BREAST CANCER AWARENESS AMONG THE WOMEN OF REPRODUCTIVE AGE GROUP TO THE OUT PATIENT DEPARTMENT AT DHAKA MEDICAL COLLEGE HOSPITAL, BANGLADESH

Mukti Rita Gomes

Vice Principal
Universal Nursing College
Mohakhali, Dhaka, Bangladesh

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Abstract

The current study was conducted to assess the awareness on breast cancer among the women of reproductive age group attending outpatient department of Dhaka Medical College Hospital, SSMC Mitford Hospital and National cancer Research Institute and Hospital for their treatment of different diseases. A descriptive cross sectional study design was followed and respondents were selected purposively. A mean age of the respondents was 32 years with a standard deviation of 5. Majority (55%) respondents heard about breast cancer and among them 62 percent got information from their relatives. 64 percent respondents reported that they knew about breast care. However, 70 percent respondents did not know self-breast examination (SBE). So far practice is concerned only 1 percent performed regular SBE. A great majority (87%) got information on breast care from medical personnel. 31 percent respondents reported that their relatives suffered from breast cancer. 50 percent respondents knew nothing whether breast cancer is curable and only 2 percent reported that it was not curable. Among the respondents' 24 percent suffered from different breast problems. Of them 23 percent suffered from lump with breast pain, 27 percent from painless lump and 42 percent from breast pain only. Only 35 percent of the respondents with breast problems visited physicians for treatment. And 66 percent of the respondents agreed that early detection and early intervention can cure breast cancer. For this purpose, this study would like to investigate the breast cancer awareness among the female reproductive of age group to the outpatients in Dhaka Medical College Hospital, Bangladesh.

Keywords: Breast Cancer, Awareness, Women, and Reproductive of Age Group.

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Introduction

Breast cancer is a crucial health problem of women between the age of 40 and 50. Most cancers of the breast occur in the duct of the milk-secreting gland, while some originate at the gland itself. Early sign is usually the appearance of a lump in the breast that slowly enlarges with the passage of time. Seeking immediate medical advice is recommended should these signs are detected (Nur, Hassan, Kader and Uddin, 2000 and Cancer Statistics of Bangladesh, 2006).

Breast cancer is a malignant tumor that has developed from cells of the breast. A malignant tumor is a group cancer cells that may invade surrounding tissues or spread (metastasize) to distal areas of the body.

The risk of breast cancer increases with age. For example, annual breast cancer rates are 8-fold higher in women who are 50 years old, in comparison with women who are 30. Most breast cancers (about 80%) develop in women over the age of 50. In one age group (40 to 45 years), breast cancer is ranked first among all causes of death in women. Breast cancer is uncommon in women younger than 35, with the exception of those who have a family history of the disease (World Health Organization, 1997 and Brady and Graham, 2000).

If a woman has already had breast cancer, she has a greater chance of developing a new cancer in the other breast. Such a new or second cancer arises from a completely different location and should not be confused with cancer that has recurred or metastasized (spread) from another site.

Breast Cancer risk is increased in women with the longest known exposures of sex hormone, particularly estrogen (female sex hormone). Therefore, breast cancer risk is increased in women who have a history of – Early first menstrual period (before age 12), Late   menopause (end of menstruation), No pregnancies, Late pregnancy (after age 30) or use of birth control pills (Ahmed, 1994).

Breast Cancer is a disease, which if detected early can be cured; this is now a scientific truth. Because of fear and lack of awareness and knowledge, cancer is mostly not detected at the early stages. In Bangladesh there is no population-based cancer registry, so there is lack of accurate data on the incidence and prevalence of mortality from cancer.   The goal of screening examinations for early breast cancer detection is to find cancers before they start to cause symptoms. Screening refers to tests and examinations used to detect a disease, such as cancer, in people who do not have any symptom.   Finding a breast cancer as early as possible improves the likelihood that treatment will be successful. Most doctors feel that early detection tests for breast cancer save many thousands of lives each year, and that many more lives could be

saved if even more women and their health care providers took advantage of these tests.

Parts of Normal Breast

In order to understand breast cancer, it is helpful to have some basic ideas about the normal structure of the parts of the breasts. The female breast is made up of glands that make breast milk (called lobules), ducts (small tubes that carry milk from the lobules to the nipple) and stroma (fatty tissue and connective tissue surrounding the ducts and lobules blood vessels, and lymphatic vessels). Lymph nodes are small, bean-shaped collections of immune system cells (cells that are important in fighting infections) that are connected by lymphatic vessels. Lymphatic vessels are like small veins, except that they carry a clear fluid called lymph (instead of blood) away from the breast. Breast cancer cells can enter lymphatic vessels and begin to grow in lymph nodes.

Benign Breast Lumps

Most breast lumps are benign. This means that they are not cancer. Benign breast tumors are abnormal growths, but they do not spread outside of the breast and they are not life threatening. But some benign breast lumps can increase a women's risk of getting breast cancer.

Most lumps are caused by fibrocystic changes. Cysts are fluid-filled sacs. Fibrosis is the formation of scar-like tissue. These changes can cause breast swelling and pain. They often happen just before a period is about to begin. The breasts may feel lumpy, and sometimes there is a clear or slight cloudy nipple discharge (American Cancer Society, 2009).

Types of Breast Cancer

Breast cancer is a cancer that starts in the tissues of the breast, that is, in the glandular breast tissue. Breast cancer is a malignant tumor that has developed from the cells of the breast. A malignant tumor is a group of cancer cells that may invade surrounding tissues or spread (metastasize) to distal areas of the body (Cancer reference information, 2006) There are several types of breast cancer, but the two main types are:

1) Ductal carcinoma (occurring in 85-90 percent of the cases) starts in the tubes (ducts) that move milk from the breast to the nipple. Most breast cancers are of this type.
2) Lobular carcinoma (occurring in about eight percent of the cases) starts in parts of the breast, called lobules, which produce milk. In rare cases, breast cancer can

start in other areas of the breast. Many breast cancers are sensitive to the hormone estrogen. This means that estrogen causes the breast cancer tumor to grow. Such cancer is called estrogen receptor positive cancer.

Adenocarcinoma: Nearly all breast cancers start in the ducts or lobules of the breast. Because this is glandular tissue. They are called adenocarcinoma, a term applied to the cancers of glandular tissue anywhere in the body.

Risk Factors and Causes of Breast Cancer

No one knows exactly why a normal breast cells becomes a cancerous one, and however there is probably no single cause. It is thought that breast cancer results from a combination of risk factors. These risk factors can be grouped into several categories:

Gender: being a female introduces a high risk. Most breast cancer occurs in women.

Age: higher incidence occurs with women over 40 years of age and in the postmenopausal phase of life.

Race: White, in the middle or upper socio-economic class.

Hereditary or genetic: It has long been known that women whose mother or sisters had breast cancer, have a higher risk of developing the disease themselves.

Recently, it has been discovered that breast cancer can develop when a women inherits a breast cancer susceptibility gene from one of her parents. The gene account for about 10 percent to all breast cancer cases and in families that have this gene, the risk of breast cancer can be very high.

Hormonal: The female hormones estrogen and progesterone are involved in the formation breast cancer. For example, it is known that women who start to menstruate at an early age (before age 12 years), or who have a late menopause (after age 55 years) have a higher risk of breast cancer than women who do not. It is also known that women taking oral contraceptive use and women who take hormone replacement therapy after menopause have an increased risk of breast cancer (Gao, Shu Dai, Potter, Briton and Wen 2000).

Pregnancy: Nulliparous or late first pregnancy (after age 35 yr).

Diet: Dietary influences have been proposed and examined, and recent research suggests that low-fat diets may significantly decrease the risk of breast cancer as well as the recurrence of breast cancer (Philpps. Manhan, Sands Make and Neighbous 2005).

Biomedical investigators found that Brassiea vegetables intaking (broccoli, cauliflower, cabbage, kale and Brussels sprouts) was inversely related to breast cancer development. The relative risk among women in the highest decile of Brassica vegetable consumption (median, 1.5 servings per day) compared to the lowest decile (virtually no consumption) was 58%. That is women who consumed the most Brassica vegetables were 58% less likely to develop breast cancer (Terry, Wolk, Persson, Magnusson, 2001).

Alcohol: Alcohol appears to increase the risk of breast cancer, with some studies findings a positive correlation between consumption levels and increased risk. One study concluded that breast cancer comprises 60 percent of alcohol-attributable cancers among women.

Obesity: Gaining weight after menopause can increase a women's risk. A recent study found that putting on 9.9kg (22lbs) after menopause increased the risk of developing breast cancer by 18% (Cancer reference information, 2006).

Breast feeding and pregnancy: Some studies suggest that breast feeding may lower breast cancer risk slightly, especially if breast-feeding is continued for 1.5 to 2 years (Cancer reference information, 2006 and Bangladesh cancer society leaflet).

Night work: A few recent studies have suggested that women who work at night, for example, nurses on a night shift, have an increased risk of developing breast cancer.

Signs and Symptoms of Breast Caner

Early breast cancer is usually single, palpable as firm, irregular shaped and fixed underlying skin and does not cause pain/ most often painless. In fact, when develops, breast cancer may cause no symptom at all. But as grows, it can cause these changes:
- swelling of all or part of a breast;
- skin irritation or dimpling;
- breast or nipple pain;
- nipple retraction;
- redness, scaliness, or thickening of the nipple or breast skin;
- a discharge other than breast milk;
- a lump or thickening in the breast or armpit;
- a change in the size or shape of the breast; and
- discharge from the nipple.

Issues of Diagnosis of Breast Cancer

Diagnosis of breast cancer is usually comprised of several steps, including examination of the breast (BSE and CBE), mammography, possibly ultrasonography or MRI, and finally, FNAC and Biopsy. Biopsy is the only definitive way to diagnose breast cancer.

Examination of the Breast

A complete breast examination includes visual inspection and careful palpation of the breast, the armpits and the areas around clavicle. During the exam, doctor may palpate a lump or just feel a thickening.

A clinical breast examination (CBE) is an examination of breasts by a health care professional, such as a doctor, nurse practitioner, nurse or doctor's assistant. For this examination people undress from the waist up. The health care professional will first look at their breasts for changes in size or shape. Then using the pads of the fingers, the examiner will gently feel (palpate) breasts.

Breast Awareness and Self-examination

Beginning in their 20s, women should be told about the benefits and limitations of BSE. Women should be aware of how their breasts normally feel and if there is any new breast change should report to a health professional as soon as they are found. Finding a breast change does not necessarily mean there is a cancer.

Lie down and place right arm behind the body. The exam is done while lying down, not standing up. This is because when lying down, the breast tissue spreads evenly over the chest wall and it is thin as thin as possible making it much easier to feel all the breast tissue.

Mammography

Mammograms are x-ray of the breast that may help define the nature of a lump. Mammograms are also recommended for screening to find early cancer. Usually, it is possible to tell from the mammogram whether a lump in the breast is breast cancer, but no test is 100% reliable. Mammograms are thought to miss as many as 10-15% of breast cancers. A false-positive Mammogram is one that suggests malignancy when no malignancy is found on biopsy. A false negative Mammogram is one that appears normal when in fact cancer is present. A Mammogram alone is often not enough to evaluate a lump (Ahsania Mission Cancer Detection and Treatment Center, leaflet, 2006 and Bangladesh cancer society leaflet).

Ultrasound

Ultrasound of the breast is often done to evaluate a breast lump. It can demonstrate whether a mass is filled with fluid (cystic) (non-cancerous) or solid. Cancers are usually solid (possibly cancerous), while many cysts are benign. Ultrasound might also be used to guide a biopsy or the removal of fluid.

MRI

Magnetic Resonance Imaging (MRI) may provide additional information and may clarify findings which have been seen on mammography or ultrasound. MRI is not routine for screening for cancer but may be recommended in special situation.

Stages of Breast Cancer

The most common system used to describe the stages of cancers is the TNM system, developed by American Joint Committee on Cancer (AJCC). This staging system classified cancers based on their T, N and M stages (Stages of Breast Cancer, 2006)

Stage   I: -   T1, N0, M0: The tumor is 2 cm (about 4/5 of an inch) or less in diameter and has not spread to lymph nodes or distant sites.

Stage II A: - T1, M0/ T1, N1, M0/ T2, N0, M0: No tumor is found in the breast but it is in 1to 3 axillary lymph nodes or found by sentinel node biopsy as microscopic disease in internal mammary nodes or the tumor is larger than 5 cm and does not grow into the chest wall and has not spread to lymph nodes. The cancer hasn't spread to distant sites.

Stage IIB: T2, N1, M0/T3, N0, M0: The tumor is either larger than 2 centimeters but not larger than 5 centimeters and has spread to the axillary lymph nodes or larger than 5 centimeters but has not spread to the axillary lymph nodes.

Stage IIIA: - T0 -2, N2, M0/ T3, N1-2, M0: The tumor is smaller than 5 cm in diameter and has spread to 4 to 9 axillary lymph nodes or found by imaging studies or clinical exam to have spread to internal mammary nodes, or the tumor is larger than 5 cm and has spread to 1 to 9 axillary nodes or to internal mammary nodes. The cancer hasn't spread to distant sites.

Stage IIIB: T4, N0-2, M0: The tumor grown into the chest wall or skin and may have spread to no lymph nodes or as many as 9 axillary nodes. It may or may not have spread to internal mammary nodes. The cancer hasn't spread to distant sites.

Stage IIIC: T0-4, N3, M0: The tumor is of any size, has spread to 10 or more nodes in the axilla or to 1 or more lymph nodes under the clavicle (infraclavicular) or above the clavicle (supraclavicular) or to internal mammary lymph nodes, which are enlarged because of the cancer. All of these are on the same side as the breast cancer. The cancer hasn't spread to distant sites.

Stage IV: T0–4, N0–3, M1: The cancer, regardless of its size, has spread to distant organs such as bone, liver, or lung or to lymph nodes far from the breast (Stages of Breast Cancer, 2007, Stages of Breast Cancer, 2006 and The Square health bulletin, 2009).

Prevention of Breast Cancer

Maintain a well-balanced diet. Reduce fat and eat more nutritious, high-fiber foods. Exercise on a regular basis. Learn how to examine breasts and examine them monthly. Know the breasts well enough to notice a change. Schedule annual mammograms. A mammogram can detect a lump two years before one can feel it (Defending against Breast Cancer, 2008).

Announce of prevention is really the best medicine which has been proven in case of breast cancer. Cancer is like thunderstorm; we have plenty of time to close the windows if we know what to do.

Keeping healthy and active can not only prevent but also fight the disease well. A healthy diet and regular exercise can be most important

Diet and Nutrition: A well balanced diet having plenty of fresh vegetables, fruits and fluids. Soya food & fish protein has definite role in prevention. Avoid fatty, fried & rich food. Avoid tobacco and alcohol.

Exercise: Regular exercise relieves stress, energizes body and mind and help to maintain healthy body weight. Some research suggests increase physical activities even later in life, can reduce risk of breast cancer by 20%. Investigator also found that women whose weight fell between light and moderately over weight and who walk at least 10 hours per week experienced risk factor reduction of up to 30 percent (Rahman, 2009).

Breast Feeding: This has been proved scientifically to be not only preventive, being birth right of the baby it also helps in developing a close bond between the mother and the baby (Rahman, 2009).
Dr. Ann designed some steps to show how people can prevent breast cancer in their life.

Maintain a Healthy Body Weight (BMI less than 25) throughout Life. Weight gain in midlife, independent of BMI, has been shown to increase the risk of post-menopausal breast cancer.

Minimize Alcohol. Alcohol use is the most well-established dietary risk factor for breast cancer. The Harvard Nurses' Health Study, along with several others, has

shown consuming more than one alcoholic beverage a day can increase breast cancer risk by as much as 20-25 percent.

Consume as Many Fruits and Vegetables as Possible. Eat seven or more servings daily. The superstars for breast cancer protection include all cruciferous vegetables (broccoli, cabbage, Brussels sprouts, cauliflower); dark leafy greens (collards, kale, spinach); carrots and tomatoes. The superstar fruits include citrus, berries and cherries. It is best to eat cruciferous vegetables raw or lightly cooked, as some of the phytochemicals believed to offer protection against breast cancer are destroyed by heat.

Exercise Regularly the Rest of Life. Many studies have shown that regular exercise provides powerful protection against breast cancer. Aim for 30 minutes or more moderate aerobic activity (brisk walking) five or more days a week.

Consume Whole Food Soy Products regularly, such as Tofu, Tempeh, Edamame, Roosted Soy Nuts, Soy Milk and Misi. Only consume organic, non-GMO (genetically modified) soy. Epidemiologic studied have shown a positive association between soy consumption and reduced breast cancer risk.

Take Supplements Daily. A multivitamin, 500-1,000 mg of vitamin C in divided doses, 200-400IUs of vitamin E as mixed tocopherols, and pharmaceutical grade fish oil. Also take 200mcg of the mineral selenium or eat one to two Brazil nuts as an alternative.

Maintain a Positive Mental Outlook. Engage in self nurturing behaviors regularly. Develop rich, warm and mutually beneficial relationships with family and friends. Get adequate sleep (7-8 hours per night). The mind-body associations with breast cancer are significant (Kulze, 2008).

Literature Review

Cancer is a growing worldwide public health problem, as it is becoming a major cause of morbidity and mortality through out the world. Cancers in all forms are causing 9 percent of deaths through out the world (All and Huycke 1999).

Ansary and Uddin (2000) mentioned the prevalence of cancer in Bangladesh. Total population of our country is around 130 million. Among them annually 195000-260000 people are assumed to be newly affected by cancer. It was also mentioned that total number of old cancer cases amounts four to five times of the total number of new cases occurring annually. So, the total number of old cases of cancer in our country should be at least 800000 and the total number of both new and old is at least 1000000. (Dill Linton and Maebius, 2003)

Proper breast checkups could reduce the risk of breast cancer and other complications that arise during this period. The role of breast checkups is to identify early signs and symptoms of breast cancer, as well as conditions which predispose the women to considerable risk and then to initiate appropriate actions to reduce this risk. Educating women to help them recognize these warning signs and symptoms and report them immediately to the nearest health facility is a cost-effective method to reduce breast cancer and other complications (Matin, 2005).

According to the study of Hannaford and Kay (1989) the relative risk of breast cancer in ever user of contraceptive pills under the age of 45 years was 1.09 whereas that for those aged less than 35 years was 2.58 (Hannaford and Kay, 1989).
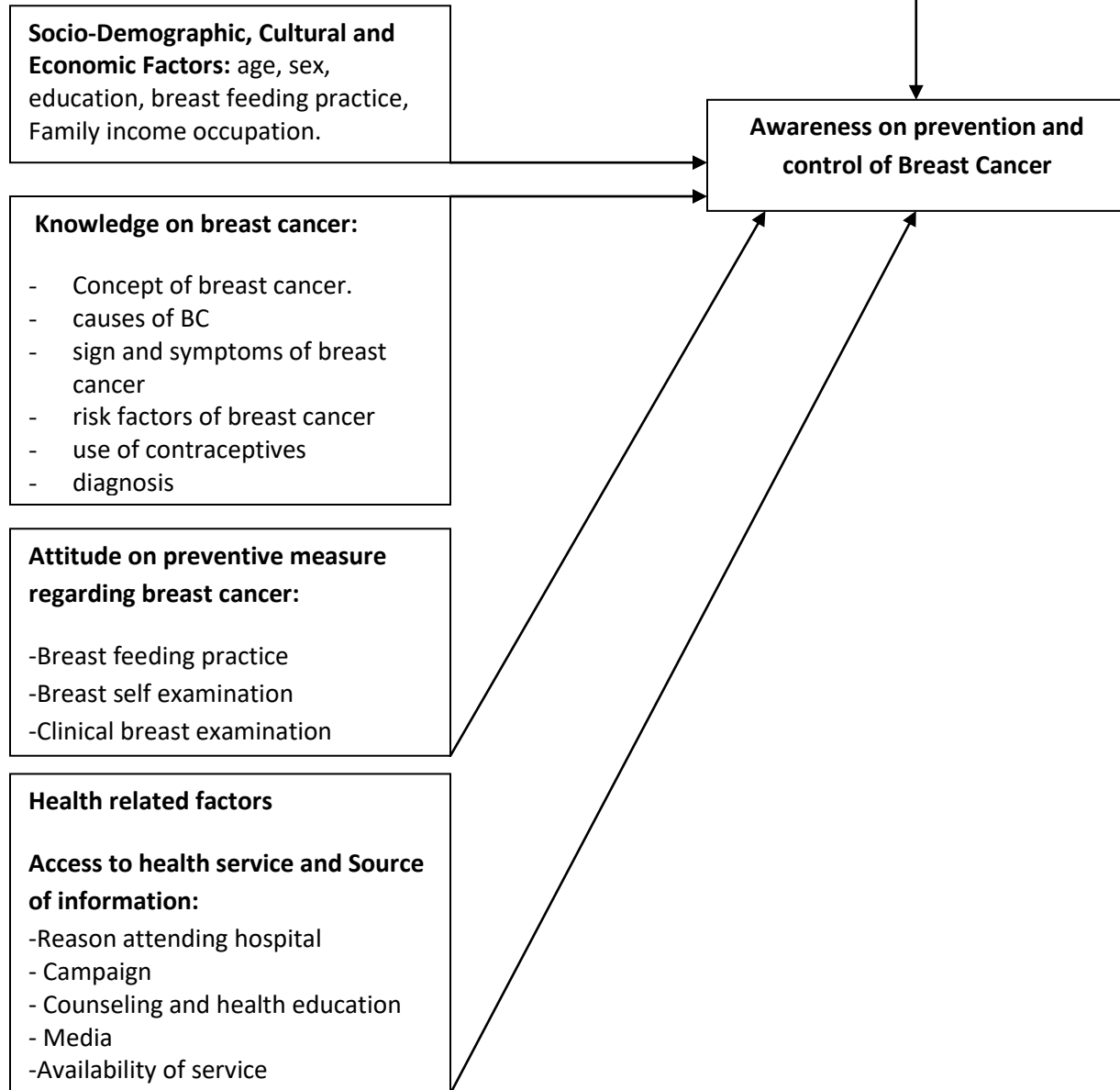
A case report shown that Oral pill was to cause cancer of breast, uterus and lower genital tract. Due to improvement of socio-economic condition, education, employment, Late marriage, use of contraceptive methods, child bearing is delayed. So, incidence of breast disease is increasing before a woman completes her family (Tahera and Miah, 1991).

Lugton (1997) conducted a study to identify the nature of social support as experienced by women treated for breast cancer. Research result showed that the respondents indicated that they faced six threats to their identities associated with the breast cancer experiences and perceived social support to be actions/ attitudes from formal or informal sources which maintained or assisted changes to their established identities. Social support-maintained identities for many respondents who wanted to 'get back to normal' in their relationships and in their work. Women also needed support to accept identity changes, for example, adapting to an uncertain future. Study results also showed that the respondents were aware about breast cancer. The respondents also stated that people awareness is most important.

Raising awareness is a must to protect women from breast cancer. If the breast cancer is detected at an early stage, the survival rate is 98 percent in America (The Daily Star, 17 December, 2005). Speakers at a round table underlined the need for concerted effort to make a publicity strategy to create mass awareness of breast cancer that is on the rise among women in the country. The strategy would help reducing breast cancer and rid women from their shyness and stigma about the disease and to let them know that if diagnosed at the primary stage it could be cured. They opined (The New Nation, Thursday, 14 December, 2005).

Research Methodology

Independent Variable   **Dependent Variable**

Socio-Demographic, Cultural and Economic Factors: age, sex, education, breast feeding practice, Family income occupation.

Awareness on prevention and control of Breast Cancer

Knowledge on breast cancer: - Concept of breast cancer. - causes of BC - sign and symptoms of breast cancer - risk factors of breast cancer - use of contraceptives - diagnosis

Attitude on preventive measure regarding breast cancer: -Breast feeding practice -Breast self examination -Clinical breast examination

Health related factors **Access to health service and Source of information:** -Reason attending hospital - Campaign - Counseling and health education - Media -Availability of service

Research Question
What is the level of awareness on pr

General Objective
To assess the level of awareness on "
Prevention and Control of Breast Cancer among the 15-50 age group women"

Specific Objectives

The specific objectives of the study were:
- ➢ To assess the level of knowledge and attitude towards breast cancer among the 15-50 age group women.
- ➢ To find out the practice on preventive measures on breast cancer.
- ➢ To identify the socio demographic characteristics among the 15-50 age group women.
- ➢ To find the relationship between knowledge and practice on breast cancer among the 15-50 age group women.
- ➢ To find out the underlying causes of ignorance / not being aware.

Study Design

A cross sectional descriptive research design was utilized during this study. This design is chosen by the researcher in order to collect information and to explore an area of personal interest. A descriptive design is particularly helpful while researching little known phenomena. Furthermore, these authors stated that the descriptive design is a type of non-experimental research that gathers descriptions of existing phenomena for the aim of using the data to prove or assess current conditions. This type of research design enables characteristics of the area under study to be systematically recorded without the researcher attempting to actively change the situation (Polgar and Thomas, 2000). Cookers and Davis (1998) suggested- that the descriptive design is suitable when the researcher wants to identify a situation, to identify variables which occur within it, to describe variables and to identify the norms for that population.

The description of variables has been achieved by using a descriptive survey which involves the systematic collection of data to give a clear picture of a particular situation. Polgar and Thomas (2000) stated that descriptive survey collects detailed descriptions of existing variables and uses the data to justify and assess current conditions and makes more intelligent plans for improving health care practice.

Target Population and Sample Population

15-50 age group women who attended OPDs (GOPD, SOPD and MOPD) for their treatment during the period of data collection.

Study Setting and Study Area

The study areas were selected purposively from selected hospitals in Dhaka city such as, Dhaka Medical College Hospital (DMCH), Sir Salimullah Medical College Hospital (SSMCH), National Institute Of Cancer Research and Hospital (NICRH),

Mohakhali, Dhaka. The settings for this study were the Antenatal, postnatal, Surgical and Medicine Out Patient Department (OPD) at the Dhaka Medical College Hospital (DMCH), Sir Salimullah Medical College Hospital (SSMCH) and National Institute of Cancer Research and Hospital (NICRH) Dhaka. DMCH is the largest hospital in our country (Bangladesh). These hospitals being a major referral hospital have a large number of acute admissions not only from Dhaka city, but also from outlying districts. These OPDs are well-established and provide regular out door service of antenatal, Gynecology, Surgical and Medicine and any kind of cancer. Every day more than 200 women attend these OPDs for their treatment and checkup (Personal communication with the Charge Nurses of OPDs and Attendance register khata). In this study, the population was of the 15-50 age group women, who attended these hospital OPDs for their antenatal, postnatal, gynecological checkups, surgical, medical and cancer treatment. This large attendance made these hospitals a good choice to conduct this study.

Study Period

The researcher spent 6-months to complete the entire project.

Sample Size

The total number of the respondents was 330 and they were selected as the sample size for this study.

The sample was determined by using the following formula;

$$n = \frac{Z^2.p.q}{d^2}$$

Here, n= Number of sample size
z = Standard normal deviate. (Usually, 1.96 corresponding to 95% CI level)
p = Proportion in the target population with a particular character. (Take as 50%, 0.5)
q = 1-p
d = Degree of accuracy desired.
$(1.96)^2$ x (0.5) x (0.5)
n= $(0, 05)^2$
=384.16 ~ 385 eventual sample size
330 feasible sample size

Data Collection

Instruments of Data Collection

The tools of data collection were the questionnaire and the questionnaire is prepared by keeping the objectives of the study as the framework that reflect the study variables.

A pre-design questionnaire was developed to use as data collection instrument as appendix 7. A questionnaire is the most common instrument for data collection. The questions were a combination of closed ended and open-ended (Structured) questions.

Data Collection Technique

The questionnaire was distributed among the women in the OPDs at DMCH, SSMCH, and NICRH in Bangladesh, and collected by the investigator. The investigator collected data in the morning during a four hours period from 9am to 1 pm. During the investigation, the investigator was present all the time to avoid the potential bias from the participants talking to each other about the questionnaire. If a participant was unable to write, the investigator completed the questionnaire form in front of them. To avoid any chance of bias when the questionnaire was completed by the investigator for the illiterate women, the investigator read each question aloud and then record only what the participant responded. This technique was continued until the 330 participants were completed.

Data Analysis

The data obtained from this study was analyzed using the software program Statistical Package for Social Science (SPSS). Descriptive statistics was used to summaries and describe the raw sample data in order to help to make data readily comprehensive. According to the appropriate scale of measurement, measures of central tendency, frequency distributions and percentage was used to describe the data. The data was analyzed according to the variables and using presented tables, graphs and diagrams or figures as appropriate. Written responses were summarized using a narrative discussion.

Reporting Result

The final report of this study will be bound in a thesis and the result will be shared with nurses and other health care professional in Bangladesh. A short report will be prepared and submitted to national and international journal for publication.

Results

This chapter provides an overview of the findings and the results from the analysis are presented. The Statistical Package for the Social Science (SPSS) and MS-Excel spreadsheets were used to assist in the statistical analysis of the data from three hundred thirty participants (200 from DMCH, 70 from SSMCH and 60 from NICRH). To avoid any bias in the data caused by discussion between the participants, the investigator was present at all times during the data collection. The data obtained from the study were analyzed using descriptive statistics. According to the appropriate scales of measurement, measures of central tendency, frequency distribution and measures of dispersion were used to analyze and describe the data. The most significant results will be discussed. When results were reviewed, a percentage analysis appeared to be the most effective method for providing the greatest amount of information about how the participants answered these questions.

Socio-Demographic Data

This cross-sectional type of descriptive study was conducted with 330 patients in three hospitals (DMCH, SSMCH and NICRH) which are very popular and major government hospital of Bangladesh. The responses rate of to the questionnaires was 100%. The results obtained from this questionnaire are highlighted bellow.

Figure 1: Distribution of respondents by their age.
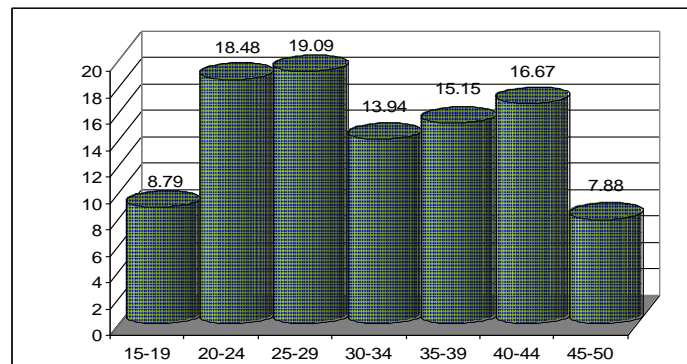
The age range is from 15 to 50 years. Age is distributed according to Class Interval. The age of the respondents was categories into 7 groups as group 1(15-19), group 2 (20-24), group 3(25-29), group 4 (30-34), group 5 (35-39), group 6(40-44) and group 7(45-50). Figure - 1 represented that the highest of the age group study population was group 3(n=63) and lowest of the age group was group 7(n= 26). The mean age of the respondents was estimated as 31.03 (±SD 9.50) years. This information is well depicted in the above figure 1.

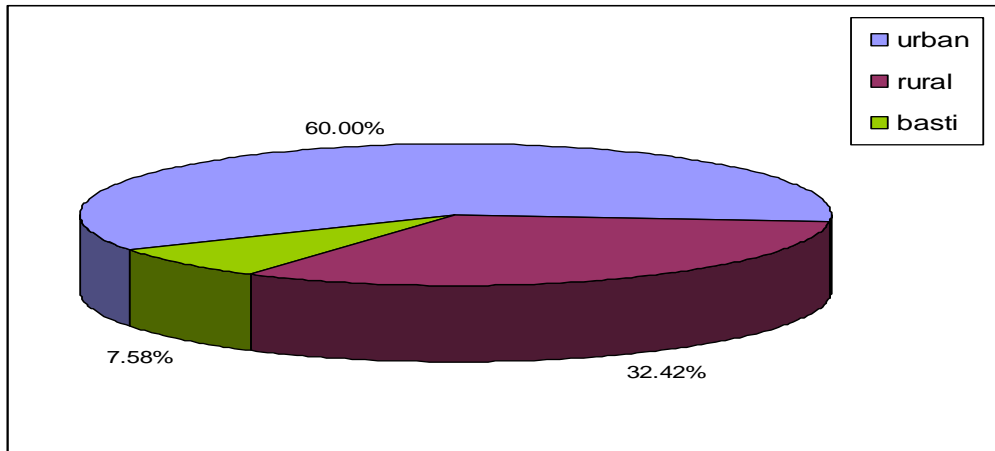Figure 2: Distribution of place of the respondents by their residence.

Figure 2 shows that the highest number that is 60% (n=198) respondents resided in the urban areas, 32.42% (n= 107) resided in the rural and 7.58% (n=25) resided in the bosti (slum).

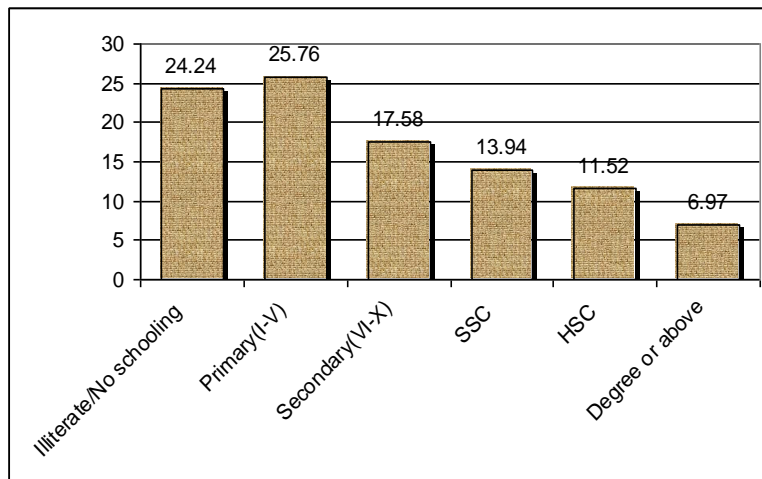Figure 3: Distribution of the respondents by their education

Figure-3 shows that the highest, 25.76% (n=85) respondents completed their Primary School, next second highest 24.24% (n=80) respondents were illiterate/ had no schooling followed by 17.58 % (n=58) completed secondary, 13.94% (n=46) completed SSC (Secondary School Certificate), 11.52% (n=38) completed HSC (Higher Secondary Certificate) and only 6.97% (n=23) respondents completed degree or above.

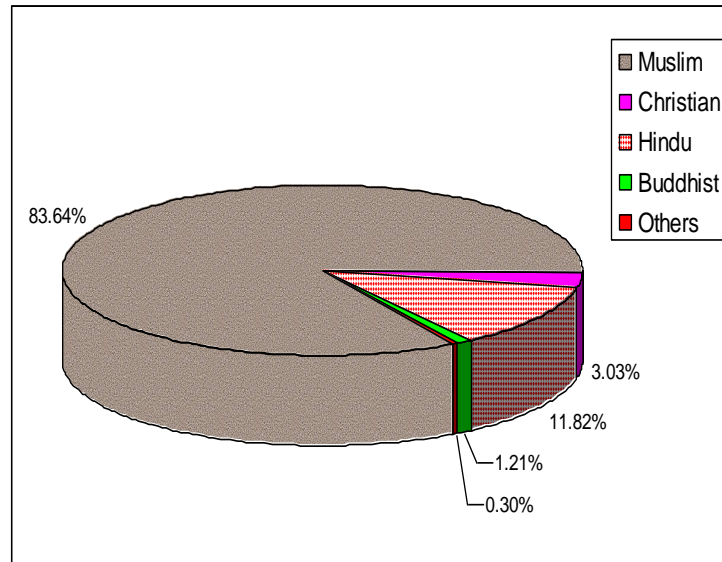Figure 4: Distribution of the respondents according to religion

Figure 4 shows the distribution of the patients according to their religion. Most of the respondents were Muslim 3.64% (n=276) followed by Christian 3.03% (n=10) Hindu 11.82% (n=39), Buddhist 1.21% (n=4) and others 0.30% (n=1). The others were Aboriginal Santal.

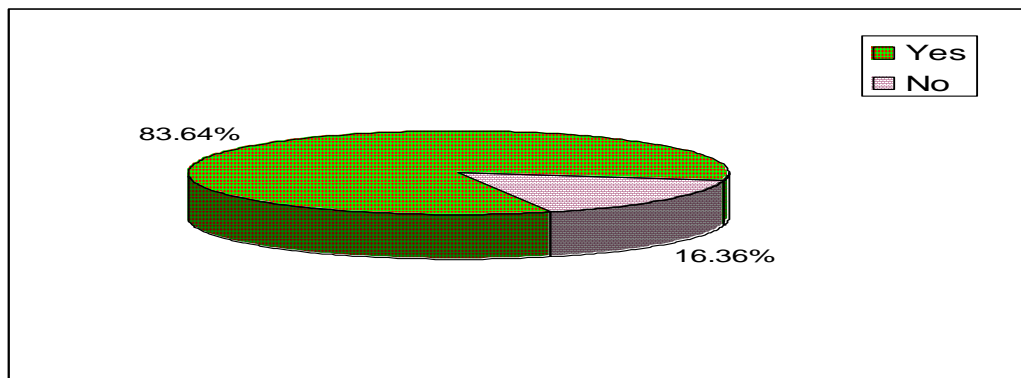Figure 5: Distribution of the respondents according to their marital status.

Figure 5 shows the distribution of marital status of the respondents. Most 83.64% (n=276) of the respondents were married and 16.36% (n=54) were unmarried.

Figure 6: Distribution of the respondents according to their age of marriage.
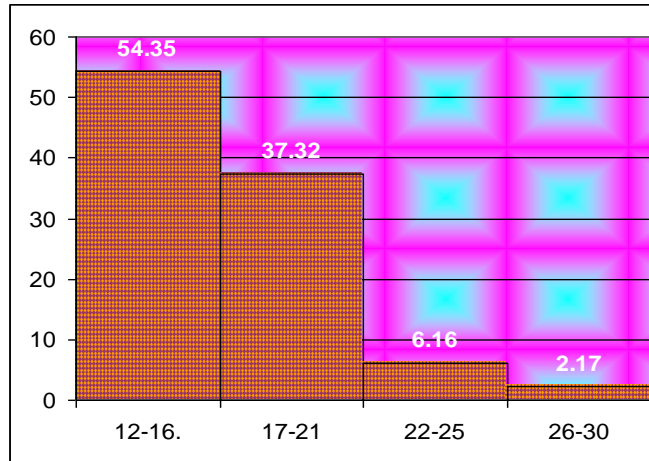
N=276

Figure 6 shows that 83.64% (n=276) respondents were married. Figure - 6 shows the distribution of the respondents' age of marriage. The age of marriage of the respondents ranges from 12 years to 30 years. Mean age of marriage was 16.80 (± SD 3.36). From figure 6 it is clear that among 276 respondents the age of the highest marriage group was 12-16 years 54.35 % (n= 150), 17-21 years marriage age group was 37.32 % (n= 103), 22-25 years marriage age group was 6.16 % (n= 17) and the lowest group was 26-30 years 2.17 % (n=6).

Figure 7: Distribution of the respondents according to age of Menarche.
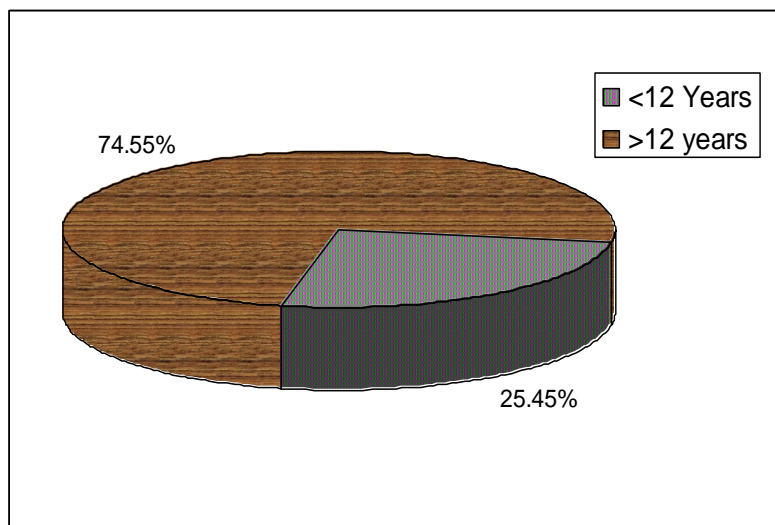
The respondents were asked whether their menarche age was <12 years or >12 years. Figure 7 shows that the most 74.55% (n= 246) of the respondents' menarche age was > 12 years. Only 25.45% (n=84) respondents' menarche age was < 12 years.

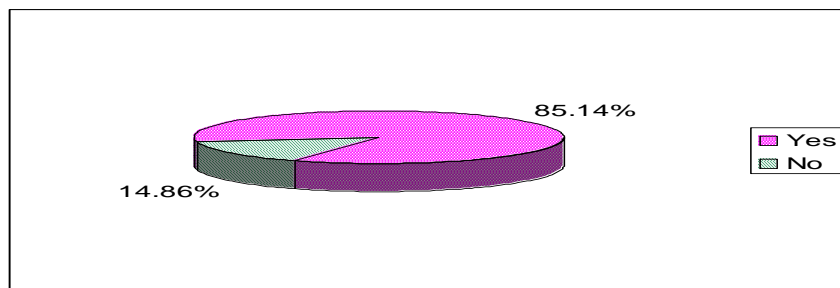Figure 8: Distribution of the respondents about having Child.

N= 276

Figure 8 shows that 83.64% (n= 276) of the respondents were married. The respondents were asked whether they had any child or not. Figure 8 shows that the highest 84.14% (n= 235) respondent had child. Only 14.86% (n=41) had no child.

Table 1: Distribution of the respondents according to the number of children

N=235

Number of children	Frequency	Percentage
1	57	24.26
2	101	42.98
3	49	20.85
4	24	10.21
5	3	1.28
7	1	0.43
Total	235	100.00

Table 1 shows that the number of children range from 1 to 7. Majority 42.98% (n=101) of the respondents had 2 children. Only 0.43% (n=1) had 7 children. This information is well depicted.

Table 2: Distribution of the respondents according to the breast feeding

N=235

| Breast feeding	Frequency	Percentage
Yes	235	100
No	0	00.00
Total	235	100.00

Among the 330 respondents 83.64% (n=276) was married. Of them 85.14% (n=235) had child. Regarding the breast feeding 235 respondents were asked whether they had breast fed their baby or not. All the (100%) respondents said that they had breast fed their child.

Duration of Breast Feeding

Figure shows the distribution of the respondents about the duration of breast feeding. Majority 42.55% (n=100) said that they had breast fed their baby for 1.5 years to 2 years. Only 1.28% (n=3) breast fed their baby for 3 years and above. This information is well depicted.

Figure - 9: Distribution of the respondents according to the age of last child

N=235
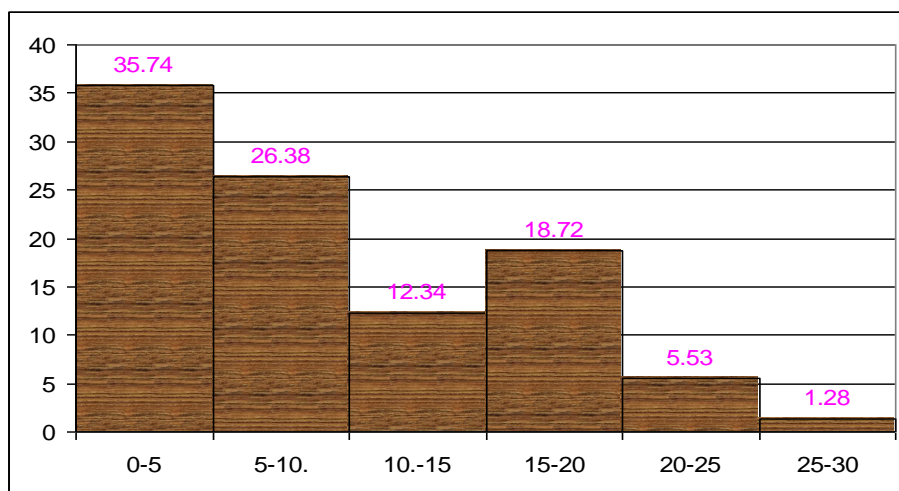
The range of age of the last child was 0 to 30 years. Figure 9 shows that the age of the last child. of the respondents was highest 35.74% (n= 84), 26.38% (n=62) was 0–5 years, 12.34% (n=29) was 10-15 years, 18.72% (n=44) was 15-20 years, 5.53 % (n=13) was 20-25 and only 1.28% (n=3) of the respondents' last child was 25-30 years old.

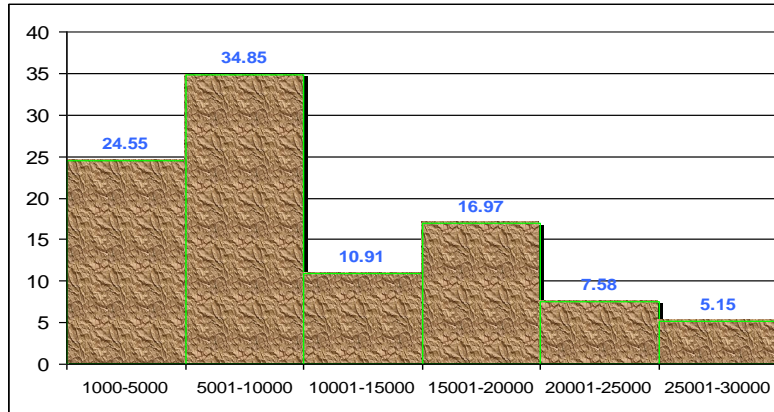Table 3: Distribution of the respondents according to their occupation

N=330

Occupation	frequency	Percentage
House wife	215	65.15
Service	45	13.64
Students	40	12.12
Daily labor	17	5.15
Others	13	3.94
Total	330	100.00

Table 3 shows the distribution of the respondents by their occupation. Most 65.15% of the respondents indicated their occupation as house wife. Among the remaining, 13.64% were in service, 12.12% student, 5.15% Daily labor, and others

were 3.94% including servant, tailor and cloth seller. The mean of occupation of the respondents was 1.71 (±SD 1.16).

Figure 10: Distribution of the respondents according to their monthly family income

The income of the families ranges from 1000 taka to 30000 taka per month. Figure 10 shows the income distribution of the respondent families. From figure 10 it is clear that among the respondents the highest group had an income of Taka 5000 to 10000 34. 85% (n=115) and the lowest group had an income of Tk. 25001 to 30000 5.15% (n=17) and this group had the highest income. The mean income of the respondents was 11724.24 (± SD 8426.17).

Table 4: Distribution of the respondents according to the reason for   attending the OPD

Reason of coming to Hospital	Frequency	Percentage
Different kinds of cancer	53	16.06
Breast abscess, Breast tenderness, breast Tumour and lymphoma in the chest wall	17	5.15
Antenatal checkup, excessive p/v bleeding and Gynae problem	57	17.27
Ultra-sonogram, Peps smear test, FNAC test /report and pregnancy test	19	5.76
Fibroid uterus, Ovarian cyst	17	5.15
Abdominal pain, back pain, joint pain, chest pain and epigastria pain	52	15.76
Diarrhea, vomiting, nasal polyp	31	9.39
Fracture, Bone TB, Rheumatoid Arthritis, gangrene and Osteomyelitis	24	7.27
Fever, cold, cough with high fever, and fever and headache	60	18.18
Total	330	100.00

Regarding the reason of attending the OPD, majority 18.18% (n=60) of the respondents attended with fever, cough with high fever, and fever and headache. This information is well depicted.

Summary and Conclusion

This cross–sectional descriptive study has focused on 15–50 years age group women regarding the awareness on prevention and control of breast cancer. This study was conducted in the Out Patient Department (OPDs) of Dhaka Medical College Hospital (DMCH), Sir Salimullah Medical College and Mitford Hospital (SSMCH) and National Institute of Cancer Research and Hospital (NICRH) in Dhaka city to find out the awareness on prevention and control of breast cancer: An approach to develop nursing support in selected hospitals in Dhaka city among the 15-50 age group women in Bangladesh. The results from this study have provided some important information, which will help to develop separate health care facilities for breast checkup and health education in those hospitals. The result will also be helpful for the nursing management to make policy.

The data for the study was collected from 330 women in 3 hospitals in the Dhaka city. The mean age of the women was 31.03 (± SD 9.50). The majority of women were from the urban area. They were of different religion, different educational and social background, and marital status. The mean age of marriage was 16.80 ± SD 3.36). Most of the women were housewife and the mean of occupation of the respondents was 1.71 (± SD 1.16). The family income ranges from 1000 taka to 30000 Taka per month.

There was an association between awareness of prevention and control breast cancer and several socio-demographic factors. The awareness level about prevention and control of breast cancer was higher 68.35 percent among the women with the age less than or equal to 35 years while 31.65 percent in the age group greater than 35 years. More awareness has been found in lower age group. More awareness has been found in urban group. The awareness level was higher among educated women. There is an association between educational level of the women and their awareness level on prevention and control of breast cancer (p< 0.343). More awareness has been found in unemployed group. More awareness has been found in higher income group. More awareness has been found in married group.

Recommendations

With a view to improving the present situation, this study contributes the findings suggest the following recommendations:

➢ A separate examination cell could be established for the women in every hospital/health care settings and where possible special wards for cancer patients.

➢ An action plan or proposal may be submitted to the Government through the appropriate authority to create post for the female doctors and nurses in the OPDs of all hospitals. So that all female population will come to the facilities for their checkup and necessary treatment. and advice;

➢ In every community zone, at least one examination cell should be available where all female population can attend regularly within their geographical reach.

➢ All doctors/nurses should have special training on oncology. A provision of regular and periodical training programme is needed to upgrade their knowledge and skills.

➢ Media (electronic and print) can put special program/supplementary regarding cancer awareness as part of public awareness campaigning.

➢ Arrange training program on Breast Self Examination for the nurses, so that they will be able to demonstrate how to perform Breast Self Examination in the community and OPD.

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