Knowledge, Attitude And Practice Regarding Breast Cancer And Its Prevention Among Final Year Nursing Students.

Author

Abstract:
Background: Breast cancer remains a significant global health concern, with substantial prevalence and mortality rates. Early detection through practices like breast self-examination (BSE) and clinical breast examination (CBE) significantly impacts prognosis. However, studies indicate deficiencies in knowledge, attitude, and practice (KAP) among various populations, including healthcare professionals. This research aimed to assess KAP regarding breast cancer among final year nursing students at Sri Devaraj Urs Medical College, Tamaka, and Kolar.
Objectives: The study aimed to evaluate the KAP of final year nursing students regarding breast cancer, identify areas for improvement, and assess awareness of breast cancer prevention methods.
Methods: A questionnaire-based study was conducted among 100 final year nursing students from February to June 2023. The questionnaire covered knowledge, attitudes, and practices related to breast cancer, including risk factors, symptoms, diagnosis methods, treatment, and prevention. Data were analyzed using SPSS software, employing descriptive statistics.
Results: The majority of students demonstrated good knowledge (66%), positive attitudes (60%), and fair to good practices (43%) regarding breast cancer. However, deficiencies were noted in specific areas, such as understanding certain risk factors and translating knowledge into practical practice.
Conclusion: Final year nursing students exhibit adequate knowledge and positive attitudes towards breast cancer, yet practical application lags. Continued efforts to enhance practical skills and reinforce preventive practices are warranted to improve breast cancer outcomes.
Key Words: *Breast cancer, Knowledge, Attitude, Practice, Final year Nursing students.*

I.   Introducton:

In 2020, breast cancer emerged as the most commonly diagnosed cancer globally, surpassing lung cancer, and remained one of the primary causes of cancer-related deaths.[1] During this year, approximately 2.3 million women were diagnosed with breast cancer, resulting in a global mortality rate of 685,000.[1] In India alone, there were 178,361 new cases of breast cancer and 90,408 associated deaths in the same year.[2] Specifically in Bangalore, the prevalence of breast cancer was recorded at 34.4 per 100,000 women.[3] Moreover, in the Kolar region, the incidence rate of breast cancer was reported to be 6.41% in 2010.[4]

In India, breast cancer diagnosis commonly occurs following the onset of symptoms or through screening initiatives. Symptoms may manifest as palpable masses, whether painful or painless, nipple discharge, nipple retraction, puckering, dimpling, or eczema.[5] Additional signs such as edema, skin thickening resembling peau d'orange, are also frequently observed. The risk factors associated with breast cancer are influenced by various variables, including lifestyle habits such as high-calorie diets, physical inactivity, consumption of processed foods, smoking, alcohol or other addictions, as well as sedentary behaviors. Hormonal and genetic factors also play significant roles in determining breast cancer risk.[5]

Early detection significantly contributes to the prevention of breast cancer.[6] With early detection, the 5-year survival rate reaches approximately 85%, whereas delayed detection reduces the survival rate to 56%.[7] Breast cancer stands apart from other cancers due to its occurrence in a readily noticeable organ, offering a chance for better treatment and prognosis when detected early, as cancer itself is potentially curable. In instances where breast cancer was diagnosed at an earlier stage, it was often self-discovered.[8]

There are many recommended and practiced precautionary techniques which aid in early detection, diagnosis and treatment of breast cancer such as Breast self-examination (BSE), Clinical breast examination (CBE), Ultrasonography and Mammography which can be done by the patient herself or the clinicians whenever the patient pays a visit to the hospital.[9]

BSE is not frequently practiced or has been practiced incorrectly for many reasons. Previous studies show that the primary barriers for poor practicing of BSE were forgetfulness, lack of time, ignorance, fear/anxiety, and low level of education.[10,11,12,13]

It is therefore important to determine the level of knowledge, attitude and practice about breast cancer and its prevention. Hence students should have adequate knowledge and positive attitude to prevent breast cancer by raising the awareness and educating the public on risk factors and prevention.

Objectives:

The aim is to assess the understanding, attitude, and practices of final year Nursing students at Sri Devaraj Urs Medical College, Tamaka, Kolar.

II. Material And Methods:

Study design: Questionnaire based study.

Place of study: Department of Pathology, SDUMC, Tamaka, Kolar.

Source of data: Final year Nursing students of Sri Devaraj Urs Medical College, Tamaka, and Kolar.

Duration of study: February 2023 – June 2023

Sample size: 100

Method:

This institutional cross-sectional study was conducted using an online survey aimed at evaluating the knowledge, attitude, and practices concerning breast cancer and its prevention among Final year Nursing students. The survey comprised 70 questions, covering aspects such as risk factors, symptoms, diagnosis methods, treatment, and prevention, to analyze the respondents' knowledge, attitudes, and practices related to breast cancer.

Before commencing the study, ethical clearance was obtained from the Institutional Ethics Committee. The survey was distributed among Final year Nursing students, and responses were collected. Based on a prevalence value of 50%, precision of 4%, α of 0.05, and a 95% confidence interval, a minimum sample size of 100 was calculated.

The questionnaire consisted of three sections. Questions K1-K41 focused on knowledge, covering risk factors, symptoms, diagnosis methods, treatment, and prevention (Table/Figure 1). Questions A1-A19 addressed attitudes (Table/Figure 3) toward breast cancer, while questions P1-P10 assessed practices related to breast cancer treatment and prevention (Table/Figure 3). Knowledge items were answered with "Yes" or "No," while attitude items were rated on a scale from "strongly agree" to "strongly disagree." Practice items included "Yes" or "No" and multiple-choice questions.

Statistical Analysis:

All data was inputted into a Microsoft Excel spreadsheet, and statistical analysis will be conducted utilizing SPSS Software version 2024. Continuous data underwent analysis employing measures such as mean and standard deviation, while categorical data was assessed through frequency and percentage calculations.

III. Results:

The study population consists of 100 final year nursing students. Among them maximum 46 students were in age group of 22 years followed by 40 students in 21 years and 7 each in 23 years and 20 years respectively (Table/Figure 7). KAP was analyzed and percentages for each parameter were obtained. Potential area of deficiency was also identified.

Table/Figure 7:

S No	Age	No of students
1	20	7
2	21	40
3	22	46
4	23	7

Knowledge about breast cancer (Table/Figure 8):

Among the final year nursing students, majority (66) had good knowledge regarding breast cancer occurrence, prevention and treatment, followed by (23) had fair knowledge and (11) students had poor knowledge and awareness regarding breast cancer. The further details regarding scores of the students participated is mentioned in (Table/Figure 1).

Table/Figure 8:
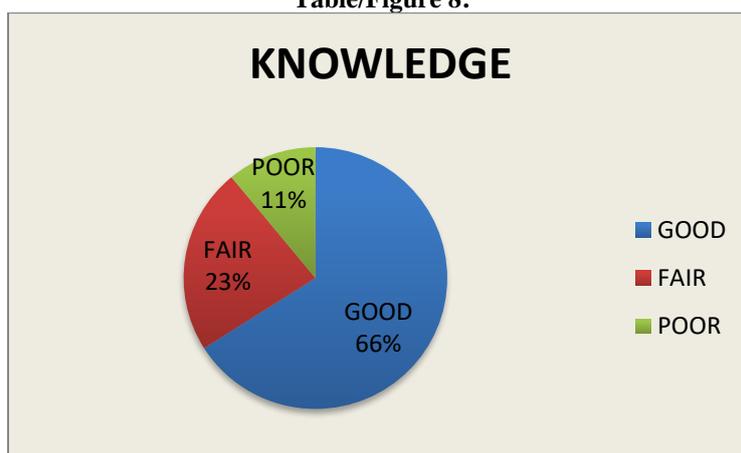
Attitude about breast cancer (Table/Figure 9):

Among 100 nursing students, 60 students scored good regarding the attitude of breast cancer followed by 40 students who scored fair when it comes to attitude regarding breast cancer awareness and its prevention. The further details regarding scores of the students participated is mentioned in (Table/Figure 2).

Table/Figure 9:
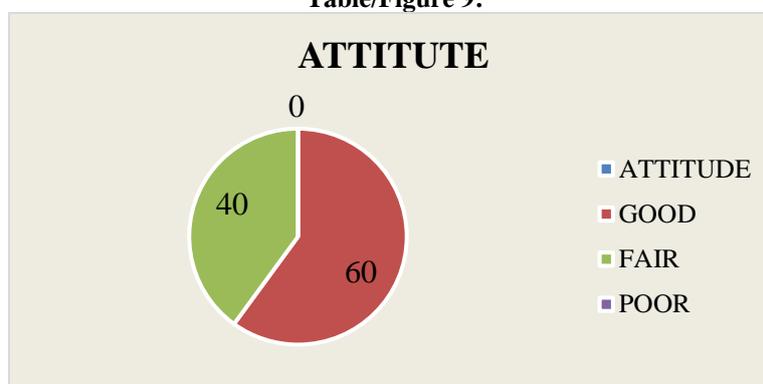
Practice about breast cancer (Table/Figure 10):

Among final year nursing students, 43 of them had good practices where as 35 of them had fair practice regarding the awareness of breast cancer occurrence and its prevention. Only 22 students had poor practice regarding breast cancer and its prevention. The further details regarding scores of the students participated is mentioned in (Table/Figure 3).

Table/Figure 10:
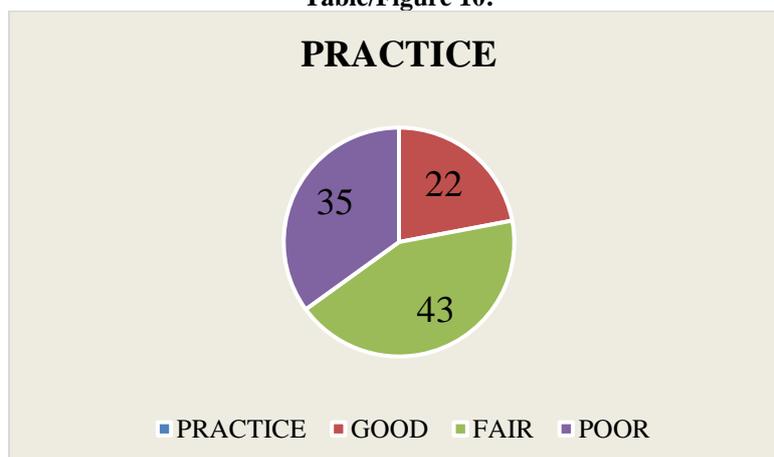
Even though there are many parameters which were assessed in the three different categories of knowledge, attitude and practice, there were a few which had the most significance and the responses of students were as follows. Among the risk factors which were assessed in knowledge, more than 50% of students had better knowledge regarding increasing age, positive family history, race/ethnicity, high fat diet, smoking, alcohol consumption, stress and obesity but the students had less knowledge when it comes to other parameters such as nulliparity, late child birth, early menarche and late menopause and volume of the breast. The questionnaire regarding signs and symptoms associated with knowledge about breast cancer, majority of the students (>65%) had good knowledge and awareness.

The questionnaire regarding attitude of students regarding breast cancer, all the assessed parameters were answered correctly by more than 65% of the students and least score was obtained to the question regarding the women preferring female doctor for examination of the breast where almost 80% of the students agreed that they would prefer to get the examination done by a female doctor.

Even though many had good knowledge and attitude but many lacked to put it into practice. Among various parameters which were assessed for practice, only self breast examination, screening of breast cancer and encouragement of breast feeding had good scores and rest all were not answered correctly by almost >60% of the study population. Many of the students had good knowledge and attitude regarding the awareness of breast cancer but the practice was less done due to many factors. Improvement at this level will help us get significant change in detection of breast cancers and achieve goof prognosis and to provide better treatment for the patients.

IV.   Discussion:

In 2020, breast cancer stood out as the primary contributor to global cancer cases.[1] According to data from Globocan 2020, breast cancer constituted 13.5% (1,78,361) of all cancer cases in India. [1]In Bangalore, the age-adjusted incidence of breast cancer is recorded at 34.4 per 100,000 women. [3]The prevalence of breast cancer in Kolar is reported as 6.4% of all female cancers.[4] Timely detection significantly influences breast cancer prevention.[6] Recommended preventive measures to lower breast cancer morbidity and mortality rates encompass breast self-examination (BSE), clinical breast examination (CBE), and mammography.[9]

Hlma Ismail et al conducted a study on the awareness of breast cancer among medical students at Syrian Private University, Syria. Out of 320 students surveyed, 301 completed the questionnaire, yielding a response rate of 94.0%. Among respondents, 179 (59.5%) were male. The study found that participants exhibited an above-average level of knowledge on breast cancer, with a total mean score of 68.4%. Specifically, they demonstrated strong understanding in areas such as general information (71.9%), common clinical features (71.6%), and risk factors (71.6%). Clinical students (in their 4th, 5th, and 6th years of study) scored higher compared to pre-clinical students (in their 1st, 2nd, and 3rd years).[14]

Humariya Heena et al conducted a study on the knowledge, attitudes, and practices related to breast cancer screening among female health care professionals. The study involved 395 participants, with a mean age of 34.7 years. The participants comprised physicians (n = 63, 16.0%), nurses (n = 261, 66.1%), and allied health workers (n = 71, 18.0%). Only 6 (1.5%) participants demonstrated a good level of knowledge regarding breast cancer, while 104 (26.8%) participants showed a fair level of knowledge. In terms of awareness, the majority of participants had heard of breast self-examination (370, 93.7%), clinical breast examination (339, 85.8%), and mammography (368, 93.2%). Regarding practices, 295 (74.7%) participants reported practicing breast self-examination, 95 (24.1%) had undergone clinical breast examination, and 74 (18.7%) had ever undergone mammography.[15]

In the current study involving 100 nursing students, it was found that the majority possessed a solid understanding of breast cancer occurrence and methods for prevention. Notably, they exhibited good knowledge concerning prominent risk factors such as positive family history, nulliparity, age at first childbirth, early onset of menarche, late menopause, and mutations involving BRCA 1 & 2. However, when evaluating other risk factors, it was observed that their comprehension was relatively fair in comparison to those playing a significant role

Regarding signs and symptoms associated with breast cancer, a majority of the study participants demonstrated a robust understanding of key parameters such as breast lumps, nipple discharge, changes in breast skin color or texture, presence of ulcers, alterations in nipple appearance, and armpit lumps. However, their knowledge regarding other parameters assessed in the questionnaire was comparatively moderate.

In terms of diagnostic procedures and follow-up protocols, ultrasound emerged as the most commonly utilized investigation for women in the reproductive age group, while mammography was deemed the preferred choice for those in the post-menopausal and perimenopausal age bracket. The study population exhibited a commendable awareness of this aspect. Furthermore, it was highlighted that regular follow-up examinations, typically scheduled every six months for a duration of five years following mastectomy, are crucial for detecting any potential recurrence or metastasis. Encouragingly, the students displayed a solid understanding of the importance of adhering to these follow-up protocols.

When assessing the attitude of the students towards breast examination and its importance, a significant portion demonstrated a solid understanding. However, translating this knowledge into practice remains a challenge for many women. Various factors contribute to this reluctance, including neglect, fear of discovering abnormalities, feelings of shyness, and the stigma attached to breast examination. Despite possessing adequate knowledge about breast cancer and its prevention, the practical application of this knowledge is less prevalent among many women.

V. Limitations:

This study focuses solely on final year nursing students, which may not represent the broader population. Therefore, caution should be exercised when extrapolating the information to the general populace.

VI. Conclusion:

Even though final year nursing students exhibited adequate knowledge and a positive attitude towards breast cancer, their actual practice in this regard was found to be lacking. More interactive sessions based on practical aspect of the topic would help increase the awareness regarding practice of SBE and CBE in early detection of breast cancer and its prognosis.

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