



## Original Article

### Knowledge about Breast Cancer among the Nursing Students at a Teaching Institute in Dhaka City

Negar Fouzia<sup>1</sup>, Umma Taj Lovely<sup>2</sup>, Shimul Akter<sup>3</sup>, Md. Abdullah Yusuf<sup>4</sup>, Eliza Omar Eva<sup>5</sup>

#### Abstract

**Background:** Breast cancer is a life threatening illness. Therefore the knowledge and awareness among the nursing students is a crucial issue. **Objective:** The purpose of the present study was to assess the level of knowledge on breast cancer among graduate nursing students. **Methodology:** This study was designed as descriptive type of cross sectional type study. This study was carried out in the Department of Public Health at North South University, Dhaka, Bangladesh. This study was conducted from April 2017 to September 2017 for a period of six (06) months. All girls nursing student at any age who were studied in the Pallabi Nursing Institute, Mirpur, Dhaka were selected as study population. The students were voluntarily included in the study with their consent and they were neither supported nor additionally burdened financially. A structured Likert scale questionnaire was provided for collection necessary data and was incorporated items from both dependent and independent variables. Questionnaire was designed both in English for the respondents. **Result:** A total number of 300 nursing students were recruited for this study. Poor knowledge was found in majority of the study population which was 285(95.0%) respondents and the rest 15(5.0%) had good knowledge. **Conclusion:** In conclusion the nursing students have poor knowledge and awareness about the prevention of breast cancer. [*Journal of Science Foundation 2019;17(1):34-39*]

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#### Introduction

Breast cancer is the most common female cancer worldwide representing nearly a quarter (23%) of all cancers in women (Parkin et al., 2005). The global burden of breast cancer is expected to cross 2 million by the year 2030, with growing proportions from developing countries (Fry and Prentice-Dunn 2006). Globally,

<sup>1</sup>Senior Lecturer, SPKS Nursing Institute, Dhaka, Bangladesh

<sup>2</sup>Assistant Professor, Department of Pharmacology, Shahabuddin Medical College, Dhaka, Bangladesh

<sup>3</sup>Assistant Professor, Department of Gynaecology & Obstetrics, Monowara Sikder Medical College, Sharitpur, Bangladesh

<sup>4</sup>Assistant Professor, Department of Microbiology, National Institute of Neurosciences & Hospital, Dhaka, Bangladesh

<sup>5</sup>Professor, Department of Pharmacology, Shaheed Suhrawardy Medical College, Dhaka, Bangladesh

**Correspondence:** Dr. Negar Fouzia, Senior Lecturer, SPKS Nursing Institute, Dhaka, Bangladesh; Email: [negarfouzia@gmail.com](mailto:negarfouzia@gmail.com); Cell no.: +8801712101747

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cancer is one of the top ten leading causes of death (Fry and Prentice-Dunn 2006). It is estimated that 7.4 million people died of cancer in 2004 and, if current trends continue, 83.2 million more will have died by 2015 (Partridge et al., 2004). Among women, breast cancer is the most common cause of cancer mortality, accounting for 16% of cancer deaths in adult women (Hakama et al., 1995).

Breast cancer is a major life-threatening public health problem of great concern (Hakama et al., 1995). Long-term increases in Looking at the higher figure of breast cancer globally at current and future, great emphasis must be given to the issue of breast cancer and its screening to reduce the mortality rate. If nurses' knowledge towards breast cancer and its screening is remarkable, it lets health policy makers strengthen the trend being taken, but if the reverse occurs the finding will serve as a source for health policy planners to design strategy that can reshape and fill the gap (Semiglazov et al., 1998). In addition the result will have direct implication to the growth of nursing profession towards early detection and prevention of complication. Furthermore to appreciate the nurse's stand to this world warning issue and to equip them based on the identified gaps as to that they can be able to manage problems of the community they serve.

Breast cancer is the most common cancer and principal cause of cancer deaths in women and is therefore a world concern (Thomas et al., 2002). Education about the importance of early detection in decreasing mortality rates might be of value in raising awareness of the various methods of early detection of breast cancer. More research is also needed to identify the underlying variables that might influence nurses' own practice of early detection methods of breast cancer (Gupta et al., 2015). Empowering nurses with information about early detection methods and their related benefits could help in advancing their skills in performing breast self-examination and expanding their role as client educators (Gupta et al., 2015). The purpose of the present study was to assess the level of knowledge on breast cancer among graduate nursing students.

## **Methodology**

This study was designed as descriptive type of cross sectional type study. This study was carried out in the Department of Public Health at North South University, Dhaka, Bangladesh. This study was conducted from April 2017 to September 2017 for a period of six (06) months. All girls nursing student at any age who were studied in the Pallabi Nursing Institute, Mirpur, Dhaka were selected as study population. The students were voluntarily included in the study with their consent and they were neither supported nor additionally burdened financially. The sampling technique was purposive non-random sampling method. This purposive sampling was used as per inclusions and exclusion criteria. A structured Likert scale questionnaire was provided for collection necessary data and was incorporated items from both dependent and independent variables. Questionnaire was designed both in English for the respondents. A letter of consent was distributed to all respondents. The researcher assured the confidentiality and the information given was kept in a secured place. Answered questionnaire were checked individually and the respondent with inconsistencies were discarded. Data were collected using a preformed data collection sheet (questionnaire). All information regarding awareness were recorded in a data collection sheet. Data were collected by researcher herself. All data were compiled and edited meticulously. The data were screened and were checked for any missing values and discrepancy. All omissions and inconsistencies were corrected and were removed methodically. Computer based statistical analysis were carried out with appropriate techniques and systems. All data were recorded systematically in preformed data collection form (questionnaire) and quantitative data were expressed as mean and standard deviation and qualitative data were expressed as frequency distribution and percentage. Statistical analysis was performed by using window based computer software devised with Statistical Packages for Social Sciences (SPSS 22.0) (SPSS Inc, Chicago, IL, USA). The summarized data was interpreted accordingly and was then presented in the form of tables. Prior to the commencement of this study, the research protocol was approved by the ethical committee (Local Ethical committee) of Nursing Institute.

## **Results**

A total number of 300 students were taken for this study were taken from those who were fulfilled the criteria. Respondent of the study were nursing students of 19 to 23 age group who are studying at nursing institute Dhaka district of Bangladesh. Samples are selected purposively in the centers. As there are class

available for nursing students, they were enrolled prior to answer the questionnaire provided. The response rate was 100% among the all approached students for interview.

**Table 1: Socio-demographic Characteristics of Study Population**

Variables	Frequency	Percentage
<b>Age Group</b>		
• <20 Years	85	28.3
• ≥20 Years	215	71.7
<b>Education</b>		
• First Years Student	64	21.3
• Second Year Student	160	53.3
• Third Year Student	76	25.3

It has been tried to reach students of 3 age groups where <20 years is 28.3% and >20 years comprises 71.7%. In this study first year students were in 64(21.3%) respondents. Second year students were 160(53.3%) respondents. The third year students were in 76(25.3%) respondents (Table 1).

**Table 2: Knowledge of Breast Cancer among the Study Population**

Variables	Strongly agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Breast Cancer is a life threatening cancer	189(63.0%)	111(37.0%)	0(0.0%)	0(0.0%)	0(0.0%)
All the women of all age are in risk of developing breast cancer	182(60.7%)	108(36.0%)	10(3.3%)	0(0.0%)	0(0.0%)
Lump of breast is sign of breast cancer	152(50.7%)	138(46.0%)	4(1.3%)	6(2.0%)	0(0.0%)
Pain less lump of breast is reason of breast cancer	139(46.3%)	159(53.0%)	2(0.7%)	0(0.0%)	0(0.0%)
Discharge from nipple is a symptoms of breast cancer	117(39.0%)	163(54.3%)	20(6.7%)	0(0.0%)	0(0.0%)
Breast skin lesion is sign of breast cancer	63(21.0%)	206(68.7%)	25(8.3%)	6(2.0%)	0(0.0%)
Breast cancer is a preventable cancer	68(22.7%)	190(63.3%)	29(9.7%)	13(4.3%)	0(0.0%)
OCP practice can be the cause of Breast cancer	92(30.7%)	160(53.3%)	39(13.0%)	9(3.0%)	0(0.0%)
Obesity is factor for triggering breast cervical cancer	86(28.7%)	162(54.0%)	40(13.3%)	12(4.0%)	0(0.0%)
There are access to information regarding breast cancer in the community (physician or health worker/media/Print media)	60(20.0%)	128(42.7%)	65(21.7%)	41(13.7%)	6(2.0%)
Breast feeding is preventive to breast cancer	67(22.3%)	193(64.3%)	29(9.7%)	11(3.7%)	0(0.0%)
Breast Self-Examination (BSE) is a preventable to breast cancer	70(23.3%)	181(60.3%)	37(12.3%)	12(4.0%)	0(0.0%)
Regular exercise is preventive to breast cancer	62(20.7%)	179(59.7%)	48(16.0%)	11(3.7%)	0(0.0%)
Breast cancer screening (mammography) is a preventive for all to prevent breast cancer	46(15.3%)	194(64.7%)	42(14.0%)	18(6.0%)	0(0.0%)
Nipple retraction is an important sign of breast cancer	32(10.7%)	140(46.7%)	85(28.3%)	43(14.3%)	0(0.0%)

The objective of the analysis is looking for relationships among the variable and to compare the response among the group of respondents also. The questionnaire covered some background socioeconomic data collection and awareness level about prevention of breast cancer with some reason behind their opinion. All the questions covered the knowledge about breast cancer, its causes, effect, prevention and specific awareness regarding attitude. Each of the questions has five level of agreement from ‘Strongly agree’ to ‘Strongly Disagree’. In this study majority of the students were strongly agreed that breast cancer was a life threatening cancer which was 189(63.0%) respondents and the rest of 111(37.0%) respondents were agree with the statement. The respondents were strongly agreed that all the women of all age were in equal risk of developing breast cancer which was 182(60.7%) respondents. Lump of breast was a sign of breast cancer which was given by the respondents in majority of cases and this was strongly agreed and agreed in 152(50.7%) and 138(46.0%) respondents respectively. The knowledge of pain less lump of breast was reason of breast cancer which was known by the majority of the nursing students and 139(46.3%) and 159(53.0%) students were strongly agree and agree respectively. Regarding the knowledge of discharge from nipple in breast cancer strongly agree was less than agree. Regarding the cause of breast cancer by OCP practice agreement with this statement was found in 160(53.3%) students and strongly agreed was in 92(30.7%) respondents. Obesity was factor for triggering breast cervical cancer. There were access to information regarding breast cancer in the community (physician or health worker/media/Print media). Breast feeding was preventive to breast cancer. Breast Self-Examination (BSE) was a preventable to breast cancer. The knowledge of prevention to breast cancer by regular exercise was agreement with 179(59.7%) students and strongly agree with 62(20.7%) respondents. Breast cancer screening (mammography) was a preventive for all to prevent breast cancer and this was asked by the researcher and had strongly agreed with 46(15.3%) and 194(64.7%) respondents. The knowledge about the important sign of breast cancer nipple retraction was agreed by 140(46.7%) students. Neutral was in 85(28.3%) students. However, disagree was in 43(14.3%) students (Table 2).

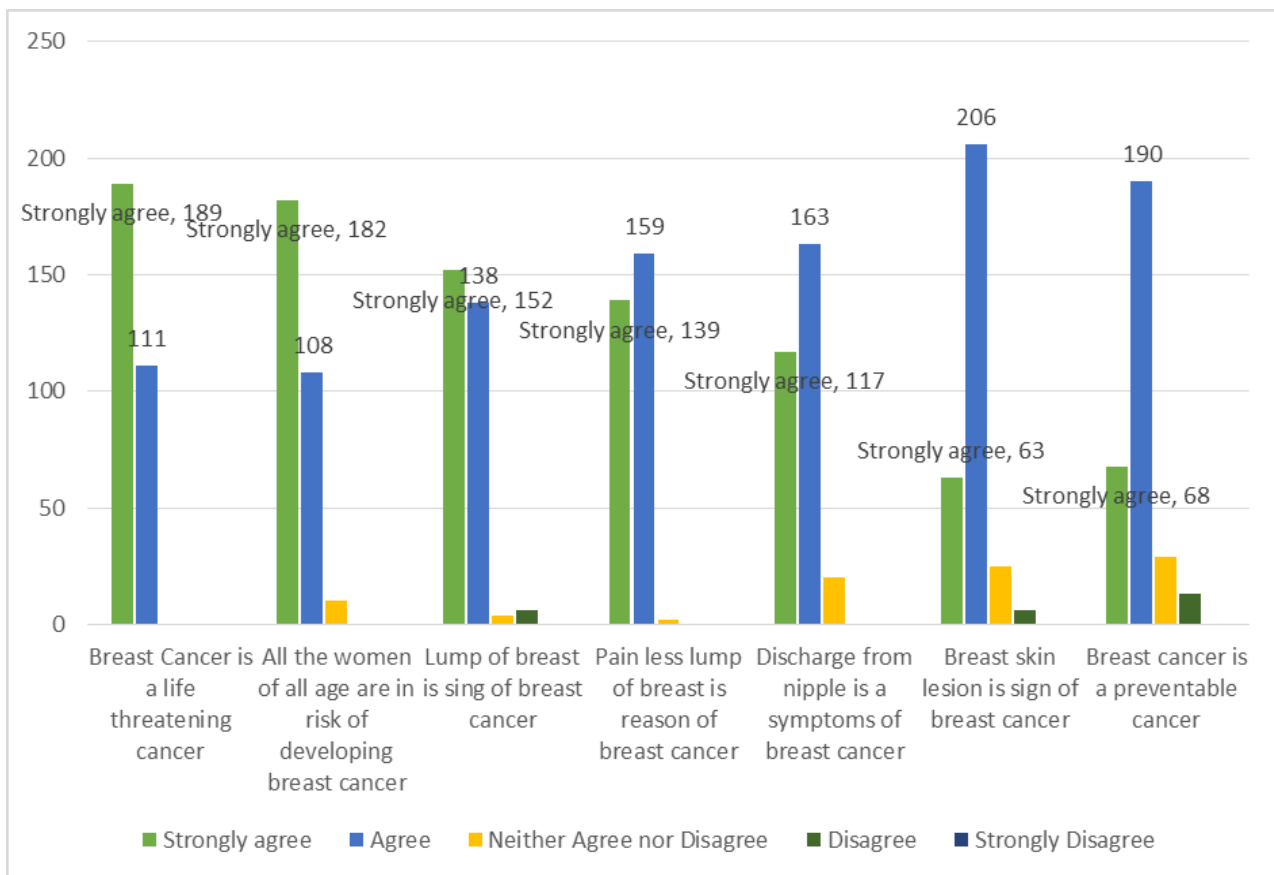


Figure I: Level of Knowledge of Study Population

## Discussion

Breast cancer is a major public health problem, with 1,384,155 estimated new cases worldwide with nearly 459,000 related deaths (Somdatta and Baridalyne 2008). Breast cancer is highly heterogeneous in its pathological characteristics, some cases showing slow growth with excellent prognosis, while others being aggressive tumors. Current predictions and statistics suggest that both worldwide incidence of breast cancer and related mortality are on the rise (Montazeri et al., 2008). Epidemiological studies suggest that addressing socioeconomic issues is utmost important, so that all women have equal access to medical care from screening to advanced treatment, and only such decisive action can help reduce the worldwide burden of breast cancer (Karayurt et al., 2008). From this study, almost majority of the respondents have heard about cancer, which is higher than the study in Iraq, where about 69.1% of the respondents heard about breast cancer (Madanat and Merrill 2002). Media was most the source of information about breast cancer for first time.

Respondent of the study were nursing students of 19 to 23 age group who are studying at nursing institute Dhaka district of Bangladesh. Samples are selected purposively in the centers. As there are class available for nursing students, they were enrolled prior to answer the questionnaire provided. Nursing represents a significant professional resource for facilitating positive changes in breast cancer prevention strategies. A similar finding was reported in other different studies. This indicates that media is playing major role in creating awareness about female cancer in most of the world and there is a need of health professionals' involvement creating awareness through health educations. This study showed that majority of the respondents had knowledge of breast cancer but few of them have good knowledge level. Low knowledge score among majority of the respondents was reported in Turkey (Porter 2008), Malaysia (Tambor et al., 1998) and Nigeria (Yaren et al., 2008). This is expected considering the fact that they are health science students, but there is a lack of scope to acquire this knowledge during their education.

It has been tried to reach students of 3 age group where less than 20 years is 28.3% and more than 20 years comprises 71.7%. In this study first year students were in 64(21.3%) respondents. Second year students were 160(53.3%) respondents. The third year students were in 76(25.3%) respondents. Concerning their knowledge on the frequency BSE, 162(44.1%) of the respondents correctly reported that BSE should be done monthly. This finding is significantly lower than by half from a study done in Turkey (Leong et al., 2007) where, 89.2% of the participants knew that BSE is recommended to be done monthly.

## Conclusion

In conclusion, knowledge of breast cancer is low, even though some of them have positive. We would like to recommend ministry of health for further work that has to be done regarding increasing the level of knowledge about breast cancer through possible feasible methods. A book chapter regarding the awareness and knowledge of breast cancer should be included in the nursing course.

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