

Research Article

Knowledge and Practice of Breast Self-Examination among Female Undergraduate Regular Students of Addis Ababa University, Addis Ababa, Ethiopia, 2022

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***Corresponding author:** Jembere Tesfaye, School of Nursing and Midwifery College of Health Sciences, Addis Ababa University, Addis Ababa, Ethiopia**Received:** July 28, 2022; **Accepted:** August 25, 2022;**Published:** September 01, 2022**Abstract**

Background: Breast cancer is the most common cancer among women worldwide, claiming the lives of hundreds of thousands of women each year and affecting countries at all levels of modernization. It is one of the early noticing ways of breast cancer which involves the woman herself looking at and feeling each breast for possible mass, discharge, swelling, dimpling, and other abnormalities.

Objective: To assess the knowledge and practice of breast self-examination among female undergraduate students at Addis Ababa University, College of Health Science.

Method: Institutional based cross-sectional study was conducted among female undergraduate students in which departments were selected by using a lottery method and a simple random sampling technique was used to select 214 female students from each department. Data was collected by using a self-administered, structured questionnaire from April to May 2022. The data was entered into Epidata and analyzed by Statistical Package for Social Science (SPSS) window software.

Result: A total of 214 respondents were enrolled in the study giving a response rate of 100%.

About 133(62.8%) of respondents had a good knowledge of Breast Self-Examination and Breast Cancer. Nearly half 106(48.5%) of the study participants have practiced breast self-examination at least once in their life. There were three main reasons for not doing the examination.

Conclusion: This study discovered that more than half of the study participants have a piece of good knowledge about BSE. However, the vast majority of study subjects never engaged in BSE. The concerned bodies should create awareness about breast self-examination.

Keywords: Knowledge; Practice; Breast self-examination; Female students

Abbreviations

US: United States; UK: United Kingdom; BSE: Breast Self-Examination; TV: Television; KAP: Knowledge, Attitude and Practices; SBE: Self Breast Examination; SEM: Standard Error of Mean; AAU: Addis Ababa University; SPSS: Statistical Package for the Social Sciences; BC: Breast Cancer

Introduction

Cancer is a leading cause of death worldwide, accounting for 10% deaths in 2018. Breast cancer is the most common cancer among women worldwide, claiming the lives of hundreds of thousands of women each year and affecting countries at all levels of modernizations [1]. Breast cancer is a word that is relatively easy to be uttered but left a deep frightening impression on women. With the passage of times, the prevalence of breast cancer augments together with the technical global development and modernization and it can occur in both men and women, breast cancer in men is rare [1,2]. Breast self-

examination is one of the early noticing way of breast cancer which involves the woman herself looking at and feeling each breast for possible mass, discharge, swelling, dimpling and other abnormalities. Breast cancer is more common among women than men and it is a type of malignant tumour which begins in the cells of the breast [3]. Breast self-examination is a kind of examination made by each woman and it is cost effective, painless, easy to apply, safe, and non-invasive procedures without special material or tool requirements. It is an important noticing way of breast cancer which takes five minutes to apply. Breast cancer awareness improves the outcome of breast cancer treatment [4]. Breast self-examination is useful for women's awareness of warning signs and symptoms of breast cancer like redness of the breast skin, changes in the size of the breast or nipple, a breast lump, pain in the breast or armpit, lump under the armpit, nipple rash, changes in the shape of the breast or nipple, bleeding or discharge from the nipple, pulling of the nipple, dimpling of the breast skin and changes in the position of the nipple [5]. Breast self-examination is also important to increase breast health awareness

which helps to allow for timely detection of anomalies for those who do not have access to health facility and advanced laboratory investigations for diagnosing breast cancer [6]. Worldwide, breast cancer is the most diagnosed cancer among women, accounting for 1 in 4 cancer cases and it is the most frequent cancer amongst both sexes and is the leading cause of death from cancer in women accounting an estimated 2.3 million new cases indicate that one in every 8 cancers diagnosed in 2020 is breast cancer [7]. In 2020, there were an estimated 684,996 deaths from breast cancer, with a disproportionate number of these deaths occurring in low-resource settings. In 2022, an estimated 287,850 new cases of invasive breast cancer are expected to be diagnosed in women in the U.S., along with 51,400 new cases of non-invasive (in situ) breast cancer [8]. Approximately 12.4% of women diagnosed with female breast cancer at some point during their lifetime, based on 2020 American cancer society data. In 2015, an estimated 231,840 new cases of invasive breast cancer were diagnosed among women, as well as an estimated 60,290 additional cases of in situ breast cancer [9]. In 2018, there were an estimated 3,676,262 women living with female breast cancer in the United States [10]. Breast cancer causes 376,000 deaths a year worldwide and about 900,000 women are diagnosed every year with the disease [11]. In comparison of China and Europe, China exhibited lower breast cancer mortality rates of 6.6 per 100,000, while the respective mortality rate in Europe was equal to 16.1 in accordance with incidence rates [12]. More than half of all cancers (56.8%) and cancer deaths (64.9%) in 2012 occurred in less developed regions of the world [13]. Breast cancer accounts for 45% of all cancer in females aged 25–49 years and 34% of all cancer in the 50–74 year age group in the United Kingdom. The incidence in the age group between 15 and 24 is 3.1 per million of population in the UK. In the United States, the probability of developing breast cancer remains at 0.5% for women aged less than 39 years and 3.8% for women aged 40–59 years [14]. More than 60% of the world's total cases occur in Africa, Asia and Central and South America and these regions account for about 70% of the World's cancer death, a situation that is made worse by the lack of early detection and access to treatment, the number of deaths was 21.2 per 100,000 women per year. These rates are age-adjusted and based on 2010-2014 cases and deaths. Breast cancer is common cancer in Ethiopia [15]. For the reason of scarce data compilation, the accurate occurrence rate of breast cancer in Ethiopia is unclear. However, according to a study done in Tikur Anbessa specialized hospital, among 16,622 new cancer cases registered, 3460 (21.0%) were breast cancer new cases indicating about 216 cases annually [16]. Breast cancer cases are among the top prevalent case (31.5%), followed by cervical cancer, which accounts for 14% among women in the country [17,18]. The regional distribution BSE ranged from 21.2% in Tigray to 61.5% in Gambela, whereas the pooled BSE practice in Amhara region is reported to be 40.5% [19,20]. In the absence of preventive measures at this time control of breast cancer morbidity and mortality must be sought through early detection and treatment, so that it is important to minimize the time from detection to diagnosis to treatment. The significance of the study in the area would be since breast cancer is a worldwide health problem with higher incidence, morbidity and mortality and has a great impact on physical, psychological, and economical aspects of a woman, family and community as whole particularly, in developing countries including Ethiopia this study assessed as early detection of breast

lumps through Breast Self-Examination (BSE) is critical for breast cancer prevention and early diagnosis, and has a key role in lowering morbidity and mortality, particularly in low-income countries like Ethiopia, where resources are scarce. In addition, because of a lack of screening and early detection services, as well as a lack of awareness of early signs and symptoms, the majority of breast cancer cases in Africa are detected at an advanced stage of disease. Better documenting students' knowledge and practice of BSE would be useful to governmental and nongovernmental organizations in the design of interventions aimed at effective breast cancer prevention through increased awareness and/or improved screening, as well as encouraging other researchers and policymakers to conduct more extensive research in this area as baseline data.

Materials and Methods

Addis Ababa University is the pioneer University in the country and has about 10 colleges with more than 60 undergraduate program located in the capital city of the country. College of Health Science is found under the university and running seven undergraduate programs. In 2021/2022 academic year the campus has a total of 1178 students, among these 642 are male and 536 are female. Data collection was conducted 01 April to 30 May 2022. A cross-sectional study design was conducted to assess the knowledge and practice of study subjects towards breast self-examination. The source population of this study were all undergraduate female health science students found in Addis Ababa University. All under graduate young female students who are 2nd year and above and age of 25 years and below were included.

Students who are seriously ill and can't communicate, age >25 years and newly registered fresh students were excluded from the study. The total sample size was determined using single population proportion formula $\{n = [(Z\alpha/2)^2(1-P)]/d^2\}$, where the prevalence was taken from a research conducted on Knowledge of breast cancer and its early detection measures among female students, in Mekelle University, Ethiopia [35]. According to this study, the prevalence of knowledge and practice of breast self-examination was 59.5 % and 37.2 %. $Z\alpha/2$ at 95%CI (1.96) and =5% margin of error (0.05). By considering 10% non- response rate and incomplete lost questionnaires. The prevalence of practice of BSE provided the feasible sample size when it was compared to the other variables.

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

$$n = \frac{(1.96)^2 \times 0.372 (1-0.372)}{(0.05)^2}$$

$$n=358$$

By considering 10% non- response rate and incomplete lost questionnaire, the final sample size will be 394. Since the total number of female students are 466 which is below 10,000 correction formula must be used.

$$\frac{Nr}{na} = 1 + \frac{(nr - 1)}{N}$$

Where na = the adjusted sample size, nr = the original required sample size (384) and N = population size (466).

$$Na = 394/1 + (394-1/466) = 214.$$

Adjusted sample size of the study is = 214.

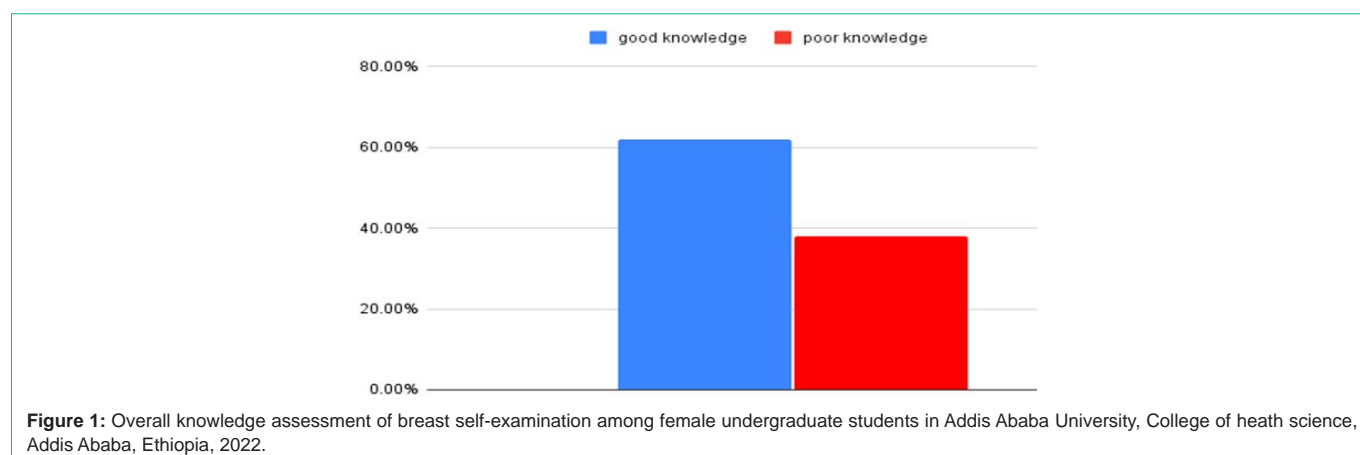


Figure 1: Overall knowledge assessment of breast self-examination among female undergraduate students in Addis Ababa University, College of health science, Addis Ababa, Ethiopia, 2022.

Table 1: Socio-demographic characteristics of female undergraduate students in Addis Ababa University, College of Health Science, Addis Ababa, Ethiopia, 2022.

| Variables | Category | Frequency | Percent % |
|---|----------------------|-----------|-----------|
| Age | 19-20 | 88 | 41.2% |
| | 21-22 | 117 | 54.7% |
| | 23-24 | 9 | 4.2% |
| Year of study Education level | 2 nd year | 105 | 49.1% |
| | 3 rd year | 71 | 33.2% |
| | 4 th year | 38 | 17.8% |
| Department | Medicine | 69 | 32.2% |
| | MRT | 19 | 8.6% |
| | Pharmacy | 35 | 16.5% |
| | Nursing | 28 | 13.3% |
| | MLS | 20 | 9.4% |
| | Aesthesia | 24 | 11.4% |
| Place of origin | Urban | 153 | 71.5% |
| | Rural | 61 | 28.5% |
| Marital status | Single | 212 | 99.1% |
| | Married | 2 | 0.9% |
| Age at the first menstruation Age at first menstruation | 9-11 | 15 | 7% |
| | 12-15 | 154 | 72% |
| | 16-17 | 45 | 21% |
| Do any of your family members have history of breast cancer? Do your family members have history of BC? | Yes | 198 | 92.5% |
| | No | 10 | 4.7% |
| | I don't know | 6 | 2.8% |
| If yes who in the family has breast cancer? Family with history of breast cancer (N=10) | Mother | 1 | 10% |
| | Grandmother | 2 | 20% |
| | Aunt | 7 | 70% |

A total of seven departments; two departments from school of medicine, three departments from school of nursing and midwifery, one department from school of radiology and one from school of pharmacy will be selected by using lottery method. Then to obtain representative sample from each department as well as from each year by population proportion based on the total number of students

in each department and simple random sampling method used to select study participants from a list of students obtained from AAU College of health science registrar office. This list was used as sample frame. The sample size in each department is proportional to the total number of female students of 2nd year and above.

Proportionate allocation:

$$n_j = \frac{n \cdot N_j}{N}$$

Where n_j = sample size in j^{th} department

N_j = Total number of female students in j department

$n = n_1 + n_2 + n_3 + \dots + n_k$ Estimated final sample size

$N = N_1 + N_2 + N_3 + \dots + N_k$ Total number of female students in each department

Self-administered questionnaire was designed to elicit the knowledge and practice of undergraduate female students in the campus. The questionnaire consists of the questions related to socio-demographic, knowledge and practice of breast self-examination.

The dependent variable of the study is consistent of the knowledge and practice of breast self-examination of undergraduate female students of College of Health Sciences. The explanatory that influence practice of breast self-examination were selected on the basis of literature review. Those factors were categorized into socio-demographic, knowledge and practice of BSE variables.

These are:

Socio-demographic variables (Age, Educational level, Marital status, motherhood status, age at first menstruation and history of breast cancer in the family).

Knowledge of breast cancer and risk factors of breast cancer, source of information, personal risk to breast cancer, suggested sign and symptom of breast cancer, and knowledge of age at which to start, frequency of BSE, time to practice BSE, techniques of palpation and position to examine self breast. Data collection held by trained data collectors who have sufficient knowledge on the data collection tool. Pre-test was conducted on 5% of the total sample size on female undergraduate in the College of Health Sciences in Addis Ababa University prior to the actual data collection to ensure quality, clarity, understand ability and completeness of the data.

After data collection, the collected data were cleaned, coded and entered to the software. Data entry and validation done by using EPI data version 3.1 and then exported to Statistical Package for Social Software windows version 24. Different frequency tables, graphs and descriptive summaries were used to describe the study variables.

Operational Definition

Knowledge of BSE

The knowledge of the breast cancer and BSE were assessed using 24 point knowledge score. The respondents were asked a total of 15 multiple questions on knowledge that carried a total of 24 correct responses. Each correct response was given a score of 1 and wrong responses a score of 0. Total points to be scored were 24 and the minimum was 0.

The score for knowledge were categorized into two groups. Good knowledge categorized for the value greater than or equal to mean value and poor knowledge for the value less than mean value.

BSE Practice

The action or doing of breast self-examination at monthly basis after menstruation was being done in standing and lying position via

inspection and palpation.

Ethical Approval

Ethical approval of the research was obtained from the Institutional Review Board (IRB) and participants were informed that participation is voluntarily, they have full right to refuse from participation or withdraw from the study at any time they want, without losing any of their right not forced to stay in study and individual confidentiality was secured. Detailed explanation about the objective and benefit of the study was described to the study population and their full cooperation, and written consent was taken by declaration of Helsinki.

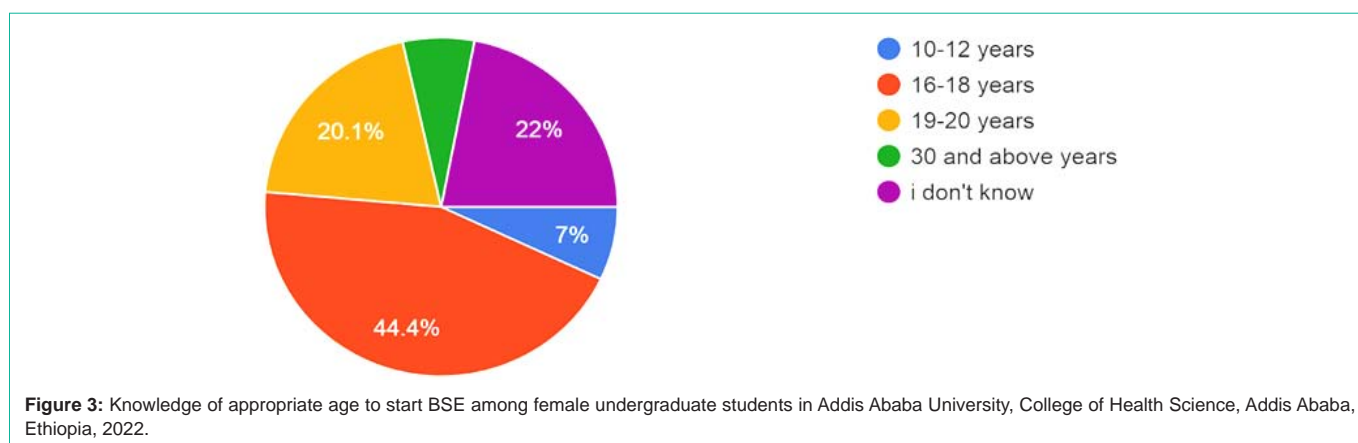
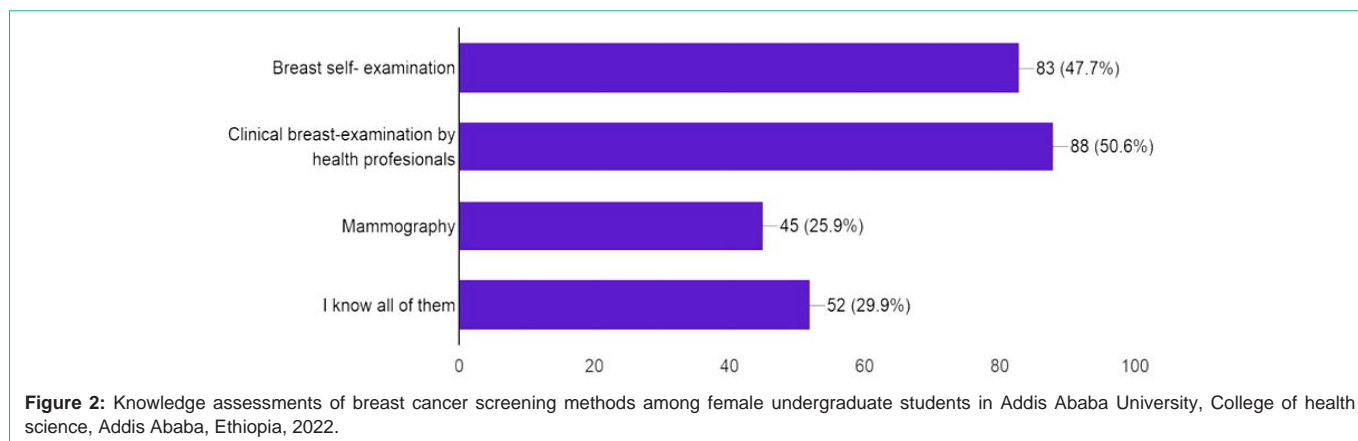
Results

A total of 214 Addis Ababa University College of health science female students were enrolled in the study giving a response rate of 100%. The mean age was 20.7+ S.D 1.06 years with median age of 21.5 years. The minimum and maximum ages of the participants were 19 and 24 years respectively, while the median age at which the participants seen first menses was 13 years. Majority of the respondents 117(54.7%), were in the age range of 21 to 22, 88(41.2%) of the students are in the age range of 19-20 and 9(4.2%) were in the age range of 23 to 24. Nearly half 105 (49.1%) of the respondents educational level were second year followed by 71(33.2%) third year students and 38(17.8%) fourth year students. Regarding field of study, majority of the students 69(32.2%) were medicine students and 35(6.5%) were pharmacy students. Out of the total study participants 153(71.5%) were from urban. Regarding marital status majority 212(99.1%) of respondents were single. 110 (51.4%) of the total study subjects were followers of Orthodox Christianity religion followed by 60(28%) Muslim religion followers. Of the 214 students included in this study 10(4.7%) responded that they had family history of breast cancer. According to their response regarding to family history, from the total family with history of breast cancer 7(70%) aunts, 2(20%) grandmothers and 1(10%) mothers of the respondents had history of breast cancer, while 198(92.5%) informants had no family history of breast cancer and 6(2.8%) participants don't know if there family has history of breast cancer as presented (Table 1).

Knowledge of Breast Cancer and Breast Self-Examination

Overall more than half 133(62.1%) of the study participants have a good knowledge about breast cancer and 81(37.9%) of the study participants had a poor knowledge towards breast cancer (Figure 1). Among the 212 students 119(55.6) of them know as a breast cancer has a hereditary factor and majority 123(58.9%) of the responder's source of information about it was electronic media.

Regarding the knowledge of signs and symptoms of breast cancer, 153(71.5%) mentioned that lump in the breast suggest breast cancer, and 116(54.2%) and 99(46.3%) of informants responded pain in the breast and discharge from the breast indicate presence of breast cancer respectively. Of the total study subjects 29(13.6%) claimed that they do not know signs and symptoms of breast cancer. Of the respondents participated in this study 153(71.5%) knew that breast cancer is curable if it is detected early, while 34(15.9%) know nothing about whether breast cancer is curable or not, while 107(50%) explained that they have no risk of breast cancer. Among the study subjects involved in this study only 71(33.2%) and 65(30.4%) knew



that not breast feeding and advanced age as a factors increasing the risk of breast cancer respectively, while 39(18.2%) of the participants claimed that they do not know whether any of the above factors that outlined do increase the risk of developing breast cancer. Of the study participants 82(38.3%) doesn't know if a women who doesn't have regular physical activity may more likely to get breast cancer. Regarding to their knowledge about benefits of early detection of the study subject knew that early detection increase chances of survival.

The participants' knowledge of screening methods were assessed, and it was discovered that 158(73.8%) of participants knew Breast cancer screening methods, among those who knew about the screening methods, 83(47.7%) knew about Breast Self-Examination, 88 (50.6 %) knew about Clinical Breast Examination, and 45 (25.9 %) knew about mammography (Figure 2).

Nearly half 94(43.9%) of participants mentioned that only female should perform BSE and around 120 (56.1%) of the informants correctly responded saying that both sex should perform BSE. Majority 95(44.4%) of the study subjects were not aware about the appropriate age at which BSE has to be started while only very few 43(20.1%) of the participants had mention 19-20 years is the correct age to start performing BSE. Of the total participants who has taken part in this study 55(25.7%) said BSE should be performed monthly and more than one-third 74(34.6%) of the participants did not know how often BSE has to be performed.

Concerning the knowledge about the time to do BSE of female

with regular menstrual cycle, 54(25.2%) of the participants responded 2-7 days after cessation of menses is the correct time to perform BSE, while more than half 114(53.3%) of the informants did not know when female with regular menstrual cycle should perform BSE as presented by (Figure 3).

Of the total participants, 128(59.8%) of the study subjects did not know when BSE has to be done by those female with irregular menstrual cycle, and 44(20.6%) of them said women with irregular menstrual cycle should perform BSE during menses.

As displayed by Table 2 regarding to the knowledge of correct position during BSE, 57(26.6%) replied that they don't know the correct position to be assumed when performing BSE, while about three-fold 155(74.4%) responded standing in front of the mirror and lying on back is correct position to do BSE.

Practice of Breast Self-Examination

Regarding to their BSE practice, more than half 108(51.5%) of the informants have never practiced BSE in their life time. And nearly half 106(48.5%) of the participants have practiced BSE at least once in their life time. Among the female students who reported that they are practicing BSE 106(48.5%), in the last 12 months only 39(18.2%) of them practiced BSE. Of the 39 participants who practiced BSE in the past 12 months 5(12.5%) performed more than or equal to 10 times in the past 12 months.

The main reason for performing BSE was that, 35(28%) of them

Table 2: Knowledge of breast self-examination among female undergraduate students in Addis Ababa University, College of Health Science, Addis Ababa, Ethiopia, 2022.

| Variables | Category | Frequency | Percentage |
|--|--|-----------|------------|
| Ever heard of breast cancer? | Yes | 212 | 99.1% |
| | No | 2 | 0.9% |
| Source of information If yes what was your source of information? | Electronic media | 123 | 58.9% |
| | Friend | 73 | 34.9% |
| | Lecture notes | 106 | 50.7% |
| | Training and seminar | 34 | 16.3% |
| | Society | 2 | 1% |
| | From relatives | 1 | 0.5% |
| Breast cancer is hereditary Is breast cancer hereditary? | Yes | 119 | 55.6% |
| | No | 38 | 17.8% |
| | I don't know | 57 | 26.6% |
| Detected sign of breast cancer A women who doesn't have regular physical activity may more likely to get breast cancer Which of the following sign do you consider as a sign of breast cancer? | Lump in the breast | 153 | 71.5% |
| | Discharge | 99 | 46.3% |
| | Pain or in the breast | 116 | 46.3% |
| | Change in size of the breast | 89 | 41.6% |
| | Dimpling of the breast | 67 | 31.3% |
| | Ulceration of the breast | 87 | 40.7% |
| | Weight loss | 39 | 18.2% |
| | Pulling in of nipple | 49 | 22.9% |
| Breast cancer is a curable Is breast cancer is a curable disease? | Yes | 153 | 71.5% |
| | No | 27 | 12.6% |
| | I don't know | 34 | 15.9% |
| Risk of breast cancer | History of breast cancer in the family | 133 | 62.1% |
| | Advanced age | 65 | 30.4% |
| | Early menarche | 49 | 22.9% |
| | Late menopause | 46 | 21.5% |
| | Not breast feeding | 71 | 33.2% |
| | Having a small or large size breast | 9 | 4.2% |
| | Smoking | 109 | 50.9% |
| | Prolonged hormonal therapy | 77 | 36% |
| A women who is obese and who did not have regular physical activity may more likely to get breast cancer | Yes | 76 | 35.5% |
| | No | 56 | 26.2% |
| | I don't know | 82 | 38.3% |
| Are you at risk of breast cancer? | Yes | 32 | 15% |
| | No | 107 | 50% |
| | I don't know | 75 | 35% |
| Can early detection improve chances of survival? (>5 years) Can early detection improve chances of survival? | Yes | 203 | 94.9% |
| | No | 2 | 0.9% |
| | I don't know | 9 | 4.2% |
| Do you know the types of breast cancer screening methods? | Yes | 158 | 73.8% |
| | No | 56 | 26.2% |

| | | | |
|--|--|-----|-------|
| Which screening methods do you know? (Multiple answers is possible) If yes, which screening methods do you know? | Breast self-examination | 83 | 47.7% |
| | Clinical breast examination by health professionals | 88 | 50.6% |
| | Mammography | 45 | 25.9% |
| | I know all of them | 52 | 29.9% |
| Who should perform BSE | Female | 94 | 43.9% |
| | Male | 0 | 0% |
| | Both | 120 | 56.1% |
| Age of breast self-examination At what age do you think that breast self-examination has to be began? | 10-12 years | 15 | 7% |
| | 16-18 years | 95 | 44.4% |
| | 19-20 years | 43 | 20.1% |
| | 30 and above years | 14 | 6.5% |
| | I don't know | 47 | 22% |
| How often should BSE be performed? | Monthly | 55 | 25.7% |
| | Every 2-3 month | 52 | 24.3% |
| | Every 4-6 month | 26 | 12.1% |
| | Yearly | 7 | 3.3% |
| | I don't know | 74 | 34.6% |
| When should a woman with regular menstruations do BSE? When should a woman with irregular menstruations do Breast self examination? | 2-7 day after cessation of menses | 54 | 25.2% |
| | During menses | 46 | 21.5% |
| | I don't know | 114 | 53.3% |
| When should a woman with irregular menstruations do BSE? When should a woman with irregular menstruations do Breast self examination? | 2-7 day after cessation of menses | 42 | 19.6% |
| | During menses | 44 | 20.6% |
| | I don't know | 128 | 59.8% |
| Correct position of body while performing BSE What will be the correct position of body while performing Breast self examination? | Standing position in front of mirror or lying position | 155 | 72.4% |
| | While lying in chest | 2 | 0.9% |
| | I don't know | 57 | 26.6% |

were recommended by a health professionals, 17(13.6%) of the respondents were encouraged by media, and 49(39.2%) of them fear of breast cancer. Of the participants who performed BSE 11(5.2%) responded that they have seen palpable mass or lumps in their breast. When we asked those study subjects who did not practice BSE why they don't practice BSE, more than one-third 56 (49.6%) of them replied that they do not know the techniques so that they aren't able to start it, and 40(35.4%) of the respondents said that no one recommended to them to start BSE.

Discussion

Knowledge of Breast Cancer and Breast Self-Examination of the Study Participants

This study found that 62.1% of the study participants had good knowledge towards BSE and breast cancer. Compared to other similar studies conducted on female students in Jordan (51.8%) [22], Angola (34.5%) on university students [23] and Tanzania (58.2%) on young adult female [24] this study shows a slight variation in result may be due to the difference in time when the research was done and effort of some non-governmental organizations who are working towards improving awareness of breast and cancer in general. And 55.6% of the participant knew that breast cancer has hereditary tendency though 26.6% did not know if BC have a hereditary tendency or not.

But about 15.9% of the participants don't know if BC is curable or not.

The result of this study showed that only 23.79% participants knew that breast cancer is not curable. Similar study in Jordan and Tanzania on female students and young adult women respectively found more than half knew that breast cancer is not curable [22,24]. This showed that the participants had no detail information about breast cancer though most of them knew that breast cancer is more common in women. The difference may be due to the fact that more concern is more given to communicable diseases than the Non-Communicable Diseases (NCDs).

Regarding to the early signs of breast cancer, most of the respondents knew at least one sign of breast cancer though lump and pain in the breast were among the predominantly mentioned by the study subjects as 71.5% and 54.2% respectively.

There is a slight difference seen when compared with study conducted on BSE among undergraduate female students in Mekelle University, Ethiopia that 79.1% and 76.1% of the study subjects associated breast cancer with lumps and pain in the breast respectively [21]. This discrepancy may also be related with the fact that health education about cancer was not uniform in the country and still due to the fact that non-communicable diseases were neglected.

In the present study, participants replied for the question how often should perform BSE, 55(25.7%) said every month and for when to perform BSE, 54(25.2%) of respondents said after menstruation. On contrary to this study, finding from a study conducted on knowledge of breast cancer and screening methods among nurses in Addis Ababa, Ethiopia had shown that among respondents asked to describe the frequency of performing BSE, 51.5% of the study subjects reported BSE should be performed monthly after menstruation [25]. This gap might be due to the population the studies conducted on nurses who do have information and experience about BSE through various courses and training taken and contact with breast cancer patients and professional cancer association that make them aware of screening methods.

The finding of this study showed that 106(48.5%) of the study subjects reported that they have practiced BSE at least once in their life. This was almost in line with the study from Angola, Iraq, and Mekelle Ethiopia [23,25,26]. From these participants who reported that ever practiced BSE, 60.08% practice BSE in the last 12 months. Similarly this study also found out that only 11.06% of the participants were practice BSE on a regular basis in the last 12months. This study was almost consistent with the study done in Turkey 7% and Tanzania 14.2 %, though incomparable with the study done in Mekelle University Ethiopia 71%.

This low proportion of BSE practice maybe related with the fact that non-communicable disease like breast cancer are not getting due attention by stakeholder of health care system and for the reason that there is no active screening program. In line with the study from Iraq 47.5% [26] the finding of this study showed that 49.6% of the respondents mentioned that they did not know the techniques to perform BSE. This slight difference may be come into viable as a result of the fact that the participant's socioeconomic status, awareness and perceived barriers to practice BSE were quite different.

Conclusion

Generally the finding of this study showed that 62.2% of the participants had over all knowledge about breast cancer and breast self-examination. Moreover, only few (18.2%) of the respondents have practiced BSE in the last one year, and 51.5% have never practiced BSE. From those participants, who were reported that they are practicing BSE in the last 12 months; only 13.7% had practiced BSE on a regular basis.

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