DOI: https://doi.org/10.47391/JPMA.10463

Knowledge, attitude, and practice of breast self-examination among female undergraduate medical students in Poonch Medical College, Azad Kashmir

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Abstract

A cross-sectional observational study was conducted to assess the knowledge, attitude, and practice (KAP) of breast self-examination (BSE) among female undergraduate medical students in Poonch Medical College, Azad Kashmir. Out of 306 respondents, 250 completed the 16-item questionnaire (response rate of 81.7%). The correlations between knowledge, attitude, and practice were observed. Out of the total 250 respondents, 180 (72.0%) had ever heard of BSE, and 62 (24.8%) had performed BSE. The most important source of information regarding BSE was 'internet', which delivered knowledge to 64 (25.6%) students. The majority 200 (80%) thought that publicity and campaigns can motivate students to perform BSE. There was mild uphill correlation between knowledge and attitude, and knowledge and practice ($p < .001$). The study identified poor KAP of BSE among the students, although most of the students gave high importance to BSE practice. Nationwide BSE campaigns can be undertaken to increase the practice as most of the respondents were positive about mass campaign.

Keywords: BSE, Breast cancer, Screening, Medical students, Pakistan

Introduction

Among Asian countries, Pakistan has the highest rate of developing breast cancer as observed in a previous study.[1] Likewise, the highest rate of breast cancer-related mortality has been observed in Pakistan with about 40,000 deaths per year.[2] Unfortunately, there is no central database operational in Pakistan that keeps health records of Pakistanis who approach the country's healthcare system. Therefore, for any disease, including breast cancer, in Pakistan, the only data available is hospital or institution based.[3]

BSE and clinical breast examination have been promoted for decades for early detection of breast cancer in order to decrease breast cancer-related morbidity and mortality.[4] The early stages of breast cancer are treatable, while the later stages are increasingly associated with higher mortality.[5] Due to a lack of nationwide breast cancer screening programmes in Pakistan and a low trend of performing regular BSE the disease is not identified in time and reaches an advanced stage before being diagnosed. [6] Healthcare professionals are a significant source of information for the patients and general people, and since they hold such a crucial role, it is of immense importance that the information they provide is accurate and helps in creating awareness.[7] Studies on KAP of BSE have previously been done in many countries, including Pakistan,[8-11] but we could not find any similar study after extensive search of literature. Hence, the current study was undertaken to assess the KAP of BSE among the female medical students of Poonch Medical College, Azad Kashmir, Pakistan.

Methods

This cross-sectional observational study was conducted in Poonch Medical College, Rawalakot, Azad Kashmir, from May 2018 to November 2018. The data was collected using a validated 16-item questionnaire which has been previously used in a similar study.[8] Internal consistency of the study questionnaire was measured statistically by Cronbach α test (alpha value of .638). The questionnaire

consisted of six items related to knowledge, six items related to attitude, and four items related to the practice of BSE. Printed copies of the questionnaire were distributed to all 306 girls studying in the college. Out of 306 girls, 250 consented and returned the questionnaire making the response rate to be 81.7%. Ethical approval for this study was taken from the ethical review committee of Poonch Medical College.

Statistical analysis: Data were checked for completeness and correctness. Descriptive statistics were used to present the data in tables. Respondents' knowledge, attitude, and practice scores were calculated by the sum of knowledge questions (K1 to K5), attitude questions (A1 to A4), and practice questions (P1 to P3), respectively. Total KAP score was calculated by adding knowledge, attitude, and practice scores. The continuous data was tested for normality by Kolmogorov Smirnov test, and Shapiro Wilk test which revealed non-normal distribution. Correlation between age, knowledge score, attitude score, and practice score were observed by the Spearman Correlation test. Relationship between MBBS years and total KAP score was observed by Kruskal Wallis H test.

The data analysis was performed in 95% confidence interval using Statistical Package for Social Science (SPSS), version 24.0 (IBM, Armonk, NY, USA).

Results

The median age of all 250 undergraduate female medical students was 22 years and the majority of them 78 (31.2%) were from the first year,. Most, 180 (72.0%), had heard of BSE before. Other knowledge related questions are presented in chart 1.

Respondents' principal source of information about BSE was 'internet' 64 (25.6%), followed by 'teacher' 46 (18.4%). Most of the students, 223 (89.2%), believed that BSC screening is important and useful but only 90 (36.0%) respondents were confident that they could find a breast lump by self-

examination. (Table 1). Half of the students knew that the family history of breast carcinoma was the most important factor influencing the development of breast cancer (chart 2). Among all respondents, only 62 (24.8%) have ever performed BSE (chart 3). The most common abnormality noticed during BSE was 'abnormal pain' in 155 (62.0%) cases (chart 4). There was mild uphill correlation between knowledge, attitude, and practice (p values <.001) (table 2). Total KAP score was statistically significantly different across the medical years (p .034) (Table 3).

Discussion

It is expected from the medical students to have higher level of knowledge about BSE compared to general population, but we could not find >80% knowledge in any question. Positive answers were even lower in frequency in practice-related questions. However, 89% students thought BSE is important and useful which was definitely a positive attitude. A study conducted in Saudi Arabia reported that 66% of the nursing students regularly perform BSE, whereas the current study reported only 8.4% of the medical students doing the same which is alarming.[12] BSE practice was also higher among Malaysian female public university students, with 19.6% of them regularly performing BSE.[13] A Nigerian study involving non-medical students revealed that 87.7% of the respondents heard of BSE which was a higher percentage than this study's 72%.[14] If we compare the study findings with the first world countries where mammographic screening for breast carcinoma is widely available, the difference in practice appear to be in deeper contrast. It is worth mentioning that mammographic screening rate varies between 19.4% to 88.9% in developed countries.[15] This study showed that 36.0% students were confident about their technique of breast self-examination. A similar study done in Karachi that included medical students of similar age group revealed that 43.8% respondents know the proper technique of BSE and 24.9% performed it regularly which was again better than the current study findings.[16] Most of the students (80%) believed that public campaigns can

motivate a person to perform BSE. Previous studies also recommended that health education and public campaigns can have a positive impact on BSE practice.[17-19] In our study, the number of fifth year students was much lower (7.2%) compared to other academic years. This may contribute to lower overall KAP score compared to many other similar studies. This study had several limitations — single centred study, no scientific method of sample size calculation, cross-sectional study, etc. The current study recommends that further studies be conducted on how to increase the practice of BSE among Pakistani females.

Conclusion

This is a very important study because of the high prevalence of breast cancer nationally as well as internationally. However, this study revealed overall poor KAP regarding BSE among the female medical students in Azad Kashmir. Most of the students knew that BSE is very important, and they also welcomed public campaigns to increase awareness regarding BSE. Continued publicity through the internet, teachers, doctors, and televisions can improve overall practice of BSE.

Disclaimer: None to declare

Conflict of interest: None to declare

Funding Disclosure: None to declare

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Table 1: Distribution of all respondents by attitude regarding BSE (n = 250)

Questions		Agree N (%)	Disagree N (%)	Unsure N (%)
You can find breast lump by yourself		90 (36.0)	68 (27.2)	92 (36.8)
You are afraid that you'll detect breast cancer		113 (45.2)	74 (29.6)	63 (25.2)
Screening for abnormality in BSE is important and useful		223 (89.2)	15 (6.0)	12 (4.8)
Publicity or campaigns motivate you to detect breast cancer by yourself		200 (80.0)	27 (10.8)	23 (9.2)
BSE is a "disgraceful" practice in that other people see or touch the breast to detect breast cancer		60 (24.0)	153 (61.2)	37 (14.8)

Table 2: Correlation between knowledge, attitude and practice

Correlations	Knowledge	Attitude	Practice
Age	-.002 .981	.010 .872	-.048 .454
Knowledge o Correlation coefficient o P-value	-	**.219** **<.001**	**.284** **<.001**
Attitude o Correlation coefficient o P-value	-	-	.045 .480
Practice o Correlation coefficient o P-value	-	-	-

Table 3: Association between total KAP score and baseline characteristics

Characteristics	N	%	KAP score Mean ± SD	p-value
Medical year				
o First	78	31.2	18.92 ± 3.25	**.034**
o Second	42	16.8	18.90 ± 3.17	
o Third	59	23.6	19.14 ± 2.87	
o Fourth	53	21.2	18.34 ± 3.26	
o Fifth	18	7.2	16.89 ± 1.81	

Chart 1: Distribution of all respondents by knowledge regarding BSE (n = 250)

Chart 2: Distribution of all respondents by the factors that can influence a student to perform BSE (n = 250)

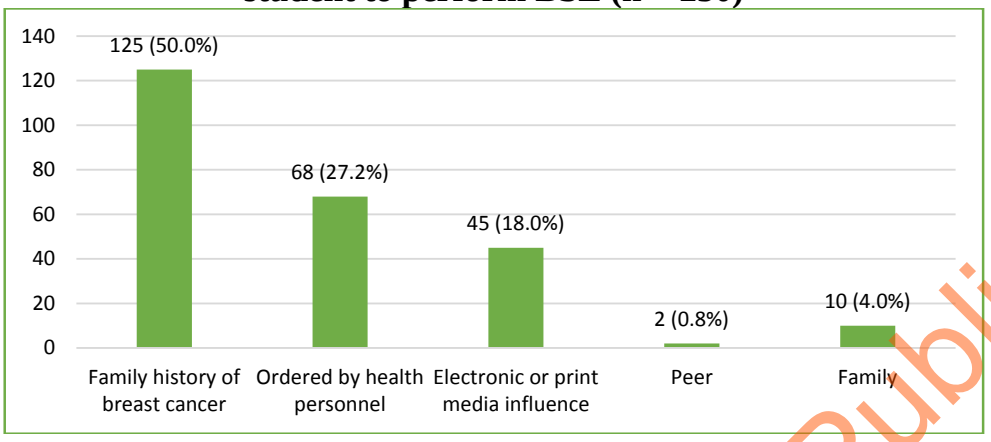

Chart 3: Distribution of all respondents by practice regarding BSE (n = 250)

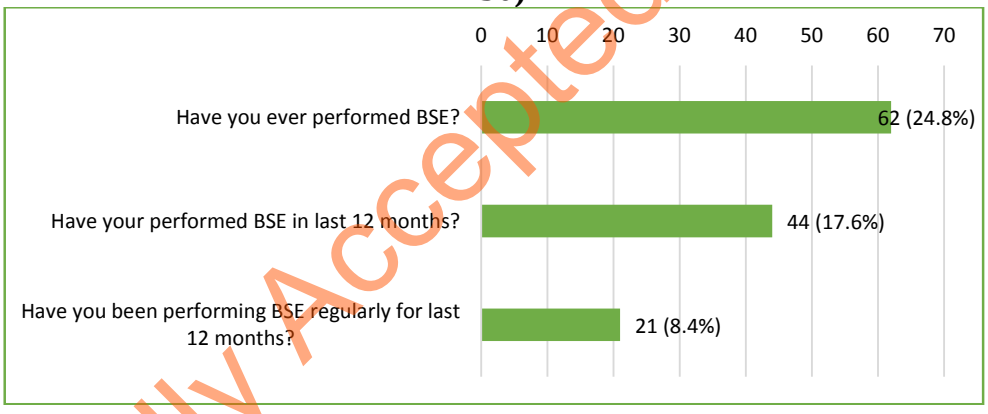

Chart 4: Distribution of the respondents by abnormalities noticed during BSE (n = 250)