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Socio-Demographic Characteristics of Breast Cancer Patients in Bangladesh: A Single Centre Study

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Abstract

Introduction: *Breast cancer is a significant public health concern worldwide and has a significant impact on individuals, families, and society. While progress has been made in the diagnosis, treatment, and prevention of breast cancer, there is still much to be learned about the disease and its impact on patients. The objective of the study was to find out the socio-demographic characteristics of breast cancer among women in a selected cancer specialized hospital in Dhaka city.* ***Materials and Methods:*** *This cross-sectional Study was carried out among 108 patients attending at the department of Oncology at Delta Medical College Hospital; Dhaka for the treatment of breast cancer within the defined period from January 2022 to December 2022. All the data were compiled and sorted properly and the quantitative data was analyzed statistically by using Statistical Package for Social Science.* ***Result:*** *Majority of the breast cancer patients (32.41%) were within the age range of 50-59 and 40-49 years. The most common weight for the breast cancer patients was in the range of 40-50 kg with frequency of 43(39.81%). Most of the respondents have come from urban areas with a frequency of 63 (58.33%). Most of the breast cancer patients were housewives (n=61, 56.48%) followed by service holders (n= 30, 27.78%). Most of the patients (n=94, 87%) were married. Most of the women were Muslim (87%). Family history was positive for 61 patients (56.48%). Out of 108 patients, 63 of the respondents had diabetes (58.3%). Out of the 108 respondents having breast cancers, 61 (56.5%) reported not using contraceptive pills, whereas 47 (43.5%) used contraceptive pills. Only 22.22% breast cancer patients used hormone replacement therapy. Out of 108 breast cancer patients, having exposure to X-ray was with frequency 44 (40.74%) and having no X-ray exposure was with frequency 64 (59.26%). Most of the breast cancer patients (n=70, 64.81%) were prone to betel-nut chewing habit. The highest frequency was 58 (53.7%) who were having daily 2 cups of tea which was followed by 3 cups of tea 25 (23.15%). Most of the respondents (n= 67, 62.04%) were prone to taking added salt consumption. 48 (44.44%) of the respondents had red meat for more than one time in a week. For the breast cancer patients, having no alcohol consumption was the higher number (n=61, 56.48%), whereas the alcohol consumption number was 47 (43.52%).* ***Conclusion:*** *In our study breast carcinoma was more common within the age range of 50-59 and 40-49 years. Regular screening of this age group through mammography will helps to early detection of breast carcinoma.*

Keywords: *Breast cancer, Socio-demographic character.*

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Introduction:

Cancer is one of the main causes of mortality worldwide[1]. In 2008, 8 million deaths were recorded as a result of malignant diseases, and this figure is estimated to reach 11 million by 2030[2]. Breast cancer is a prevalent disease that affects millions of women worldwide, with significant physical, psychological, and social consequences. It is a complex and heterogeneous disease that affects women of different ages, races, and ethnicities. Early detection and prevention are crucial for reducing the incidence and mortality of breast cancer[3]. According to the World Health Organization, breast cancer is the most common cancer among women globally, with an estimated 2.3 million new cases diagnosed in 2020 alone[4]. Breast cancer is the second most common cancer in the world and the most common cancer among women. Lifetime risk of developing breast cancer in every woman in the United States is 12.4% or one in eight women[5]. In 2012, 1.67 million new cases of breast cancer were identified worldwide, accounting for 25% of all cancers[7]. It is estimated that breast cancer accounts for about 25% of all cancers among women in Bangladesh, and the incidence of the disease is on the rise[6]. There are several factors that contribute to the high incidence of breast cancer in Bangladesh, including a lack of awareness about breast cancer and its risk factors is one of the major factors contributing to the high incidence of the disease in Bangladesh[7]. Many women in the country are not properly informed about the early signs and symptoms of breast cancer, which can lead to a delayed diagnosis. This is particularly true in rural areas, where access to healthcare and health education is limited. This lack of awareness and education can also result in women not seeking regular breast cancer screenings, which can have a significant impact on the prognosis and outcome of the disease.

Materials & Methods:

This cross-sectional Study was carried out among 108 patients attending at the department of oncology at Delta Medical College Hospital; Dhaka for the treatment breast cancer within the defined period from January 2022 to December 2022. Ethical clearance was obtained from the appropriate authority to get permission to collect data. Purposive sampling was done according to availability of the patients. The collected data were entered into the computer and analyzed by using SPSS (version 20.1) to assess the socio-demographic characteristics of breast cancer among women in a selected cancer specialized hospital in Dhaka city.

Results:

Majority of the breast cancer patients (32.41%) were within the age range of 50-59 and 40-49 years. The most common weight for the breast cancer patients was in the range of 40-50 kg with frequency of 43(39.81%), followed by weight range of 50-60 Kg with a frequency of 41 (37.96%). Most of the respondents have come from urban areas with a frequency of 63 (58.33%) followed by rural area residents with frequency 34 (31.48%) and Semi urban dwellers 11 (10.19%). Most of the breast cancer patients were housewives (n=61, 56.48%) followed by service holders (n= 30, 27.78%). Most of the patients (n=94, 87%) were Muslim. Most of the women were married (87%). Family history was positive for 61 patients (56.48%) (Table I).

Table I: Demographic characteristics of the study patients (n=108)

Parameter	Frequencies	Percentage
Age (years)		
20-29	3	2.78%
30-39	16	14.81%
40-49	35	32.41%
50-59	35	32.41%
60-69	15	13.89%
70-79	3	2.78%
80-89	1	0.93%
Weight (Kg)		
30-40	4	3.70%
40-50	43	39.81%
50-60	41	37.96%
60-70	4	3.70%
70-80	10	9.26%
80-90	5	4.63%
90-100	1	0.93%
Residence		
Urban	63	58.33%
Semi Urban	11	10.19%
Rural	34	31.48%
Occupation		
Service Holder	30	27.78%
Business	9	8.33%
Housewife	61	56.48%
Others	8	7.41%
Marital Status		
Yes	94	87%
No	14	12.96%
Religion		
Muslim	94	87%
Others	14	13%
Family history		
Yes	61	56.48%
No	47	43.52%

Out of 108 patients, 63 of the respondents had diabetes (58.3%), whereas 45 respondents (41.67%) did not have diabetes. Out of the 108 respondents having breast cancers, 61 (56.5%) reported not using contraceptive pills, whereas 47 (43.5%) used contraceptive pills. Only 22.22% breast cancer patients used hormone replacement therapy. Out of 108 breast cancer patients, having exposure to X-ray was with frequency 44 (40.74%) and having no X-ray exposure was with frequency 64 (59.26%) (Table II).

Table II: Distribution of breast cancer patients with different clinical condition (n=108)

Parameter	Number	Percentage
Diabetes mellitus		
Yes	63	58.33%
No	45	41.67%
Previous operation history		
Yes	84	77.78%
No	24	22.22%
X-ray Exposure		
Yes	44	40.74%
No	64	59.26%
Contraceptive Pill Usage		
Yes	47	43.50%
No	61	56.50%
Hormone Replacement Therapy		
Yes	24	22.22%
No	84	77.78%

Most of the breast cancer patients (n=70, 64.81%) were prone to betel-nut chewing habit. The highest frequency was 58 (53.7%) who were having daily 2 cups of tea which was followed by 3 cups of tea 25 (23.15%) and 1 cup of tea 16 (14.81%). Most of the respondents (n= 67, 62.04%) were prone to taking added salt consumption. 48 (44.44%) of the respondents had red meat for more than one time in a week. The second highest was with frequency of 40 (37.04%) which had only one time intake of red meat in a week. For the breast cancer patients, having no alcohol consumption was the higher number (n=61, 56.48%), whereas the alcohol consumption number was 47 (43.52%) (Table III).

Table III: Distribution of breast cancer patients according to food habit (n=108)

Parameter	Number	Percentage
Betel Nut Chewing Habit		
Yes	70	64.81%
No	38	35.19%
Daily Tea Consumption		
1 Cup	16	14.81%
2 Cups	58	53.70%
3 Cups	25	23.15%
More than 3 Cups	9	8.33%
Salt Consumption		
Yes	67	62.04%
No	41	37.96%
Consumption of Red Meat		
One time	40	37.04%
More than one time	48	44.44%
Everyday	5	4.63%
Do not take	15	13.89%
Alcohol Consumption		
Yes	47	43.52%
No	61	56.48%

Discussion:

It is observed that majority of the breast cancer patients is under the age range 50-59 and 40-49 years in the current study. The risk of breast cancer begins to increase after age 40 and becomes more significant as women get older. In fact, about two-thirds of all invasive breast cancers are found in women age 55 or older which is found in similar studies8. In our study most of the patients were housewives (n=61, 56.48%). Similar results were obtained in the study conducted by Chowdhury et al. (2023) study. In their study 70% breast cancer patients were housewives[9]. In our study most of the breast cancer patients were married (87%). Near to similar results were obtained in the study conducted by sarkar et al (2020) study[10]. They reported most of the breast carcinoma patients were married (58.33%). The most of the breast carcinoma was reported in the urban people which were 58.33%. Similar results were obtained in the study conducted by Chowdhury et al. (2023) study[9]. In our study family history was positive for 56.48% breast carcinoma patients. A positive family history of breast cancer can increase an individual's risk of developing breast cancer. The risk is higher if a first-degree relative (such as a mother, sister, or daughter) has been diagnosed with the disease, particularly if they were diagnosed before the age of 50. The same has been found in the present study. In Alwan, N.A.S., (2010) study 16.2% breast carcinoma patients had the positive family history[11]. In our study 43.50% breast carcinoma patients used contraceptive pill. In Alwan, N.A.S., (2010) study 29.0% breast carcinoma patients used contraceptive pill[11].

Conclusion:

In conclusion, breast cancer is a significant health issue in Bangladesh, and it is important to take steps to address this problem. By increasing awareness, education, and access to early detection and treatment services, it is possible to reduce the incidence and impact of breast cancer on women in Bangladesh.

Conflict of Interest: None.

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