

The Undergraduate Student's Knowledge Towards Early Detection of Breast Cancer

¹Rupali Tiwale, ²Dr. Vaishali R. Mohite, ³Dr Mahadeo B Shinde

Abstract--- *Introduction-: Among women, breast cancer is common cause of mortality, accounting for 16% of cancer deaths in adult women. Breast cancer is major life-threatening public health problem of great concern. Long-term increases in incidence of disease are being observed in both industrialized and developing world study was aimed to assess the undergraduate student's knowledge towards early detection of breast cancer. Methods: cross-sectional study was conducted with 100 undergraduate nursing students. A self-structured questionnaire utilised, Data analysis was done using descriptive and inferential statistics. Results: As to information on hazard factors for breast malignant growth, (89%) realized that there are chance components associated with the improvement of breast disease. Concerning early breast cancer (45.2%) respondents for the most part referenced that it doesn't cause torment and indication Regarding the phase of breast disease treatability (74%) react at phase of 0 and I followed by (20%) at stage 0, I and II and 15 (6%) concurred it isn't reparable in any way. Respondents were asked to state the early detection measures for breast cancer; (75%) mentioned BSE, (45%) identified breast examination by a health professional (CBE), and only (39%) stated mammography as an early detection measures. Majority of the respondents (57 %) knew that breast cancer can be prevented at early stage of the disease; (33.0%) of them responded it can be prevented before the disease manifests, while (7.0%) said it cannot be prevented at all. Conclusion-In conclusion majority of undergraduate students were not knowledgeable regarding breast cancer and its screening technique. It is possible to recommend a need to improve breast cancer content in the higher secondary education curriculum; The media should let wide range of air time to provide comprehensive information about breast cancer as it can reach many people.*

Keywords--- *Knowledge, breast cancer, nursing students.*

I INTRODUCTION-

All inclusive, malignancy is main reasons for death. It is assessed that 7.4 million individuals kicked the bucket of malignancy in 2004 and, if current patterns proceed, 83.2 million more will have passed on by 2015. Among women, breast cancer is common cause of mortality, accounting for 16% of cancer deaths in adult women [1]. Breast cancer is major life-threatening public health problem of great concern. Long-term increases in incidence of disease are being observed in both industrialized and developing world [2].

1, Undergraduate Student, 2, Principal/Dean, 3-Professor

Faculty of Nursing Sciences, Krishna Institute of Medical Sciences Deemed To Be University, Karad Dist-Satara (India)

Corresponding Author- Dr V R Mohite

Principal, Faculty of Nursing Sciences, Krishna Institute of Medical Sciences Deemed To Be University, Karad Dist-Satara (India)

In India cancer prevalence is estimated around 2.5 million, with over 0.8 million new cases and 0.5 million deaths occurring each year. The basic locales for malignant growth in India are oral cavity, lungs, throat and stomach in guys and cervix, breast and oral pit among females. [3]. Breast cancer, the common cancer causing the largest burden of deaths in women worldwide accounts for 19-34% of all cancer cases among women in India[4].

As indicated by National Cancer Registries and Regional Cancer Centers, it is the commonest malignant growth among ladies in Delhi, Mumbai, Ahmedabad, Kolkata and Trivandrum [4]. In all other cancer registries, it is listed as second common cancer among women. According to GLOBOCAN 2012, almost 1.67 million women were diagnosed with breast cancer in 2012 globally [5].

Most of the patients seek medical advice when the disease is fairly advanced. Over 70% of the cases report for indicative and treatment benefits in cutting edge phases of the malady, bringing about poor endurance and high mortality rates [3]. This is ascribed to absence of mindfulness and non-existent breast malignant growth screening programs in India [7]. As there is no accurate etiological operator for breast malignancy, likewise as breast disease is a theme that isn't openly examined in India in view of social unthinkable, there is a pressing requirement for data and instruction on attention to breast disease and its initial location measures to realize the alluring conduct change among ladies [7,8].

Breast cancer is most frequent malignancy occurs among women. Cancer related deaths among women are mostly due to breast cancer. In many cases, inadequacy of early symptoms leads to detection of cancer at advance stage. Symptoms of breast cancer includes lump or thickening of the breast, changes in size and shape of breast and nipple, discharge from nipples, sore or rashes on nipples. Stages of cancer are according to the size of the tumour also whether it has spread to lymph nodes or other parts of body [9].

Health workers are important personnel to improve awareness as well as knowledge of community. Nurses plays an integral role in healthcare system, providing care to patients and deal with health problems of individuals at hospitals and other health organizations. Nowadays there are many screening methods available, out of that breast self-examination, Clinical Breast Examination (CBE), iBreast Exam (iBE) and Mammography are helpful to identify Breast abnormalities earlier [10].

Training about the significance of early location in diminishing death rates may be of an incentive in bringing issues to light of the different strategies for early identification of breast disease. More research is likewise expected to recognize the basic factors that may impact medical caretakers' own act of early identification techniques for breast malignant growth. Enabling medical attendants with data about early location techniques and their related advantages could help in propelling their aptitudes in performing breast self-assessment and growing their job as customer instructors [4]. Looking at the higher figure of breast cancer globally at current and future, great emphasis must be given to the issue of breast cancer & its screening to reduce the mortality rate

Very few studies have been done on community-dwelling women who constitute the majority of at risk women both for disease and late presentation. The present study is, thus, designed to know the knowledge, of Undergraduate Student's towards Early Detection of Cancer

II METHODS

Study Setting. The study was done in in Krishna Institute of Nursing Sciences, karad. The institute has diploma, undergraduate and post graduate teaching prograame. this teaching programme was recognized by Indian nursing council new Delhi. The 100 college understudies were conceded every year..

Study Design. A descriptive cross-sectional study design was used and study participants were undergraduate students Sample size was calculated using the formula for single population proportion with a 95% confidence interval, a precision of 5%, and an assumed prevalence of cervical malignancy half (0.5) to get a most extreme example size as there was no past investigation directed like this examination. The determined example size was 256 and by including 10% nonresponse rate and inadequate lost survey, the all-out example size was seen as 100 college understudies. The examination subject again was chosen relatively to measure distribution to give equivalent opportunity to each instructing medical clinic and afterward purposive inspecting system was used. Information was gathered utilizing a pretested organized self-controlled poll.

Data Analysis. Data entry passage and approval were finished. Factual programming information which was then sent out to SPSS windows version20.0 where frequencies and measurable investigations were run.

Ethical Consideration. The study sought ethical approval from ethics committee of kimsdu karad. Written informed consent was obtained from the respondents, clearly stating risks and benefits of study and sought their voluntary participation.

III RESULTS

Table 1- Demographic description of the samples by frequency and percentage n= 100

Demographic variables	Category	Frequency	Percent (%)
1.Age	17 years	1	1%
	18 years	49	49%
	19 years	44	44%
	20 years	6	6%
2.Gender	Male	15	15%
	Female	85	85%
3.Religion	Hindu	40	40%

	Muslim	4	4%
	Christian	56	56%
4.Marietal status	Married	100	100%
	Unmarried	0	0%
5.Source of information	Books	51	51%
	Media	27	27%
	Hospital	16	16%
	Friends	6	6%
6.Socioeconomic status	Lower class	0	0%
	Middle class	80	80%
	Middle Upper class	20	20%
	Upper class	0	0%
7.Family history of breast cancer	Yes	10	10%
	No	90	90%

Table no 1 indicates percentage distribution according to age of undergraduate nursing students. In this study, Majority of students i.e. about 49% were in the group of 18 years of age. 44 % were in the group of 19 years of age. 6% were in the group of 20 years of age and only 1% were in the group of 17 years of age.

Knowledge about Risk Factors of Breast Cancer. As to information on hazard factors for breast malignant growth, (89%) realized that there are chance components associated with the improvement of breast disease, while (9%) said no and 4 (2 %) asserted they don't have the foggiest idea. About (30.0%) of the individuals who realized that there is hazard factor had the option to specify two and increasingly right hazard factors. From these more than half of the respondents, (69%), mentioned family history of breast cancer as a risk factor and other risk factors like wearing tight bra (19%), prolonged breast feeding (10%), and multiparity (14%) cracked nipple as a risk factor.

Knowledge of undergraduate students about Signs of Breast Cancer. Concerning early breast cancer (45.2%) respondents for the most part referenced that it doesn't cause torment and indication Regarding the phase of breast disease treatability (74%) react at phase of 0 and I followed by (20%) at stage 0, I and II and 15 (6%) concurred it isn't reparable in any way.

Knowledge of Nurses about Screening Methods. A sequence of questions regarding screening of breast cancer was asked to assess the respondents' knowledge of breast cancer. Respondents were asked to state the early detection

measures for breast cancer; (75%) mentioned BSE, (45%) identified breast examination by a health professional (CBE), and only (39%) stated mammography as an early detection measures. Majority of the respondents (57%) knew that breast cancer can be prevented at early stage of the disease; (33.0%) of them responded it can be prevented before the disease manifests, while (7.0%) said it cannot be prevented at all. Concerning treatment options for the disease (56%) identified surgery; (35%) and (41%) knew that breast cancer can be treated with radiation therapy and chemotherapy, respectively. In addition one-fourth of the undergraduate students (49%) did respond that breast cancer can be successfully treated without mastectomy.

About (66%) knew that doing standard breast disease screening has a lot in relieving breast malignancy while (7%) showed it has next to zero difference. For the inquiry how regularly should breast self-assessment be performed, (51%) of the investigation subjects revealed that month to month 1–7 days after menses, together with that (72%) respondents distinguished beginning age to perform BSE to be at year of 20. Knowledge of specific aspects of mammography revealed that age group most appropriate to start mammography screening and time interval (47%) stated that 20 years every 2-3 years, (25%) 30 year every 5 years and (29%) 40 years every 1-2 year. 5%) of the investigation members detailed that screening for mammography ought to be done week by week, (14%) month to month, (half) like clockwork, and (33%) yearly. Concerning the reason (23%) of the respondents knew about mammography as a breast malignant growth indicative strategy instead of as a screening technique.

Association of Sociodemographic Variable with the Knowledge of undergraduate students about Breast Cancer, Screening Method Information on breast malignancy was seen as essentially connected with normal course in nursing. Likewise information on breast disease gives off an impression, being critical with family ancestry of respondents. Medical attendants with family ancestry of breast malignant growth were bound to be educated than medical attendants with no family ancestry of breast disease. Other sociodemographic factors like age, sex, history of breast sickness, were not seen as essentially connected with information on breast malignancy however age was fundamentally related during investigation with basic strategic relapse.

IV DISCUSSION-

Majority of students i.e. about 49% were in the group of 18 years of age. 44% were in the group of 19 years of age. 6% were in the group of 20 years of age and only 1% were in the group of 17 years of age.

Knowledge about Risk Factors of Breast Cancer. About (30.0%) of those who knew there is a risk factor were able to mention four and more correct risk factors. From these it was discovered that family ancestry of breast malignant growth 70%, smoking 55% and utilization of oral prophylactic 37%, expanding age 32%, and barrenness 28% were very much recognized hazard factors. Then again, a little level of the medical attendants accepted that early menarche 24.4% and late menopause 18.9% were the hazard variables of the breast malignant growth. In examination with a cross-sectional investigation directed among 125 nurses working at Pamukkale University Hospital Denizli, of the attendants, 74 (57.6%) effectively knew in any event four hazard factors. It was discovered that expanding age 72%, familial history 94.4%, childlessness 85.6%, nonattendance of breast taking care of 82.4%,

and taking conception prevention pill or hormone substitution treatment 50.4% were notable hazard factors. In any case, a little level of the attendants accepted that early menarche 23.2% and late menopause 28.8% were the hazard components of the breast malignancy [11]. The discrepancy may be due to; breast cancer being considered as disease of the developed countries much awareness and emphasis had been given to this issue in which one way or another making the nurses of Turkey be knowledgeable than nurses of university hospitals of Addis Ababa.

Aftereffects of this investigation additionally indicated that 29% of the nurses knew that heftiness is a hazard factor for breast disease which is reliable with a cross-sectional study directed in seven showing clinics of Karachi, Pakistan, in 2003 which demonstrated that 28% of the attendants realized that in certain ladies being overweight expands danger of creating breast malignant growth [12]. The closeness could be a result of the way that weight is inclining factor for the majority of constant ailments.

Knowledge about Signs and Symptoms. On this examination viewing signs as breast malignancy develops, breast protuberance was the transcendently referenced side effect by the respondents, (58.1%), trailed by areola withdrawal, breast torment, breast skin change, and grisly areola release. A tremendous distinction had been seen when contrasted and an elucidating study directed on breast self-assessment among attendants and birthing assistants, in 2004 at the State Hospital, all general Health Cabins and Family Health Centers in the rustic territory of Izmir, western area of Turkey, as 70% of the subjects accepted that the nearness of masses (breast protuberances) and areola release were indications of breast disease [13]. In 2004, a comparable report was led in Singapore to survey breast malignancy information among social insurance experts; the two most successive manifestations named were a substantial breast knot and areola release [11]. As it has been mentioned earlier the reason could be the disease being dominant in the developed countries and nurses working in these countries will be much more aware beside the theoretical course as they could practice it as well be able to differentiate signs of breast cancer.

Knowledge of Nurses on the Screening Method. At the point when nurses were gotten some information about BSE, (52%) accepted that it ought to be done month to month 1–7 days after menses and (75%) of the examination subjects knew about BSE as an early recognition measure for breast malignant growth. Of the 200 seventy nurses just (33%) said that screening for mammography ought to be done yearly. A cross-sectional investigation was led in Pamukkale University Hospital in Denizli; about BSE, 113 (90.4%) accepted that it ought to be done month to month, and 85 (68%) accepted that it ought to be done at luteal period of feminine cycle [14]. Different cross-sectional expressive investigation did to survey information, mentalities and practice of breast malignancy screening among female wellbeing laborers in the two significant government wellbeing foundations in Benin City, Edo State capital in Nigeria generally low information (45.5%) Breast Self-Examination as a screening strategy was found [13].

This examination on information on explicit parts of mammography uncovered that lone (18%) 40 years each 1-multiyear realized age bunch generally suitable to begin mammography screening and just (33%) of the investigation members revealed that screening for mammography ought to be done yearly. Concerning the reason 61 (23%) of the respondents knew about mammography as a breast malignant growth indicative strategy and (22%) as a screening

technique, and the rest of the percent knew MMG fills for the two needs. Concerning the outcome got from a cross-sectional illustrative examination completed in Nigeria the consciousness of mammography as an indicative technique was exceptionally high (80.7%), however a very low information on mammography as a screening strategy was found [13]. Furthermore, that of Pamukkale announced that the entirety of the nurses who took an interest said that MMG ought to be done yearly [12]. Conceivable explanation could be adequate accessibility of mammogram which has its own effect on realizing the recurrence to do mammography to attendants in the created nations than nurses in creating nations.

Knowledge of Treatment Options From this investigation concerning treatment choices for the sickness (55.6%) recognized medical procedure; (35%) and (42%) realized that breast malignancy can be treated with radiation treatment and chemotherapy, separately. Also one-fourth of the nurses (19 %) responded that breast malignant growth can't be effectively treated without mastectomy. The outcomes were compatible with an investigation directed in 2004 in Singapore to evaluate breast malignant growth information among human services experts. Where treatment for breast malignant growth was concerned, 20% idea that a mastectomy was the accessible treatment. The lion's share (93%) knew that, aside from medical procedure, different modalities, for example, radiotherapy and chemotherapy may be essential [12].

From this examination information on breast malignant growth was seen as fundamentally connected with standard course in nursing, family ancestry of respondents, unit of work, long stretches of nursing experience, and conjugal status. Other sociodemographic factors like age, sex, history of breast malady, at any point breast fed quiet with breast disease, and nursing capability were not seen as altogether connected with information on breast malignant growth. Some distinction has been seen with an examination that was completed in Singapore; factually noteworthy elements affecting information scores were identified with the nursing calling, in particular, nursing capabilities and current working environment. There was no critical relationship between information score and age of the medical caretakers, number of years in nursing, history of breast ailment, or family ancestry of malignancy [13]. What's more, different cross-sectional reviews led in seven showing medical clinics of Karachi, the biggest city of Pakistan, in 2003 indicated that moves on from private nursing schools, attendants who had thought about breast malignant growth patients, those having gotten a breast assessment themselves, or the individuals who never inspected a patient's breast were bound to have great information [12].

V CONCLUSION

In conclusion majority of undergraduate students were not knowledgeable regarding breast cancer and its screening technique. It is possible to recommend a need to improve breast cancer content in the higher secondary education curriculum; The media should let wide range of air time to provide comprehensive information about breast cancer as it can reach many people.

VI ACKNOWLEDGEMENT:

A heartfelt appreciation goes to officials of KIMSDU Karad, I would like to express our gratitude to the participants in my study I am also grateful to all who have directly and indirectly helped me in this study.

VII FUNDING SUPPORT-KIMSDU KARAD

VIII CONFLICT OF INTEREST-NIL

REFERENCES-

- [1] WHO. (2008). World health statistics 2008. World Health Organization.
- [2] T. Ersumo, "Breast cancer in an Ethiopian population, Addis Ababa," *East Africa Journal of Surgery*, vol.11, no.1, pp.81–86, 2006.
- [3] Somdatta P, Baridalyne N. Awareness of breast cancer in women of an urban resettlement colony. *Indian J Cancer*. 2008;45(4):149-53.
- [4] Sharma PK, Ganguly E, Nagda D, Kamaraju T. Knowledge, attitude and preventive practices of South Indian women towards breast cancer. *Health Agenda*. 2013;1(1):72-4.
- [5] Ferlay J, Soerjomataram I, Dikshit R, Eser S, Mathers C, Rebelo M, et al. Cancer Incidence and Mortality Worldwide: Sources, methods and major patterns in GLOBOCAN 2012. *Int J Cancer*. 2014;136(5):359-86.
- [6] Yadav P, Jaroli DP. Breast Cancer: Awareness and Risk Factors in College-going Younger Age Group Women in Rajasthan. *Asian Pac J Cancer Prev*. 2010;11(2):319-22.
- [7] Rao S, Gupta D, Narang R, Singh P. Knowledge, attitude and practice about breast cancer and breast self-examination among women seeking out-patient care in a teaching hospital in central India. *Indian J Cancer*. 2016;53(2):226-9.
- [8] Rao RS, Nair S, Nair NS, Kamath VG. Acceptability and effectiveness of a breast health awareness programme for rural women in India. *Indian J Med Sci*. 2005;59:398-402.
- [9] World Health Organization (WHO). Screening and early detection of breast cancer. <http://www.who.int/cancer/detection/en>.
- [10] Houfek JF, Waltman NL, Kile MA. The nurse's role in promoting breast cancer screening. *Nebr Nurse*. 1998; 30(3):4-9.
- [11] I. M. Alkhasawneh, "Knowledge and practice of breast cancer screening among Jordanian nurses," *Oncology Nursing Forum*, vol.34, no.6, pp.1211–1217, 2007.
- [12] M. Seah and S.-M. Tan, "Am I breast cancer smart? Assessing breast cancer knowledge among health care professionals," *Singapore Medical Journal*, vol.48, no. 2, pp.158–162, 2007.
- [13] F. Ahmed, S. Mahmud, J. Hatcher, and S. M. Khan, "Breast cancer risk factor knowledge among nurses in teaching hospitals of Karachi, Pakistan: Across-sectional study," *BMC Nursing*, vol. 5, article 6, 2006.
- [14] A. O. Akhigbe and V. O. Omumu, "Knowledge, attitudes and practice of breast cancer screening among female health workers in a Nigerian urban city," *BMC Cancer*, vol. 9, article 203, 2009.
- [15] A. Yaren, G. Ozkilinc, A. Guler, and I. Oztop, "Awareness of breast and cervical cancer risk factors and screening behaviors among nurses in rural region of Turkey: original article," *European Journal of Cancer Care*, vol. 17, no. 3, pp.278–284, 2008.
- [16] Ali, A., Hulipalled, V. R., Patil, S. S., & Kappaparambil, R. A. (2019). DPCCG-EJA: Detection of key pathways and cervical cancer related genes using enhanced Johnson's algorithm. *International Journal of Advanced Science and Technology*, 28(1), 124-138. Retrieved from www.scopus.com
- [17] Anitha, R., Ramesh, K. V., & Sudheerkumar, K. H. (2019). Synthesis, characterization of CeO₂ nanoparticles via eco-friendly green combustion technique and its antimicrobial, anticancer activities. *International Journal of Advanced Science and Technology*, 28(7), 74-96. Retrieved from www.scopus.com
- [18] Bindu Madhavi, G., & Rakesh Reddy, J. (2019). Detection and diagnosis of breast cancer using machine learning algorithm. *International Journal of Advanced Science and Technology*, 28(14), 228-237. Retrieved from www.scopus.com
- [19] Kingsly, A. A. S., & Mahil, J. (2019). Effective approach of learning based classifiers for skin cancer diagnosis from dermoscopy images. *International Journal of Advanced Science and Technology*, 28(20), 1016-1026. Retrieved from www.scopus.com

- [20] Kumar, A., Sushil, R., & Tiwari, A. K. (2019). Feature extraction and elimination using machine learning algorithm for breast cancer biological datasets. *International Journal of Advanced Science and Technology*, 28(20), 425-435. Retrieved from www.scopus.com
- [21] Lakshmi Prasanna, K., & Ashwini, S. (2019). Automatic breast cancer detection and classification using deep learning techniques. *Test Engineering and Management*, 81(11-12), 5505-5510. Retrieved from www.scopus.com
- [22] Shin, B., Wang, B., & Lim, J. S. (2019). Feature selection and machine learning method for classification of lung cancer types. *Test Engineering and Management*, 81, 2307-2314. Retrieved from www.scopus.com
- [23] Ghuge, K. S., Korabu, K. S., & Somani, A. (2020). Breast cancer detection using clustering and SVM. *Test Engineering and Management*, 83, 2196-2205.