A Descriptive Study to Assess Knowledge Regarding Breast Cancer Screening among Reproductive Age Women of Bharatpur-12 , Chitwan

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ABSTRACT

Background: Incidence of breast cancer in Nepal has increased in recent years. Screening helps in early detection of cancer and early diagnosis and timely treatment of breast cancer lead to better prognosis.

Methodology: Cross sectional study on " Knowledge Regarding Breast Cancer Screening among Reproductive Aged women of Bharatpur-12 Chitwan" was carried out to identify the knowledge regarding breast cancer screening. Non- probability purposive sampling technique was used to select the sample and sample size was 50. Data was collected by using structured questionnaire. Collected data was entered in SPSS version 22 and analysis was done using descriptive statistics.

Findings: Findings of the study reveals that respondent's mean age was 33.50±8.734. Regarding the religion, majority (90%) were hindu, similarly 52% were Bhramin. More that half (52%) had secondary education and 44% were engaged in business. In regard to marital status, 76% were married. Study findings summarized the level of knowledge in to three categories where, majority (52%) of the respondents had poor level of knowledge, less than half (44%) had moderate level of knowledge and only 4% had good level of knowledge. Conclusion majority of women in community are unaware about the use of different methods of breast cancer screening so awareness program for the breast cancer screening is essential.

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Introduction

Breast cancer is the top cancer in women in both the developed and developing countries. Breast cancer is a major public health challenge worldwide, as it is the leading cause of cancer- related deaths among women, particularly in developing countries. There were 2.3 million cases diagnosed in 2020 and 685,000 breast cancer deaths world-wide in 2020(Globocan ,2020).Breast cancer is the second most common malignancy among Nepalese women. Breast cancer places a substantial burden on the Nepalese healthcare system, but information regarding the number of women living with breast cancer is not well recorded. In countries with lower levels of resources such as Nepal, breast cancers are commonly diagnosed at late stages and women may receive inadequate treatment, pain relief or palliative care. Socioeconomic disparities and insufficient financial resources hinder prevention of breast cancer in Nepal (Giri et al., 2018)

Breast cancer screening is an effective prevention strategy to reduce breast cancer burden. Mammography (MMG), clinical breast examination (CBE), and breast self-examination (BSE) are three widely practiced screening tests. MMG is recommended as a standard screening test globally, however considering the cost- effectiveness CBE and BSE are also recommended for low-resource settings. Breast cancer awareness is a movement that aims to increase awareness and reduce the stigma linked to the symptoms and treatment of breast cancer. If breast cancer is found early, there are more treatment options and a better chance for survival. Women whose breast cancer is detected at an early stage have a 93 percent or higher survival rate in the first five years.

Although there has been immense progress in the treatment of breast cancer, prognosis remains poor in developing countries . An important reason for the poor prognosis could be a delay in diagnosis. When breast cancer is diagnosed at an early stage, prognosis is believed to be good with reduced morbidity and mortality (Davidson et al., 2013). Therefore, steps should be taken to ensure early detection and timely treatment. Two vital strategies for early detection include early diagnosis and screening. Although in recent international guidelines, which focus on developed countries, the timeframes for screening have been questioned, this may not apply to the developing

countries like Nepal where the awareness is very low and patients routinely present at advanced stage of breast cancer (Smith et al., 2017)

For effective screening and early diagnosis, adequate knowledge and awareness are of utmost importance (Mandal &Basu , 2018). Several studies have been conducted in other developing countries to assess the knowledge and practices of breast cancer screening both in the general population as well as specifically in healthcare professionals (Akpınar, Y. Y et al, 2011) . However, the number of studies conducted in general populations are limited , therefore, this study was conducted to assess the knowledge, related to breast cancer screening among female general population.(Heena et al., 2019)

Objectives of the Study

To assess the knowledge regarding breast cancer screening among women at Bharatpur-12, Chitwan

Design

 A cross sectional study was conducted to assess the knowledge on breast cancer screening among the women.

Study Population

In this study, population was those women who lived in Bharatpur-12, Chitwan.

Sampling Method

Non- probability convenient sampling technique was used to collect data.

Sample Size

Total sample size was50.

Inclusion Criteria

Those women who are between the age of 18-49 years**.**

Research Instrumentation

A structured interview questionnaire was developed by the researcher after reviewing the literature and consulting the subject experts to assess the awareness regarding breast cancer screening.

Instruments consisted in to two parts

Part I: Related to Demographic Variables

Part II: Related to knowledge on breast cancer screening

The knowledge of breast cancer screening was measured by using structured questionnaire. Total questions were 30 and was measured on yes / no and multiple choice question. Each correct answerer was given 1 score and for wrong answer 0 score was given. Level of knowledge was measured by calculating the total score and converted in percentage. Further, level of knowledge was classified in to three categories on the basis of Bloom cut of points

Good knowledge (>80%)

Moderate knowledge (60-80%)

Poor knowledge (<60%)

Data Analysis

The collected data was encoded and entered in Microsoft office excel and Statistical Package for Social Science (SPSS) version 22. Descriptive statistics (Mean, standard deviation, frequency and percentage) were used to analyze the data and presented in tables.

Ethical Consideration

Data was collected after getting approved by the Institutional Research Committee (IRC) of B.P Koirala Memorial Cancer Hospital.   Data was collected after written permission was obtained from concern authority of Bharatpur 12, Chitwan.   The researcher have explained the objectives of the study to participants. Verbal and written permission was taken from each participant. Privacy and confidentiality was maintained. Information was used for only study purposes.

Findings of the Study

Table 1: Socio-Demographics Characteristics of Respondent: Age, Religion &Ethnicity

n=50

Variables	Frequency	Percentage
Age group		
18-28	12	24.0
29-39	16	32.0
40-50	22	44.0
Mean ± SD	33,50± 8.734	
Religion		
Hindu	45	90.0
Buddhist	2	4.0
Kirat	2	4.0
Christian	1	2.0
Ethnicity		
Brahmin	26	52.0
Chhetri	6	12.0
Dalit	1	2.0
Janjati	13	26.0
Newar	4	8.0

Table 1 shows that, out of 50 respondents, 12 (24%) respondents were in the age of 18-28 years, 16 (32%) were in the age group of 29-39, and 22 (44%) were in the age group of 40-50 years. Concerning to the religion, 90% were Hindu, Regarding ethnicity, majority 52% of the respondents were Brahmin

Table 2: Socio- Demographic Variables: Literacy, Occupation status

N=50

Educational level	Frequency	Percentage
Basic education	1	2.0
Secondary education	26	52.0
Higher secondary	12	24.0
Bachelor and above	11	22.0
Occupational status of Respondent		
Homemaker	13	26.0
Business	22	44.0
Labor	1	2.0
Student	10	20.0
Teacher	4	8.0

Table 2 shows that majority of respondents 26 (52%) had secondary education. Regarding occupational status, 22 (44%) respondents were involved in business, 13 (26%) respondents were homemaker, likewise 10 (20%) respondents were student, 4 (8%) respondents were teacher and 1 (2%) respondents were labor.

Table 3: Respondent's Knowledge on Meaning and Methods of Screening

n=50

Knowledge variables	Frequency	Correct Response Percentage
Breast cancer can be detected early	48	96.0
Breast cancer screening is examination of breast before the symptoms occur	39	78.0
Knowledge on methods of screening for breast cancer		
Self-breast examination	36	72
Clinical breast examination	46	92.0
Mammogram	13	26.0
Ultrsound	40	80.0

Table 3 shows that majority of respondents 48 (96%) had given the right answer that is breast cancer screening is done for early detection of breast cancer and 39(78%) knew about examination of breast before the symptoms occur as a screening . Likewise 46 (92%) respondents had knowledge about clinical-breast examination is a method of breast cancer screening, 40(80%) respondents had heard about ultrasound is a test done for screening. Similarly, 36(72%) had heard about breast self-examination as a procedure of screening and very few 13(26%) respondents had heard about mammogram.

Table 4: Knowledge on Meaning of Breast Self-Examination

n=50

Knowledge variable	Yes %	No %
Breast self-examination is done to identify abnormal changes in breast	20.0	80.0
Breast self-examination is done to detect breast lump	66.0	34.0
Breast self-examination is done to find out any discharge on breast	84.0	16.0
Breast self-examination is done to detect an abnormal lymph node	52.0	48.0

Table 4 shows that 84% of respondents answered correctly the meaning of breast self-examination i.e. finding out any discharge in breast and (66%) of them answered correctly that breast self-examination is done to detect breast lump. Moreover, 52% of respondents answered breast self-examination is to detect an abnormal lymph node and only 20% of the respondents answered correctly about purpose of breast self-examination that is done to identify abnormal changes in the breast.

Table 5: Knowledge on Age and Time for Breast Self-Examination

n=50

Knowledge variable	Correct response Frequency	Percentage
Age to start breast self-examination is after 20 years	24	48.0%
Best time to do breast self-examination is 7-10 days after menstruation	12	24.0%

Table 5 illustrate that less than half 24 (48%) of them were known about the age to start breast self-examination that is after 20 years. Only 12 (24%) of them answered best time to do breast self-examination that is 7-10 days after menstruation.

Table 6: Knowledge on Meaning, Age, Place and Frequency of Clinical Breast Examination

n= 50

Knowledge Variables	Correct Answer	
	Frequency	Percentage
A physical exam of the breast done by health personnel to check lump or other changes in the breast	37	74.0
Appropriate age of clinical breast examination is 25yrs	5	10.0
Appropriate place for clinical breast exam is hospital	45	90.0
Frequency of clinical breast exam for 25-39 years women is one to three years interval	24	48.0
Frequency of clinical breast exam for above 40 years women is annually	13	26.0

Table 6 shows that most of the respondents 37 (74%) had given the right answer about the meaning of Clinical Breast Examination i.e, a physical exam of the breast done by health worker to check lump or other changes in the breast, very less respondents 5 (10%) knew about appropriate age of clinical breast examination that is 25 years. Similarly, 45 (90%) respondents had given right answer about appropriate place for performing clinical breast exam that is hospital. Regarding frequency of clinical breast examination less than half of the respondents 24 (48%) had given the right answer i.e between the age of 25-39 years, clinical breast examination is done in one to three years interval, whereas 13 (26%) respondents had given correct response on clinical breast exam for above 40 years women that is annually.

Table 7: Knowledge on Meaning of Mammogram, Person Performing Mammogram and Starting Age of Mammogram

n= 50

Knowledge variables	Correct Response	
	Frequency	Percentage
Mammogram is a machine for examination of women's breast and to locate tumor of breast	13	26
Mammogram is done by radiological technologist	21	42
Appropriate age for performing mammogram is 40 yrs onwards	14	28

Table 7 shows that few of the respondents 13 (26%) knew about meaning of mammogram, and 21 respondents (42%) had heard about person performing mammogram. More over few respondents 14(28%) had heard the appropriate age for performing mammogram that is 40 years on ward.

Table 8: Knowledge on Reason for Mammogram and Frequency of Performing Mammogram

n=50

Variables	Correct Response	
	Frequency	Percentage
Mammogram is done to find out abnormal changes in the breast	31	62
Frequency of performing mammogram 40-54 years is annual	24	48
Frequency of performing mammogram above 55 years is every two years	18	36

Table 8 shows that 31 (62%) respondents answered correctly about reason for doing mammogram i.e, to find out abnormal changes in the breast Moreover 24 (48%) of the respondents had given correct response about the frequency of performing mammogram between age of 40-54 years is annually, and 18(36%) respondents had given correct response about the frequency for the age above 55 years is every two years.

Table 9: Level of Knowledge

n= 50

Level of knowledge	frequency	percentage
Good level knowledge	2	4.0%
Moderate level knowledge	22	44.0%
Poor level knowledge	26	52.0%

Table 9 shows that majority of respondents had poor level of knowledge i.e, 26 (52%), 22 (44%) respondents had moderate level of knowledge and only 2 (4%) had good level of knowledge.

Discussion

The study findings revealed that majority of the respondents(96%)were aware regarding the meaning of screening. Likewise, majority of the respondents had knowledge about the different types of breast cancer screening method namely 92%knew the clinical breast examination as screening methods, 80% new ultrasound as a method of screening, 72% knew BSE as a method of screening whereas only 26 %knew Mammogram as a method of breast cancer screening. This study is consistent with the study conducted by Ayoub et al. (2021) reported that community pharmacists surveyed were aware of the different screening methods of breast cancer. Findings of the study further reveled that, only 20% of the respondents had given the right answer as the meaning of breast self-examination . The findings of the study is similar with findings from Khan et al. (2015) which revealed that only 7% of the respondents were aware of BSE (purpose, when and how to perform) and mammogram (purpose, when to perform, advantages and disadvantages) separately.

Findings further showed that, less than half (48%) repondents knew the correct age to start Breast self examination. Similarly very few (24%) respondents answered in correct response about the best time to do breast self exam. The findings of the study is contrast with findings from S Khan et .al, 2015 which revealed that only 7% of the respondents were aware of BSE (purpose, when and how to perform) and mammogram (purpose, when to perform, advantages and disadvantages) separately years. Similar findings was reported by Altunkurek& Hassan Mohamed in Somaliya (2022) , which reported that only 35.4% of participants had information about breast cancer, 37.8% had heard about breast self examination and 25.2% knew about breast self examination. Similar findings was reported by Sathian (2019) on the meta analysis of Knowledge regarding breast self-examination among the women in Nepal, which revealed that the vast majority of females in the developing nations are unaware about performing regular breast self-examination (BSE) and thus have a lower rate of BSE. This could be attributed to the fact that women in the developing countries are afraid of finding that they have breast cancer, inappropriate knowledge in performing BSE and ignorance about the measures if a lump is identified.

Findings further revealed that most of the respondents 37 (74%) had given the right answer about the meaning of Clinical Breast Examination i.e, a physical exam of the breast done by health worker to check lump or other changes in the breast, very less respondents 5 (10%) knew about appropriate age of clinical breast examination that is 25 years. Similarly, 45 (90%) respondents had given right answer about appropriate place for performing clinical breast exam that is hospital. Regarding frequency of clinical breast examination less than half of the respondents 24 (48%) had given the right answer i.e between the age of 25-39 years clinical breast examination is done in one to three years interval, whereas 13 (26%) respondents had given correct response on clinical breast exam for above 40 years women that is annually.

Findings shows that few of the respondents 13 (26%) had heard about meaning of mammogram, and 21 respondents (42%) had heard about person performing mammogram. More over few respondents 14(28%) had heard the appropriate age for performing mammogram. Findings further reported that 31 (62%) respondents answered correctly about reason for doing mammogram i.e, to find out abnormal changes in the breast Moreover 24 (48%) of the respondents had given correct response about the frequency o of performing mammogram between age of 40-54 years is annually, and 18(36%) respondents had given correct response about the frequency for the age above 55 years is every two year . Similar finding was reported by Al-Wassia et al,2017 , which reaveled that mammography utilization and knowledge are low in Saudi Arabia . The level of awareness of mammography was poor among women attending outpatient clinics in a teaching hospital of Ibadan South West Nijeria in 2013, which was reported by Obajimi, et al. Findings shows that majority of respondents 26 (52%) had poor level of knowledge, 22 (44%) respondents had moderate level of knowledge and only 2 (4%) had good

level of knowledge regarding breast cancer screening.

Conclusion:

Breast cancer screening is very important for the early diagnosis of breast cancer, where breast cancer is curable disease if diagnosed earlier. Findings of the study shows that majority of women in the community are unaware about the different methods of breast cancer screening technique as evidenced by poor level of knowledge. So awareness program for breast cancer screening is essential in community setting and initiation has to be done by both government sector and private sector.

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