



WOLKITE UNIVERSITY
COLLEGE OF MEDICINE AND HEALTH SCIENCE
DEPARTMENT OF MIDWIFERY

A RESEARCH REPORT

**ASSESSMENT OF KNOWLEDGE ATTITUDE AND PRACTICE
TOWARDS BREAST SELF EXAMINATION AMONG FEMALE
STUDENTS AT WORABE UNIVERSITY, SNNPR, ETHIOPIA, 2021.**

PRINCIPAL INVESTIGATORS:

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- 2. Mezgebu Assefa**
- 3. Yeabsira Tekalign**

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WOLKITE, ETHIOPIA

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STUDENTS AT WORABE UNIVERSITY,
SOUTHERN ETHIOPIA**

**A RESEARCH REPORT SUBMITTED TO WOLIKITE
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August 2021

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ABBREVIATIONS AND ACRONYMS

ACS - American Cancer Society

BC - Breast Cancer

BSE - Breast Self Examination

CBE - Clinical Breast Examination

ETB- Ethiopian Birr

GLOBOCAN - Global Burden Of Cancer

KAP - Knowledge, Attitude, and Practice

WHO - World Health Organization

WKU - Wolkite University

WU - Worabe University

SPSS - Statistical package for social science students

CI - Confidence Interval

TABLE OF CONTENT

ACKNOWLEDGMENTS	I
ABBREVIATIONS AND ACRONYMS	II
LIST OF TABLES	3
ABSTRACT.....	4
CHAPTER ONE	5
1. INTRODUCTION.....	5
1.1. Background	5
1.2. Statement of the problem	6
1.3. Significance Of the study	8
CHAPTER TWO	9
2. LITERATURE REVIEW	9
2.1. Knowledge towards Breast Self Examination.....	9
2.2. Attitude towards Breast Self Examination	11
2.3. Practice of Breast Self Examination.....	12
CHAPTER THREE	13
3. OBJECTIVES	13
3.1 General objective.....	13
3.2. Specific objectives.....	13
CHAPTER FOUR.....	14
4. METHOD AND MATERIAL.....	14
4.1 Study area and Period.....	14
4.2. Study Design	14
4.3. Source Population	14

4.4. Study Population And	14
4.5. Inclusion And Exclusion Criteria.....	14
4.6. Sample Size Determination.....	15
4.7. Sampling Technique.....	16
4.8. STUDY VARIABLES	16
4.9 Operational Definition.....	17
5. Data Collection Procedure	17
5.1. Data analysis	18
5.2.Data quality control.....	18
6. Ethical Consideration	18
7. RESULT	19
.1. Socio Demographic Characteristics	19
6.2.Knowledge of study participants regarding BSE	21
6.3.Attitude of study participants towards BSE	23
6.4.Practice of study participants towards Breast Self Examination	25
7. DISCUSSION.....	27
8. Conclusion and Recommendations	29
8.2. Recommendations	29
9. REFERANCES	30

LIST OF TABLES

Table 1: Sample size determination for the assesement of knowledge, attitude and practice of breast self examination among female students at worabe university,Ethiopia, 2021.15

Table 2: Sociodemograhic characterstics of study participants in the assessment of knowledge attitude and practice of BSE among female students at worabe university , 2021.

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Table 3: Knowledge of female students towards BSE at worabe University, Ethiopia, 2021.

..... 22

Table 4: Attitude of female students towards BSE at worabe university, Ethiopia, 2021.23

Table 5: Practice of BSE among female students at worabe university , Ethiopia , 2021.25

ABSTRACT

Background: Global Burden of cancer (GLOBOCAN) 2020, reports that female breast cancer has surpassed lung cancer as the most commonly diagnosed cancer. It is also accountable for 6.9% of cancer-related death. Breast cancer ranked in the first place in terms of new cases diagnosed beside in terms of cancer death both in Africa as well as in Ethiopia. This is an alarming sign for all of us to wake and fight. Breast self-examination is simple, very low-cost, non-invasive screening method. This method is more affordable for low-income nations like Ethiopia. So, as prevention is the cornerstone to fight the disease even if we can not prevent the case from happening but we can nose out it early and contribute to the better survival of all females.

Objective: To assess the knowledge, attitude, and practice of breast self-examination among female students in Worabe University, SNNPR, Ethiopia, 2021.

Methodology: The study was employed by an institutional-based cross-sectional study design. The sample size of this study was 301 female students. They are going to be randomly selected from all departments of the campus. All the necessary data was collected using a structured self-administered questionnaire after ethical clearance was obtained.

Result: In this study, a total of 287 female students of Worabe University were involved with response rate of 95.3% of response rate. Consequently, the overall knowledge of the female students at Worabe University is found to be 127(44.3%) with 95% CI :(38-50%) in the case of attitude a total of 109 (38.0%) of study participants were found to have a favorable attitude towards BSE with 95% CI :(32-43%). In the end, it is found that only 54 (18.8%) of the participants have good practice of BSE with 95% CI:(14-23%).

Conclusion: The status of knowledge, attitude, and practice of BSE among female students at Worabe University is insufficient.

Recommendation: To prepare stage of health education, to involve mini medias and other clubs to involve in the issue, to prepare fliers, postures and videos.

Keywords: Breast self-examination, Breast cancer, Knowledge, Attitude, Practice, Worabe

CHAPTER ONE

1. INTRODUCTION

1.1. Background

The world health organization (WHO) consider cancer as a generic term for a large group of disease caused when cells divide uncontrollably and spread into surrounding tissue and can start from any organ or tissue of the body[1]. Cancer is a major public health problem in many parts of the world [2]. According to Global Burden of Cancer (GLOBOCAN) 2020, an estimated 19.3 million new cancer cases and almost 10.0 million cancer deaths occurred[3]. Lung, prostate, colorectal, stomach, and liver cancer are the most common types of cancer in men, while breast, colorectal, lung, cervical, and thyroid cancer are the most common among women[4]. Breast Cancer (BC) is the most frequent cause of cancer-related death among women[5].

Breast cancer is characterized by the uncontrolled growth of abnormal cells in the milk-producing glands of the breast or in the passages (ducts) that deliver milk to the nipple [6]. It occurs in every country of the world in women at any age after puberty but with an increasing rate in later life [1]. In 2020 there were 2.3 million (11.7%) women diagnosed with breast cancer among those 680,000 (6.9%) were dead globally[3].BC screening and timely diagnosis would save a lot of women's lives.

The three main tests which are used to screen breast Cancer are Breast self-examination (BSE), clinical breast examination (CBE), and mammography[7]. Among those BSE is a simple, very low-cost, non-invasive screening method used to detect BC at the early stage (before it progresses to the advanced stages)[8].

Breast Self Examination is an important, potentially life-saving procedure that allows the woman to look at and feel for any change in their breast by themselves as early as possible [9]. BSE should be done for all women above the age of 20 years [10]. Women who perform BSE at the right time using the proper method can recognize changes, such as thickening, lumps, spontaneous nipple discharge, or skin changes and dimpling. However, the women who do not perform BSE or don't have good knowledge, positive attitude and better practice are at high risk of breast cancer. Early detection can minimize the progress of the disease.

1.2. Statement of the problem

Breast Self Examination is one of the most simple procedure could be made for early detection of breast disease[11].In the world so many breast diseases are presented, some of those diseases are neoplasm, malignant neoplasm (breast cancer), mastitis, and so on. However, in the world, the malignant neoplasm is the most common and severe cancer in women[12].

Breast cancer is one of the most commonly diagnosed cancers worldwide[2]. There were 2.3 million women diagnosed with BC and 685,000 deaths globally in 2020.[1]It is the most frequently diagnosed and the second leading cause of death in more developed nations. In those nations that are in less developed BC is in the first rank in terms of both new cases and mortality[13].

Global Burden of Cancer in 2020, states that in Africa BC is the first stage among the top 5 frequent cancer excluding non-melanoma skin cancer ranked based on new cases[14]. It accounts for 186,598(16.8) new cases and 85,787(12%) of death.It five years prevalence of all age is estimated around 429,220 or 63.99 per 100,000 proportion[3,14].

In Ethiopia, GLOBOCAN 2020 estimates about 16,133 (20.9%) new cases as well as 9,061 (17%) of death due to women BC. This type of cancer also become the first followed by cervix and uterine, colorectum ovary and thyroid cancer ranked in terms of cases. The five-year prevalence of breast cancer in Ethiopia is about 27,872 or 48.52 per 100,000[3,13].

As many studies indicated the practices of BSE are low among university students. For instance, a study conducted in Cameroon among female undergraduate students in the University of Buea indicated that only 9.0% knew how to perform BSE, only 13.9% knew what to look for while performing BSE, and only 3% had performed BSE regularly[15]. Furthermore, Lack of knowledge on BSE was cited as the main reason for not performing BSE [16].

The findings from female Students in Haramaya University, Gonder University, Debre Birhan University, and other universities of Ethiopia, indicated that the practice of BSE while perceived as being important is not frequently practiced by the students[17]. Limited

knowledge about the realities of BC and lack of knowledge about the importance of self-examination and how it is performed are the main barriers to not practicing BSE[18].

Approximately 50% of cases of breast cancer in women 50 years and older and 71% of cases of breast cancer in women younger than 50 years are detected by women themselves[18]. Recently this malignant neoplasm has become the most frequently diagnosed as well as the most fatal especially in developing nations like Ethiopia. As researches are not still sufficient. Here, the number of researches conducted related to this issue is not the only concern. The important thing we have to be critically alarmed about is the way that we disseminate our result, use the obtained information for the right purpose and the target population and mostly perform what we were plan at the end of our research.

The major reasons to conduct this study is first by assessing the KAP of BSE then if it is sufficient to make it sustainable but it is not sufficient to take some corrective action based on the recommendation provided a last. Secondly, it helps to minimize the prevalence of breast disease by early detection of BSE.

1.3. Significance Of the study

As recommended by the American Cancer Society (2007) BSE should be started as early as the 20's [19]. Young adults at this age can be addressed widely in an institution like higher educational institutions or universities. Young adults are addressed because they are at higher risk of developing breast cancer. Our research was conducted to provides data about the existing level of KAP of BSE among Worabe university female students.

Our study was conducted to identify the major challenges to practice BSE among female students of the university. This is majorly beneficial for those female students learning in the university because it gives a recommendation. This study may also be used as a starting point for further similar researches among students. Furthermore the data s from this research help any organization like cancer organizations and other policymakers either to formulate a policy or provide health education to the students.

The results of this study are of great importance as it may assist health professionals in planning health education for female University students. Also, from this research findings, health screening which includes breast self-examination education could be included as one of the annual activities in Worabe University.

CHAPTER TWO

2. LITERATURE REVIEW

2.1. Knowledge towards Breast Self Examination

The prevalence of good knowledge differs from country to country, from region to region, and from person to person. Some of the researches conducted with similar title are listed as below:

One of the studies conducted in Arab American university shows that among a total of 97 students who participated in the study 42 students(43.3%) have poor knowledge,40 students(41.2%) have fair knowledge and 15 students (15.5%) have good knowledge[20]. In another study conducted in India among information technology(IT) professionals 356 women spanning from 18 to 55 years were included and from those, a mean of knowledge is about 18.17 ± 2.90 [21]. A study conducted among female students in Turkey revealed that a total of 73.3% of the students had heard about BSE. While of them only had obtained additional information about BSE[22].

Research conducted about KAP of BSE among female students at Presbyterian university college in Ghana a total of 250 nursing students has participated. The result revealed that 95% of respondents had ever heard of breast cancer and BSE. Only 5% had never heard about the issue[23]. Another research conducted at Rusangu university in Monze, Zambia revealed that among a total of 180 female students who participated in the study 137(76.1%) had a satisfactory level of knowledge[24]. In Eritrea, a study was conducted to assess the knowledge and practice of BSE among female college students. It was found that from a total of 380 respondents 56 (30.1) were knowledgeable and 130(69.9) were not-knowledgeable[25].

In Ethiopia, a study was conducted about the KAP of BSE among female undergraduate students in Gonder among a total of 300 students participated the majority of 175(58.3%) students heard about BSE. According to participants' responses to this study 185(61.7%),173(57.7%), and 123(41%) of students know the correct position, Technique, and pattern of BSE respectively. Among the participants, only 31(10.3%) know the correct step of BSE[26]. A result revealed from research conducted among 368 female health science

students at Adama science and technology university, Ethiopia shows that only 8.7% of them had good knowledge[27].

From a study conducted with a total of 305 female students to asses, the KAP of BSE among female students in Ambo university Ethiopia 206(67.5%) have to know the meaning of BSE, while 99(32.5%) claimed that they have never heard of BSE[28]. Among women aged 20-49 years living in Addis Ababa, Ethiopia 155 (25.6%) of had good knowledge regarding BSE[29].

2.2. Attitude towards Breast Self Examination

From those researches conducted to assess the KAP of BSE among female students research conducted in Taif, Saudi Arabia is one of them. This study shows that among 378 female students who participated 66% of them had a positive attitude towards BSE[30]. Another study conducted in university of Lagos among female medical students a total of 500 students have participated from that 65.4% of the respondents thought that BSE was necessary, 83.1% carried out BSE from that 87.4% did it to examine their breast while 6.8% did it because they have a family history of BC. Of those who have never practice 46.7% didn't because they don't have any symptoms, 26.7% felt it was not important, 22.6% didn't know how to do it, 20% felt that they can never have cancer, 10% didn't believe in the efficiency of the test and 3% are scared of being diagnosed with BC[31].

In Sub-Saharan Africa, a study was conducted among some countries on the level of KAP of BSE among women. In the study, six studies out of the 21 included studies reported on the attitude of the participants towards BSE. A positive attitude of 82.6% and 59.2% of participants from Nigeria and Ethiopia were recorded. Also, a moderate attitude was reported in Cameroon[32]. A total of 250 participants answered for the provided questions in the University of Ghana. For a question asked if they discover a lump in a breast, how fast would they seek medical care 89% said within a week, 7% stated within a month, 4% answered within 1-3 months. Among the participants, 34% believed that BC occurs in the elderly while 66% don't believe it. In addition, 25% of participants didn't perceive themselves at risk, 10% perceived they had low risk of BC, 30% believed to be at medium risk and finally, 35% stated that they were at high risk[23].

In Addis Ababa, the capital city of Ethiopia from a study conducted among women aged 20-49 a total of 608 respondents participated among those 53.4% had a positive attitude toward BSE[29]. A study conducted among female students in the university of Gonder, Ethiopia from a total of 300 students the overall 53-64% of students have a favorable attitude[26]. Another research conducted among female students of the Mizan-Tepi University of Ethiopia a total of 369 respondents have participated among those with a positive attitude accounts for 299(81%)[33].

2.3. Practice of Breast Self Examination

A research conducted in Arab American among female university students from 97 participants the majority of the students (62.9%) respond that they do not perform BSE once monthly. 48 students (49.5%) reported that they always perform and seek medical care immediately if any abnormality detected[20]. In a research conducted among female students of university of Lagos among the total 500 participants most of them 85.8% knew how to perform BSE. Among them 65.4% believe that it is an important procedure, 69.6% prefer to perform in the morning 47.7% prefer to carry out in front of a mirror[31]. In a research conducted among female students in university of Turkey a total of 161 participants were involved. While half of the students indicate that they did perform BSE, 33.3% reported that they have done at regular interval[22].

There are some countries conducted a study towards KAP of BSE among female university students in Africa. From those a research conducted in Zambia revealed that of the 180 respondents 100(55.6%) reported to have practiced BSE[24]. Another research in Ghana stated that 76% of participants perform BSE while 24% of them doesn't perform[23]. Again in a research conducted among female college students in Eritrea a total of 380 participants were involved among those the result shows that 13.4% had performed BSE, out of which almost half of them (41.2%) practice regularly every month[25].

In Ethiopia a research conducted in Gonder university revealed that from a total 300 participants 55(18.3%) of students reported that they perform once monthly[26]. Another study in Ambo university majority of participants 243(79.7%) replied they did not practice BSE. Only 63(20.7%) participants practiced BSE. From those participants who practiced BSE 28(44.4%) practiced monthly while 23(36.5%) were perform once every 3 month, 6(9.5%) perform once quarterly and 6(9.5%) never once yearly[28]. A research in Debre Birhan university also revealed that from a total of 420 participants 113(28.3%) of participants had ever performed BSE. Of those participants performing BSE 61.9% carry out every month. However majority of participants (71.7%) were not practicing BSE[34].

CHAPTER THREE

3. OBJECTIVES

3.1 General objective

To assess the knowledge, attitude, and practice of breast self-examination among female students in Worabe University, SNNPR, Ethiopia, 2021.

3.2. Specific objectives

- To assess the level of knowledge of female students regarding breast self-examination, from June 14 - July 11, 2021.
- To determine the level of attitude of female students to wards breast self-examination from June 14 - July 11, 2021.
- To find out the level of practices of female students on breast self-examination from June 14 - July 11, 2021.

CHAPTER FOUR

4. METHOD AND MATERIAL

4.1 Study area and Period

The study was conducted at Worabe University which is found in SNNPR and it is 169.9km far from Addis Ababa the capital city of Ethiopia. Worabe University is one of the 4th generation Universities in Ethiopia which is established in 2010 GC. It have 5 major colleges which contains a total of 22 departments under them. These are college of business and economics, college of agriculture, college of information technology, college of natural science and college of social science and humanity. Worabe university has 4345 total number students. From these total number of students 2811 are females and 1534 are males. The data was collected from June 14-July 11, 2021.

4.2. Study Design

Institutional based cross sectional study was applied to conduct this study.

4.3. Source Population

All female students who were learning at Worabe University were the source population for this study.

4.4. Study Population And Study Unit

Female students who were present during time of data collection and Female students who were randomly selected for the study are the study population and the study unit respectively.

4.5. Inclusion And Exclusion Criteria

4.5.1. Inclusion Criteria

All female students by which their age was greater than and equal to 20 years old was included in the study since they are at higher risk of developing BC.

4.5.2. Exclusion Criteria

Those female students who were previously diagnosed with BC and those who were actually ill during the period of data collection were excluded from the study.

4.6. Sample Size Determination

The sample was determined by using single population proportion formula as follow:

$$n_i = \frac{(Z)^2 * P(1-P)}{d^2}$$

n_i = sample size

Z=95% (1.96) confidence interval

d= 5% margin error

P= Prevalence of students with good knowledge ,favorable attitude and best practice is 55.7% ,56.7% and 11.3% respectively which is obtained from nearly published research conducted at Gonder university,Ethiopia.

Table 1: Sample size determination for the assesement of knowledge, attitude and practice of breast self examination among female students at worabe university,Ethiopia, 2021.

Variables	Sample size determination	Calculated sample size
Knowledge of BSE	$n = \frac{(1.96)^2 (0.557)(1-0.557)}{(0.05)^2}$	379
Attitude of BSE	$n = \frac{(1.96)^2 (0.567)(1-0.567)}{(0.05)^2}$	377
Practice of BSE	$n = \frac{(1.96)^2 (0.113)(1-0.113)}{(0.05)^2}$	154

Since, the number of total students were less than 10,000 we were using correction formula to came up with the desired number of sample which is;

$$n = \frac{n}{1 + \frac{n}{N}}$$

n = the average number of sample size determined by the standard formula in the above table (303)

N = the total number of female students (2811)

$$n = \frac{303}{1 + \frac{303}{2811}}$$

=273.7 which is approximately about 274 when 10% of non-respondent rate(27.4) added to this the total sample size of this study was being about **301** female students.

4.7. Sampling Technique

Simple random sampling method was used to select the study subjects. Since, Worabe University has only one main campus a numbered list of all female students from all department will be made. Each unit was being numbered starting from 1. Then, the required number of individuals are going to be selected randomly using computer programs.

4.8. STUDY VARIABLES

4.8.1 Dependent Variables

- Knowledge towards BSE
- Attitude towards BSE
- Practice of BSE

4.8.2 Independent Variables

- Age
- Religion
- Ethnicity
- Family history
- Personal history
- Health status
- Lack of privacy
- Availability of mass media
- Availability of internet

4.9 Operational Definition

BSE - is a check-up a woman does at home to look for changes or problems in the breast tissue.[11]

BSE practice-a breast examination ever practiced monthly.[11]

Regular BSE practice- A woman who perform BSE once a month consistently.[11]

Good knowledge-participants who score the mean and above value from the provided 14 close-ended questions about BSE.[26]

Poor knowledge- participants who score below the mean value of the provided 14 close-ended questions about BSE.[26]

Good attitude- participants who score points equal to or greater than the mean of question regarding attitude towards BSE.[26]

Poor attitude -participants who score points less than the mean of questions regarding attitude towards BSE.[26]

Good practice- participants who score above and equal to the mean of questions about the practice of BSE.[26]

Poor practice- participants who score below the mean of questions about the practice of BSE. [26]

5. Data Collection Procedure

A structured, self-administered questionnaire was being used for assessing female student's knowledge, attitude, and practice of breast self-examination. It contained close-ended questions in the form of multiple-choice with a list of possible answers. Data were collected by the group members of the study. The questionnaire was being prepared in English by the investigators of the study. Since the students are capable of reading and understanding English there is no need of translating the questionnaire to Amharic. The questionnaire contained four parts. These include socio-demographic characteristics, knowledge, attitude, and practice of BSE.

5.1.Data quality control

The data collection process for this study was regularly monitored by the group members taking through the guidance of our advisors. All data were collected on the same guideline paper. The completeness, consistency, and clarity were checked by the members every day after finishing data collection.

5.2. Data analysis

Collected data was being manually checked for completeness. It was cleaned, coded, entered, and analyzed using the software SPSS version 25.

6.Ethical Consideration

A formal letter of permission was taken from Wolkite University, Department of Midwifery and the student research program. The letter in a cooperation form from wolikite university was submitted to worabe university office of administration. After the needed permission is obtained from the office the process of data collection began.

Before addressing the questionnaire a wide description about the use of the study, the right of participants to participate, drop back, and deny from the study at any time was made. The questionnaire was coded to avoid names and any information about the participant. Confidentiality was ensured and finally, the collection was begun after verbal consent is obtained from the volunteer participant.

7. RESULT

7.1. Socio-Demographic Characteristics

In this study, a total of 287 female students of worabe university were involved. This results in 95.3% of response rate. Female students who were participated in this study ranges from the minimum age of 20 up to the maximum age of 26 with a mean of 22.49 and SD of ± 2.057 . The majority of the participants (89.9%) were single and more than half of them (68.6%) came from urban areas.

From those participants who were engaged in this study 55.4% of them are Muslim. In the case of their educational level more than half of them (56.8%) were 2nd year students and 43.2% were from college of natural science. From those 287 participants 11.1% of them had family history of BC but only 10.1% of them have family history of BSE.

Table 2:Socio demographic characteristics of study participants in the assessment of knowledge, attitude and practice of BSE among female students at worabe university ,2021. (N= 287)

Variable	Category	Frequency	Percentage
Age	20	60	20.9
	21	29	10.1
	22	49	17.1
	23	46	16.0
	24	30	10.4
	25	56	19.5
	26	17	5.9
Marital status	Single	258	89.9
	Married	29	10.1
Religion	Orthodox	81	28.2
	Muslim	159	55.4
	Protestant	47	16.4
Residence	Rural	90	31.4
	Urban	197	68.6
College of study	social science and Humanity	24	8.4
	Natural science	124	43.2
	Business and Economics	25	8.7
	Information Technology	60	20.9
	Agriculture	54	18.8
Year of study	2 nd year	163	56.8
	3 rd year	105	36.6
	4 th year and above	19	6.6
Family history of BC	Yes	32	11.1
	No	255	88.9
Family History of BSE	Yes	29	10.1
	No	258	89.9

6.2. Knowledge of study participants regarding BSE

The overall knowledge of the female students at worabe university is found to be 127(44.3%) with 95% CI :(38-50%).

As shown up in (Table 3) all of the participants know about breast cancer but only 79.4% of them know that it can be detected early. The majority of them (80.5%) have heard about BSE. Of those 36.2%,18.8%, and 28.4% of them heard from health professionals, from electronic media, and from their friends respectively. Half of the participants (50.2%) know at what age to start performing BSE and 45.3% of them know how often plus when to perform BSE.

In addition to this only 22.6% of them know the right technique to use, the right position during the inspection, and the right pattern during palpation but 61.3% of them know what to detect using BSE.

Table2: Knowledge of female students towards BSE @Worabe University, Ethiopia, 2021.(N=287)

Variable	Category	Frequency	Percentage
Did you know about BC?	Yes	287	287
	No	0	0
Can BC be detected early?	Yes	228	79.4
	No	59	20.6
Did you heard about BSE?	Yes	231	80.5
	No	56	19.5
Source of information about BSE.	Health professionals	104	36.2
	Media	54	18.8
	Friends/colleges	73	25.4
Do you know at what age should BSE began? (n=231)	Yes	144	50.2
	No	87	30.3
Do you know when to perform BSE? n=231	Yes	130	45.3
	No	101	35.2
Do you know the steps to perform BSE? (n=231)	Yes	68	23.7
	No	163	56.8
Do you know the techniques to perform BSE? (n=231)	Yes	65	22.6
	No	166	57.8
Do you know the right position during inspection?(n=231)	Yes	65	22.6
	No	166	57.8
Do you know the patterns during palpation?(n=231)	Yes	65	22.6
	No	166	57.8
Do you know how often to perform BSE?(n= 231)	Yes	130	45.3
	No	101	35.2
Do you know what changes to detect by BSE?(n= 231)	Yes	176	61.3
	No	55	19.2

6.3. Attitude of study participants towards BSE

A total of 109 (38.0%) of study participants were found to have a favorable attitude towards BSE with 95% CI:(32-43%). In the assessment of the attitude of female students towards BSE 48.4% of them strongly agree that BC is a preventable disease; 42.5% of them also strongly agree that BSE is necessary for early detection. 98(34.1%) of them strongly agree on the effectiveness of early screening. In the other hand, 107(37.3%) strongly agree that early detection improves survival. More than half the participants 157(54.7%) strongly agree that screening is cost effective. 122 (39.0%) participants strongly agree that they are interested to perform BSE and 127(44.3) strongly disagree on the point that BSE wasting time. From those participants, 139(48.9%) believe in the benefit of BSE majority of the respondents 209(72.8%) prefer to get treatment if they get a lump during BSE.

Table 3: Attitude of female students towards BSE at worabe university, Ethiopia, 2021. (N=231)

Variable	Category	Frequency	Percentage
BC is preventable disease.	Strongly agree	139	48.4
	Agree	67	23.3
	Neutral	25	8.7
	Disagree	0	0
	Strongly disagree	0	0
BSE is necessary for early detection	Strongly agree	122	42.5
	Agree	89	31.0
	Neutral	20	7.0
	Disagree	0	0
	Strongly disagree	0	0
Early screening is effective	Strongly agree	98	34.1
	Agree	63	22.0
	Neutral	70	24.4
	Disagree	0	0
	Strongly disagree	0	0
Early detection improve survival	Strongly agree	107	37.3

	Agree	106	36.9
	Neutral	18	6.3
	Disagree	0	0
	Strongly disagree	0	0
Screening is cost effective	Strongly agree	157	54.7
	Agree	45	15.7
	Neutral	29	10.1
	Disagree	0	0
	Strongly disagree	0	0
I am interested to perform BSE	Strongly agree	112	39.0
	Agree	31	10.8
	Neutral	88	30.7
	Disagree	0	0
	Strongly disagree	0	0
BSE is wasting time	Strongly agree	0	0
	Agree	0	0
	Neutral	6	2.1
	Disagree	98	34.1
	Strongly disagree	127	44.3
All women should perform BSE	Strongly agree	126	43.9
	Agree	84	29.3
	Neutral	21	7.3
	Disagree	0	0
	Strongly disagree	0	0
BSE have benefit	Strongly agree	139	48.4
	Agree	72	25.1
	Neutral	20	7.0
	Disagree	0	0
	Strongly disagree	0	0
If there is a lump,I prefer to get treatment from a health institution.	Yes	209	72.8
	No	22	7.7

6.4. Practice of study participants towards Breast Self Examination

It is found that only 54 (18.8%) of the participants have good practice of BSE with 95% CI:(14-23%).

As displayed in (Table 5) from those study participants only 92(32.0%) have practiced BSE. Among those 30(10.4) practice because they fear BC from family history,7(5.9%) practice because it is recommended by health professionals, and the remaining 45(15.6%) practice for early detection. In this study more than half of them, 76(26.6) start to practice before the age of 20 years old. Most of the participants who practice BSE perform it when it comes to their minds. In the case of the method, they use 17(5.9); 30(10.4) and 40(13.9) use concentric circle, parallel line and consecutive clock time respectively but the remaining 5(1.7) of them don't know the method they are using. In the other hand for those who don't perform BSE the reason behind is because they don't have breast problem for 10(3.5%) of them, believing that they would not get benefit from it for 7(2.4%) of them, forgetfulness for 55(19.2) of them carelessness for 47(16.4) of them and 20(6.9) of them don't know how to do it.

Table 4: Practice of BSE among female students at worabe university, Ethiopia , 2021.(N=231)

Variable	Category	Frequency	Percentage
Have you ever perform BSE?	Yes	92	32.0
	No	139	48.4
How often do you perform BSE? (n=92)	Once in a month	72	25.0
	Once in 3 month	7	2.4
	Once in 6 month	7	2.4
	Other	6	2.0
Why did you perform BSE? (n=92)	Fear of BC from family history	30	10.4
	Recommended by health professionals	17	5.9
	For early detection	45	15.6
Age to start BSE (n=92)	≤20 years of age	76	26.5

	>20 years of age	16	5.6
When did you perform BSE? (n=92)	2-3 days after cession of menstruation	11	3.8
	When it comes to mind	42	14.6
	Regular day of each month	2	0.6
	Few days before menses	8	2.7
	Any time during the month	29	10.1
What technique do you use (n=92)	Concentric circle	17	5.9
	Parallel line	30	10.4
	Consecutive clock time	40	13.9
	don't know	5	1.7
Why don't you perform BSE? (n=139)	don't have breast problem	10	3.5
	Would not get benefit from practicing it	7	2.4
	Forgetfulness	55	19.2
	Carelessness	47	16.4
	don't know how to do it	20	6.9

6. DISCUSSION

Breast cancer is one of the most commonly diagnosed cancer worldwide. It is fatal but if it is detected early it is possible to improve survival. That is why every woman have to be alarmed about the issue. The aim of this study is also in order to assess the KAP of BSE among female students. The study revealed that only 127(44.3%) of the participants have good knowledge.

This finding is greater than a study conducted in Arab American university/Jenin which results in approximately only 15.5% of the respondents had good knowledge. But it is lower than a study conducted among female students at Presbyterian university college in Ghana which reveals that 95% of participants had knowledge about BSE. This study is also lower than a study conducted in Rusangu university Monze, Zambia which stated that 137(76.1%) of them have satisfied level of knowledge.

In this study a total of 231(80.5%) of participants heard about BSE this has a better outcome when compared with a study conducted in Turkey whereby only 73.3% of them have heard about BSE. In comparison to studies conducted at Gonder university which reveals an overall good knowledge of 167(55.7%) the result of this study is lower. But it is higher than a result from Adama science and technology university and a study conducted among women aged 20-49 years living in Addis Ababa by which only 8.7% and 155(25.6%)of the respondents had good knowledge respectively. Such variation come from the difference in sample size and sampling method. Other difference could be due to the fact that more concern is given to communicable diseases rather than non-communicable diseases.

The result of this research confirmed that a total of 109(38.0%) study participants were found to have a favorable attitude towards BSE. This result is much lower than the result of the study conducted at Taif, Saudi Arabia which reveals that 66% of participants have a positive attitude. It is also lower than a study conducted in Sub-Saharan Africa among some countries This result is also lower than a study conducted at Gonder university and Mizan Tepi which reveals the overall favorable attitude of

176(56.7%) and 299(81%) respectively. Such differences may occur due to the variation in sample size and sampling method plus it may be related to that information of health education about BSE was not uniform. In addition to this, the reason behind such variation may also be because non-communicable diseases are being neglected.

In the case of assessment of the practice of BSE among participants, it is found that the overall good practice of this study is found to be only 54(18.8%). This result is much lower than a study conducted in Arab American university 48(49.5%); in turkey 33.3%; in Zambia 100(55.6%), in Ghana (76%) and a study conducted in Debre Birhan university (28.3%). This result is greater than results revealed from a study at Eritrea (13.4%) and Gonder 34 (11.3%). Such variation of results may be due to the reason as mentioned above on knowledge and attitude section.

7. Conclusion and Recommendations

7.1. Conclusion

From all of this investigation and studies, we have generally concluded that female students at worabe university have poor knowledge, poor attitude, and poor practice of BSE.

7.2. Recommendations

From those 287 participants 231 of them have heard about BSE the remaining 56 have no clue about the issue. For this case we recommended that worabe university have to prepare the stage for health education by working with health professionals working at worabe comprehensive specialized hospital. Different volunteer clubs, mini media and student unions have also be active in preparing different opportunities to get students exposure about the age to start, when and how to perform, steps and techniques, appropriate positions, patterns, what changes to detect and all other useful information about BSE. This will greatly improve the attitude and practice of students towards BSE.

In case of the practice of BSE majority of the participants 139 (48.4%) have never practiced BSE from those 7 (2.4%) of them thought that it has no benefit, 20 (6.9%) don't know how to do it ,55 (19.2%) don't practice due to forgetfulness and 47 (16.4%) are careless. we believe that this all reasons not to perform BSE come from lack of awareness on the importance of BSE since all of this can be corrected by a standard health education we still recommended preparing different opportunities to create awareness for those students. This is not only the responsibility of the university every capable body, individual, group have to be engaged. At last, we also want to recommend that this activity have to be performed at the national level to save the life of every female.

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.This questionnaire is designed to assess the knowledge,attitude and practice of breast self examination among female students at Worabe university.Your participation in this study have a great role in reducing the prevalence of breast cancer as well as increase the seek of early treatment by early detection.Consequently your truthful and honest participation by responding the prepared questions have untraceable role to come up with the desired objectives.Here ,your answers are completely confidential ,you can refuse to participate at any time,there is no one who knows this sheet is belonging to you and you are not harming any one by doing this.Rather if you are cooperative to respond the question, you will have a great contribution to the succe ss of this study and its outcome.

#If you are currently or previously diagnosed by breast cancer please return the paper.This is not essential for you.

***Are you willing to answer those questions?**

If yes please proceed to the next page ,If no please stop here .

Wolikite university student research program data collection format on assessment of knowledge,attitude and practice of breast self examination for breast cancer screening at worabe university,southern Ethiopia,2021.

Code of questioner

Direction:

*please check that you filled all part of the questioner

Read each questions and circle your response and some questions have possibility of multiple responses. For short answers write on the space provided.

Section 1: - SOCIO-DEMOGRAPHIC BACKGROUND

1.1.Age

1.2.Marital Status

- A. single
- B. married
- c. Divorced
- C. Windowed
- D. Separated

1.3.Religion

- A.Orthodox
- B. Muslim
- (specify).....
- C. Protestant
- D. Other

1.4. Place of birth

- A.Rural
- B. Urban

1.5. College of study

- A. social science and humanity
- B. Natural science
- C. Business and economics
- D.Information technology
- E.Agriculture

1.6.Year of study

- A.2nd year
- B .3rd year
- C. 4TH and above

1.7. Do you have a Family history of breast cancer?

- A. yes
- B. No

1.8. Do you have Family history of breast self examination?

- A. Yes
- B. No

Section II:- KNOWLEDGE ABOUT BREAST SELF EXMINATION

1.9.Did you heard about about breast cancer (BC)?

- A. YES B.No

2. Can a breast cancer detected early ?

- A. Yes B. No

2.1.Did you heard about Breast Self Examination(BSE)?

- A.Yes B.No

2.2.Have you heard about breast self-examination?

- A.Yes B. No

2.3. If yes ,From where did you heard about breast self-examination?

- A. Health professional's
B. Mass media (Television, radio, news paper ...)
C. Friends/ colleagues

2.4.Do you know at what age should BSE began?

- A.Yes B. No

2.5. Do you know when to perform BSE?

- A.Yes B.No

2.6.Do you know the steps to perform BSE?

- A.Yes B.No

2.7.Do you know the techniques to perform BSE?

- A.Yes B.No

2.8.Do you know the right position during inspection?

- A.Yes B.No

2.9.Do you know the patterns during palpation?

- A.Yes B.No

3.DO you know How often should breast self-examination be performed?

A.Yes

B.No

3.1.Do you know what changes to detect by using BSE?

A.Yes

B.No

Section III:- ATTITUDE ABOUT BREAST SELF EXAMINATION

S. No	Questions	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
3.2	Breast cancer is preventable Disease.					
3.3	BSE is necessary for early detection.					
3.4	Early screening is effective.					
3.5	Early detection can improve chance of survival.					
3.6	Screening is cost effective					
3.7	I am interested to perform BSE					
3.8	BSE is wasting time					
3.9	All women should perform BSE					
4	BSE have benefit					
4.1	If I detect a lump,I prefer to get treatment from a health institution.					

Section IV:- PRACTICE OF BREAST SELF EXAMINATION

S. NO	Questions	Response
4.2	Have you ever performed Breast self-examination?	A. YES B. NO
4.3	How often you perform Breast self-examination?	A. Once in a week B. Once in a month C. Once in 3month D. Once in 6month E. Once in a year F. Other specify.....
4.4	Why do/did you perform breast Self- examination?	A.. Had previous breast problem B. Fear of breast cancer from family history C. Recommended by Health professional D. For early detection and treatment E. Fear of developing breast cancer F. Other, specify_____
4.5	Age that you started practicing breast self- examination?	A. Less than 20 years of age B. Between 25 and 30 years of age C. Between 31 and 35 years of age D. Above 35 years of age
4.6	When do you perform Breast self-examination?	A. 2 to 3 days after session of menstruation B. When it comes to mind C. A regular days of each month D. few days before menses E. any time during the month
4.7	What technique do you use to perform BSE?	A. Concentric circle B. Parallel line C. Concentric Clock time D. don't know

4.8	If you don't practice breast self-examination what are the reasons?	A. I don't have a breast problem B. Would not gain benefit from practicing it C. Forgetfulness D. Lack of privacy E. It's not comfortable F. Fear of detecting abnormalities G. Carelessness H. Did not know how to do it
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*We would like to say thank you for giving us your time and for your participation in our study.