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جامعة ٢١ سبتمبر للعلوم
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كلية الطب البشري

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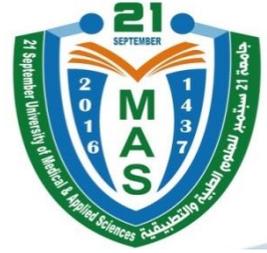
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FACULTY OF MEDICINE

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Republic Of Yemen
21 September University
For Medical and
Applied Science
FACULTY OF MEDICINE



**Breast Self-Examination in Terms of Knowledge, Attitude, and
Practice among female laboratory students in 21 September
University of Medical and Applied Science**

**Research Submitted For Partial Fulfillment Graduated
Medicine Baccalaureus – Bachelor Of Surgery**

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DEDICATION

This study is dedication to :

The sake of Allah, our Creator and our Master.

Our great teacher and messenger, Mohammed (May Allah bless and grant him), who taught us the purpose of life.

Our homeland Yemen, the warmest womb,

21 september University, Our second magnificent home.

TO all our families, the symbol of love and giving.

Our colleagues and friends who encourage and support us.

All The people in our live who touch our hearts.

We dedicate this study.

الشكر والتقدير

في البداية الشكر والحمد لله تعالى الذي وفقنا وأعاننا في إتمام هذا العمل المتواضع ، ولن يكتمل الشعور بالفرح والنشوة المصاحبة لاتمام الرسالة بنجاح بدون ذكر الأشخاص الذين جعلوه ممكناً.

نتوجه بالشكر لجامعتنا العزيزة التي كانت بمثابة بيتنا الثاني جامعة ٢١ سبتمبر للعلوم الطبية والتطبيقية ونخص بالذكر رئاسة الجامعة ممثلة بالاستاذ الدكتور مجاهد معصار وعمادة الكلية ممثلة بالأستاذة الدكتورة سلوى الغميري.

كما نود أن نعرب عن عميق شكرنا وامتناننا لمرشدي مشروعنا الأستاذ الدكتور / عبد الفتاح التام - رئيس قسم الجراحة بجامعة ٢١ سبتمبر، والأستاذ الدكتور / منيرة شاهر الذين أولونا كل الإهتمام والمتابعة وأرشدونا بشكل كبير خلال مسار المشروع وكانت نصائحهم البنائة مسؤولة عن إكمال هذا البحث بنجاح. كما نخص بالشكر والامتنان لأولياء أمورنا من كانوا لنا السند والعون في جميع مراحلنا العمرية والدراسية.

أخيراً وليس آخراً نود أن نشكر جميع الذين ساعدونا بشكل مباشر او غير مباشر في إتمام هذا المشروع.

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Abstract

Background: Breast self-examination is a simple, very low cost, noninvasive with no special material/tool requirements; and it is an effective diagnostic method for breast cancer which only takes five minutes to apply. **Aim of the Study:** The study aimed to assess the level of BSE knowledge, attitude, and practice among female laboratory students in 21 September University of Medical and Applied Science. **Subjects and methods:** Descriptive, cross-sectional study was used for conducting the study, a regular random sample has been used, 100 female laboratory students in 21 September University of Medical and Applied Science were included. Data collected through socio-demographic characteristic, knowledge level towards BSE, Attitude level about BSE, and practice level towards BSE Scale which is developed by the researchers. Validity and pilot study were examined. **Results:** Study results have shown that (15%) of the respondents had good overall knowledge towards BSE, the major source of information about BSE (57%) was mass media in the study, (75%) of participants had positive attitude towards BSE, and (4%) practice BSE always every month. There was a significant difference between age and academic level towards Knowledge of BSE. At the same time, there was a significant difference between overall knowledge and practice of BSE ($P= 0.000$). **Conclusion and recommendation:** Most female laboratory students had poor knowledge about BSE and did not perform BSE. Mass Media is an important source of information about BSE to improve awareness among the community.

Keywords: breast cancer, breast self-exam, laboratory female university students

Introduction

breast cancer is the most common type of cancer among women living in both developed and developing countries and one of the most common causes of death among women in developing countries (Maha Mishari Al-Sejari 2016). According to (WHO 2020) breast cancer is the most common type of cancers. Breast cancer is the most common cause of cancer-related deaths among women worldwide (Lodha, Nandeshwar, Pal et.al, 2011; WHO, 2011). Females in Yemeni constitute half of the population. This means that any hazardous agent affects women, mostly will impact the half

of the population, also women in Yemeni society play a crucial role in the socialization process, so it is very important to put hand in hand to fight against these hazards like breast cancer in order to get a very healthy present and future generation. Breast cancer is a serious global disease occurring in a large number of women (Banning & Hafeez, 2010), and it is the leading cause of cancer related deaths among women world-wide (Jemal, Siegel, Ward, Murray, Xu, Smigal, Thun, 2006; Groot, Battussen, Uyl-de Groot et al, 2006). According to the American Cancer Society (ACS, 2010), about 1.3 million women are diagnosed with breast cancer annually and about 465,000 die from the disease. There is an upward trend in incidence of breast cancer occurrence in developing

countries consistent with the adoption of unhealthy westernized lifestyles such as smoking, physical inactivity, consumption of calorie-dense food, changes in childbearing and breast feeding, and exogenous hormonal intake (Ferlay, Shin, Bray, Forman, Mathers and Parkin, 2010). In 2013 (2189) new cancer cases were reported in West Bank, (1127) cases were females (51.5%) and (1062) were males (48.5%). The cancer incidence rate was (79.5) per 100,000 of population. Breast cancer ranked first, with (401) reported cases, (18.3%) from all reported cases. Breast cancer is the highest among females and focus in the age group between 20 - 59. (MOH, 2014). The reported figures by MOH shows remarkable increase in Cancer mortality in West Bank 2013 compared with 2007 and 2010, from (10.3%) in 2007 to (10.8%) in 2010 then increases to reach (13.3 %) from the total deaths in West Bank in 2013. Breast cancer was the third leading cause of death among cancer mortality (9.1%). (MOH, 2014).

It has been estimated that more than 80% of breast cancer are associated with environmental factors that include exposure to contaminants, lifestyle, and diet (Charlier and Dejardin, 2007). Although curative treatment for breast cancer is increasingly successful, early detection and treatment are critical in reducing mortality rates among women (Erblich, Bovbjerg, & Valdimarsdottir, 2000).

The knowledge and attitude towards breast cancer is low such that majority of the affected patients present late in the hospital when little or nothing can be done again (Haris, Lippman, Veronesi and Willett, 1992). The three screening methods currently recommended by the American Cancer Society (2010) for early detection of breast cancer are clinical breast examination (CBE), mammography, and breast self-examination (BSE) (American Cancer Society, 2010). BSE is a relatively simple, convenient, non-invasive, minimal-risk, and inexpensive method of early detection recommended for women. Women should begin this routine in their 20s to learn the look and feel of their healthy breast so that they may report any changes in their breasts to a health expert immediately (Janz et al., 1989). BSE allows women to perform an examination independently (i.e., without relying on a health care professional). It also is often the only screening method available for women without access to professional health care services, such as those that lack adequate health insurance (Erblich et al., 2000). Breast self-examination is a simple, very low cost, noninvasive with no special material/tool requirements; and it is an effective diagnostic method for breast cancer which only takes five minutes to apply (Beydag and Yurugen, 2010). Its purpose is 2-fold: to make women familiar with both the

appearance and the feel of their breasts and to help women detect any changes in their breasts as early as possible. There is evidence that women who correctly practice BSE monthly are more likely to detect a lump in the early stage of its development, and early diagnosis has been reported to influence early treatment and to yield a better survival rate (American Cancer Society, 2002). Unfortunately, despite the benefits of regular BSE, few women actually examine themselves; in fact, a majority does not even know how to do a BSE (Stamle, Thomas, Lafreniere, 2000; Al-Abadi 2001). It is important to adequately motivate women to regularly carry out BSE so as to curtail the increasing mortality rate from breast cancer (Hackshaw and Paulo, 2003). In fact, regular BSE has been suggested as part of overall health promotion concept (Plesnicar, Kovac and Kralj, 2004). The practice of BSE can help women to know the structure and composition of their normal breast thereby enhancing their sensitivity to detect any abnormality at the earliest time (Larkin, 2001). In many countries, there are cultural attitudes that make women feel uncomfortable to receive information about BSE by male healthcare personnel. As especially important role models in such situations, female laboratories must have accurate information and positive attitudes about BSE and should perform it

regularly themselves. Therefore, laboratory students must be informed in detail about BSE and perform BSE correctly while in college so they are able to educate patients after graduation (Memis, Balkaya, Demirkian, 2009). Additionally, laboratory students have a responsibility to give instructions to other women on how to perform BSE correctly in primary health care settings.

Currently, there is no available data about BSE knowledge and practice of Yemeni laboratory students, or whether their education is sufficient to impart accurate information, positive attitudes, and BSE skills.

Therefore, the aim of the current study was to determine the knowledge, attitude, and practice laboratory students

regarding BSE in 21 September University of Medical and Applied Science, and to establish baseline data for further research as well as for new curricular strategies about BSE.

Literatur review:

Previous study

descriptive, cross sectional survey carried A out among females working in the University of Mosul, as a sample of the female population of Mosul city.

sample was collected conveniently, and the data were collected from July to November

2018. Data were collected by interviews with 405 participants. Knowledge answers were scored and categorized into two groups: good and poor level of knowledge.

final sample of 384 participants were included in the analysis, with a mean age of 42.58 ± 8.9 . Only 39 (10.1%) and 37 (9.6%) participants performed mammographic examination and CBE of their breasts, respectively. Just 100 (30.3%) of the 330 females who knew BSE performed BSE routinely or intermittently. The mean knowledge score was 4.22 ± 1.66 , and only 141 females (42.7%) were found to have a good level of knowledge. A statistically significant association of knowledge level with marital status ($P = 0.015$), perceived benefit of BSE ($P = 0.001$), previous gain of instructions of BSE ($P < 0.05$), and the provider ($P < 0.05$) was found. The performance results of BSE were poor as well as for CBE and mammography among the study participants. There is a need for educational programs to create awareness and improve knowledge about routine breast cancer screening behavior.

Another study evaluated the knowledge, attitude and practice of breast self-examination (BSE), among female undergraduate students in the University of Buea. The study comprised 166 female students of ages 17-30 years (mean = $22.8 \pm$

3) sampled randomly. Data was collected by and practice among female of laboratory a pretested self-administered questionnaire. students in 21 September University of Nearly three quarter (73.5%) of the Medical and Applied Science. respondents had previously heard of BSE. Only 9.0% knew how to perform BSE. Similarly, only 13.9% knew what to look for while performing BSE. Television (19.9%) was the main source of information on BSE. Although perceived by 88% of the respondents as important, only 3% had performed BSE regularly. Furthermore, only 19.9% of the respondents have been to any health facility to have breast examination. Overall, although a majority (63.3%) of the respondents had a moderate attitude towards BSE as an important method for early detection of breast cancer, just a modest 9.6% were substantially aware of it. Lack of knowledge on BSE was cited as the main reason for not performing BSE. A significant association was observed between knowledge and the practice of BSE ($P = 0.029$), and between attitude and the practice of BSE ($P = 0.015$). These findings highlight the current knowledge gap that exists in the practice of BSE in the prevention of breast cancer in the study population. Sensitization campaigns and educational programmes ought to be intensified in order to address this issue.

1. Subjects and Method

1.1 Aim of the study: The study aimed to assess the level of BSE knowledge, attitude,

1.2 Objectives of the study

1. To determine the knowledge, attitudes, and practice on breast self-examination among laboratory students.
2. To find out the association between knowledge on breast self-examination and selected demographic variables

1.3 Research hypothesis

There is a significant difference of knowledge on breast self-examination at a level of ($\alpha = 0.05$) and the selected demographic data.

There is a significant difference at a level of ($\alpha = 0.05$) between the knowledge and practice of breast self-examination.

1.4 Research questions

What is the knowledge, attitudes, practices of the laboratory students towards BSE?

What are the association between knowledge level of breast self-examination and selected demographic variables?

1.5 Variables

The independent variables were age, academic year, family history of breast cancer. The dependent variables included knowledge, attitudes, and practices of palliative care.

1.6 Operational definitions

Breast self-examination:

Monthly examination of breasts conducted by women following the five major steps of breast self-examination which include: examining both the breasts for size, shape, color and contour while looking in front of the mirror with their arms straight, on the hips, and over the head; to palpate or feel the breast both in standing and lying position using the three finger pads.

Knowledge: It means the facts/condition of knowing something with familiarity gained through experience or association.

In this study, knowledge refers to awareness of laboratory students regarding breast self-examination as measured by a structured knowledge questionnaire on breast self-examination.

Laboratory student: Female students are those females who are studying Laboratory in 21 September University of Medical and Applied Science.

1.7 Study design:

Descriptive cross sectional explorative study was used for conducting the study.

1.8 Study Setting:

The study was conducted in laboratory department affiliated to 21 September University of Medical and Applied Science

1.9 Study period: The study was conducted between April to August 2022 in 21 September University of Medical and Applied Science

1.10 Study Sample:

A stratified random sample was selected, adopting the systematic approach, where the first name was selected by the blind method and then the procedure followed the selection of each fourth name from the lists of the target participants.

That sample size was calculated as 119 female laboratory students from different levels. (Using Epi info program)

However, because of limited time and resources, 100 questionnaires were distributed to female student who agreed to participate in this study.

1.11 Inclusion criteria

Female who:

2. Is laboratory students in 21 September

University of Medical and Applied Science.

3. Is willing to participate in the study.

1.12 Tool of the study

For data collection a self-administrative questionnaire was developed by researchers and used to assess:

The sociodemographic data consisted of the target groups e.g., age, academic year, family history of breast cancer, information about breast self-examination and Menstrual cycle.

The knowledge part consisted of twenty close ended questions on breast cancer, and breast-self-examination.

2. Scoring system

Scoring system of participants' knowledge was done as follows: each question had a group of answer points, one point was awarded for each correct answer; incorrect or I don't know answer took zero. Correct responses were summed up to get a total knowledge scores for each participant. Total score for all questions reached 20 grades. The knowledge scores were classified as:

Poor knowledge: less than 50% (the participant score <10 considered poor knowledge)

Fair knowledge: 50 - < 75% (the participant scores 10 – <15 considered fair knowledge)

Good knowledge: 75% or more (the participant scores 15 and more considered

good knowledge)

The attitude part consisted of 13 items, each item had a group of answer points, 5 points for strongly agree, 4 points for agree, 3 points for uncertain, 2 points for disagree, and one point for strongly disagree.

The practice part consisted of 7 items, each item had a group of answer points, 5 points for always, 4 points for usually, 3 points for often, 2 points for sometimes, and one point for never.

3. Validity and reliability of the study

The questionnaire was revised and validated by panel of 5 experts in academic and health field; they agreed and no comments.

4. Pilot study

A pilot study was used to test the instrument, defines pilot study as a smaller version of a proposed study conducted to refine the methodology. It is developed much like the proposed study, using similar subjects, the same settings, the same treatment, the same data collection, and analysis techniques.

A pilot study was conducted with ten female laboratory students in 21 September University of Medical and Applied Science to determine the clarity of questions, effectiveness of instructions, completeness of response sets, time required to complete the questionnaire and success of data collection technique. Pilot subjects were asked to comment on the applicability and appropriateness

(validity) of the questionnaire. All questions were answered no clarity of questions was required. The researchers determined that it would take ten (10) minutes to complete the questionnaire.

5. Questionnaire response rate

High response rate which is 100% from the total female laboratory students in 21 September University of Medical and Applied Science

6. Data analysis

The quantitative data were entered and analyzed using the SPSS (Statistical Package for Social Sciences), and the level of significance (α) was set at 0.05. Descriptive and inferential statistical tests were used.

7. Ethical considerations

This will start after a license and guidance from 21 September University of Medical and Applied Science, and family and community medicine department. Our team will maintain the welfare of participating subjects. The questionnaire will distribute by trained female fifth years medical students to responding female students to answer questions of questionnaire. Study was obtained. Several strategies were utilized to protect the students' rights who agreed to participate in this study. First, oral verbal consent of the laboratory students was obtained prior to the

administration of the questionnaire. The laboratory students were informed of the purpose of the study, and that they had the right to refuse to participate. Also, the voluntary nature of participation was stressed as well as confidentiality. Furthermore, the laboratory students were told that they can refrain from answering any questions and they can terminate at any time. Anonymity of the laboratory students was maintained at all times.

8. Results

The study targeted among female laboratory students in 21 September University of Medical and Applied Science; 100 students participate in the study. The results of statistical analysis are presented into main four sections. The first section presents the assessment base line characteristics of the studied sample, the second section present the assessment of knowledge level of BSE, the third section present the relationship between the total mean knowledge of BSE and selected variables, the fourth section present the assessment of the students attitude level of BSE, the fifth section present the assessment the students practice level of breast self-exam, the sixth section present the Relationship between mean of total knowledge and age, academic level, family history, information of BSE and the seventh section present the relationship between the mean of total knowledge and practice of BSE.

Description of the sample

Table 1. Assessment the base line characteristics of the studied sample

Parameters		No.	%
Age	18-20 year	57	57
	Above 20 years	43	43
Academic year	First year	44	44
	Second year	27	27
	Third year	15	15
	Fourth year	14	14
Family	Yes	17	17
	No	83	83
Information of breast self-exam	Yes	59	59
	No	41	41
If yes	Mass-media-TV, Radio, Newspaper	34	57.6
	Contact with health personnel	9	15.2
	Information from relatives	2	3.4
	Other	14	23.8
Menstrual	Regular	80	80
	Irregular	20	20

Table 1 showed that around (57%) are within the age range of 18- 20 years and (43%) are within the age range of above 20 years. (44%) are in 1st year, (27%) in 2nd year, (15%) in 3rd year, and (14%) in 4th year. (83%) are negative family history with breast cancer and (17%) are positive family history. (59%) were received information about breast self-exam and (41%) weren't

received. Most information source (34%) was the mass-media-TV, radio, newspaper, while(9%) was from Contact with health personnel, while (2%) was from relatives, and where (14%) was other sources. The majority of the respondents (80%) were with regular menstrual cycle and the rest were irregular.

Level of knowledge about BSE

Table2. Assessment the Knowledge of breast self-exam

Knowledge of breast self-exam	No.	Percentage
Poor knowledge	45	45%
Fair knowledge	40	40%
Good knowledge	15	15%

Table 2 The majority of the respondents were with poor knowledge of breast self-exam 45 (45%), while 40 (40%) were with fair knowledge, where 15 (15%) with good knowledge.

Table 3. Assessment the Knowledge level of breast self- exam with selected variables

Parameter	Poor knowledge	Fair knowle dge	Good knowledge	Total
Age				
18-20 year	33(33%)	21(21%)	3 (3%)	57(57%)
Above 20 years	12 (12%)	19 (19%)	12 (12%)	43(43%)
Academic level				
First year	28 (28%)	16 (16%)	0 (.0%)	44 (44%)
Second year	13 (13%)	11 (11%)	3 (3%)	27 (27%)
Third year	4 (4%)	7 (7%)	4 (4%)	15 (15%)
Fourth year	0 (.0%)	6 (6%)	8 (8%)	14 (14%)
Family history with breast cancer				
Yes	13(13%)	2(2%)	2(2%)	17(17%)
No	32(32%)	38(38%)	13(13%)	83(83%)
Information of breast self-exam				
Yes	15 (15%)	31(31.%)	13(13%)	59(59%)
No	27 (27%)	12 (12%)	2 (2%)	41 (41%)
Menstrual cycle				
Regular	37(37%)	29(29%)	14(14%)	80(80%)
Irregular	8(8%)	11(11%)	1(1%)	20(20%)

The majority of students of age 18-20 years (33.0%) had poor knowledge towards breast self-examination while the majority of age above 20 years (19%) had fair knowledge. The majority of poor knowledge level was among first year students then second year respectively (28% and

13%) while the good knowledge was among fourth year then third year respectively (8% and 4%). Around one third of the students who respond yes for information of breast self-exam had fair knowledge. More than one third of regular menstrual cycle had poor knowledge and

one third fair knowledge respectively (37% and 29%).

Level of attitude towards BSE

Table 4. Assessment the students attitude level of breast self-exam

No	Items	Strongly disagree	Disagree	Uncertain	Agree	Strongly agree
1	During BSE makes me feel so funny	57(57.0%)	30(30.0%)	6(6.0%)	7 (7.0%)	0 (0.0)
2	BSE will be embarrassing to me	40(40.0%)	29(29.0%)	8(8.0%)	19(19.0%)	4(4.0%)
3	Doing BSE is wasting time	73(73.0%)	24(24.0%)	3(3.0%)	0 (0.0)	0(0.0)
4	Doing BSE makes me feel unpleasant	43(43.0%)	43(43.0%)	8(8.0%)	6(6.0%)	0(0.0)
5	If there is lump, I prefer to get treatment from a traditional healer	40(40.0%)	30(30.0%)	15(15.0%)	9(9.0%)	6(6%)
6	Feel uncomfortable, can't do BSE once in a Month	18(18.0%)	31(31.0%)	21(21.0%)	23(23.0%)	7(7%)
7	All women should do BSE	5(5.0%)	3(3.0%)	8(8.0%)	22(22.0%)	62(62.0%)
8	I really care about my breasts	8(8.0%)	11(11.0%)	17(17.0%)	46(47.0%)	18(18.0%)
9	I'm not afraid to think about the breast cancer	29(29.0%)	19(19.0%)	19(19.0%)	20(20.0%)	13(13.0%)
10	Avoid BSE because I worry about having breast Cancer	47(48.0%)	21(21.0%)	9(9.0%)	17(17.0%)	6(6.0%)
11	Interested in doing BSE	21(21%)	23(23%)	33(33.0%)	17(17.0%)	6(6.0%)
12	Always search for information regarding BSE from the internet, magazine, and newspaper	10(10.0%)	15(15.0%)	21(21.0%)	39(40.0%)	15(15.0%)
13	Discuss with my friends about BSE	15(15.0%)	23(23.0%)	20(20.0%)	34(34.0%)	8(8.0%)

Table 4 showed that the majority of the should do BSE (62.0 %). However, 4.0% of them stated that BSE causes interested in doing BSE.

participants believed that all women embarrassment and 29.0 % feared to think about breast cancer. About 21.0% wasn't

Level of practice towards BSE

Table 5. Assessment the students practice level of breast self-exam

No	Items	Never	Sometimes	Often	Usually	Always
1	Do BSE once a month	64(64%)	16(16%)	6(6%)	10(10%)	4(4%)
2	learning the correct method of BSE	45(45%)	17(17%)	9(9%)	15(15%)	14(14%)
3	Parents advise me to do BSE	62(62%)	12(12%)	14(14%)	9(9%)	3(3%)
4	Advise friends to do BSE	45(45%)	18(18%)	15(15%)	10(10%)	12(12%)
5	Discuss the importance of BSE with Friends	45(45%)	22(22%)	13(13%)	9(9%)	11(11%)
6	Have been taught on BSE by health Staff	47(47%)	16(16%)	8(8%)	12(12%)	17(17%)
7	If notice any breast abnormality, directly go to public health care	24(24%)	6(6%)	12(12%)	10(10%)	48(48%)

Table5 showed that the majority of the students reported that they do not perform BSE once month (64%) and 45 students (45%) reported never learning the correct method of BSE or have been taught on it by health staff 47 (47%). 48 students (48%) reported that they always if notice breast

abnormality directly go to public health care. 62 students (62%) reported that their parents never advise them to do BSE and 45 students (45%)never advise to their friends to do BSE or discuss the importance of it with them.

Relationship between knowledge towards BSE and selected variables

Table 6. Relationship between mean of total knowledge and age, academic level, family history, information of BSE.

Items	Mean of	N	Std. Deviation	F	Sig
Age					
18 -20 years	0.4737	57	0.18830	20.5 23	0.000
Above 20 years	0.6413	43	0.16559		
Academic level					
First year	0.4250	44	0.19485	17.2 95	0.000
Second year	0.5750	27	0.13752		
Third year	0.6667	15	0.13715		
Fourth year	0.7250	14	0.06430		
Family history					
Yes	0.4821	17	0.22154	1.56 4	0.214
No	0.5530	83	0.19181		
Information of BSE					
Yes	0.5958	59	0.15180	12.1 98	0.001
No	0.4605	41	0.22991		

Table 6 revealed that a highly statistically significant relation between age groups and academic level with total mean knowledge of BSE ($p>0.000$). Also, it was revealed

that no statistically significant relation between total mean knowledge of BSE and family history with breast cancer, information of breast BSE

Relationship between knowledge towards BSE and practice of BSE

Table 7 Relationship between the mean of total knowledge and practice of BSE

Items	Mean of	N	Std. Deviation	t.	Sig
Knowledge	0.5428	100	0.19672	19.4	0.000
Practice	2.3402	100	0.99455		
				66	

Table 7 revealed that a highly statistically significant relation between knowledge and practice of BSE ($p > 0.000$).

9. Discussion

Breast cancer is the most common cancer in women worldwide that is why women's awareness of breast cancer is crucial. The need to evaluate the knowledge /attitudes and practice of BSE among female laboratory students who are going to be the future health personnel is necessary and recommended . The present study was conducted to determine knowledge, attitude and practice among female laboratory university students towards BSE. The result of the current study revealed that our participants had limited knowledge about BSE. Approximately only 15. % of the respondents had good overall knowledge. The study was appropriate in this age group as they fall within the age bracket of university life and emerging adulthood who are always eager to find out information about things happening around them hence a deadly disease like breast cancer should not be strange to them as well as breast self-examination which has to do with looking

out for changes on their own breast. It found that more than one half of students (57%) had age from eighteen to twenty years old and the majority (83%) had negative family history with breast cancer. Around two thirds (59%) were received information about breast self-exam, where (80%) with regular menstrual cycle. The major source of information about BSE was mass media in the study. Media played a significant role as the main source of information about breast cancer; therefore an important effort should be intensified in using these media to create breast cancer awareness within the Yemeni community. This will emphasize the message of early detection which will reach large number of people in the community. The least reported source of information was the relatives of the respondents (2%). This is one of the gaps existing in family life education as parents and care givers have no time to discuss pertinent health issues with their children. It may also be due to the fact that some of the parents have no information or knowledge on some of these topics and as such have little or nothing to discuss. From

the study, (45%) of respondents had a poor knowledge level of BSE which helped early detection of breast cancer. More than three quarters (75%) of participants had positive attitude towards BSE. No negative attitude has been reported in the present work. A highly statistically significant relation between age groups and academic level with total mean knowledge of BSE ($p=0.000$). This could be attributed to the fact that (71%) of the total sample size in the current study were junior laboratory students (first and second year) who did not receive yet in-depth breast cancer curriculum. A highly statistical significant difference was found between overall knowledge and practice of BSE ($P=0.000$) illustrating the desire among this population to acquire correct knowledge regarding BSE. Also, this finding brings to light that if awareness and health education programs are conducted in an intensive and planned form, it might result in positive healthy practices.

10. Conclusion

Although there was lack of knowledge about BSE yet, the positive attitude towards BSE was encouraging. Most female laboratory students in our sample did not perform BSE. This might be an obstacle to screening program and early diagnosis of breast cancer. Therefore, more intensified awareness programs among university

students are necessary to keep in view their current status of breast cancer and BSE knowledge. Also, further researches are needed to identify causes of inadequate knowledge and practice of BSE among female laboratory students in 21 September University of Medical and Applied Science. More utilization of Media as an important source of breast self-exam is important to improve awareness among the community.

11. Recommendation

Based on the research conducted, it is recommended that there is a need to create awareness about the importance of BSE amongst female laboratory students so as to improve the practice of it. Furthermore, public awareness on the importance of BSE should be intensified using mass media and the health service personnel should promote BSE during their contact with female clients. In order to function as effective promoters of breast cancer control through early detection, / laboratory students should possess the accurate knowledge and the appropriate attitude and practice concerning the disease and its early detection. laboratory should adopt such preventive screening procedures and act as role models for the community. Also, it is recommended that female students and women generally, should be encouraged through radio/television jingles and health talks to continue their practice of BSE. The

campaign should be targeted at all women irrespective of parental educational background and family history of breast cancer, the education program should be effect in promoting awareness and practicing of breast self-examination necessary attention must be paid for the issue especially at the primary health surfaces in order render to breast self-examination widespreadly performed mass

media must be utilized to achieve this among the younger collaboration with education ministry

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ملخص البحث

خلفية البحث:

الفحص الذاتي للثدي هي طريقة تشخيصية بسيطة وفعالة للكشف المبكر لسرطان الثدي ومنخفضة التكلفة وغير جراحية وبدون متطلبات خاصة كمواد أو أدوات وتستغرق خمس دقائق فقط لتطبيقها .

الهدف من الدراسة :

تهدف الدراسة إلى تقييم مستوى المعرفة بالفحص الذاتي للثدي، الموقف، والممارسة بين طالبات المختبرات جامعة 21 سبتمبر للعلوم الطبية والتطبيقية .

المواضيع والطرق:

تم استخدام دراسة وصفية مستعرضة لإجراء الدراسة ، وتم استخدام عينة عشوائية منتظمة ، وتم تضمين 100 طالبة من كلية المختبرات جميع المستويات بجامعة 21 سبتمبر للعلوم الطبية والتطبيقية. البيانات التي تم جمعها من خلال الخصائص الاجتماعية والديموغرافية ، ومستوى المعرفة تجاه الفحص الذاتي للثدي ، ومستوى الوعي حول الفحص الذاتي للثدي، ومستوى الممارسة تجاه مقياس الفحص الذاتي للثدي الذي طوره الباحثون. تم فحص الصلاحية والدراسة التجريبية.

النتائج:

أظهرت نتائج الدراسة أن (١٥٪) من المستجيبين لديهم معرفة عامة جيدة بالفحص الذاتي للثدي، وكان المصدر الرئيسي للمعلومات حول الفحص الذاتي للثدي (٥٧٪) هو وسائل الإعلام حسب الدراسة ، (٧٥٪) من المشاركين كان لديهم موقف إيجابي تجاه الفحص الذاتي للثدي، و (٤٪) يمارسون الفحص الذاتي للثدي دائما كل شهر. أيضا كان هناك فرق كبير بين العمر والمستوى الأكاديمي نحو معرفة الفحص الذاتي للثدي. في الوقت نفسه ، كان هناك فرق كبير بين المعرفة الشاملة وممارسة الفحص الذاتي للثدي. ($p= 0.000$)

الاستنتاج والتوصية:

كان لدى معظم طالبات المختبرات معرفة ضعيفة بالفحص الذاتي للثدي ولم يؤدبن الفحص الذاتي للثدي، تعد وسائل الإعلام مصدرا مهما للمعلومات حول الفحص الذاتي للثدي لتحسين الوعي بين المجتمع. نوصي وزارة التربية والتعليم إضافتها في المناهج الثانوية لتعزيز المستوى المعرفي لدى المجتمع.