

Assessment of Information Needs of Patients with Breast Cancer: A Hospital-Based Study in Sri Lanka

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ABSTRACT

Objective: This study assessed the information needs of breast cancer (BC) patients who presented themselves to the outpatient clinics or wards of the National Cancer Institute, Maharagama, Sri Lanka. **Methods:** Information needs were measured using the validated questionnaire in the vernacular (Sri Lankan Information Needs Assessment Questionnaire – BC). **Results:** All affected women indicated a strong need for information related to the disease, treatment, and psychosocial service while the need for information on procedures for diagnosis and physical

care was not strong. Younger women (age ≤ 37) ($P < 0.0001$) and women with higher education ($P < 0.0001$) had significantly higher information needs. **Conclusions:** The results indicated that information needs to be addressed in educational packages require that younger women and those with higher education have specific needs.

Key words: Breast cancer, information needs, Sri Lankan Information Needs Assessment Questionnaire – Breast Cancer

Introduction

Breast cancer (BC), as a common life-threatening disease, is a significant health problem worldwide. It is a treatable illness when diagnosed early. In the early 20th century, it was also shown that detecting and intervening early with the latest advances in the treatment is the most effective way to increase the cure rate or prolong survival of afflicted patients.^[1] In Sri Lanka, BC has remained one of the most common cancers affecting the lives of women.^[2] Despite effective screening programs for BC being in place, the

existing evidence suggests that the majority of the women in Sri Lanka do not use these services effectively and regularly. The reasons suggested are the lack of knowledge of the services that are offered and disinterest in seeking accurate information.^[3]

Adopting strategies to reduce the risk behaviors for BC and regular screening for early signs of BC are the key to reducing BC morbidity and mortality. The essential ingredient for achieving an effective behavioral change is

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the provision of correct information. Knowledge plays a vital role in the improvement of health-seeking behavior.^[4] In addition, ensuring the acquisition of the appropriate knowledge among patients with BC has shown to facilitate better psychological health outcomes.^[5-7] Nevertheless, a detailed review of the literature found no recorded initiative that targeted at improving the awareness of BC, which was designed based on a needs assessment among patients with BC and their families. This study was aimed at assessing the informational needs of Sri Lankan women with BC.

Methods

Study design

The study was a hospital-based BC patient survey using a cross-sectional study design.

Study setting

The study was conducted at National Cancer Institute, Maharagama (NCIM), more recently named Apeksha Hospital. The hospital serves as the apex tertiary referral center, and it is state funded for the provision of a free health service in managing malignancies. The provisions made are for outpatients and inpatients services that face a very high throughput among many challenges of resource limitation.

Study participants

The study population consisted of histologically confirmed female BC patients who presented themselves to the outpatient clinics or wards of NCIM. Patients who had major mental health problems affecting their ability to respond to an interviewer-administered questionnaire and who were unable to comprehend and respond to the local language (Sinhala) questionnaire were excluded.

Sample size and sampling technique

The sample size of the cross-sectional descriptive study was estimated on the following formula:^[8]

$$N = Z_{1-\alpha/2}^2 \frac{P(1-P)}{d^2} = 384$$

Where, N = the required sample size.

$Z_{1-\alpha/2}$ = taken as 1.96 corresponding to a confidence interval CI of 95% ($\alpha = 0.05$).

d = the degree of accuracy (precision) desired for the margin of error taken as 0.05.

$P = 0.50$ Literature review did not reveal any publication on informational needs of BC patients have not been studied in Sri Lanka nor in any countries in the South-east Asia region. Therefore, this was considered 50% to obtain the highest sample size needed. The sample size calculated was 384. The final sample size was rounded off to 400.

Nonprobability sampling technique of consecutive sampling was used as the most feasible and appropriate technique to recruit study units from the NCIM. The required number was selected consecutively from among those eligible. Data collection was done on all five working days of the week. The data collection was scheduled from 9.00 a.m. to 12.00 noon in each clinic and from 1.00 p.m. to 4.00 p.m. at the wards. In selecting the study units, those who visited outpatient clinics and those who admitted to wards for in-house treatment were invited to participate.

Study instrument

The main study instrument was the Sri Lankan Information Needs Assessment Questionnaire – BC (SINAQ-BC). The questionnaire was an interviewer-administered tool developed and validated to assess the information needs among patients with BC in the Sri Lankan settings.^[9] It contained 58 items to assess information needs in five domains, namely disease, diagnosis, treatment, physical care, and psychosocial services. SINAQ-BC assessed the information needs by inquiring the study units to rate the importance of each item on a five-point scale of 1 (not important), 2 (slightly important), 3 (moderately important), 4 (very important), and 5 (extremely important). Further sections were included to obtain the information related to socio-demographic and other basic characteristics in parallel with details of treatment.

Data collection

Three bio-science graduates were recruited as research assistants and were trained as data collectors. Interviews were carried out at a time and place convenient to the participants, without disturbing other patients and the staff either in the clinic or in the ward. The Principal Investigator supervised the selection of study units, data collection, and administering the questionnaire.

Statistical analysis

Assessment of information needs on breast cancer

In the analysis, frequency distributions of responses to each domain of SINAQ-BC were estimated.

The rates were considered as a score and the mean values for each domain were calculated. As different domains of SINAQ-BC contained a different number of items, in an attempt to compare the information needs across the domains, scores for each domain were converted to be out of a total of 100 marks. Finally, the scores were summarized using the descriptive statistics (mean, standard deviation [SD], minimum and maximum).

The association between age of the respondent and the mean score obtained for SINAQ-BC was evaluated using the regression analysis. Respondents were divided into different

age categories, and the relationship between age and the scores were assessed for each age category.

The mean scores obtained by those in different education categories were assessed using the one-way between group analysis of variance. $P < 0.05$ was considered statistically significant.

Ethical approval

The project was approved by the Ethics Committee in the Faculty of Medicine, University of Colombo, Sri Lanka (Approved No. EC-10-035).

Results

Background information on the study sample

A total of 405 eligible study units were invited. Out of the invitation, 400 consented and participated in the study giving a response rate of 98.8% (400/405). These 400 women were aged 27–76 years (Mean = 56.35; SD = 11.81; 95% CI = 55.16–57.53). Their basic sociodemographic characteristics of the study population are shown in Table 1.

Most of the women were married (69.8%, $n = 279$) had completed either GCE (O/L) or GCE (A/L) (59.0%, $n = 236$). A minority were university degree/postgraduate degree holders (17.3%, $n = 69$). Approximately half had an average household income of Rs. 20,000–Rs. 30,000 (49.5%, $n = 198$).

Information needs on breast cancer using the validated Sri Lankan Information Needs Assessment Questionnaire – Breast Cancer

The frequency distribution and mean ratings of the responses for the five domains of the questionnaire are shown in Tables 2-6.

Out of the different items in the domain of “disease,” nearly 50% responded that “the age at which the women should get screened for cancer” ($n = 176$, 44.0%) and “how to detect whether I have any other cancer” ($n = 184$, 46.0%) are extremely important information needs.

In the domain of diagnosis, the study units responded “the investigations that confirm the diagnosis of BC” ($n = 24$, 6.0%), “whether there are different stages of BC and what do they mean” ($n = 38$, 9.5%), “whether the test can identify the stage of it” ($n = 38$, 9.5%), “the reasons why doctors suggest certain additional tests” ($n = 35$, 8.8%), “whether the tests can identify the stage of it” ($n = 38$, 9.5%) and “how my illness could affect my life in future” ($n = 47$, 11.8%) are as extremely important information needs. Two third of the study units stated that these items as very important.

In the domain of “treatment,” all the items other than “how to decide a particular treatment plan” ($n = 170$, 42.5%) were classified as either very important or extremely important.

Table 1: Distribution of the study population by their basic sociodemographic characteristics ($n = 400$)

Sociodemographic characteristics	n (%)
Age (years)	
27-37	31 (7.8)
38-48	83 (20.8)
49-59	134 (33.5)
60-	152 (38.0)
Residential province	
Central	39 (9.8)
Eastern	1 (0.3)
Sabaragamuwa	5 (1.3)
Southern	109 (27.3)
Uva	9 (2.3)
Western	237 (59.3)
Ethnicity	
Sinhalese	103 (25.8)
Tamil	4 (1.0)
Muslim	11 (2.8)
Religion	
Buddhism	322 (80.5)
Christianity/Catholicism	63 (15.8)
Hindu	4 (1.0)
Islam	11 (2.7)
Married status	
Married	279 (69.8)
Unmarried	90 (22.5)
Widow	29 (7.3)
Divorce/separate	2 (0.6)
Level of highest education	
No schooling	0
Pass Grade 5	27 (6.8)
Pass Grade 9	68 (17.0)
Pass GCE (O/L)	150 (37.5)
Pass GCE (A/L)	86 (21.5)
Diploma/university degree/postgraduate degree	69 (17.3)
Occupational category	
Professionals	62 (15.5)
Para - professionals	49 (12.3)
Clerical	60 (15.0)
Minor	33 (8.2)
Homemakers or retired	196 (49.0)
Household monthly income (Rs.)	
10,000-20,000	81 (20.3)
20,000-30,000	198 (49.5)
30,000-40,000	71 (17.8)
>40,000	50 (12.5)

In the domain of “physical care,” “How to care for my wound or incision” ($n = 207$, 51.8%) and “When should the breast be examined after surgery” ($n = 186$, 46.5%) were responded by more than half as extremely important information needs.

In the domain of “psychosocial service,” the items “How to tell if the cancer has come back” ($n = 215$, 53.8%), “What are the symptoms to get admitted” ($n = 203$, 50.8%) and “What are the symptoms to come to the clinic

Table 2: Frequency distribution and mean rating of responses on disease domain (n=400)

Statement: Informational needs	1, n (%)	2, n (%)	3, n (%)	4, n (%)	5, n (%)	Mean ±SD
Disease						
Common breast pathologies	10 (2.5)	51 (12.8)	98 (24.5)	220 (55.0)	21 (5.2)	3.48±0.87
About breast lumps- why they occur, where they occur, how to recognize	0	0	42 (10.5)	249 (62.2)	109 (27.3)	4.17±0.59
The changes that can be seen on breast	0	0	18 (4.5)	276 (69.0)	106 (26.5)	4.22±0.51
What causes breast cancer	0	20 (5.0)	19 (4.8)	260 (65.0)	101 (25.2)	4.11±0.70
Who are at high risk of getting breast cancer	0	6 (1.5)	75 (18.8)	198 (49.5)	121 (30.2)	4.09±0.74
What can women do to minimize their risk of getting breast cancer	0	7 (1.7)	172 (43.0)	169 (42.3)	52 (13.0)	3.67±0.72
Whether all women with risk get the cancer	0	84 (21.0)	93 (23.2)	196 (49.0)	27 (6.8)	3.42±0.89
Ways of detecting the cancer early	0	0	0	320 (80.0)	80 (20.0)	4.20±0.40
The age at which the women should get screened for cancer	0	7 (1.7)	4 (1.0)	213 (53.3)	176 (44.0)	4.40±0.60
Detail of the places where they offer breast screening services	0	7 (1.7)	4 (1.0)	276 (69.0)	113 (28.3)	4.24±0.55
What one should do, if a breast abnormality is detected	0	7 (1.7)	4 (1.0)	276 (69.0)	113 (28.3)	4.24±0.55
How to detect whether I have any other cancer	0	14 (3.5)	28 (7.0)	174 (43.5)	184 (46.0)	4.32±0.75
Information about mammography screening	0	35 (8.8)	143 (35.8)	153 (38.3)	69 (17.3)	3.64±0.87
Detail of the places where they offer mammography services	0	35 (8.8)	125 (31.3)	185 (46.2)	55 (13.8)	3.65±0.82

1: Not important, 2: Slightly important, 3: Moderately important, 4: Very important, 5: Extremely important. SD: Standard deviation

Table 3: Frequency distribution and mean rating of responses on diagnosis domain (n=400)

Statement: Informational needs	1, n (%)	2, n (%)	3, n (%)	4, n (%)	5, n (%)	Mean ±SD
Diagnosis						
The investigations that confirm the diagnosis of breast cancer	0	0	119 (29.8)	257 (64.2)	24 (6.0)	3.76±0.55
Why each of the confirmatory tests are necessary	44 (11.0)	24 (6.0)	114 (28.5)	187 (46.8)	31 (7.7)	3.34±1.08
The meeting of a positive/a negative result of each of the above tests.	0	59 (14.8)	89 (22.2)	237 (59.3)	15 (3.7)	3.52±0.79
The reasons why doctors suggest certain additional tests. Examples: X - rays, bone scans etc.	0	32 (8.0)	67 (16.7)	266 (66.5)	35 (8.8)	3.76±0.72
How to prepare for such test	0	45 (11.3)	196 (49.0)	148 (37.0)	11 (2.7)	3.31±0.70
Whether there are different stages of breast cancer and what do they mean	0	102 (25.5)	146 (36.5)	114 (28.5)	38 (9.5)	3.22±0.94
Whether the tests can identify the stage of it	0	39 (9.8)	38 (9.5)	285 (71.2)	38 (9.5)	3.81±0.74
What should a breast cancer victim discuss with family/friends about the illness	11 (2.7)	95 (23.8)	184 (46.0)	99 (24.8)	11 (2.7)	3.01±0.84
How my illness could affect my life in the future	43 (10.8)	44 (11.0)	118 (29.5)	148 (37.0)	47 (11.7)	3.28±1.14

1: Not important, 2: Slightly important, 3: Moderately important, 4: Very important, 5: Extremely important. SD: Standard deviation

Table 4: Frequency distribution and mean rating of responses of treatment domain (n=400)

Statement: Informational needs	1, n (%)	2, n (%)	3, n (%)	4, n (%)	5, n (%)	Mean ±SD
Treatment						
About treatment for breast cancer	0	0	60 (15.0)	250 (62.5)	90 (22.5)	4.08±0.61
How to decide particular treatment plan	0	15 (3.7)	215 (53.8)	80 (20.0)	90 (22.5)	3.61±0.87
Mode of treatment is given	0	0	87 (21.8)	257 (64.2)	56 (14.0)	3.92±0.59
The need to be in the hospital for treatment/if so, how long	0	0	98 (24.5)	174 (43.5)	128 (32.0)	4.08±0.75
Detail of the places where they offer treatment	0	0	60 (15.0)	273 (68.2)	67 (16.8)	4.02±0.50
Any food restriction/important food, during treatment	0	7 (1.7)	48 (12.0)	155 (38.8)	190 (47.5)	4.32±0.75
Any restriction to take other drug (if any), during treatment	0	65 (16.3)	44 (11.0)	250 (62.5)	41 (10.2)	3.67±0.87
The possible side effects of treatment	0	0	39 (9.8)	252 (63.0)	109 (27.2)	4.18±0.58
If I have side effects how to deal with them	0	0	39 (9.8)	272 (68.0)	89 (22.2)	4.13±0.55
What side effect I should report to the doctor/nurse	0	11 (2.8)	21 (5.2)	245 (61.2)	123 (30.8)	4.20±0.66
If there are ways to prevent side effects/ease treatment	0	0	32 (8.0)	244 (61.0)	124 (31.0)	4.23±0.58
Importance of mental preparation for treatment	0	11 (2.8)	66 (16.4)	291 (72.8)	32 (8.0)	3.86±0.58
How long will I require treatment	0	0	60 (15.0)	225 (56.2)	115 (28.8)	4.14±0.65
Whether treatment should do continuously	0	0	0	345 (86.2)	55 (13.8)	4.14±0.44
Whether the treatment may give up any time duration	0	0	32 (8.0)	292 (73.0)	7 (19.0)	4.11±0.51

1: Not important, 2: Slightly important, 3: Moderately important, 4: Very important, 5: Extremely important. SD: Standard deviation

immediately" (n = 203, 50.8%) were responded as extremely important by approximately half of the respondents.

Descriptive statistics of the score for each domain and all items of SINAQ-BC were calculated and shown in Table 7.

Table 5: Frequency distribution and mean rating of responses on physical care domain (n=400)

Statement: Informational needs	1, n (%)	2, n (%)	3, n (%)	4, n (%)	5, n (%)	Mean ±SD
Physical care						
When should the breast be examined after the surgery	0	0	18 (4.5)	196 (49.0)	186 (46.5)	4.42±0.58
How to care for my wound or incision	0	0	32 (8.0)	161 (40.2)	207 (51.8)	4.44±0.64
How long will it take to heal	0	21 (5.2)	151 (37.8)	45 (11.2)	183 (45.8)	3.98±1.00
Any additional therapies required to improve recovery after surgery	0	0	130 (32.5)	225 (56.3)	45 (11.2)	3.79±0.63
When should I commence my usual physical activities	16 (4.0)	40 (10.0)	143 (35.8)	190 (47.4)	11 (2.8)	3.35±0.85

1: Not important, 2: Slightly important, 3: Moderately important, 4: Very important, 5: Extremely important. SD: Standard deviation

Table 6: Frequency distribution and mean rating of responses on psychosocial service domain (n=400)

Statement: Informational needs	1, n (%)	2, n (%)	3, n (%)	4, n (%)	5, n (%)	Mean ±SD
Psychosocial service						
Detail of the places where they offer counselling services	21 (5.2)	88 (22.0)	33 (8.2)	255 (63.8)	3 (0.8)	3.33±1.00
How to face the society successfully	0	91 (22.8)	115 (28.8)	104 (26.0)	90 (22.4)	3.48±1.10
How to manage mental stresses successfully	0	98 (24.5)	60 (15.0)	160 (40.0)	82 (20.5)	3.57±1.10
Telephone numbers for public (hotline) which can be used to get information on Breast Cancer	0	44 (11.0)	31 (7.8)	239 (59.8)	86 (21.4)	3.92±0.85
How should family members discuss about the disease with the patient at an initial level of diagnosis	0	0	65 (16.2)	311 (77.8)	24 (6.0)	3.90±0.46
Behaviour of newly diagnosed women	0	10 (2.4)	119 (29.8)	247 (61.8)	24 (6.0)	3.71±0.61
Where my family can go if they need help to deal with my illness	0	0	67 (16.8)	322 (80.4)	11 (2.8)	3.86±0.42
To be aware other family members about their risk for breast cancer	0	0	28 (7.0)	195 (48.8)	177 (44.2)	4.37±0.61
How to tell if the cancer has come back.	0	0	56 (14.0)	129 (32.2)	215 (53.8)	4.40±0.72
Detail of the places where they buy brassieres and the cost of the item	13 (3.3)	56 (14.0)	116 (29.0)	177 (44.2)	38 (9.5)	3.43±0.96
Information on financial support	0	21 (5.3)	63 (15.8)	239 (59.8)	77 (19.2)	3.93±3.93
Importance of continue treatment and care	0	0	42 (10.4)	287 (71.8)	71 (17.8)	4.07±0.52
How often should be followed up in respect to treatment mode?	3 (0.8)	42 (10.4)	72 (18.0)	212 (53.0)	71 (17.8)	3.77±0.89
What are the symptoms to get admitted	0	0	18 (4.4)	179 (44.8)	203 (50.8)	4.46±0.58
What are the symptoms to come to the clinic immediately	0	0	0	197 (49.2)	203 (50.8)	4.51±0.50

1: Not important, 2: Slightly important, 3: Moderately important, 4: Very important, 5: Extremely important, SD: Standard deviation

The domains of disease, treatment, and psychosocial service scored the highest depicting that they are the aspects of high needs of information by the BC patients.

Information needs of breast cancer patients by age and educational level

Mean of the total score for SINAQ-BC by the age category of the respondent are shown in Table 8.

The results revealed that information needs of BC and the respondent's age below 37 years has a moderate (negative) linear relationship and a weak (negative) linear relationship with over 38 years age of the respondents.

The association of the level of education of BC patient on informational needs is shown in Table 9.

The level of education of the respondent was statistically significantly associated with the SINAQ-BC scores ($P < 0.05$). *Post hoc* comparisons using the Turkey HSD test indicated that the means score for No schooling/Passed Grade 5 or 9 (Mean = 216.6, SD = 26.0) was significantly different from mean score of those in the GCE (O/L) or GCE (A/L)

Table 7: Descriptive statistics for each domain and all items of Sri Lankan Information Needs Assessment Questionnaire - Breast Cancer

Scale	Mean	SD	Minimum-maximum
Total scale	226.4	26.7	176-276
Domain			
Disease	55.8	7.0	35-69
Diagnosis	31.0	5.9	17-43
Treatment	60.7	6.3	47-70
Physical care	20.2	3.2	15-28
Psychosocial service	58.7	6.7	46-73

SD: Standard deviation

category (Mean = 229.7, SD = 24.4) and mean scores of those in the Degree or Postgraduate qualification category (Mean = 228.7, SD = 31.6). Those in the Degree or Postgraduate qualification category group did not differ significantly from those in the GCE (O/L) or GCE (A/L) category.

Analysis of the scores by the categories based on educational level revealed that women with higher education had greater information needs regarding BC.

Table 8: Mean of the total score for Sri Lankan Information Needs Assessment Questionnaire - breast cancer by the age category of the respondent

Age range (years)	Total scale		<i>r</i>	Significance
	Mean	SD		
27-37	225.74	34.17	-0.434	0.015
38-48	237.37	20.75	-0.329	≤0.001
49-59	230.58	25.45	-0.236	0.003
≥60	216.90	25.92	-0.263	≤0.001

SD: Standard deviation

Table 9: Association of the level of education of the breast cancer patient on informational needs

Education level	Mean	SD	Significance
No schooling, passed Grade 5 or 9	216.6	26.0	$F(2,397)=8.8$
GCE (O/L) or GCE (A/L)	229.7	24.4	$P \leq 0.001$
Degree or postgraduate qualification	228.7	31.6	

SD: Standard deviation, GCE (O/L): General Certificate of Education (Ordinary Level), GCE (A/L): General Certificate of Education (Advanced Level)

Discussion

This study used the validated SINAQ-BC data collection tool to reliably assess the information needs of BC patients. Evidence-based practice depends on establishing partnership between scientific evidence, clinical expertise, individual needs, and the choice of patients.^[10-12] Utilizing a validated tool to assess the information needs can be considered the first step toward an evidence-based approach.

Information needs of breast cancer patients

All patients indicated a strong need for information.

The most striking findings of this study were that patients with BC gave the highest importance to the domains of disease, treatment, and psychosocial services. This finding is consistent with the existing European countries' literature, where information about disease, treatment, and psychosocial service were rated greater than diagnosis and physical care.

The findings of this study are in parallel with former research. Graydon *et al.*^[13] have identified that information on recurrence was the greatest concern among women with BC. Patient's information needs are at their highest during radiotherapy, especially, at the first appointment with the radiation oncologist and when their planning this appointment.^[14] Providing information during this time increases patient satisfaction.^[15] It is very important to provide reassurance that the therapy is acceptable and safe. Patients require information on other treatment modes that would aid in their preferences for treatment choices in their decision-making. Women with BC undergoing chemotherapy have significant information needs.^[16] Other studies have indicated that patients

require information on chemotherapy, particularly on cancer and its spread, the side effects of chemotherapy and management of the side effects. Consistent with the previous studies, all items in the treatment scale were highly rated by the participants of our study as the important information needs.

Information-seeking preferences of patients may be influenced by the several factors such as the time from diagnosis, sociodemographic variables (age, gender, and education) and disease variables (a type of cancer, treatment, and stage of disease).^[15,17] In addition to time since diagnosis,^[17-20] age is the only significant influencing factor in information-seeking behavior.^[13,21] Concerning age, younger women require more information than older patients.^[5] At the initial stage of the instrument development, the need for information on contraception, sexual activity among premenopausal women with BC was assessed; and the participants did not rate these as important information needs, probably due to socio-cultural influences. However, other researchers have highlighted that participants were willing to receive counseling on issues related to infertility, fertility preservation, contraception, and menopause.^[7] It is most likely that during this stage of coping with the diagnosis of BC, knowledge plays an important role in improving health-seeking behavior specific to sexual and reproduction health. Previous studies showed that lack of knowledge is a significant factor for delayed health-seeking behavior.^[4]

Previous researchers revealed that many of the information needs noted for various other contexts of cancer, especially in palliative care did vary.^[22] Each patient expressed very different information needs – the younger patients desired factual information on disease, prognosis, and life expectancy while elderly patients had a dormant information need. Our results indicated that younger patients (age <37) and patients who had received higher education have significantly higher information needs ($P < 0.0001$). The two groups need to be specifically targeted to fulfill their information requirements.

In line with our findings, previous research had also shown the importance of age and education level when catering for information needs of BC patients. Vivar and McQueen^[5] had shown that age is a meaningful variable that should be kept in mind when caring for BC survivors. Furthermore, women with higher education level show a greater demand for information than the less educated.^[5] Given the fact the younger generations of women in South Asia are being more empowered through education, our health-care systems need to respond appropriately and adapt services to suit the needs of patients and ensure optimal receiver satisfaction irrespective of their disease status.

Conclusion

Younger women and educated women of South Asia origin have a greater demand for information on BC. It is recommended that a sociocultural appropriate educational package on BC is developed to target the differing patient needs.

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Conflicts of interest

There are no conflicts of interest.

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