend	171	42.5
Early onset of menses (Before the age of 12)	138	34.2
Late menopause (after the age of 55 yrs)	150	37.3
Large breasts	178	44.3
Obesity	225	55.8
Alcohol consumption	258	64.0
SxS		
Breast pain	295	73.2
Change in size	280	69.5
Discoloration of breast skin	281	69.7
Dimpling of breast	240	59.6
Change in shape	302	74.9
Nipple retraction	272	67.5
Presence of mass	330	81.9
Lump under armpit	244	60.5

Regarding breast cancer, 398 (98%) have heard about it and their source of information reported are radio, television, newspaper, from a health professional and others.
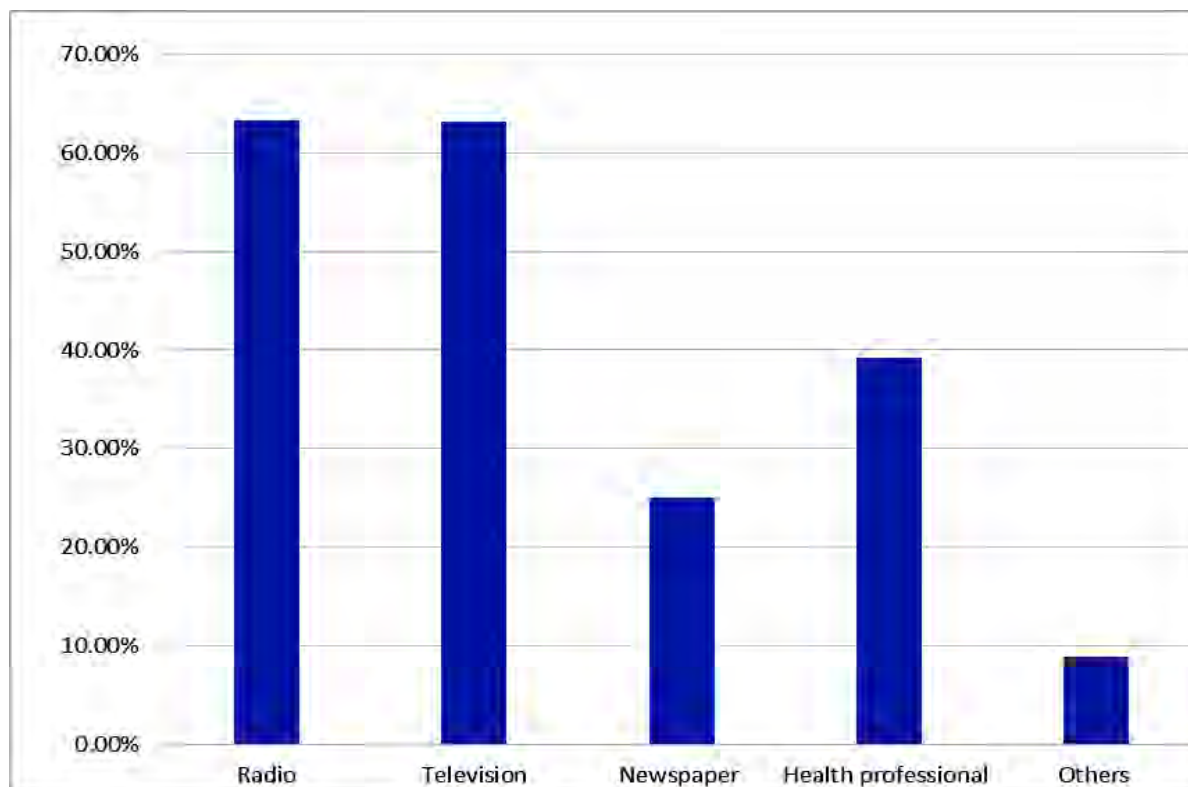
Figure 3 source of information of breast cancer among women seeking care in public health centers of Addis Ababa, Ethiopia, 2016.

Two hundred fourteen (53.1%) of the participants have reported to know at least one screening method of breast cancer. The greater proportion of participants identified clinical breast examination and BSE as screening methods of breast cancer. Eighty one informants identified mammography as a screening method of breast cancer.
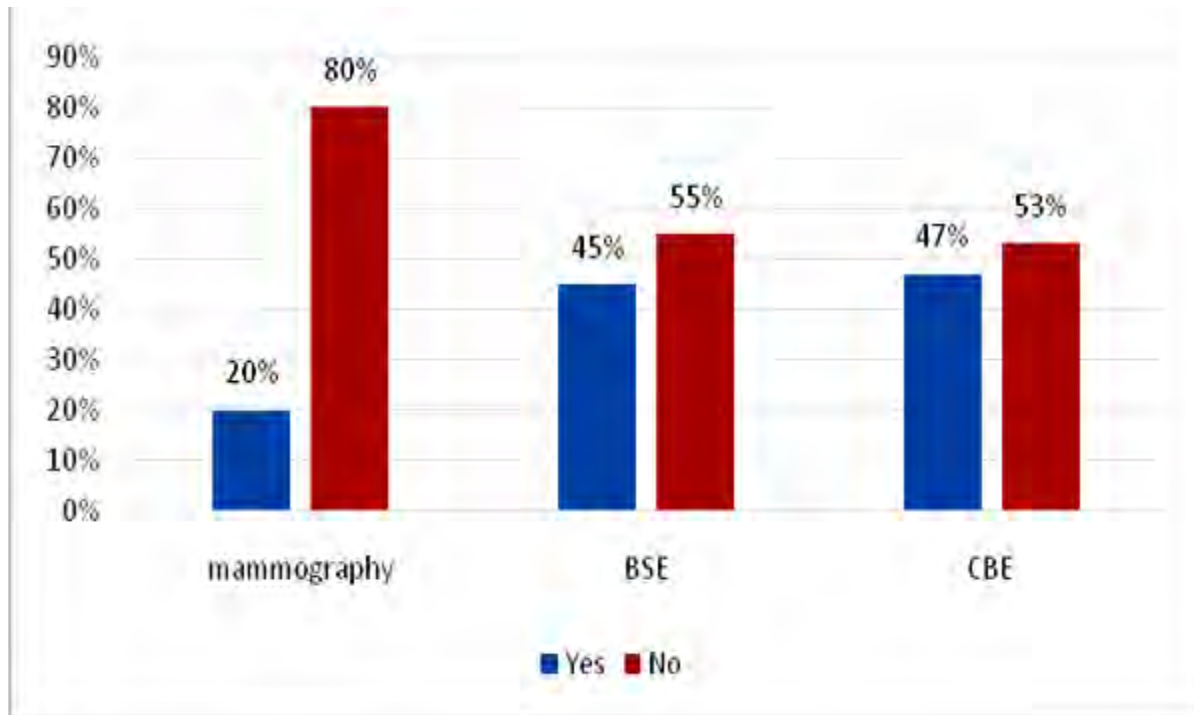
Figure 4 knowledge of breast cancer screening methods among women attending public health centers of Addis Ababa, Ethiopia, 2016.

5.6. BSE   practice

To assess practice of BSE, the questions "Have you ever examined your breast by your hands" was asked and those who responded yes, were further asked how frequently they do BSE. Those who responded monthly are categorized as having good practice of BSE. From the interviewed woman 75 of them (18.6%) have good practice of BSE. Fifty five (13.6%) practice BSE every six month and the same amount mentioned they perform BSE 'when I remember', 'once in a while' and 'when pregnant'.
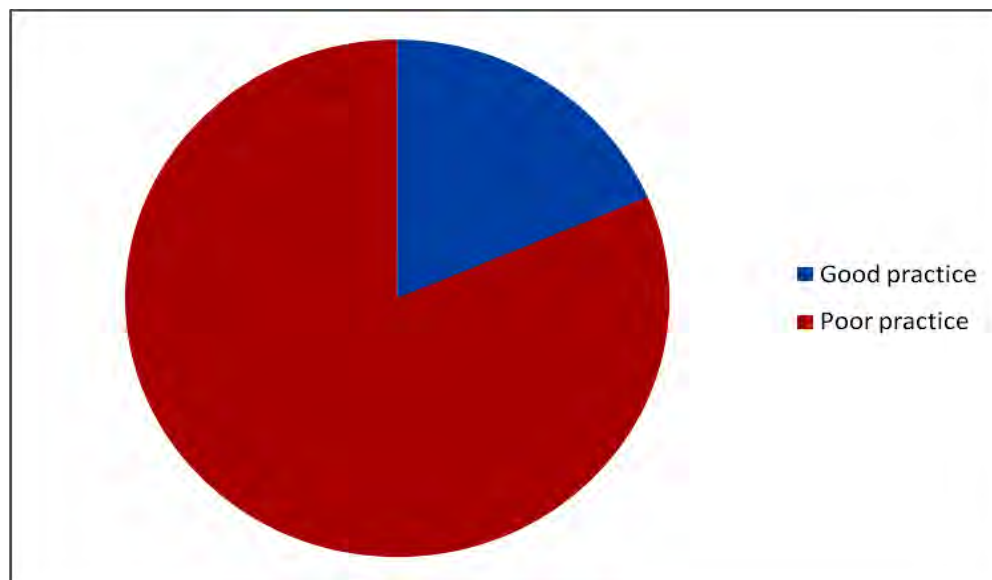
Figure 5 prevalence of BSE practice among woman attending public health centers in Addis Ababa, Ethiopia, 2016.

5.7. Association between selected factors and BSE

In this study the association of different background factors of the respondents with BSE was investigated using bivariate and multivariate logistic regression analysis.

On bivariate analysis those women who are cohabiting were found 1.22 times more likely to do breast self-examination than those who are not cohabiting with their partners [COR=1.22(0.72, 2.04)]. Those women who have poor knowledge about breast cancer are 2.23 times less likely to practice BSE in regular basis than those

who have good knowledge [COR=2.23(1.28, 3.89)]. Those women who have poor attitude towards BSE are 0.14 times less likely to practice BSE than those who have good attitude [COR=0.14(0.07, 0.27)]. On the other hand women who have good knowledge about BSE are found to practice BSE 7.08 times more likely than those with poor knowledge [COR=7.08(3.60,13.91)].

Those women who believe they have at least minimal risk to breast cancer are more likely to practice BSE than those who think they have no risk factor to breast cancer. Those who had been examined their breast by a health professional are 7.56 [COR=7.56(4.32, 13.23)] more likely to practice BSE. Having ever discussed the importance of BSE was found to increase BSE practice 3 times [AOR=2.95(1.43, 6.08)]. Having a relative who had been diagnosed with breast cancer and ever being informed about BSE by a health professional were found significant on bivariate analysis but insignificant when further analyzed on multivariate logistic regression.

Multivariate logistic analysis results showed that the odds of women to practice BSE who are cohabiting with their partner were 0.4 times [AOR= 0.45(0.23, 0.88)] lower than those who are not.

On the other hand the likelihood of practicing BSE is 3 times higher among women who have good attitude towards BSE [AOR=0.31 (0.12, 0.78)]. The result of this study also showed significant association between good practicing BSE and ever being examined by a health professional [AOR=5.22(2.60, 10.41)]. Those women who had ever discussed the importance of BSE with other people were found to practice BSE 3 times more likely than those who had never [AOR=2.95(1.43, 6.08)].

Table 5 Factors associated with BSE among women attending public health centers in Addis Ababa, Ethiopia, 2016.

Characteristics	BSE (%)		COR(95%CI)	AOR (95%CI)
	Yes	No		
Marital status				
Cohabiting	46(17.6)	216(82.4)	0.82(0.49, 1.38)*	0.45(0.23, 0.88)*
Non cohabiting	29(20.6)	112(79.4)	1.00	1.00
History of examination by HP				
Yes	55(38.7)	8761.3)	7.55(4.28,13.33)*	5.22(2.62,10.41) *
No	20(7.7)	239(92.3)	1.00	1.00
Discussed with people				
Yes	56(35.9%)	100(64.1%)	6.72(3.79,11.89)*	2.95(1.43,6.08)*
No	19(7.7%)	228(92.3%)	1.00	1.00
Attitude about BSE				
Good	64(30.8%)	144(69.2%)	0.14(0.07,0.27*	0.31(0.12,0.78)*
Poor	11(5.6%)	184(94.4%)	1.00	1.00
Education				
Less than primary	13(9.8)	120(90.2)	0.31(0.15, 0.61)*	1.06(0.44, 2.53)
Secondary school	29(20.1)	115(79.9)	0.71(0.40, 1.26)	1.30(0.65, 2.61)
Diploma and higher	33(26.2)	93(73.8)	1.00	1.00
Knowledge about BSE				
Good	64(30.2%)	148(69.8%)	7.08(3.60,13.9)	1.44(0.57,3.62)
Poor	11(5.8%)	180(94.2%)	1.00	1.00

*significance p-value<0.05

*The variables age, knowledge about breast cancer, recognizing skin color as sign of breast cancer and knowledge about breast cancer were also fitted in to the model and were found insignificance.

6. Discussion

According to the finding of this study 75 of the participants (18.6%) reported that they practice BSE every month and 55 (13.6%) them practice BSE every six month. This is similar with the findings of studies in school female teachers in kaffa zone (13) , in HEWs in bahirdar (14) and in Malaysian woman (16) (12%, 14.4% and 19%) performed BSE on regular monthly basis. On the contrary the finding is less than the studies done in Malaysian (12), Cameron (35%) (4) Uganda (66%) (20) . This difference may be due to difference in education on prevention of breast cancer.

Even though prevalence of BSE practice is found to be low in this study, higher proportion of woman agreed to the statement breast self examination should be done every month 248(61.5%).

Nighnty-eight percent of respondents have heard about breast cancer. From this respondents 63.3% and 63.1% reported that their source of information is radio and television respectively. But in studies done in Saudi Arabia (29) and Malaysia (16) , 83.2 and 95% of participants' source of information was reported to be press media.

Nighnty percent of the respondents know the fact that breast cancer is one of the types of cancer and the commonest one in woman. In Angola, 65% of them reported that they don't know about this fact. On this study, the recognized screening methods to detect breast cancer were assessed, clinical breast examination was mentioned by 189(46.9%) of the participants followed by breast self-examination which is mentioned by 183(45.4) and the least recognized 81(20%) was mammography. While 37.9% have heard about BSE, in a cross sectional study in Turkey(24), in Saudi Arabia 220 (58.5%) (19) and 82.5 % in a research done in Ibadan, Nigeria (9) heard about BSE. This could be due to difference in prevalence of breast cancer and difference in coverage of the issue in mass media.

Regarding BSE, 239(59.3%) women were found knowledgeable on the matter. Concerning the knowledge of respondents regarding risk factors, higher proportion of respondents identified cigarette smoking (294) and alcohol (258) as risk factors. Similarly in a study done in Mekelle

university (30) the most common risk factor identified were smoking 542 (71.3%) and alcohol (44.2%). Regarding sign and symptoms of breast cancer, presence of mass was identified by higher proportion of respondents 330(81.9) in this study as well as in the study done in Mekelle university 578 (76.1 %) (30).

The knowledge of respondents regarding breast cancer was assessed and found to be 212(52.6%) similar with study done in a rural turkey (19) which is 56%. When the attitude of informants regarding BSE was assessed 208 (51.6%) were found as having good attitude. Attitude was significantly associated with practice of BSE. Perceptual factors was also found significant in an Iranian cross sectional study (26).

Those who are cohabiting with their current partner were less likely to practice BSE as compared to those who are not. Studies done in Malaysian teachers (16) and Iranian woman (31) show that those who were married were more likely to perform BSE. This might be due to the social and household responsibility of Ethiopian women. In studies conducted in Malaysian woman (26) and in Saudi Arabia (29) marital status was not determinant factor.

The result of this study also showed significant association between good practice of BSE and ever being examined by a health professional similarly, Practice of BSE was significantly associated with having obtained a clinical breast exam in a black American woman (11).

7. Strength and limitation of the study

7.1 Strength

➢ The probability sampling method used increases representativeness of study population.

➢ Since limited studies were conducted in this area at national and regional level, it provides information for further studies.

7.2 Limitation

❖ The cross-sectional design used has limited the degree of cause and effect associations among variables of interest.

❖ The self-reported information are subjected to bias since the study raised personal issue.

❖ There was no international standardized questionnaire found on Breast self-examination practice that may limit comparing the findings of this study with other studies.

❖ Lack of Qualitative aspect in the study.

❖ The study being carried out in health facilities where study participants have better health seeking behavior.

8. Conclusion

The findings of this study are in keeping with previous research in which breast self examination practice has been found to be low (18.6%) among women in developing countries. Regarding the factor associated with BSE practice, the knowledge of the participants about BSE was low around 239(59.3%), and those who have good attitude are 244 (60.5%). Having good attitude towards BSE, having ever examined by a health professional and having ever discussed the importance of BSE with other people increase the likelihood of practicing BSE while cohabiting with a partner decreases. On the contrary, BSE practice was found not significantly associated with age, education level, and knowledge. In order to improve women's health seeking behavior and screening practice, it is vital to initiate interventions that seek to provide health education, and to encourage preventive practice.

9. Recommendation

Based on the findings of this study, the following recommendations were forwarded to concerned bodies:

To ministry of health

- Develop strategies for early detection of breast cancer, by promoting BSE and other screening methods.
- Integration of BSE as part of health education and screening services into the existing MCH service.
- Provide effective trainings for health professionals to enhance more practice of BSE.

To health facilities

- Increasing information access to women about risk factors, sign and symptoms of breast cancer.

To health care provider

- To provide clinical breast exams as part of routine care in MCH service.
- To educate woman about procedure and benefit of BSE.

To mass media

- Increase information access about BSE, and benefits of early detection of breast cancer.

To researchers
- To carry out researches on community level
- To cover the qualitative aspect the issue

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11. Annexes

Annex I. Information Sheet and Consent Form (English Version)

Information sheet

Introduction: Hello, my name is _____*. I am doing a study on breast self examination practice with the support of Addis Ababa University.

Title: Breast self examination practice and associated factors among women seeking care in public health centers of Addis Ababa, Ethiopia, 2016.

Purpose of the study: The purpose of the study is to assess the practice of BSE and its associated factors among women seeking care in public health centers of Addis Ababa, Ethiopia. The study will primarily important for the researcher on getting master degree from Addis Ababa University and information obtained from the study can be used to develop programs and policy.

Procedures: We are going to ask you for information concerning about your demographic background characteristics, as well as other topic related to breast cancer and breast self examination practice. The interview takes approximately 20 minutes to complete. There is no right or wrong answers.

Confidentiality: I want to assure you that all of your answers will be kept strictly secret. I will not keep a record of your name or address.

Risks and Benefits of the Study: By participating in this study, you will not receive any direct benefit. However, you will help to increase our understanding towards practice of BSE and its associated factors and the result of the study would hopefully serve as an important input to intervention programs that aim at improving women health by reducing breast cancer related morbidity and mortality. Your participation in this study will have no risk.

Rights: Your participation in this study is voluntary and you have the right to stop the interview at any time, or to skip any questions that you don't want to answer. If you need additional Information use address; Salwa Aman (tel. + 251911901530).

Consent Form

I have read the above information, or it has been read to me. I was given the opportunity to ask questions and the question that I have asked have been answered to my satisfaction. I consent voluntarily to participate in the study and understand that I have the right to withdraw from the study at any time.

Signature of volunteer: _____   Date: _____
Signature of Data collector: _____   Date: _____

Annex II. English Version Questionnaire

Section 1: Socio demographic characteristics

Respond to the following questions by encircling or writing on the blank space

No.	Question	Answer	Remark
101.	How old were you at your last birthday?	Write in number -----	
102.	What's your educational status?	1. Not able to read and write 2. Primary education 3. Secondary education 4. Diploma and higher	
103.	What is your Ethnicity	1. Amhara 2. Oromo 3. Tigre 4. Gurage 5. Other --------	
104.	What is your religion?	1. Orthodox 2. Muslim 3. Protestant 4. Other ---------	
105.	What is your marital status?	1. Married 2. Single 3. Widowed 4. Divorced 5. In a union	
106.	What's your occupation?	1. Employed 2. House wife	
107.	What is your monthly income?		
108.	Do you have a relative who has been diagnosed with breast cancer?	1. Yes 2. No	
109.	Do you have current or past history of breast related problem?	1. Yes 2. No	
110.	If your answer to question 109 is yes, then what kind of problem did/do you have?		

Section 2: Questions regarding breast self examination practice

No.	Question	Answer	Skip
201.	Have you ever examined your breast by your hands?	1. Yes 2. No	if the answer this question is No, go to No. 204
202.	If your answer to the previous question is yes, when was the last time you performed self examination?	1. This month 2. Six months ago 3. A year ago 4. Five years ago 5. Other(mention)	
203.	If your answer to question 201 is yes, how frequently do you practice beast self examination?	1. Monthly 2. Every six month 3. Other (mention)-------	
204.	If your answer to question 201 is no, what is your reason? (you can choose more than one answer)	1. I don't have breast problem 2. I don't think as I should be examined 3. It is not comfortable 4. I don't know the technique 5. I don't believe it's important 6. I don't know its important 7. Other (mention)	If your answer to question 201 is 1, skip this question
205.	Have you ever discussed the importance of breast self examination with other people?	1. Yes 2. No	
206.	Have you ever received information on breast self examination from health professional?	1. Yes 2. No	
207.	Ever had breast examination by health professional?	1. Yes 2. No	
208.	If you answer to question no 207 is no, what is your reason?	1. Financial problem 2. Time constraint 3. Fear of knowing the	If the answer to question no 207 is yes, skip this

		result 4. I don't have symptoms of breast cancer 5. I have never been told to do examination 6. I don't know the benefit 7. Other(mention)	question

Section 3 Questions regarding perception of breast self examination practice

No.	Statement	Level of agreement		
		I agree	Neutral	I disagree
301.	Every women should perform breast self examination			
302.	Examining one's breast by oneself is takes too much time			
303.	The thought of breast cancer scares me			
304.	Breast self examination should be done every month			
305.	Women alone is capable of doing breast self-examination			
306.	Examining one's breast by oneself is difficult			
307.	Examining one's breast by oneself is painful			
308.	I do all the necessary care for my breast			
309.	If I ever find a mass in my breast, I prefer to go to a traditional healer.			

Sec 4 Questions regarding knowledge of breast self examination

No.	Statement	Answer		
		True	False	I don't know
401.	Breast self examination should be done every Two months			
402.	Examining breasts is done 7-10 days after the end of menstrual period			
403.	Breast self examination is done looking at breasts in the mirror			
404.	Breast self examination is done with arms raised over head			
405.	Examining one's breast is possible while lying down			
406.	Examining one's right breast is done while lying down on left side			
407.	In breast self-examination, the women needs to look for lumps using tips of fingers			
408.	Breast self examination is done in a circular, clockwise motion moving from outside in			
409.	In breast self-examination, the women needs to squeeze the nipples of each breast to look for discharge			
410.	When examining breast, feel for lumps, hard knots, or thickening			
411.	When examining breasts, women need to look for lumps under armpits			
412.	Examining breast using hands is very painful			
413.	Examining breast should begin at age 40			

Section 5: questions regarding knowledge of risk factors and sign and symptoms of breast cancer

No.	Question	Answer		
501	Select the condition which you think could increase the risk of acquiring breast cancer. (mark X as the respondent replies)	True	False	I don't know
	Old age			
	Family history of breast cancer			
	Cigarette smoking			
	High fat diet			
	First child after the age of 30 yrs			
	Early onset of menses (Before the age of 12 yrs)			
	Late menopause (after the age of 55 yrs)			
	Large breasts			
	Obesity			
	Alcohol consumption			
502	Which are symptoms of breast cancer? (mark X as the respondent replies)	True	False	I don't know
	A. Breast pain			
	B. Change in the size of the breast			
	C. Discoloration of the breast skin			
	D. Dimpling of breast skin			
	E. Wound on the breast			
	F. Discharge from nipples			
	G. Change in the shape of the breast			
	H. Nipple retraction			

	I. Presence of mass			
	J. Lump under armpit			
503.	How do you grade your chance of acquiring breast cancer	1. None 2. Minimal 3. Medium 4. High 5. I don't know		
504.	Do you believe you have the risk factors that predispose to breast cancer?	1. Yes 2. No	If answer to 504 is no, go to section 6	
505.	If your answer is yes, how many risk factors do you have? (list)			

Section 6: Questions to assess knowledge of breast cancer

No.	Question	Answer	Skip to
601	Have you ever heard about breast cancer?	1. Yes 2. No	If your answer is no, skip to 603
602.	If yes, from where have you heard about it? (You can choose more than one answer.)	1. Radio 2. Television 3. Newspaper 4. From health professional 5. Other(mention)	
603.	Breast cancer is one type of cancer and the commonest type in women.	1. True 2. false	
604.	Every woman has a chance of acquiring breast cancer	1. True 2. False	
605.	If detected early, breast cancer is treatable.	1. True 2. False	
606.	Breast cancer is dangerous.	1. True 2. False	
607.	The cause of breast cancer is evil spirit.	1. True 2. false	
608.	Breast cancer is communicable disease.	1. True 2. false	
609.	Breast cancer is a killer disease.	1. True 2. false	
610.	Do you know breast cancer screening methods?	1. Yes 2. No	
611.	If your answer to question number 610 is yes, which ones do u know?	1. Clinical breast examination 2. Breast self examination 3. Mammogram 4. Other(mention)	If answer to 610 is no, skip this question

Annex III. Information Sheet and Consent Form(Amharic Version)

የሚጃ እና የበጎ ፍቃደኝነት ቅጽ

ሴቶች በጡት ካንሰርና የራስን ጠት በራስ እጅ መመርመሪ ዙሪያ ያላቸውን ግንዛቤ ለማጥናት የተዘጋጀ ማጣየቅ

መግቢያ: ጤፍ ይስጥልኝ ስሜ_____ ይባላል፡፡ በአዲስ አበባ ዩኒቨርስቲ ህክምናና ጤፍ ሳይንስ ትምህርት ክፍል ድጋፍ የራስን ጠት በራስ እጅ በመመርመሪ ዙሪያ ጥናት እየሰራው እንገኛለው፡፡

የጥናቱ ርዕስ የሴቶች የራስን ጠት በራስ እጅ የመመርመሪ ልምድ እና ተያያዥ ምክንያቶች በህዝብ ጤፍ ጣቢያዎች 2016 አዲስ አበባ፣ ኢትዮጵያ፡፡

የጥናቱ ዋና ዓላማ ሴቶች የእራስን ጡት በራስ እጅ በመመርመሪ ዙሪያ ያላቸውን ልምድ እና ተያያዥ ምክንያቶች ለመዳሰስ ነው፡፡

የሚጃ አወሳሰድ ሂደት ስለ ማህበራዊና ተያያዥ ሚያዎችዋ እንዲሁም ስለ ጡት ካንሰር እና የራስንጡት በራስ እጅ ስለመመርመሪ የተመለከቱ ጥያቄዎች እንጠይቆታለን፡፡ ይህን ማጣየቅ ለመጫት በበዛ 20 ደቂቃ ይወስዳል፡፡ ትክክለኛ አልያም የተሳሳተ ምኣሽ የለም፡፡

በጥናቱ የመተፍ ጉዳት እና ጥቅም በጥናቱ በመታተፍ በቀጥታ የሚገኝኝ ጥቅም ወይም ክፍያ አይኖርም፡፡ ሆኖም ግን ስለ ጡትን በራስ ስለመመርመሪ እና ስለ ተያያዥ ምክንያቶች ያለንን ሚዳት ይጨምሩልናል፡፡ የጥናቱ ዉጤት በጡት ካንሰር የሚከሰተውን ህማሞና ሞት በቀነስ የሴቶችን ጤፍ ለማሻሻል ጠቃሚ ግብዐት እንደማሆን ተስፋ እናደርጋለን፡፡ የሚጡት ሚስ በእለት ተእለት ስራትም ሆን ሌሎች የግል ጉዳዮት ላይ የሚፈጥረው ችግር አይኖርም፡፡

ሚስጥራዊነት ሚስዎ ለጥናቱ ከመላና ለትምህርታዊ አገልግሎት ከማሆ ባሻገር ለማንም አልፈ እንደማይሁጥ ቃል እየገባን ለዚሁ ተግባር ሲባል ስምዎን በማጣየቁ ላይ ሚጹ እንደማይሰፈረ እንገልጻለን፡፡

መበቱ በዚህ ጥናት የማጀደርጉት ተሳትፎ በበጎ ፍቃደኝነት ላይ የተመሰረተ ነው፡፡ በማንኛውም ጊዜ ራስዎን ከጥናቱ ማጣለል እና ለመመላስ ያልፈለጉትን ጥያቄ ማስፍ ይችላሉ፡፡ ተጨማሪ ሚጃ ከፈለጉ ከዚህ በታች ያለውን አድራሻ ማጣቀም ይችላሉ፡፡

ጥናቱን የማትካሐደው አጥኚ ሳልዋ አማን (ስልክ +251 911901530)

የስምምነት ቅጽ

ከላይ የተገለጸውን ሚጃ አንብቢያለው ወይም ተነቦልኛል፡፡ ጥያቄዎችን የማጣየቅ አጋጣሚው ተመቻችቶልኛል የጠየቅኳቸው ጥያቄዎች በሙ በበቂ ሁኔታ ተሚሰዋልኛል፡፡ በዚህ ጥናት ለመታተፍ በበጎ ፍቃዴ ተስማምቻለዉ፡፡ በማንኛዉም ሰዓት ከጥናቱ አቋርጦ የመዉጣት መብት እንዳለኝ ተገልጽልኛል፡፡

የማጣየቁ ሚለያ ቁጥር —————————————————   ቀን ————————————

የተሳታፊ ፊርማ _____   ቀን _____

የሚጃ ሰብሳቢ ፊርማ_____   ቀን _____

Annex IV. Amharic Version Quessionnaire

ክፍል 1 ማህበራዊና ሌሎች ተያያዥ ሁኔታዎች

ከዚህ በታች ለተዘረዘሩት ጥያቄዎች ሜስ ይሆናል የምትይዉን በጪፍ ወይም በማክበብ ግለጭ።

ተ.ቁ	ጥያቄ	ሜስ	እለፍ
101	በሟቿሻው የልደት በአልሽ እድሜሽ ስንት ነበር?	ሜሱን በቁጥር ይፃፍ	
102	የትምህርት ደረጃ ?	1. ማንበብ እና መጻፍ የማትችል 2. የመጀመሪያ ደረጃ 3. 2ኛ ደረጃ 4. ዲፕሎማ እና ከዛ በላይ	
103	ብሄርሽ ምንድነ ዉ?	1. አማሬ 2. ኦሮሞ 3. ትግራይ 4. ጉራጌ 5. ሌላ (ጥቀሽ)	
104	የየትኛው ሀይማኖት ተከታይ ነሽ?	1. ኦርቶዶክስ 2. እስልምና 3. ፕሮቴስታንት 4. ሌላ (ይጥቀስ)	
105	የጋብቻሽ ሁኔታ ?	1. አግብቻለሁ 2. አላገባባም 3. ሟኙቨኝል 4. ተፋትቻለሁ 5. ገና በጓደኝነት ላይ ያሉ	
106	የስራሽ ሁኔታ	1. ተቀጣሪ 2. የቤት እመቤት	
107	ወርሃዊ ገቢሽ ስንት ነዉ?	በቁጥር ጻፉ (ጻፍ) _____	
108	በጡቱ ካንሰር የታመመ ዘመድ አለሽ?	1. አዎን 2. የለም	
109	የጡቱ ህመም አለብሽ ወይ ኖሮብሽ ያወቃል?	1. አዎን 2. የለም	
110	ለጥያቄ ቁጥር 109 ሜስሽ አዎን ከሆነ የህመሟ አይነት ግለጭ፡	-------------------------------- -------------------------------- --------------------------	

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ክፍል 2   ሴቶች የራስን ጤና በራስ የመጠበቅ ተግባር/ልምድ ለማጣናት የተዘጋጀ ማጠይቅ

ተ.ቁ	ጥያቄ	መልስ	እለፍ
201	የራሽን ጤት በራስሽ እጅ ሚያሚሽ ታወቄያለሽ ?	1. አዎን 2. ሚምዬ አላወቅም	(መልስሽ ለ ከሆነ →204)
202	ለጥያቄ ቁጥር 201 መልስሽ አዎን ከሆነ የሚፈረሻዋን ሚርሜ ያደረግሽው መቺ ነበር ?	1. በዚህ ወር 2. ከስደስት ወር በፊት 3. ከ1 ዓመት በፊት 4. ከአክት ዓመት በፊት 5. ሌላ /ካለ ይጠቀስ/ ------------ --------------	
203	ለጥያቄ ቁጥር 201 መልስሽ አዎን ከሆነ በምን ያህል ጊዜ ልዩነት ሚርሜ ታደርጊያለሽ?	1. በወር አንድ ጊዜ 2. በስደስት ወር አንድ ጊዜ 3. ሌላ /ይገለጽ/ ------------ --------------	
204	ለጥያቄ ቁጥር 201 መልስሽ ሚርሜ አደርጌ አላወቅም ከሆነ ያካንያትሽ ምነድን ነው? (ከአንድ በላይ መልስ ማሚጥ ይቻላል)	1. የጤት ችግር ስለሌለብኝ 2. ሚርሜ ማድረግ አለብኝ ብዮ ስለማስብ 3. ሚርሜ ማድረግ ስለማዬመቸኝ 4. ሚርሜው እንዴት እንደምሃራ ስለማስወቅ 5. አስፈላጊ ነው ብዮ ስላላመኑኩ 6. ጥቅሙ ስለማስወቅ 7. ሌላ /ይጠቀስ/ ------------ --------------	ለጥያቄ ቁጥር 201 መልስሽ 1 ከሆነ ይህ ጥያቄ ይታለፍ
205	ስለ የራስን ጤት በራስ እጅ የመጠበቅ ጥቅም ከሌላ ሰው ጋር ተወያይተሽ ታወቄያለሽ ?	1. አዎን 2. ተወያይቼ አላወቅም	
206	ስለ የራስን ጤት በራስ እጅ መጠበቅ በጤፍ ባለመያዎች ትምህርት ተሰጥቶሽ ያወቃል?	1. አዎን 2. ተሰጥቶኝ አያወቅም	
207	በጤፍ ባለመያ የጤት ሚርዬ አድርገሽ ታወቄያለሽ?	1. አዎን 2. ሚርሜ አድርጌ አላወቅም	
208	ለጥያቄ ቁጥር 207 መልስሽ ሚርሚዋን አድርጌ አላወቅም ከሆነ ያካንያትሽ ምነድን ነው? (ከአንድ በላይ መልስ ማሚጥ ይቻላል)	1. ገንዘብ ስለሌለኝ 2. ጊዜ ስለሌለኝ 3. ወጨቱን ማወቅ ስለማየስፈራኝ 4. የጤ ካንሰር ሚኬከቶችን ስለላየው 5. እንዳይረግ ጣቶኝ የሚያወቅ ሰው ስለሌለ 6. ጥቅሙ ስለማስወቅ 7. ሌላ /ይጠቀስ/ ------------ --------------	ለጥያቄ ቁጥር 207 መልስሽ 1 ከሆነ ይህ ጥያቄ ይታለፍ

ክፍል 3   ሴቶች የራስን ጤት በራስ በመጠበቅ ዙሪያ ያላቸውን አመለካከት ለማጕናት የተዘጋጀ ማጣየቅ

ተ.ቁ	ዓረፍተ ነገር	የሚስማሙ ደረጃ		
		እስማማለሁ	ገለልተኛ	አልስማማም
301	ሁሉም እናቶች የራስን ጤት በራስ እጅ ምዕሩ ማጽረግ አለባቸው።			
302	የራስን ጤት በራስ እጅ መጠበቅ በጣም ረጅም ጊዜ ይፈጃል።			
303	ስለ ጤት ካንሠር ሰወራ አፈራለሁ።			
304	የራስን ጤት በራስ እጅ ምዕሩ በየዉሩ ማጽረግ በጣም አስፈላጊ ነው።			
305	አንድ ሴት ያለጣንም እገዛ የራስዋን ጤት በራስዋ እጅ መጠበቅ ትችላለች።			
306	የራስን ጤት በራስ እጅ መጠበቅ አስቸጋሪ ነው።			
307	የራስን ጤት በራስ እጅ መጠበቅ ከፍተኛ የህመም ስሜት አለው።			
308	ለጤትዬ አስፈላጊዉን እንክብካቤ አደርጋለሁ።			
309	የጤት ላይ ዕብጠት ቢያጋጥመኝ ወደ ባህላዊ ህክምና ቤት ሜድ አመርጣለሁ።			

ክፍል 4   ሴቶች የራስን ጠጉ በራስ እጅ በመሞርሞር ዙሪያ ያላቸው ግንዛቤ ለማኩናት የተዘጋጀ ማጣየቅ ከዚህ በታች የተዘረዘሩት ዓ.ነገሮች እዉት ወይም ሀሰት በይ።

ተ.ቁ	ዓረፍት ነገር	መልስ		
		እዉት	ወሸት	አላወቅም
401	የራስን ጠጉ በራሷ እጅ ያሞርሞሩ በየሀሉት ውሩ መሠራት አለበት። :			
402	አንዲት ሴት የራሷን ጠጉ በራሷ እጅ መሞርሞር ያለባት የወር አበባ ካየች በኋላ ከ7-10 ባሉት ቀናት ወስጥ ነዉ።			
403	አንዲት እናት የራሷን ጠጉ በራሷ እጅ ስትሞረሞር ከጣ ታዋት ፈት ቆማ መሆን አለበት። :			
404	አንዲት እናት የራሷን ጠጉ በራሷ እጅ ስትሞረሞር እጆቿን በየተራ እራሷ ላይ አድርጋ መሆን አለበት። :			
405	አንዲት እናት የራሷን ጠጉ በራሷ እጅ በጆርባዋ ተኛታ መሞረሞር ትችላለች። :			
406	አንዲት እናት የራሷን ጠጉ በራሷ እጅ ስትሞረሞር የቀኝ ጡቷን ለመሞርሞር በግራ ጐፉ ተኛታ መሆን አለበት። :			
407	ጠጉ ላይ ያለ እብጠትን ወይም የተሰከረ ቦታ ለመሞሪሞ ማጡቀም ያለብን የጣታችን ጫፉ ነዉ። :			
408	አንዲት እናት የራሷን ጠጉ በራሷ እጅ ስትሞረሞር ቀጥተኛ እና ክብ መጠመሞችን ማካተል አለባት። :			
409	አንዲት እናት የራሷን ጠጉ በራሷ እጅ ስትሞረሞር የጡቷን ጫፉ በመጫን ያልተለመደ ፈሳሻ መኖር አለመኖሩን ሚጋገጥ ያስፈልጋታል: :			
410	አንዲት እናት የራሷን ጠጉ በራሷ እጅ ስትሞረሞር ያልተለመዱ ቅርፅና የጠጉ ማጠን ለወጥ መኖር አለመኖሩን ሚጋገጥ ያስፈልጋል: :			
411	አንዲት እናት የራሷን ጠጉ በራሷ እጅ ስትሞረሞር ብብት ወስጥ እብጠት መኖር አለመኖሩን ሚጋገጥም ያስፈልጋል። :			
412	የራስን ጠጉ በራሷ እጅ መሞርሞር ከፍተኛ የህመም ስሜት አለዉ። :			
413	የራስን ጠጉ በራሷ እጅ ያሞርሞሩ ለማጅመር ትክክለኛዉ ጊዜ 40 ዓመት ነዉ። :			

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ክፍል 5 ሴቶች ለጡት ካንሰር የሚያጋልጡ ነገሮች እና የጡት ካንሰር ምልክቶች ላይ ያላቸውን ግንዛቤ ለማጥናት የተዘጋጀ ማጠይቅ

ተ.ቁ	ጥያቄ	ሜስ		እልፍ
501	ለጡት ካንሰር የመጋለጥ እድልን ይጨምራል? (እዉነት ወይም ሀሰት በማለት ሜልሽ)	እዉነት	ሀሰት	
	ሀ. የእድሜ መጨመር			
	ለ. በጡት ካንሰር የታመመ ዘመድ መኖር			
	ሐ. ማጨስ			
	መ. ቅባት የበዛበት ምግብ መመገብ			
	ሠ. ዘግይቶ መወለድ (ከ 30 አመት በኋላ)			
	ረ. የወር አበባ ቀደም ብሎ መጣጣት (ከ 12 አመት በታች)			
	ሰ. ዘግይቶ ሚጥ/ደም መቁረጥ (menopause)(ከ 55 አመት በላይ)			
	ሸ. ትልቅ ጡት መኖር			
	ቀ. ክልክ ያለፈ ወፍረት			
	በ. ብዙ አልኮል መጠጣት			
502	የጡት ካንሠር ምልክት ሊሆን ይችላል። ((እዉነት ወይም ሀሰት በማለት ሜልሽ))			
	ሀ. የጡት ህመም			
	ለ. የጡት ማጠን ማለወጥ			
	ሐ. የጡት ቆዳ ቀለም መቀየር			
	መ. ጡት ላይ ጉድጓድ ያለ ቦታ መኖር			
	ሠ. የጡት ቁስለት			
	ረ. ከጡት ጫፍ የሚወጣ ፈሳሽ መኖር			
	ሰ. የጡት ቅርፅ ማለወጥ			
	ሸ. የጡት ጫፍ ወደ ውስጥ መግባት			
	ቀ. የጡት እብጠት መኖር			
	በ. በብብት ውስጥ እብጠት መኖር			
503	በጡት ካንሠር የመያዝ ዕድልሽን አንዴት ትገልፀዋለሽ ?(አንድ ሜስ ብቻ ምሪጪ)	1. በፍጹም አልያዝም 2. ዝቅተኛ 3. መካከለኛ 4. ከፍተኛ 5. አላወቅም		
504	ለጡት ካንሠር የሚጋልጡ ባህርያት አሉኝ ብለሽ ትገምጫለሽ ?	1. አዎን 2. የለኝም		ሜስሽ 2 ከሆነ →ክፍል 6
505	ለጥያቄ ቁጥር 504 ሜስሽ አዎን ከሆነ ስንት አጋላጭ ባህርያት አለሽ?(ዘርዝሪያቸው)			

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ክፍል 6 ሴቶች ስለጠት ካንሰር ያላቸዉን ግንዛቤ ለማኮናት የተዘጋጀ ማጠይቅ።

ተ.ቁ	ጥያቄ		መልስ	ምርመራ
601	ስለ ጠት ካንሰር ሥማተሽ ታወቂያለሽ ?		1. አዎን 2. ሥማቼ አላወቅም	(መልስሽ 2 ከሆነ → 603)
602	ለጥያቄ ቁጥር 601 መልስሽ አዎን ከሆነ ስለጠት ካንሰር የሥማሽዉ ከየት ነበር? (ከአንድ በላይ መልስ መሆኒት ይቻላል)		1. ከሬድዮ 2. ከቴሌቪዠን 3. መፅሔት 4. ከጋዜጣ 5. ከጤፍ ባለሞያ 6. ከሌላ (ይጥቀሱ)	
603	የጠት ካንሠር በሴቶች ላይ ከሚከሠቱ የካንሠር አይነቶች አንዳና በጣም የተለመደዉ ነዉ:		1. እዉት 2. ሀሰት	
604	ማንኛዎም ሴት በጠት ካንሠር የመዋዝ ዕድል አላት: :		1. አዎነት 2. ሀሰት	
605	ቶሎ ከታወቀ የጠት ካንሠር ታክሞ ይድናል: :		1. እዉት 1. ሀሰት	
606	የጠት ካንሠር አደገኛ በሽታ ነዉ: :		1. እዉት 2. ሀሰት	
607	የጠት ካንሠር በሽታ መያስኤዉ ርክስ ማፈስ ነዉ: :		1. እዉት 2. ሀሰት	
608	የጠት ካንሠር ተላላፊ በሽታ ነዉ: :		1. እዉት 2. ሀሰት	
609	የጠት ካንሠር ለሞት ሊዳርግ ይችላል: :		1. እዉት 2. ሀሰት	
610	የጠት ካንሠር ምርመራ ዘዴዎችን ታወቂያለሽ?		1. አዎን 2. አላወቅም	
611	ለጥያቄ ቁጥር 610 መልስሽ አዎን ከሆነ የትኛዉን የምርመራ ዘዴ ታወቂያለሽ? (ከአንድ በላይ መልስ መሆኒት ይቻላል)		1. በህክምና ባለሞያ የሚደረግ የጠት ምርመራ 2. በራስ እጅ የሚደረግ ምርመራ 3. ማሞግራም 4. ሌላ /ጥቀሽ/ -------- -----------	