

Awareness of Nursing Students Regarding to Breast Cancer at New-valley Government

Eman Youssif - Prof. Dr. Hanan Ibrahim Ahmed- Dr. Mona Abo Bakr Abd - Ellatef

Teacher in Technical Health Institute at New –Valley government, Prof of Community Health Nursing Ain Shams University and Lecturer of Community Health Nursing Ain Shams University

Abstract

Background: Breast cancer in women is the most common type of cancer in the world. Risk factor of breast cancer is increasing with many unhealthy lifestyle factors such as smoking, alcohol, obesity **Aim of the study** The study aims to assess the awareness of nursing students regarding to breast cancer at New – valley government. **Research design:** A descriptive research design was utilized. **Setting:** The study was carried out at two clinical institute of nursing at New - Valley government affiliated to ministry of health. **Sample:** A total of 200 students representing all scholastic years from the two clinical institute of nursing. **Data collection tools:** Three tools were used in this study; first tool: self-administrative questionnaire to assess nursing students' knowledge about breast cancer, second tool: Checklist to assess their practice level about breast self-examination and third tool: Likert type scale to assess their attitude. **Results:** this study indicated that, mean age of studied students was 19.1 ± 6.3 years, 63% & 94% of studied students were female and single, 51% of them had poor level of knowledge about breast cancer, 66% of them had positive attitude regarding to breast cancer, 32% of them were competent regarding to breast Self-Examination. **Conclusions:** The current study was concluded that there was highly significant positive relations between total student's knowledge about breast cancer and their total practice and attitude. **Recommendations:** The study recommended that provide educational programs through; Increasing nursing students' knowledge regarding breast cancers, improving nursing students' practice regarding breast cancers through, and enhancing nursing students' attitude regarding breast cancers. provide nursing students with curriculum that included BSE and it's importance. Provide sufficient opportunities for the nursing students for clinical training on BSE.

Keywords: knowledge, practice and attitude, Breast Cancer and Nursing students.

Introduction

Cancer is a major worldwide public health concern. Breast cancer (BC) is the most common cancer among women and results into the highest fatalities. According to American Cancer Society Facts (A.C.S.F.) in 2017, a total of 63,410 in situ cases, 252,710 invasive cases, and 40,610 deaths were registered (*Qalaw et al., 2015*).

The incidence of breast cancer has shown an upward trend in younger women. Globally, breast cancer is the most common malignant neoplasm among women. In Egypt, breast cancer accounts for 35.1% of the cases of cancer and is the most prevalent cancer among Egyptian women; the median age at diagnosis for breast cancer is ten years younger than in the United States and Europe (*Hassan et al., 2017*).

The etiology of breast cancer is unknown, numerous risk factors may influence the development of this disease including genetic, hormonal, environmental, sociobiological and physiological factors (*John et al., 2018*). It is usually first detected as a lesion, dimpling, puckering, lymphedema of the breast, inversion or retraction of the nipple, nipple discharge, enlargement of the nodes in the axilla or in the neck region and enlargement of one breast (*Nester, 2016*).

Nursing students must have accurate information about the risk factors associated with breast cancer, as well as their personal risk assessment. Additionally, students can understand what is normal for females bodies and becoming familiar with breast anatomy and physiology. As part of the educational process, health educators must assist students' in understanding their knowledge, perceptions and attitudes related to breast cancer. Providing knowledge to nursing students may be an

important starting place for promoting breast awareness and understanding problems associated with breast cancer (Cruz, 2017).

Breast cancer management is a rapidly evolving field, new technologies are being incorporated to better understand the progression of this disease and to help identify the genes involved in its prognosis and responsiveness to therapy, these findings, added to improved risk assessment and prevention strategies, as well as screening, diagnosis and supportive care, create optimism for the future. Education and clinical trials are the key to success, nursing represents a significant professional resource for facilitating positive changes in breast cancer prevention strategies (Patel, 2020).

Early diagnosis of BC can offer more options of treatment, improve the prognosis, and prolong the lifetime. Since breast cancer produces no symptoms in early stages, screening is crucial for early detection. It is also suggested that early diagnosis is the most effective way to reduce the burden of mortalities and morbidities attributed to this cancer (Nady et al., 2017).

Currently, the primary preventive measures of BC are limited and assuming the significance of early detection and diagnosis at the early stage to enhance female's quality of life (QOL) and decrease the associated mortality. Thus, screening is the paramount secondary preventive measure for attaining such goals. Typically, screening for breast cancer targets examination of healthy individuals when no apparent manifestations are present with the aim of early diagnosis (Godfrey et al., 2016).

For early detection of breast cancer; breast self-examination every month after age 20, an annual mammogram after age 40, and 20-30's age 1-3 years in a clinical breast exam every year after the age of 40 is recommended by the American Cancer Society (Joyet et al., 2018).

In order to combat both cancers, nurses have two main roles; awareness role and screening role. It is highly important for nurses to spread public health awareness about the prevention and early diagnosis of breast cancers, and they should also participate in screening campaigns for breast cancer (Taiwo, & Tunde, 2016).

Significance of the study:

In Egypt, as reported by the National Cancer Registry Pro-gram (NCRP), BC occupied the 2nd position after liver can-cer which both accounting for about 45% of all cancers in both sexes in 2014. It represented 38.8% of all cancers affecting women with an incidence of 35.8/100, 1000 between 2008 and 2011. Moreover, Egyptian study (2014) reported that 19, 105 women diagnosed with breast cancer (Ibrahim et al., 2014).

The New-valley was chosen for the spread of the disease because of the lack of facilities and medical services and the shortage of a large number of medical devices as well as there is a total deficit in doctors , nurses and technicians and there are other reasons such as radiation spread in the soil and sewage drains fed by fish, cows and goats and the use of most People of water pipes manufactured from asbestos banned internationally, leading to this disease (Gaber et al., 2019).

Nursing represents a significant professional resource that can help facilitate positive changes in breast cancer prevention strategies, nurses are often the health care providers who teach women how to perform breast self-examinations and who carry out clinical breast examinations. Nursing students who become familiar with the prevention of breast cancer and the treatment options available are better able to provide relevant education and support to the many patients with whom they have contact. (McGinn & Moore, 2016).

Aim of the study:

The study aimed to assess the awareness of nursing students regarding to breast cancer at New – valley government through; assessing of nursing student's knowledge regarding to breast cancer, assessing of nursing student's practice regarding to breast cancer, and assessing of nursing student's attitude regarding to breast cancer.

Research questions:

- Is there a relation between nursing student's knowledge and their practices regarding to breast cancer?
- Is there a relation between nursing student's knowledge and their attitude regarding to breast cancer?

- Is there a relation between nursing student's practices and their attitude about preventive measures of breast cancer?

Subjects and Methods:

Research Design:

A descriptive design was used to conduct this study.

Research Setting:

This study was conducted at two clinical institute of nursing at New - Valley government affiliated to ministry of health. Every institute consists of five grades.

(El- Dakhla institute include 100 students, El – Kharga institute include 100 student).

Subject:

The study was included all undergraduate nursing students in all grades. The total number of two institutes are 200 students.

Data were collected by using the following tools:

Three tools were used in this study;

1-1st tool Self – administrative questionnaire:

It was modified by the investigator after reviewing the related literature and reviewed by supervisors.

The Self-administrative questionnaire divided into two parts

Part I: Socio-demographic data such as age, grade, marital status, family history ..etc.

Part II: Nursing student's knowledge regarding to breast cancer definition, causes, risk factor, treatment, prevention of cancer, consisted of 13 closed ended questions in form of Multiple Choice Question (MCQ), it was adapted by the investigator based on (Champion, 2008) modifying by the investigator to Arabic language.

❖ Scoring system:

A scoring system was followed to assess nursing students' knowledge according to Breast Cancer. The Questionnaire was contained 13 closed ended questions in form of multiple choice

Questions (MCQ) namely, what is the breast cancer? (2), what is the cause of the breast cancer? (5), what are the risk factors of the breast cancer? (8), what are the types of breast cancer? (3), what are the early signs of breast cancer? (7), what are the breast cancer symptoms? (8), what are the recurrence symptoms of breast cancer? (5), what are the stages of breast cancer? (4), what are the investigations of breast cancer? (5), what is the treatment of breast cancer? (5), what are the complications of breast cancer? (5), what are the side effects of breast cancer treatment? (9), what are the preventive measures of breast cancer? (5). The total scores of the questionnaire were 74 grades, the right answer was scored (1) point and the wrong answer was scored (Zero) point and It was classified into 3 categories:

- **Good knowledge** if score > 75% 56 -74 grades
- **Average knowledge** if score from 60 -75% 44.5 -55.5 grades
- **Poor knowledge** if score <60%. <44.5 grades

2nd tool: Observational Checklist:

It was adapted from by the investigator based on **WHO, 2008** it revised by supervisors. This checklist was used to assess nursing students' practices about breast self – examination.

❖ Scoring system:

A scoring system was followed to assess nursing students' practice. The total score of nursing students' practices were 29 grades, each item was evaluated as “done” was taken 2 grade, “Incorrect done” was taken 1 grade and “not done” was taken zero grade, and the total grades were 58 grades. It was classified into 2 categories:

- **Competent** if score \geq 80%. (47-58 grades)
- **Incompetent** if score < 80%. (1-46 grades)

3rd tool: Attitude Rating Scale:

Likert like type rating scale was used to assess the attitude of the nursing students toward breast cancer, it was adapted by the investigator based on **Chen, S., Chow, Loh, Wong, Cheng, & Fung (2017)**.

❖ Scoring system:

The total score of attitudes rating scale was 16 grades. Each statement was assigned a score according to nursing students' attitude, responses were “agree”, “uncertain”, “disagree” and were

scored 3, 2 and 1 respectively. The scoring was reversed for negative statements; the total scores of the items were 48 grades

It was Classified into 2 categories:

Positive attitude if score $\geq 70\%$ (34-48grads)

Negative attitude if score $< 70\%$ (1-33grads)

Content and Face Validity:

The validity of the tools was ascertained by three experts in the field of in community health nursing. Their opinions elicited regarding the format, layout, consistency, accuracy and relevancy of the tools.

Reliability:

Reliability analysis by measuring of internal consistency of the tools through **(Cronbach's Alpha = .812)** for knowledge , practice and attitude.

II. Operational Designed

It included operational design for this study consisted of four phases, namely preparatory phase, ethical considerations, pilot study, and fieldwork.

Preparatory Phase

This phase included reviewing of literature related to nursing students' knowledge about breast cancer. This served to develop the study tools for data collection. During this phase, the researcher also visited the selected places to get acquainted with the personnel and the study settings. Development of the tools was under supervisors' guidance and experts' opinions were considered.

Ethical Considerations

The research approval was obtained from the Faculty Ethical Committee before starting the study.

The ethical research considerations include the following:

- The investigator was clarified the objectives and aim of the study to nursing student included in the study before starting.
- Verbal approval was obtained from the nursing students before inclusion in the study; a clear and simple explanation was given according to their level of understanding. They secured that all the

gathered data was confidential and used for research purpose only.

- The investigator was assuring maintaining anonymity and confidentiality of subjects' data included in the study
- The nursing students were informed that they are allowed to choose to participate or not in the study and they have the right to withdrawal from the study at any time.

Pilot Study :

A pilot study will be carried out on 10% students of study subject who agree to participate in the study to determine the applicability of the study, the clarity and feasibility of questionnaire, as well as the time needed for filling the form.

Fieldwork :

After securing the official permission from the directors of institutes, The researcher will meet the directors of institutes before applying of the study to determine the suitable time to meet the study participants and explain the aim and objectives of the study, The researcher will ask the nursing students to fill out the knowledge and attitude sheets and observe their practice of BSE check list.

The investigator first met with the nursing students at the previously mentioned settings, explained the purpose of the study after introducing herself. The researcher was collecting the data from the subjects at 2days/ weeks to collect data. The questionnaire for knowledge was filled by nursing students which take 15-20 minutes, the attitude scale was filled by nursing students in 10-15 minutes, while the checklist for assessing nursing students' practice was filled by the investigator in 10-15 minutes that were done in the nursing clinical lab.

III. Administrative Design

An official letter from the faculty of nursing dean will be delivered to the director of the intended study setting. A full explanation about the aim of the study will be explored student's consent will be obtained to carry out this study.

IV: Statistical Design:

Data collected from the studied sample was revised, coded and entered using Personal Computer (PC). Computerized data entry and

Statistical analysis were fulfilled using the Statistical Package for Social Sciences (SPSS) version 22. Data were presented using descriptive statistics in the form of frequencies, percentages. Chi-square test (X²) was used for comparisons between qualitative variables. Spearman correlation measures the strength and direction of association between three ranked variables.

Significance of the results:

- Highly significant at p-value <0.01.
- Statistically significant was considered at p-value <0.05.
- Non-significant at p-value >0.05.

Results:

Table (1): Shows that, the mean age of studied students was 19.1 ± 6.3 years. 63% & 94% of studied students were female and single, respectively. 42% & 63% of studied students were at 4th year and residing in rural areas, respectively. Regarding to mothers' education, 56% of them had primary education. While, 51% of fathers had primary education. Also, 9% of studied students had family history with breast cancer, 55.6% of their mothers suffering from breast cancer.

Figure (1): show that ,51% of studied students had poor level of knowledge about breast cancer. Moreover, 34% of them had average level. While, 15% of them had good level.

Figure (2): Shows that, 68% of the studied students were incompetent their practice regarding to breast Self-Examination. While, 32% of them were competent regarding to breast Self-Examination

Table (2): Shows that (70% & 68%) of studied students agree about the breast self - examination is essential for any female aged 20 years or more, the female should perform periodic breast examination on regular basis.

Table (3): Shows that, positive relation between total knowledge of the studied students regarding to breast cancer and their total practice.

Table (4): shows that positive relation between total knowledge of the studied students regarding to breast cancer and their total attitude.

Table (5): shows that positive relation between total practice of the studied students regarding to breast cancer and their total attitude.

Table (1): Frequency distribution of the studied students according to their socio-demographic characteristics. (n=200)

Demographic Characteristics of students.		No	%
Age			
15- 16		30	15
17-18		110	55
≥ 19		60	30
Mean SD	19.1 ± 6.3		
Sex			
Male		74	37
Female		126	63
Grade			
1 st year		20	10
2 nd year		24	12
3 rd year		32	16
4 th year		84	42
5 th year		40	20
Marital status			
Single		188	94
Married		12	6
Residence			
Urban		74	37
Rural		126	63
Mothers' education			
No read and write		28	14
Primary		112	56
Diplome		40	20
University		20	10
Fathers' education			
No read and write		20	10
Primary		102	51
Diplome		50	25
University		28	14
Family history with breast cancer			
Yes		18	9
No		182	91
The person who suffering from breast cancer in the family. (N=18)			
The Mother		10	55.6
The sister		2	11.1
The aunt		6	33.3

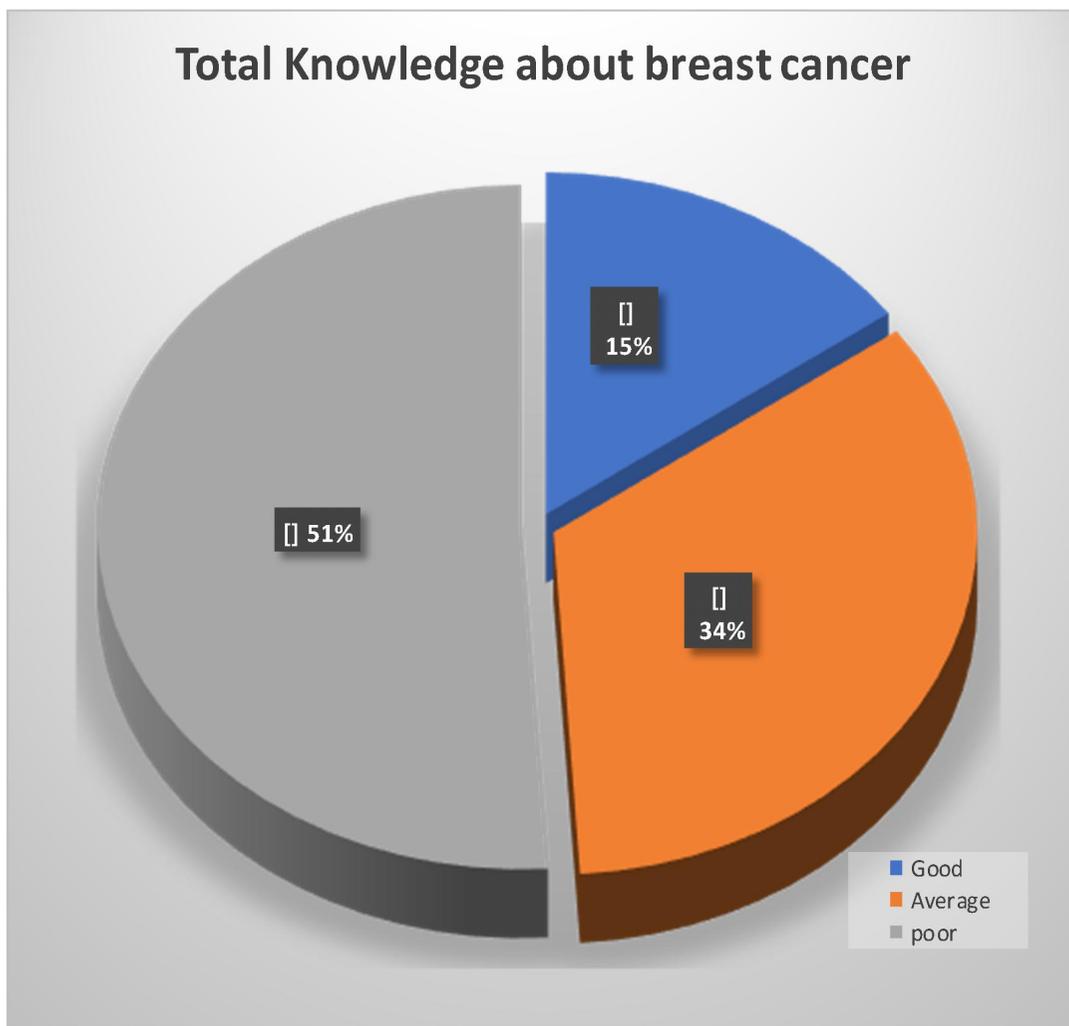


Figure (1): Frequency distribution of the studied students according to their total knowledge about breast cancer. (n=200).

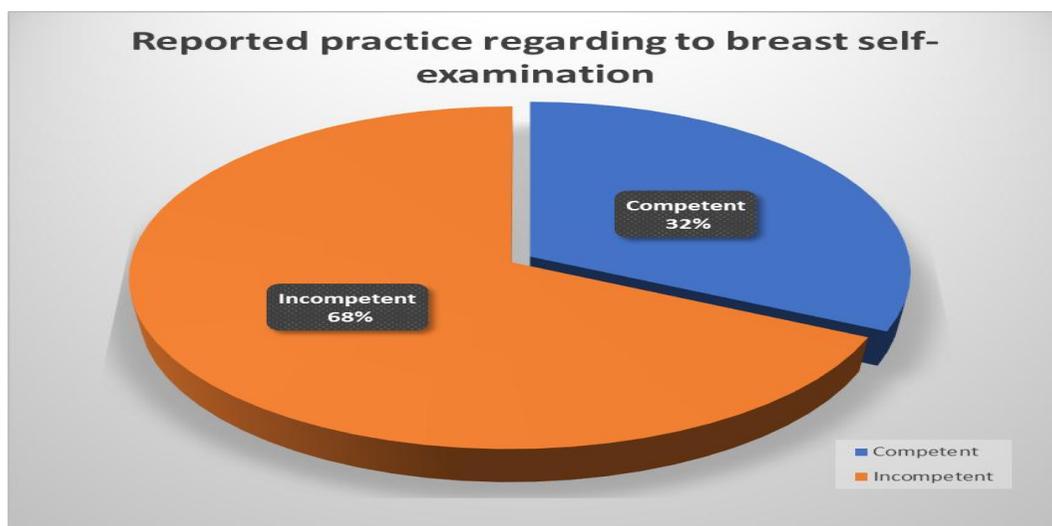


Figure (2): Frequency distribution of the studied students according to their total practice regarding to Breast Self-Examination. (n=200)

Table (2): Frequency distribution of the studied students according to their attitude regarding to breast cancer. (n=200).

Items	Agree		Natural		Disagree	
	N	%	N	%	N	%
BC is a killer disease that kills all patients.	110	55	50	25	40	20
If cancer is detected early, treatment is easier	120	60	60	30	20	10
I'm afraid just to think about breast cancer	126	63	56	28	18	9
I will be ashamed if I have breast cancer	100	50	40	20	60	30
If you find a breast tumor the best recourse to folk medicine for treatment	104	52	66	33	30	15
Breast self-examination is essential for any woman aged 20 years or more	104	70	46	23	14	7
Always look for useful information about breast self-examination via the Internet, books and magazines	90	45	70	35	40	20
Mammography is important to detect any tumor in the early stages	108	45	62	31	30	15
The female should perform periodic breast examinations on a regular basis	136	68	44	22	20	10
I am confident I can perform BSE correctly	80	40	70	35	50	25
I am sure of the steps to follow for doing BSE.	78	39	48	24	74	37
I am able to identify normal and abnormal breast tissue when I do BSE.	60	30	78	39	62	31
When looking in the mirror, I can recognize abnormal changes in my breasts.	118	59	52	26	30	15
I want to discover health problems early.	120	60	58	29	22	11
I have regular health check-ups even when I am not sick When I do BSE I feel good about myself.	60	30	78	39	62	31
As long as I do not suffer from any problems I do not need BSE	74	37	62	31	64	32

Table (3): Relation between student's knowledge and practices of studied students regarding to breast cancer. (n=200).

	Good (30)		Average (68)		Poor (102)		X ²	P.value
	N	%	N	%	N	%		
Competent	28	93.3	33	48.5	3	2.9		
Incompetent	2	6.7	35	51.5	99	97.1	16.371	.000**

(**) Statistically significant at p<0.05

Table (4): Relation between knowledge and attitude of students regarding to breast cancer. (n=200).

	Good (30)		Average (68)		Poor (102)		X ²	P.value
	N	%	N	%	N	%		
Positive	30	100	55	0.9	47	46.1	19.344	.00**
Negative	0	0	13	19.1	55	53.9		

(**) Statistically significant at p<0.05

Table (5): Relation between practice and attitude of students regarding to breast cancer. (n=200)

	Positive (132)		Negative (68)		X ²	P.value
	N	%	N	%		
Competent	59	44.7	5	7.3	23.891	.000**
Incompetent	73	55.3	63	92.7		

(**) Statistically significant at p<0.05

Discussion

Breast cancer in women is the most common type of cancer in the world. Therefore, women constitute a major risk to themselves and methods for early diagnosis of this disease are extremely important to be knowledgeable about breast cancer. Knowledge about cancer is a basic step towards developing a positive approach towards screening for the disease. However, educational barriers resulting from sub-optimal knowledge is a major reason for low screening prevalence in developing countries (*Qalawa et al., 2015*).

So current study was aimed to assess the awareness of nursing students regarding to breast cancer at New – valley government through assessing of nursing student's knowledge, practice and attitude regarding to breast cancer.

According to the socio-demographic characteristics of studied students, the current study revealed that the mean age of them 19.1 ± 6.3 , two third of them were female and the majority of them were single. This results might be due to age of nursing students' ranges between 15-19 years. The

current findings were agreement with the study performed by *Ayed et al. (2015)* who conducted a study at Palestinian to assess Breast Self-Examination in Terms of Knowledge, Attitude, and Practice among Nursing Students of American University/Jenin, who found that the mean age of nursing students 19.9 ± 5.9 and the majority of them were female and single.

But these results disagree with *Mekonnen & Asefa (2019)* who carried out a study to explore the Knowledge attitude and practice of breast self-examination among female undergraduate nursing students in Ethiopia, they reported that overall mean age was 21.86 ± 0.969 years (range: 17-23 years). Also, all students were female and single.

Regarding the grade and residence, the current study show that, more than two fifth of studied students studying in fourth year. Also, less than two thirds of them live in rural areas near the institute. This results approved with *fondjo et al.,(2018)* who conducted a study to assess knowledge, attitudes, and practice of breast self-examination among female secondary and tertiary school students in Ghana , and found that two thirds

of studied students residing in rural areas and less than half of them at fourth year.

But the current findings were disagreement with the study performed by **Alsaraireh et al. (2018)** who conducted a study to explore breast cancer awareness, attitude and practices among female university students in Jordan, and stated that two third of studied sample were residing in simple areas.

According to parent's education, the finding of the current study presented that more than half of mothers and fathers had primary education. This result might be due to presence of those parents in the rural area and people their not interested with education. These result similar with **Darawad (2020)** who carried out a study to assess predictors of breast self-examination practice among Jordanian female university students in Jordan and showed that nearly half of studied sample their parents had basic education.

But the current findings were difference with the study performed by **(Ibitoye et al .,2019)** who conducted a study to assess the impact of education on knowledge , attitude and practice of breast self-examination among adolescents girls in Nigeria, and stated that less than two third of studied sample their parents had high education.

According the family history with breast cancer, the current finding revealed that the majority of studied students didn't have family history with breast cancer . While, tenth of studied students had family history with breast cancer , more than half of their mothers suffering from breast cancer. This result might be due to breast cancer can be caused by other reasons rather than hereditary factors. This result consistent with the study performed by **Srivastava et al. (2016)** who carried out a study to evaluate the awareness of breast cancer risk factors and practice of breast self-examination among nurses of tertiary care hospital in England, and mentioned that the majority of studied students didn't have family history with breast cancer. But these result disagreement with **Ayed et al. (2015)** who found that less than half of the studied students had a positive family history of breast cancer.

According the total knowledge of studied students, the current study showed that half of them had poor level of knowledge about breast cancer, this results may due to presence of negative family

history that reduce their knowledge about breast cancer and may due to lack of information sources for students such as libraries and teacher support during the studying year.

This result in accordance with the study performed by **Noreen et al,(2015)** who conducted a study to assess knowledge and awareness about breast cancer and it's early symptoms among medical and non-medical students in Pakistan, who found that half of medical and non-medical students had poor level of knowledge about breast cancer and it's early symptoms.

But this result disagreed with study performed by **Negi et al.,(2017)** who carried out a study about breast cancer awareness and attitude among nurses of a tertiary care centre in Sub-Himalayan region , who found that half of them had average level of knowledge about breast cancer, this result may due to the nursing curriculum didn't cover all the items of the disease.

According the total practice of studied students, the current study showed that slightly more than two third of them had incompetent practice regarding to self-examination. This results may due to studied sample were young ages and may have no concern about breast cancer. This result might be due to lack of the training resources and the curriculum didn't cover all items of breast cancer with insufficient time for clinical training.

The current findings were agreement with the study performed by **Ayed et al., (2016)** who carried out a study about breast self-examination: knowledge, attitude, and practice among female health science students in Ethiopia, regarding to breast self-examination.

But these results difference with study performed by **Ayed et al.,(2016)** who conducted a study to assess breast self-examination in terms of knowledge, attitude and practice among nursing students of American university/Jenin in Palestine who found that half of them had satisfactory level of practical skills about breast self-examination.

According to the studied students attitudes regarding breast cancer, this result revealed that around two third of them agree about early detection of cancer makes treatment easier and the fear of thinking about breast cancer and breast self-examination is essential for any women aged 20 years or more, respectively. This result might be

due to the positive insight of the nursing students that affected by their young ages.

This results in accordance with the study performed by **Alsaraireh et al.,(2018)** who conducted a study to assess the breast cancer awareness, attitude and practices among female university students in Jordon, who stated that two third of them agree about early detection of cancer makes treatment easier and breast cancer is a killer disease that kills all patient.

But these results disagreement with study performed by **Darawad (2020)** who carried out a study to assess knowledge, attitude and practice on breast self-examination among allied health students, and found that more than two thirds of the studied students had inadequate attitude related to breast self- examination in Turkey.

Likewise, the current study showed that, around two thirds of studied students agreed about the woman should perform periodic breast examination on a regular basis, when looking in the mirror, they can recognize abnormal changes in their breasts respectively. This result might be due to nursing student's fear of the disease and it's complications that affect all the body systems.

These results approved with **Ahmad et al. (2017)** who found that more than half of the studied students had positive attitude related to breast self-examination. Also these results supported with **Alsaraireh et al.,(2018)** who conducted a study to assess knowledge and practice of breast self- examination among female nursing students in Nigeria, and stated more than two thirds of the studied students had positive attitude related to breast self-examination.

Also the current study showed that, three fifth of nursing students agreed with a desire to discover health problems early. This result might be due to well understanding of students of the disease and their readiness to overcome their spread in the community. This result is in agreement with the study done by **Taiwo et al. (2016)** who conducted a study about breast self-examination among nurses in Poland and found that more than half of nurses had good perspectives regarding early detection of breast cancer. In the same line, this result is congruent with the study done by **Alsaraireh,&Darawad(2018)** who studied breast cancer awareness, attitude and practices among female university students and stated that majority

of students know the importance of breast self-examination for early detection of breast cancer.

According to relation between total knowledge of the studied students regarding to breast cancer and their total practice and attitude, the current study showed that there was positive relation between knowledge, practice and attitude. This could be explained as, students with good level of knowledge about breast cancer was more encountered among those students with competent practice and positive attitude. The current findings were agreement with the study performed by **Taiwo et al. (2016)** who conducted a study in Nigeria to assess Breast cancer awareness, attitude and screening practices, who mentioned that there was positive relation between knowledge, practice and attitude.

But this result disagreement with the study performed by **Ahmad et al. (2017)** who conducted a study in Palestine to assess knowledge, Awareness, and practice of Breast Self-Examination among Female Students, and mentioned that there was negative relation between total knowledge of the studied students regarding to breast cancer and their total practice.

On the other hand, regarding to relation between total practice of the studied students regarding to breast cancer and their total attitude, the present study revealed that there was positive relation between practice and attitude. This result supported with the study performed by **Joy et al. (2018)** in Mangalore, India to assess Breast cancer awareness among undergraduate medical students in a tertiary healthcare center, who mentioned that there was positive relation between practice and attitude.

Conclusion

Based on the findings of the current study, it is concluded that: more than half of studied students had poor level of knowledge about breast cancer and more than two thirds of them were incompetent regarding to breast self-examination. Likewise, students' practice was influenced by their marital status and study year. More over students' attitude was influenced by their sex and age. Moreover, two thirds of them had positive attitude regarding to breast cancer. Furthermore, student's knowledge was influenced by their residence and mother's, father's educational level.

Finally, there was highly significant positive relation between total student's knowledge about breast cancer and their total practice and attitude.

Recommendations:

In the light of the findings of the current study the following recommendations are suggested:

1. Provide educational programs to
 - Increase nursing students' knowledge regarding breast cancers.
 - Improve nursing students' practice regarding breast cancers.
 - enhance nursing students' attitude regarding breast cancers.
2. Priority should be given to increase students' awareness regarding breast cancers and the benefits of BSE practices for early detections of this increasingly alarming disease.
3. More utilization of Media as an important source of knowledge to improve awareness among the community.
4. Provide nursing students with curriculum that included BSE and its importance.
5. Provide sufficient opportunities for the nursing students for clinical training on BSE
6. Further research should be targeted to health-care givers because of their important role in screening programs and spreading health information about breast cancers.

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