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Knowledge, Attitude and Practice Regarding Prevention and Screening of Breast Cancer among Reproductive Age Women

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Abstract

Background: To assess the knowledge, attitude, and practice regarding prevention and screening of breast cancer among reproductive-age women.

Methods: A descriptive cross-sectional study was carried out in 110 women aged 15 – 45 years old. 5- point Likert scale and interview schedule was performed with the help of structured and semi-structured questionnaire to collect data. Finally, collected data are analyzed by using the descriptive statistical method.

Findings: Majority of the respondents i.e. 71.8% had heard about breast cancer. 42.7% responded that fitness could be the best preventive measure with a mean value of 2.21. A large number of participant's i.e. 76.36% strongly agreed about development from breast cells and 49.1% reacts surgery is only the treatment option for breast cancer. 46.4% of them agreed that breast self-examination (BSE) is a necessary tool for early detection of breast cancer.

Conclusion: The knowledge regarding breast cancer screening and prevention is lacking in many participants and it should be spread worldwide which helps to decrease the incidence and could save the lives of many women.

Keywords: Attitude; Breast cancer; Knowledge; Practice; Prevention & Screening, reproductive age women

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Introduction

Breast cancer is the second most common cancer among Nepalese women and placed a substantial burden on the Nepalese healthcare system, but information regarding the number of women living with breast cancer is not well recorded [1]. Breast Cancer Deaths in Nepal reached 1054 or 0.65% of total deaths according to data published by WHO in 2017. The age-adjusted death rate is 9.21 per 100,000 of population & placed 163rd ranks in the world. The high rate of death is observed in women despite having a reliable screening method like breast self-examination for early detection [2]. A study revealed that breast cancer was the most prevalent cancer and a fourth leading cause of cancer-related mortality among women in Asia [3].

Breast cancer emerges as the most common organ cancer considering the first cause of death among women during 40-45 years old. The incidence is increasing in the developing world due to increased life expectancy, urbanization and adaptation of western lifestyles and the only way to control this disease is early detection [2]. The best way for early detection of breast cancer is screening and easily accessible by performing breast self-examination (BSE).

Background

In recent studies, breast cancer is assumed to be the most common type of cancer among American women [4]. The rate of breast cancer in the U.S. is one among eight and is expected to be the second factor of women's death [5]. The possibility of occurrence of breast cancer in England is supposed to be one among twelve women, in Australia one among thirteen women, and this rate is lower in the Asian countries (Foxall MJ et al.). However, the detection of breast cancer in a developing country is low in comparison to the developed countries [6] but 50% of the aforesaid cancers in such countries are detected. The cases of breast cancer have been increasing by about 2% since the year 1980. However, its increase, the rate of death caused by breast

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cancer was decreased in the past 40 years. This may be because of early detection and the existing treatments [7].

A study of Nepal [8] revealed that among 110 women only 33 (30%) respondents had heard about breast cancer, out of the 26 respondents were doing regular screening such as breast self-examination by 19(73%) mammography 3 (11.5%) and USG- 4 (15.4%) and their common source of information were Radio/TV.

Recent cases have reported that among 166 female undergraduate students (ages=17-30 years), nearly three quarter (73.5%) of the respondents had previously heard of BSE. Only 9.0% knew the steps and procedure to perform BSE [9]. Television (19.9%) was the main source of information about BSE. Although perceived by 88% of the respondents as important, only 3% had performed BSE regularly. Furthermore, only 19.9% of the respondents have been to any health facility to have a breast examination. Overall, although a majority (63.3%) of the respondents had a moderate attitude towards BSE as an important method for early detection of breast cancer, just a modest 9.6% was substantially aware of it. Lack of knowledge on BSE was cited as the main reason for not performing BSE. A significant association was observed between knowledge and the practice of BSE (P = 0.029), and between attitude and the practice of BSE (P = 0.015).

A cross-sectional study performed [10] in 333 women of South Delhi. The mean age was 36 years ± 15.1 and 46% were illiterate. Only 185 (56%) women were aware of breast cancer; among them, 51% knew about at least one of the signs/symptoms, 53% were aware that breast cancer can be detected early, and only 35% mentioned about risk factors. Thus, awareness about breast cancer is low amongst women in this community. There is a need for awareness generation programs to educate women about breast cancer, propagation of correct messages and promote early detection of breast cancer. According to GLOBOCAN 2012, an estimated 1,700 new breast cancer cases were diagnosed in Nepal in 2012, with an age-standardized rate (ASR) of 13.7 new cases per 100,000 women, while 870 fatalities in women occurred, with an ASR of 7.2 fatalities per 100,000 women.

The purpose of this descriptive, exploratory study was to assess knowledge, attitude, and practice regarding prevention and screening of breast cancer among reproductive-age women and spread awareness about breast self-examination. This study may help to detect breast cancer at an early stage and reduces the substantial social and economic burden, increase recovery rates & promote positive treatment modalities and save the lives since the screening methods of breast cancer are the best and most effective methods for decreasing cancer mortality.

Methodology

The study was approved by research committee of Sanjeevani College of Medical Sciences with approval letter number 116/074/075 dated 29 October 2017. Participants consent was sought at the beginning of the interview using a special designed form attached to each interview guide. The interviewers also verbally explained the aim and objectives of the study and assured to maintain their confidentiality of their response. Interview was carried out to participants who agreed to proceed.

A researcher developed a questionnaire containing 4 different sections having multiple specific items to assess the Socio-demographic information, Knowledge regarding breast Cancer, Attitude of reproductive age women regarding breast cancer and Practices regarding prevention and screening of breast cancer. This tool was developed through an online search based on literature review, content validation and establishment of reliability. The content validity was established by consulting various pieces of literature, peer review, and subject experts.

First section of the tool was related to socio-demographic information based on multiple choice answers. The second section of questionnaire was set to assess the knowledge regarding breast cancer with multiple options and the third section was made to measure the attitude of reproductive age women regarding breast cancer with the help of 5 Likert rating scale with specific answer such as 1= Strongly disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly agree. The last section of the questionnaire was made to determine the practice regarding the prevention and screening of breast cancer with Yes/No options.

A descriptive cross-sectional study was conducted to determine the women knowledge, attitude and practice regarding prevention and screening of Breast Cancer. This research study was conducted in 110 women of reproductive age (15 – 45 yrs.) 5- point Likert scale and interview schedule with the help of structured and semi-structured questionnaire were used to collect data from 29th October 2017 to 29th November 2017. The interview was conducted successfully in a friendly environment without any abnormal behaviour like shame and fear from participants. The collected data were analysed by using descriptive statistical methods such as frequency, percentage and mean.

Results

The results were computed by using descriptive statistics based on the objectives of the study to assess the socio-demographic data and measure the knowledge, attitude, practice regarding prevention and screening of breast cancer of reproductive-age women.

Distribution of subjects based on demographic variables

Majority of the women were 30 years above 56(50.9%), concerning religion, most of the respondents 108(98.2%) were Hindu which comprises 72(65.5%) were Brahmin/Chhetri. Likewise, 83(75.5%) of them were married. In regards to types of family 87(79.1%) belongs to a nuclear family whereas 23(20.9%) are having a status of joint family. In terms of literacy 86(78.2%) were literate while 24(21.8%) were illiterate. An only small proportion of respondents access to a lower level of education 9(8.2%), majority of the women i.e. 49(44.5%) belongs to secondary level, 38(34.5%) to higher secondary level, 14(12.7%) were above higher secondary level. Occupationally, about half of the 51(46.4%) were housewives, 18(16.4%) associated with business, 16(14.5%) belongs to other occupations (miscellaneous), 11(10%) in service, 9(8.2%) were labourers and the lowest proportion of 5(4.5%) were farmers (**Figure 1**).

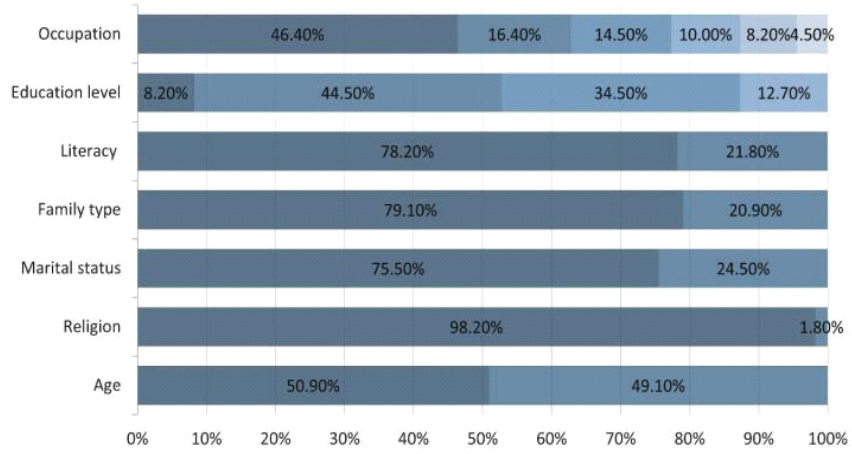

Figure 1 Subjects based on demographic variables.

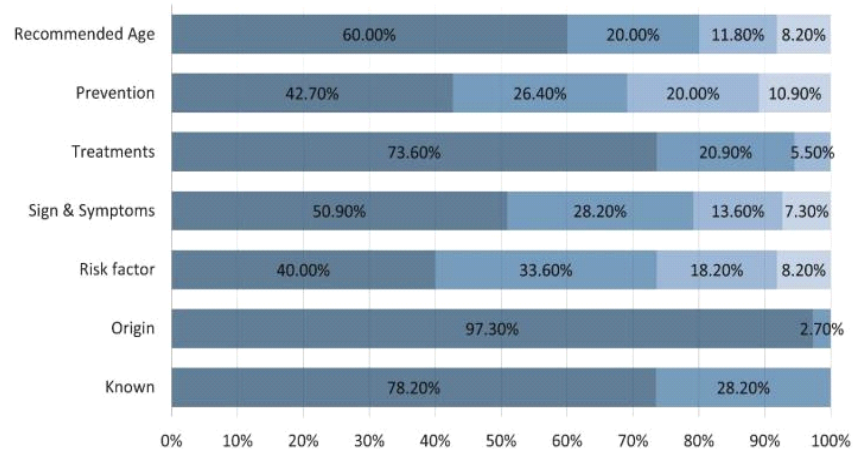

Figure 2 Knowledge towards BSE.

Findings related to the level of knowledge, attitude, and practice

Knowledge towards BSE: Out of 110 respondents, only a small proportion of 31(28.2%) haven't heard about breast cancer. Maximum of the respondents 107(97.3%) showed that breast cancer develops from breast cells whereas 3(2.7%) answered that it develops from lung cells. With regards to the risk factor of breast cancer, larger number 44(40.0%) responded with smoking and alcoholism, 37(33.6%) with family history, 20(18.2%) with obesity and lowest number 9(8.2%) belong to an unknown group. More than half of the respondents 56(50.9%) answered that abnormal discharge is the signs and symptoms of breast cancer, 31(28.2%) agreed with changes in shape, size, and colour, 15(13.6%) said dimpling of breast and least percentage 8(7.3%) talked about sore spots. About 3/4th of respondents 81(73.6%) believed that chemotherapy is the major treatment option for breast cancer, 23(20.9%) physiotherapy, and 6(5.5%) acupuncture. Nearly half of respondents 47(42.7%) thought that physically active is the best preventive measure of breast cancer, 29(26.4%) agreed to maintain the personal hygiene, 22(20.0%) were against the smoke and 12(10.9%) showed to maintain a healthy weight. Maximum respondents 66(60.0%) were known about suitable age to start breast self-examination at the age of 20, 22(20.0%) agreed for the age of 45, 13(11.8%) told earlier than 20 years and 9(8.2%) responds after the age of 60 (**Figure 2**).

Attitude towards BSE: Attitude towards BSE was measured by using 5-Point Likert scale questionnaire in 110 reproductive age women (**Table 1**).

The large proportion of respondents 84(76.36%) strongly agreed that breast cancer develops from breast cells and 36(32.7%) were strongly disagreed that breast cancer is strictly a disease of women. Nearly half 46(41.8%) respondents were strongly agreed with morphological changes of the breast are the symptom of breast cancer. 33(30.05%) agreed that exposure to multiple chest X-rays increases the chance of breast cancer. A large number of the respondents 59(53.6%) were strongly agreed that breast cancer is not a contagious disease. 54(49.1%) respondents were agreed that surgery is only the treatment option for breast cancer. Likewise, most of the respondents 46(41.8%) were agreed that early detection of breast cancer raises the survival rates and 51(46.4%) were agreed that a self-examination is a necessary tool for early detection of breast cancer.

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Table 1 Attitude towards BSE.

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
• Breast cancer develops from breast cells.	-	3 (2.7%)	-	23(20.9%)	84(76.36%)
• Breast cancer is strictly a disease of women.	36 (32.7%)	18(16.4)	-	21(19.1%)	35(31.8%)
• Changes in the size of the breast are the symptom of breast cancer.	-	-	18(16.4%)	46(41.8%)	46(41.8%)
• Exposure to multiple chest X-rays increases the chances of breast cancer.	7(6.3%)	32(29.0%)	13(11.8%)	33(30.0%)	25(22.7%)
• Breast cancer is not contagious.	-	20(18.2%)	-	31(28.2%)	59(53.6%)
• Surgery is only the treatment option for breast cancer.	43(39.1%)	13(11.8%)	-	54(49.1%)	-
• Early detection of breast cancer raises the survival rates.	8(7.2%)	13(11.8%)	18(16.4%)	46(41.8%)	25(22.7%)
• Breast-self-examination is necessary for early detection of breast cancer.	-	-	39(35.5%)	51(46.4%)	20(18.2%)

Practice towards BSE: The high majority of the respondents 98 (89.1%) do not practice BSE regularly. About 1/4th 38(34.5%) of the respondents practice it because they have breast problems, 31(28.2%) practice for early detection, 21(19.1%) because their family members had breast cancer and 20(18.2%) are at high risk. The minority of the respondents 13(11.8%) were known about an appropriate time to practice Breast Self-Examination i.e. during the first week after your menstrual period. Majority of them 97(88.2%) had never examined their breast by health professionals. None of the respondents have ever undergone for the mammogram.

Discussion

The demographic findings of our study revealed that among 110, the maximum women was the age of 30 above 56(50.9%), 25-29 years is 36(32.7%), 20-24 years is 12(10.9%). Similarly, least of the respondents belonged to the age group 15-19 years is 6(5.5%). Similarly, [11] conducted a cross-sectional study among 420 female students of Debre Berhan University in Ethiopia to assess practice and associated factors of Breast Self-Examination (BSE) where majority of the participants 84.5% were between 20 and 24 years old while another study conducted by NH Nik Rosmawati 2010 where 56.7% participants were above 35 years old, 28.1% below 24 years and the rest fall in between.

In the present study, 78.2% were literate whereas 21.8% illiterate. Similarly, [10] conducted a cross-sectional study in a resettlement colony of South Delhi to determine the awareness about breast cancer among women where nearly 50% of the respondents were illiterate out of 333 women.

Knowledge regarding breast cancer, this study showed that approximately 3/4th i.e. 71.8% of participants have heard about breast cancer while 28.2% were unmindful. A study conducted to determine the levels of knowledge about breast cancer and to evaluate health beliefs concerning the model that promotes breast self- examination (BSE) and mammography in a group of women aged 20–64 in a rural area of western Turkey have very close finding of 76.6% of the women had heard or read about breast cancer [12]. Also, the present study revealed that only 56.1% of them had sufficient knowledge of breast cancer, and half of them had acquired the information from health professionals.

The present study, with regards to the risk factor of breast cancer, majority 40.0% said smoking and alcoholism, 33.6% agreed with family history and 18.2% blames obesity and 8.2% said due to other reasons. Likewise, [16] Gupta A, et al.,(2015)conducted a study to evaluate the awareness levels of risk factors for breast cancer among Indian women and health professionals. A total of 7066 women aged 15–70 years showed varied levels of awareness on risk factors such as family history (13–58%), reproductive history (1–88%) and obesity (11–51%). This difference is may be due to the larger variation in sample size and their occupation. 22.7% of the respondents were strongly agreed that early detection of breast cancer raises the survival rates and 46.4% responded that Breast self-examination is a necessary tool for early detection of breast cancer. Similarly, [13] reported 87.5% accepted that early detection can improve the chance of survival and 89.2% have heard of BSE and agreed that it can help in early detection of breast cancer.

The present study on the practice of Breast Self-Examination (BSE) showed that 89.1% do not practice whereas only 10.9% performed. A cross-sectional study by [14] on 300 female in Qassim region of Saudi Arabia reported 19.7% practice BSE and 57% of them had performed it in the last 12 month.

Our results stated that 100% of the respondents had never undergone mammography. Majority of the 58.2% are deprived due to lack of knowledge about a mammography technique. A study [15] revealed that 57% of American women do not know that forty is the recommended age to begin for getting a mammogram. However, the majority of women (73%) are aware that they should get a mammogram every one to two years after screening has begun. Among those women who report ever having a mammogram were 84%, whereas 74% said their last mammogram happened within the recommended screening interval. This difference is assumed due to lack of knowledge about mammogram in Nepalese women.

Conclusion

It is a known fact that breast cancer is the life-threatening disease of women so; early detection is an issue of necessity to be uplifted. The results of the present study suggest that knowledge regarding breast cancer, its risk factors, sign & symptoms, preventive measures, and performance of BSE is inadequate. So, it is a topic of concern that the knowledge regarding breast cancer prevention and screening methods should be reached in every corner of the world. Hence, early detection to improve breast cancer outcome and survival remains the cornerstone of breast cancer control.

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Recommendations

A similar type of study can be undertaken with a large sample from the various communities which helps in a generalization of the findings and will give comparative results. It is necessary for the developing country like Nepal, to spread knowledge regarding prevention and screening of breast cancer through different campaigns and programs focusing on women's health. Public awareness, mass media, and healthy person, and distribution of charts and booklets about the Breast Self-Examination would be helpful.

Conflicts of Interest

No conflict of interest has been declared by the author.

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