Knowledge and Attitude towards Breast Cancer among Medical Undergraduate Students

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Original Research Article

ABSTRACT

Aim: To find out the knowledge and attitude of medical undergraduate students towards breast cancer.
Study Design: Descriptive cross-sectional study.
Place and Duration of Study: Study was performed in Ziauddin medical university during the period of October to December 2020.
Methodology: All the undergraduate Bachelor of Medicine and Bachelor of Surgery (MBBS) female students were included in the study irrespective of year of study. A self-designed, self-

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explanatory questionnaire was made and validated by doing a pilot study. Data was analyzed by using the Statistical Package for Social Sciences (SPSS version-20).

Results: Mean age of the study participants was 22.2 ± 1.7 years. Data regarding knowledge about the risk factors reported that overall more than 62% of the students were aware of the risk factors leading to breast cancer. Looking over the individual risk factors, about 77.3% recognized increased age as a major contributing factor, followed by lack of breast feeding, nulliparity, obesity, use of contraceptive pills, late menopause, early menarche and smoking with 68.3%,54.9%,51.1%, 64.8%,61.6%,39,2% and 48.6%respectively. Focusing specifically the year of MBBS student, the level of medical education increases the awareness about the risk factor also increase. Looking over the attitude of undergraduate MBBS students, about 76.8% of the students consulted to the doctor for breast lump, out of them 41.6% immediately consulted, 27.3% delayed it for weeks and 7.9% waited for months for self-recovery.

Conclusion: It can be concluded that majority of undergraduate medical students were having enough knowledge about the breast cancer, associated risk factors, symptoms and diagnostic modalities along with having positive attitude towards seeking medical help.

1. INTRODUCTION

Globally breast cancer is more prevalent as compare to other cancers among women as it accounts for 23% of overall cancers but when considering both genders collectively, it ranks second, stand just after lung cancer. It is the leading cause of high mortality rate among women with cancer, comprising of 14% of cancer related death [1]. Annually around one million women are affected by breast cancer worldwide [2]. Focusing specifically the Pakistan, there is high incidence of breast cancer that is one in out of 9 women is having a chance to get the disease at any stage throughout the life, though the breast feeding practice is very common as 50.1/ 100,000 women in Pakistan [3].

Looking over the associated risk factors, leading to breast cancer are inherited genetic mutation, a family history, late menopause, use of contraceptive pills, obesity, nulliparity, hormone replacement therapy, birth of first child after crossing age of 30 years, exposure to radiation, use of alcoholic drinks [4] but on the other hand there are also some of the lifestyle changes which can reduce the risk of breast cancer, like breastfeeding, daily physical exercise and maintaining the body mass index (BMI) within a range [5]. As the global burden of breast cancer is increasing day by day so there is a need of early disease detection for better prognosis and a good survival rate [6]. There are many screening methods used for early detection of breast cancer including breast self-examination, examination by a doctor and mammography [7]. It is recommended that those women who are at high risk of developing breast cancer need to be

evaluated through mammography annually which can detect the breast cancer in the early stage when there is only a localized growth. Due to this annual mammography screening protocol, there is a marked decrease in breast cancer associated mortality rate among the developed countries [8]. But focusing over the developing countries like Pakistan, it is not possible to perform mammography annually on a large scale due to availability of limited resources and high rate of illiteracy.

Breast self-examination is a non-invasive technique, the patient can perform herself and is cost-less. According to American cancer society, the women should be educated about the breast cancer and need of breast self-examination, even if there is no any symptom of breast cancer. Breast self-examination is of great interest among the women of younger age group, in whom the mammography is useless. American cancer society recommends the screening soon after the age of 20 years, [9] and the literature favored this by reporting a higher incidence of breast cancer among the younger age in Pakistan [10] so there is a need to evaluate the knowledge and attitude towards breast cancer among the women of younger age group. The aim of current study is to find out the knowledge and attitude of medical undergraduate students towards breast cancer.

2. METHODOLOGY

A descriptive cross-sectional study was performed in Ziauddin medical university during the period of October to December 2020. Sample size was calculated by using OpenEpi calculator

by putting confidence level of 95%. The estimated sample size was 152. Non-probability convenient sampling technique was used for data collection. All the undergraduate MBBS female students were included in the study irrespective of year of study. A self-designed, self-explanatory questionnaire was made after reviewing the literature about associated risk factors, symptom and diagnostic modalities. It was consisted of three parts including demographic information, knowledge and attitude towards breast carcinoma. The questionnaire was validated by doing a pilot study on 10 students. Data was analyzed by using the Statistical Package for Social Sciences (SPSS version-20). The qualitative data was presented as frequency and percentages while quantitative data as mean with standard deviation.

3. RESULTS

Mean age of the study participants was 22.2 ± 1.7 years. Majority of the study participants were from middle socioeconomic status i.e 51.6% followed by lower class and lastly the upper class. Students from 1st year to final year were enrolled in the study, among them majority were from 3rd year and final year contributing 25.2% and 24.4% respectively. Looking over the family history of breast cancer, only 11.2% were having it. The demographic details of study participants are mentioned in Table 1. Data regarding knowledge about the risk factors reported that overall more than 62% of the students were aware of the risk factors leading to breast cancer. Looking over the individual risk factors, about 77.3% recognized increased age as a major contributing factor, followed by lack of breast feeding, nulliparity, obesity, use of contraceptive pills, late menopause, early menarche and smoking with 68.3%, 54.9%, 51.1%, 64.8%,

61.6%, 39,2% and 48.6% respectively. Focusing specifically the year of MBBS student, the frequency distribution of knowledge about the risk factors leading to breast cancer are mentioned in Fig. 1. which showed that as the level of medical education increases the awareness about the risk factor also increase. The most senior class of MBBS were having good knowledge and concepts regarding the breast carcinoma and associated risk factors while the most junior class labeled as 1st year MBBS students were having minimum knowledge. All years of MBBS were having almost equal awareness about some of the risk factors including increased age, use of contraceptive pills and late menopause while a percentage of senior students were confused about the smoking as a risk factor as mentioned in Fig. 1.

Questions regarding the early symptoms of breast cancer, manifested that about 32.4% of the girls have no idea while 29% responded to breast lump, 21% to breast pain, 16.8% to breast ulcer and 4.6% to the bloody discharge from the nipple. Knowledge about the diagnostic or screening modalities used for breast carcinoma is mentioned in Fig. 2 as per year of study. It revealed that all the years of MMBS were aware of first of all physical examination by the doctor, the chest X-ray and the ultrasound or mammography while the final year students were better aware of blood/urine test and the biopsy as a protocol for detecting breast carcinoma.

Looking over the attitude of undergraduate MBBS students, about 76.8% of the students consulted to the doctor for breast lump, out of them 41.6% immediately consulted, 27.3% delayed it for weeks and 7.9% waited for months for self-recovery.

Table 1. Demographic characteristics of study participants

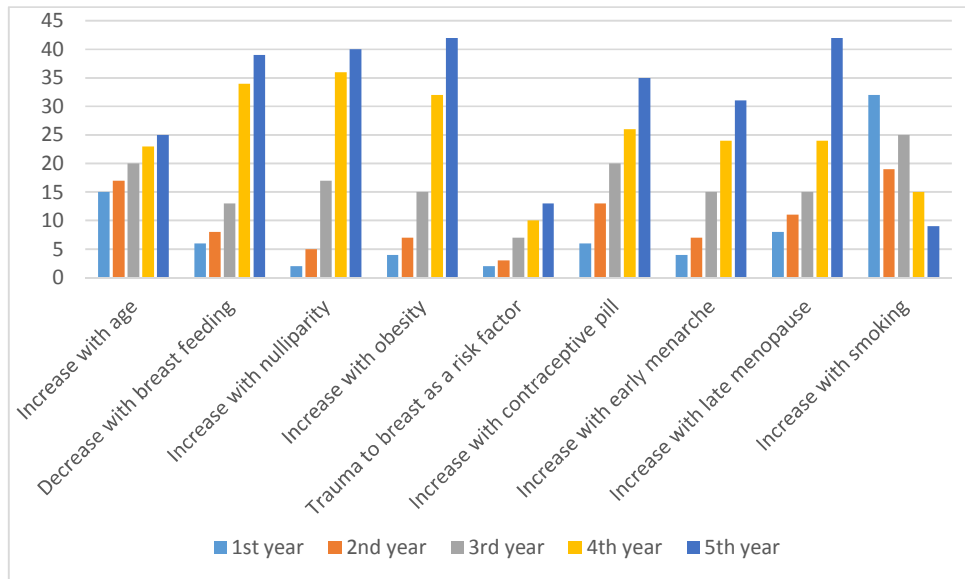|	n=152	%
Socioeconomic status		
Upper	13	8.4
Middle	78	51.6
Lower	61	40
Year of study		
1st year	18	11.6
2nd year	32	21.2
3rd year	38	25.2
4th year	27	17.6
5th year	37	24.4
Family history	17	11.2

Fig. 1. Knowledge about the associated risk factors among different years of medical education
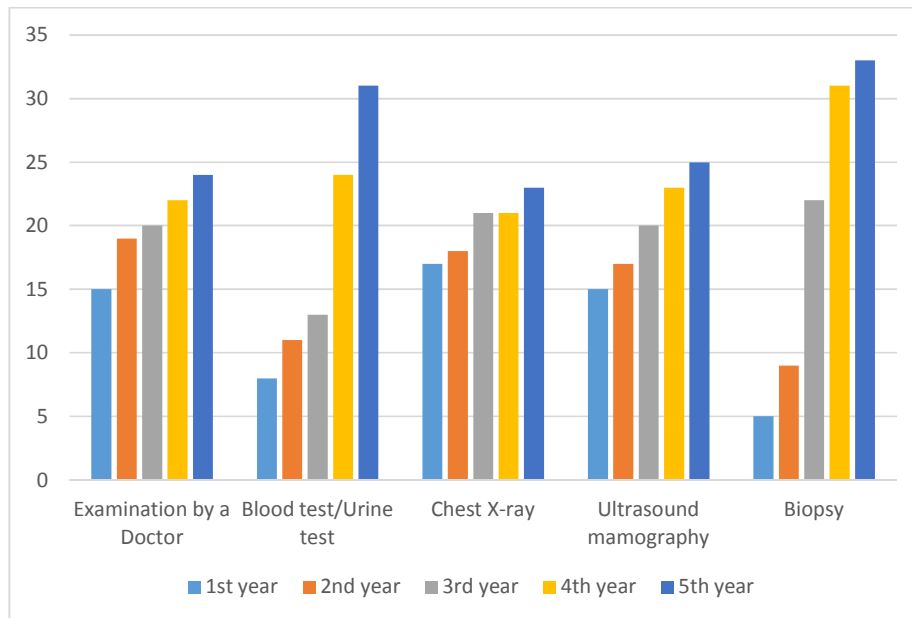

Fig. 2. Knowledge about diagnostic modalities for breast carcinoma among different years of medical education

4. DISCUSSION

Due to continuous increase in global burden of breast cancer, it is very important to spread the awareness about the associated risk factors and early diagnostic modalities especially the importance of breast self-examination [11].

Medical undergraduates are the young adults represent the upcoming generation of doctors, and they are often the first group to be targeted by public awareness campaigns.

Looking over the current study, more than 62% of the students were aware of the risk factors

leading to breast cancer and it is favored by another study in Pakistan reported 64% awareness [12] but a study conducted in Iran, reported a higher level of awareness i.e. 83% [13]. In current study, individual identification of risk factors reported that about 77.3% recognized increased age as a major contributing factor, while above 60% also reported lack of breast feeding, use of contraceptive pills and late menopause as a major associated factors. Another study conducted in Multan in 2017 reported that about 75% of medical undergraduates were aware of strong association of age with the breast cancer while more than 50% were knew about the positive association of use of oral contraceptives, nulliparity and lack of breast feeding [12]. The difference in the knowledge favored that awareness about the risk factors associated with breast cancer is increasing day by day among the undergraduate students. The current study further elaborated the fact that as the year of medical education raises, the level of knowledge also increases. None of the study still reported the year wise differences in the knowledge about breast cancer among medical undergraduates. But it is well-reported in the literature that there is always a strong association between level of education and knowledge about the symptoms of any disease [14].

Looking over the knowledge about the associated early symptoms of breast cancer, current study reported that about 32.4% of the girls have no idea while 29% responded to breast lump as a warning symptom, among them the most senior class of medical students were well-aware. A study conducted in Ethiopia manifested that about 53.8% of their students were aware of the painless breast lump as a danger sign [15]. But without implementing the knowledge, it has of no use and luckily the current study reported that about 76.8% of the students consulted to the doctor for breast lump, same is favored by another study in which students had positive attitude towards seeking medical help [12].

5. CONCLUSION

It can be concluded that majority of undergraduate medical students were having enough knowledge about the breast cancer, associated risk factors, symptoms and diagnostic modalities. On the other hand, current study also reported a positive attitude towards seeking medical help. It can be further improved by the education campaigns and seminars on the importance of early detection of breast cancer and the significance of breast self-examination.

CONSENT

Informed consent was taken from the participating students.

ETHICAL APPROVAL

As per international standard or university standard ethical approval has been collected and preserved by the authors.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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