KNOWLEDGE AND ATTITUDE REGARDING SCREENING OF BREAST CANCER AMONG DEGREE STUDENTS OF BELAGAVI CITY, INDIA - A CROSS-SECTIONAL STUDY

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ABSTRACT:

Aim: To assess the knowledge and attitude regarding screening of breast cancer and to determine the association between knowledge and attitude regarding screening of breast cancer and selected demographic variables of degree students. **Design:** A non-experimental descriptive research design was used in the study. **Methods:** The study included 111 students of a selected degree college using convenient sampling. Data was collected by using tools related to demographic variables, knowledge questionnaires and attitude scales. **Results:** The study showed that 91.8% of the students belonged to the age group of 18 to 20 years; 67.6% belonged to nuclear families, 53.1% resided in urban areas, 53.1% were vegetarian and 88.2% were Hindu. The majority i.e. 66.6% of students had average knowledge, 18% had poor knowledge and 15.4% had good knowledge.A maximum(63.1%) of students had a neutral attitude, 20.7% had a negative attitude and 16.2% had a positive attitude.Statistical analysis using chi-square revealed a significant association between age in years and religion with knowledge scores at 0.05 level of significance. There was also a significant association between age in years and religion with attitude scores at 0.05 level of significance. **Conclusion:** The study concluded that information regarding periodic breast examination among students is necessary to detect breast cancer at an early stage as timely screening and treatment of breast cancer at an early stage will improve the prognosis of the disease condition. The study also

states that midwives or the nursing students can take the initiative to spread awareness on screening or early diagnosis of breast cancer as a routine program among the community people. Early diagnosis or identification of breast cancer and management will help in reducing the mortality and morbidity rate.

Keywords: Knowledge, attitude, breast cancer, screening techniques, midwives, nursing.

INTRODUCTION:

Breast cancer is a very common and one of the largest burdens that causes cancer deaths in women worldwide. In India, breast cancer accounts for 19-34% of all cancer cases among women. The incidence of breast cancer is gradually increasing and it is overtaking the cancer of the cervix among Indian women. Each year, the number of cases is increasing by more than 5, 40, 000, and about 40% of these cases are from developing countries. The most common symptom of breast cancer is a lump which is usually painless. Breast cancer can be cured completely if detected during its early stages. But many women are unaware of the healthcare facilities that are available to prevent, diagnose, treat, or alleviate the sufferings that occur due to breast cancer. So, they fail to seek medical help early in the course of disease. Hence, women need to be aware of breast cancer: symptoms of breast cancer through routine practice of screening, diagnostic techniques, treatment methods, etc. Some of the preventive techniques to reduce breast cancer mortality and morbidity are breast self-examination, clinical breast examination, and mammography. Every woman should be educated on Breast self-examination about the steps of performing.[1]

In Karnataka, breast cancer is the first and most common among all cancers with the contribution of 27.9% of total burden in females in the year 2020. Also, it is seen that around 26,000-30,000 breast cancer cases are available, out of which only around 9,800 are being diagnosed.[2]

After Hyderabad and Chennai, Bengaluru (Karnataka) has the third-highest incidence of breast cancer in the whole of India. Breast cancer is the most common cancer among Indian women as per Urban Population-based cancer registries and the second most common cancer in rural areas.[3]

A total of 1,688 new cases (breast cancer) are diagnosed every year in the city while 4,558 are prevalent. There is an increase of 4.2 percent in cases each year.[4]

Breast cancers are not always malignant cancer; they may be benign too. Any type of breast lump or changes on the breast needs to be checked and confirmed by a health care professional to determine if it is benign or malignant (cancer).[5]

Breast cancer occurs in all countries among women of any age after puberty but with increasing incidence in later life. Approximately 0.5-1% of breast cancers occur in men. [10]

Age, obesity, hazardous alcohol use, family history of breast cancer, history of radiation exposure, reproductive history which includes age of menarche and age at first pregnancy, tobacco use and postmenopausal hormone therapy are all risk factors for breast cancer.

According to one study, breast cancer is the most common malignancy among Indian females, with an age adjusted rate of 25.8 per 100,000 women and a fatality rate of 12.7 per 100,000 women. The age-adjusted incidence rate of breast carcinoma was 41 per 100,000 women in Delhi, 37.9 in Chennai, 34.4 in Bangalore, and 33.7 in Thiruvananthapuram District. The mortality-to-incidence ratio in rural registers was found to be as high as 66, whereas it was as low as 8 in urban registries. Younger women have been identified as a major risk factor for breast cancer in Indian women. The study also stated that breast cancer awareness activities, as well as the availability of breast cancer screening programs and treatment facilities, will result in a favorable and good outcome in the country.[6]

When detected early, breast cancer can often be treated very successfully. Women must have adequate knowledge and positive attitude towards the breast cancer screening practices. Hence the present study was conducted to study the knowledge and attitude regarding screening of breast cancer in reproductive age group females among degree students.

The objectives of the study were:

1) To assess the knowledge and attitude regarding screening of breast cancer among the degree students.
2) To determine the association between knowledge and attitude regarding screening of breast cancer and selected demographic variables of degree students.

Operational definitions:

Knowledge: Level of understanding among the students regarding screening of breast cancer.

Attitude: Way of thinking or feelings regarding screening of breast cancer.

Screening: Various methods or techniques used to screen breast cancer.

Breast cancer: Cancer that forms in the cells of breast.

Assess: Statistical measurement of level of knowledge and attitude regarding screening of breast cancer.

Determine: Statistical measurement of association between knowledge and attitude regarding screening of breast cancer and selected demographic variables.

Hypothesis:

H_1: There is significant association between knowledge regarding screening of breast cancer and selected demographic variables as measured by structured questionnaire.

H_2: There is significant association between attitude regarding screening of breast cancer and selected demographic variables at 0.05 level of significance.

METHODS:

Research approach: Descriptive approach

Research design: Non-experimental descriptive research design.

Sample: Degree students of a selected college in Belagavi, Karnataka.

Sample size: 111 degree students of a selected college in Belagavi Karnataka.

Criteria for selection of samples:

Inclusion criteria

- available during data collection
- willing to participate

Exclusion Criteria:

- Not willing to participate

Method of data collection:

- Part 1: Socio-Demographic Variable
- Part 2: Knowledge questionnaire
- Part 3: Attitude scale

Data Collection:

1. The recruitment of subjects was done after screening for eligibility.
2. Consent from the subjects was taken.
3. Data was collected from 111-degree students of a selected college in Belagavi, Karnataka.
4. Data collected was tabulated and analyzed by using statistical and inferential tests.

Data analysis:

The data obtained was entered in Microsoft excel, coded and then entered in SPSS 20.0 version. The data was analyzed in terms of the objective of the study, using descriptive and inferential statistics.

Ethical consideration:

Ethical clearance and formal permission was obtained from the Institutional ethical committee and also from the Principal of the selected degree college. The participants were asked for their written consent.

RESULTS:

Table 1: The above table shows that majority (91.8%) belongs to the age group of 18 to 20 yrs of age group; 67.6% belongs to nuclear family, 53.1% of them reside in urban area, 53.1% are vegetarian and 88.2% are Hindu.

Table 2 depicts that overall mean knowledge score is 14.92, median is 15, mode is 15.16 and the standard deviation is 2.70 while the range is between the highest and the lowest score is 14.

Table 3 depicts that overall mean attitude score is 15.48, median is 14, mode is 11 and the standard deviation is 3.43 while the range is between the highest and the lowest score is 17.

Table 4 reveals that the variables i.e. type of family, residential area and dietary pattern in relation with knowledge scores of selected degree students are independent of each other (p values >0.05). The variables i.e. age in years and religion shows an association with knowledge scores at 0.05 level of significance (p value <0.05). Hence, H_1 is accepted.

Table 5 reveals that the variables i.e. type of family, residential area and dietary pattern in relation with attitude scores of selected degree students are independent of each other (p values >0.05). The variables i.e. age in years and religion shows an association with attitude scores at 0.05 level of significance (p value <0.05). Hence, H_2 is accepted.

Graph 1 depicts that majority i.e. 66.6% of students had average knowledge, 18% had poor knowledge and 15.4% had good knowledge.

Graph 2 depicts that majority i.e. 63.1% of students had neutral attitude, 20.7% had negative attitude and 16.2% had positive attitude.

	Socio-Demographic Variables	Frequency n=111	Percentage (%)
1	*Age in years*		
	18-20	102	91.8
	21-23	8	7.2
	24 & above	1	1
2	*Type of family*		
	Joint	36	32.4
	Nuclear	75	67.6
3	*Residential Area*		
	Urban	59	53.1
	Rural	52	46.9
4	*Dietary Pattern*		
	Vegetarian	59	53.1

	Non-Vegetarian	52	46.9
5	*Religion*		
	Hindu	98	88.2
	Muslim	10	9
	Christian	2	1.8
	Others	1	1

Table 1: Distribution of sample characteristics according to demographic variables of participants.

n=111

| Area of analysis	Mean	Median	Mode	Standard Deviation	Range
Knowledge	14.92	15	15.16	2.70	14

Table 2: Mean, median, mode, standard deviation and range of knowledge scores of selected degree students regarding screening of breast cancer.

LEVEL OF KNOWLEDGE

Good: 15.40% Average: 66.60% Poor: 18%
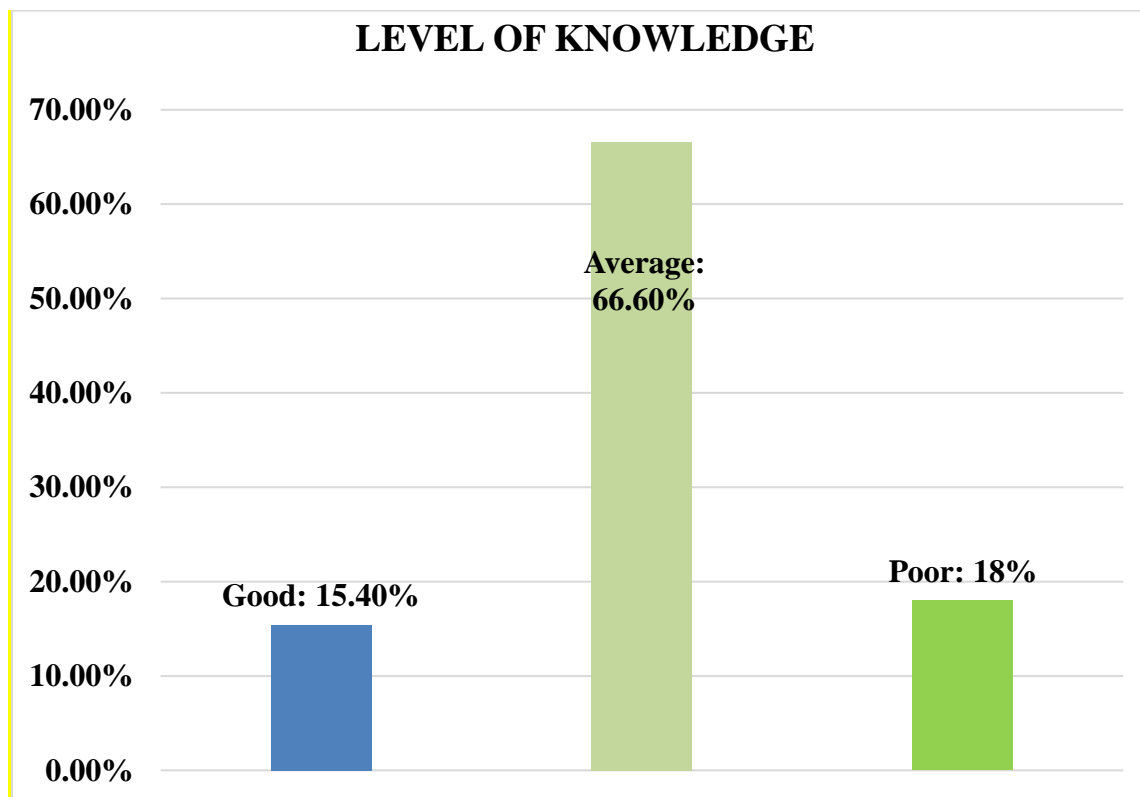
Graph 1: A column graph showing percentage distribution of knowledge scores of selected degree students regarding screening of breast cancer

					n=111
Area of analysis	**Mean**	**Median**	**Mode**	**Standard Deviation**	**Range**
Attitude	**15.48**	**14**	**11**	**3.43**	**17**

Table 3: Mean, median, mode, standard deviation and range of attitude scores of selected degree students regarding screening of breast cancer.
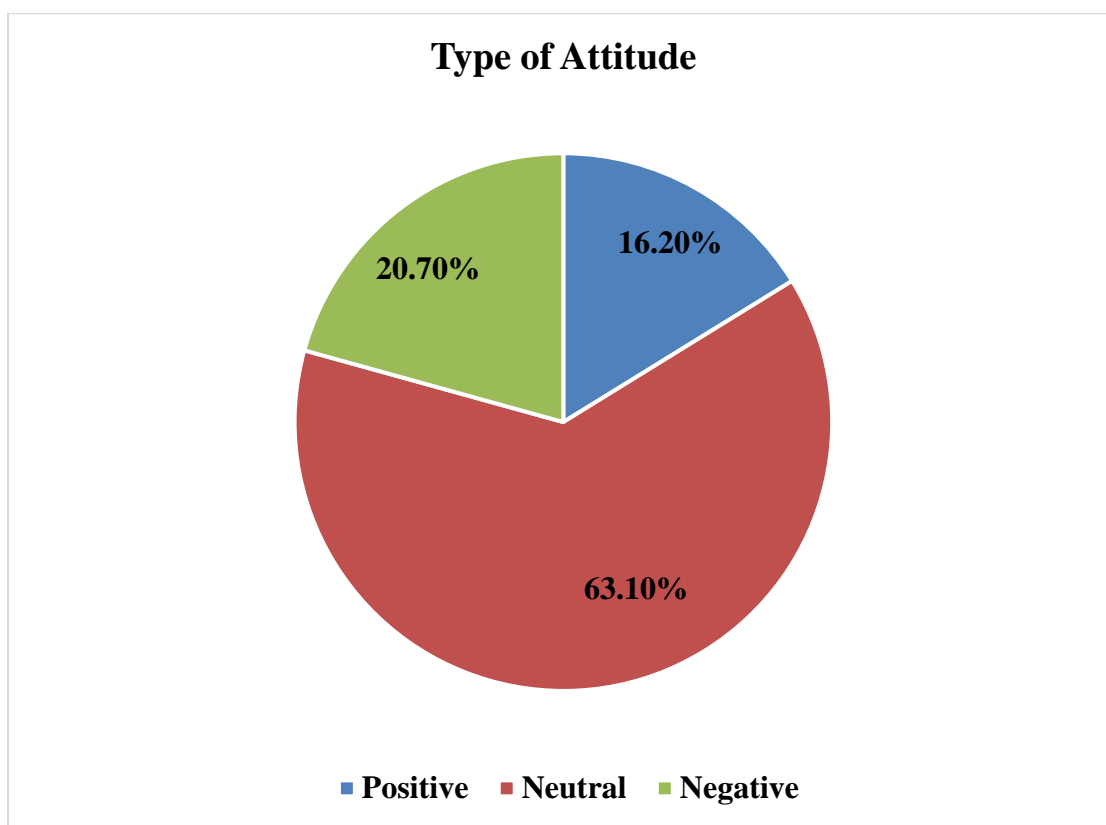
Graph 2: A pie graph showing percentage distribution of attitude scores of selected degree students regarding screening of breast cancer

					n=111	
Sl.No.	Variables	Knowledge Scores			Chi-square	
		Good	Average	Poor	Calculated	Tabulated
1	*Age in yrs*					

	18-20	13	69	20	205.31 (S)	9.488
	21-23	3	5	0		
	24 & above	1	0	0		
2	*Type of Family*					
	Joint	6	26	4	1.72 (NS)	5.991
	Nuclear	11	48	16		
3	*Residential area*					
	Urban	8	42	9	1.17 (NS)	5.991
	Rural	9	32	11		
4	*Dietary pattern*					
	Veg	8	41	10	0.71 (NS)	5.991
	Non-Veg	10	33	9		
5	*Religion*					
	Hindu	12	66	20	309.46 (S)	12.592
	Muslim	5	5	0		
	Christian	0	2	0		
	Others	0	1	0		

Table 4:Association between knowledge regarding screening of breast cancer and selected demographic variables

n=111

Sl.No.	Variables	Attitude Scores			Chi-square	
		Positive	Neutral	Negative	Calculated	Tabulated
1	*Age in yrs*					
	18-20	17	64	21	72.41 (S)	9.488
	21-23	1	5	2		
	24 & above	0	1	0		
2	*Type of Family*					
	Joint	8	21	7	1.41 (NS)	5.991
	Nuclear	10	49	16		
3	*Residential area*					

	Urban	8	38	13	0.68 (NS)	5.991
	Rural	10	32	10		
4	*Dietary pattern*					
	Veg	12	34	13	2.01(NS)	5.991
	Non-Veg	6	36	10		
5	*Religion*					
	Hindu	16	63	19	172.88 (S)	12.592
	Muslim	2	5	3		
	Christian	0	2	0		
	Others	0	0	1		

Table 5: Association between attitude regarding screening of breast cancer and selected demographic variables.

DISCUSSION:

The findings of the study have been discussed under the following headings:

   I.   Findings related to socio demographic variables:

In the present study, the findings revealed that majority (91.8%) belongs to the age group of 18 to 20 yrs of age group; 67.6% belongs to nuclear family, 53.1% of them reside in urban area, 53.1% are vegetarian and 88.2% are Hindu.

Similar finding was seen in the study conducted by Dahiya et.al, which showed that majority (87.8%) of the participants were Hindu.[7]

II. Findings related to knowledge scores of selected degree students regarding screening of breast cancer

In the present study, findings related to knowledge scores showed that majority i.e. 66.6% of students had average knowledge, 18% had poor knowledge and 15.4% had good knowledge.

Similar finding was reported by a study conducted by Smita N and Vijaykumar M, which showed that maximum of the students had limited knowledge regarding breast cancer and its screening techniques.[8]

III. Findings related to attitude scores of selected degree students regarding screening of breast cancer

In the present study, findings related to attitude scores showed that majority i.e. 63.1% of students had neutral attitude, 20.7% had negative attitude and 16.2% had positive attitude.

Similar finding was reported by a study conducted by Heena, H., Durrani, S., Riaz, M. *et al.* which showed that the attitudes of participants towards breast cancer screening were discouraging which could be due to lack of knowledge.[9]

IV. Findings on association of knowledge scores with selected socio demographic variables

Chi square test was done to identify the association of knowledge scores with selected socio demographic variables. The study findings showed that there was no significant association between the variables i.e. type of family, residential area and dietary pattern in relation with knowledge scores of selected degree students. However, the study found that there is a significant association between the variables i.e. age in years and religion with knowledge scores.

A similar finding was reported by Khadiga F.D and A. Al Mohaimeed, which showed signicant association between the knowledge scores and age of the students.[10]

V. Findings on association of attitude scores with selected socio demographic variables

The present study findings showed that there was no significant association between the variables i.e. type of family, residential area and dietary pattern in relation with attitude scores of selected degree students. However, the study found that there is a significant association between the variables i.e. age in years and religion with attitude scores.

A similar finding was reported by Khadiga F.D and A. Al Mohaimeed, which showed signicant association between the knowledge scores and age of the students.[10]

NURSING IMPLICATIONS:

The findings of the study have implications on the field of nursing education, nursing practice, nursing administration and nursing research.

Nursing education

➢ This study will help the students to improve knowledge about breast cancer and its screening techniques. BSE is the important screening technique in detection of any breast abnormalities as it enables women to become familiar with their breast and hence detect any changes.

➢ Various seminars or hands on skill training workshops can be conducted on the same topic not only for students but also for all the female staff, thereby increasing their knowledge, skill and improve attitude towards breast examination techniques.

Nursing administration

➢ Nurse administrators (like nursing superintendent, floor supervisor and ward in charge) can keep nurses up to date on important breast health issues and breast examination techniques, this will encourage nurses to take an active role in promoting breast cancer screening among patients, families, friends and in community.

Nursing practice

➢ Information regarding periodic breast examination to students is necessary to detect breast cancer at an early stage and will be useful with regard to nursing practice.

➢ Early screening and treatment of breast cancer at an early stage will improve the prognosis of the disease condition.

Nursing research

➢ The findings and result of this research will motivate nurse researcher to take up similar studies in different settings and this will serve as a guideline for further research.

LIMITATIONS

➢ The study was limited to 111 students.

➢ The present study was limited to selected degree students.

➢ There was no control over the extraneous variables.

RECOMMENDATIONS

➤ A similar study on a large and wider sample, for a long period of time would be more pertinent in making broad generalizations.

➤ Different settings can be used for comparable studies.

➤ A comparative study can be done between medical and other degree students.

➤ A follow up study can be done to determine the effectiveness of knowledge regarding breast screening techniques.

➤ Various randomized control trails can be carried out to evaluate the effectiveness of the each breast examination technique for early detection of breast cancer.

CONCLUSION:

Based on the analysis of the findings, majority of the students lacked adequate knowledge regarding screening of breast cancer. Also most of them showed either neutral or negative attitude towards the same. Thus, the study felt the need to educate about breast cancer and its screening techniques to the students as the incidence of breast cancer is rapidly increasing. The study also states that midwives or the nursing students can take the initiative to spread awareness on screening or early diagnosis of breast cancer as a routine program among the community people. Early diagnosis or identification of breast cancer and management will help in reducing the mortality and morbidity rate.

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