

## Original Research Article

# Psychosocial profile of women reporting with breast related symptoms and their association with time taken for presentation, a hospital based study

Neelam Sood<sup>1\*</sup>, Medhavi Sood<sup>2</sup>, Swasti Bansal<sup>2</sup>, Dweep Chand Singh<sup>2</sup>

<sup>1</sup>Department of Pathology, Deen Dayal Upadhaya Hospital, New Delhi, India

<sup>2</sup>Department of Behavioural health and Allied Sciences, Amity Institute of Behavioural Health and Allied Sciences, Amity University, Noida, UP, India

**Received:** 05 August 2020

**Revised:** 30 September 2020

**Accepted:** 05 October 2020

### \*Correspondence:

Dr. Neelam Sood,

E-mail: neesu1234@hotmail.com

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## ABSTRACT

**Background:** The paper aims to study psycho-socio- demographic factors of women presenting with breast symptoms, find their correlations with (TTP).

**Methods:** This cross sectional study was conducted in the Breast diagnostic clinic of a tertiary care hospital over a period of 2 months with the aim to approach all those women attending the breast diagnostic clinics and who had not started any treatment so far. The data collection was done using self-administered questionnaire and interview based questionnaire as required for a period of 2 months. 80 patients were included in the study. Their socio-demographic data, health seeking behaviour were collected and personality traits, life orientation and coping styles were assessed using the standardized tests. Descriptive, correlation analysis and stepwise linear regression followed by logistic regression, using SPSS20 software.

**Results:** TTP was long with mean 6months. It was found to be negatively associated with size of the lump and education and positively with awareness about risk of cancer. Life orientation styles and personality traits showed no correlation. Pessimism was the seen in the majority of women.

**Conclusions:** Education and increasing awareness about risk of cancer in the women can help them to report for treatment without delay. The understanding of coping skill, life orientation and personality domains and their relationship with TTP in the pre-diagnostic stage can help in future planning strategies during the course of treatment for breast cancer.

**Keywords:** Breast cancer symptoms, Psychological parameters, Time taken for presentation

## INTRODUCTION

Breast diseases are reported by women very frequently in a hospital set up. Mammary gland undergoes continual physical and physiological changes from puberty till death. Breast lesions are a diverse group of lesions ranging from inflammatory to neoplastic pathologies.<sup>1</sup> The lump usually become palpable when it is more than 1 cm in diameter and it takes approximately 3 years for a

tumor to attain this size from a single cell. Incidence of breast lump is different in different parts of the world and vary in the diagnostic spectrum.<sup>2,3</sup>

Breast cancer (BC) is ranked number one cancer in Indian females. It has the age adjusted rate as high as 25.8 per 100,000 women and mortality 12.7 per 100,000 women.<sup>3</sup> Unlike the other common cancer in females, i.e. cancer cervix, the natural history of BC does not usually have a

distinct latent period of precancerous lesions, as a result screening programme for BC has its own share of problems. Early detection with timely institution of therapy is always considered to be the method of choice for reducing morbidity/mortality and improving long-term survival of cases. Early detection of BC is possible through clinical breast examination(CBE) or self breast examination(SBE).<sup>4</sup> Despite the best of efforts and intentions breast cancer screening programmes is virtually a non existing reality in India as a result over 70% of the women present in advance stage. The whole situation of the advanced stage presentation moves around the two major factors, nonexistent of breast cancer screening program, and nonparticipation / non-reporting of women to health care professionals.<sup>5</sup> 58.5% or more of all breast lump are usually discovered by self-breast examination (SBE) by the patient.<sup>2</sup> Women after having self discovered the breast lump may report to the health facilities for diagnosis and treatment, and this interval is called “time taken for reporting “(TTP).<sup>3</sup> This TTP is crucial, as that determines the stage and the type of tumor detected at the time of diagnosis. In symptomatic women, ‘patient delay’ has been defined as the time elapsed between symptoms onset and the first medical consultation, which is defined as more than 3 months.<sup>6,7</sup>

A better understanding of why many women wait longer than three months before getting medical attention for breast symptoms could lead to life-saving health promotion interventions.<sup>8</sup> Numerous studies have concluded that TTP may be influenced by a range of psychosocial factors with mixed results. These are emotional, cognitive, and behavioural responses of the patient in response to the discovery of a breast symptom, social influences, psychiatric history, and previous medical help-seeking behaviour.<sup>7</sup>

Although personality, coping strategies and life orientation have been studied in diagnosed breast cancer patients, but these have not been previously explored for their association with TTP in all breast diseases. The assessment of anxiety, either about cancer or the screening process or a more general affective trait, does not appear to have been a focus of the study.<sup>9</sup> This study has been done to assess the clinic-psycho-social and demographic profile of the patients who report with breast related symptoms after self-breast examination (SBE). It also intends to find any association between TTP and these psychological domains in relation to other clinical, demographic and social parameters. It is thus imperative to explore the domains of coping styles, life orientation styles as well as personality traits in women with any breast lump or symptom instead of concentrating only on the malignant cases.

The objective of the study was to objectives analyze the clinic-socio-demographic spectrum in women presenting with breast related symptoms to Breast diagnostic clinic. To analyse the psychological domains of these patients.

To assess the incidence of TTP. To find any association between the TTP/delayed presentation with other variables and psychological domains.

## **METHODS**

This study was conducted in the Breast diagnostic clinic of a tertiary care hospital over a period of 2 months from August 2019 to October 2019 with the aim to approach all those women (18-65 years) attending the breast diagnostic clinics for FNAC /Trucut biopsy and who had not started any treatment so far.

### ***Inclusion criteria***

Adult women presenting with breast complaints–discharge /lump, 18 years or above.

### ***Exclusion criteria***

Females less than 18 years. Female more than 65 years. Any known psychiatric illness. Individuals not willing to take part in the study

### ***Type of study- cross sectional***

The predesigned, pretested semi structured questionnaire was administered among them after taking their valid informed consent and ethical clearance.

The data collection was done on the designated breast diagnostic clinic days using Self-administered questionnaire and interview based questionnaire as required for a period of 2 months.

Part1 was directed towards socio demographic data and health seeking behaviours and part 2 comprised of psychological parameters.

Sample size calculation was done by the formula using population size of 100 patients in diagnostic clinic in two months, with confidence level of 95% and confidence interval of 5.

### ***Psychology parameters***

DSM Personality Inventory for DSM-5—Brief Form (PID-5-BF), is a personality paradigm consisting of 25 personality facets identified in five domains with Cronbach's alpha 0.73 and test-retest values ranged between 0.57 to 0.83 for facets and 0.70 to 0.87 for the domains. LOT-R is a short instrument with 10 self-report items. The 6-item sum is referred to as the LOT-R score. (Cronbach's alpha.78, test–retest reliability 0.68).

Brief cope - The Brief-COPE is a 28 item self-report questionnaire designed to measure effective and ineffective ways to cope with a stressful life event, which is the presence of breast disease /symptom. The scale can

determine someone's primary coping styles as Approach Coping, or Avoidant Coping.

The final biopsy diagnosis was subsequently taken from the breast clinic and categorised into benign or malignant lesions. The results were analysed using SPSS 20 software.

## RESULTS

The data was checked for skewness and descriptive statistics was carried out followed by correlation analysis, ANOVA and chi square tests. Dummy variables were created as required. There after stepwise linear regression was used. The demographic and clinic-psychological data is in Tables 1 and 2.

**Tables 1: Demographic characteristics.**

Characteristics	n=80 (N) %	Delayers n=48	Nondelayers n=32
		(N) %	(N) %
<b>Age groups</b>			
Less 30 than	(31) 38.8	(15) 31.3	(16) 50
31-50	(33) 41.3	(25) 52.1	(8) 25
51-70	(16) 20.0	(8) 16	(8) 25
<b>Education</b>			
Uned	(10) 12.5	(8) 16.7	(2) 6.3
Upto8	(22) 27.5	(18) 37.5	(4) 12.5
Upto10	(22) 27.5	(14) 29.2	(8) 25
Upto12	(8) 10	(1) 2.1	(7) 21.9
Grad	(18) 22.5	(7) 14.6	(11) 37.5
<b>Religion</b>			
Hindu	(69) 86.3	(38) 79.2	(31)96.9)
Muslim	(8) 10.0	(7)14.6	(1) 3.1
Sikh	(3) 3.8	(3) 6.3	0
<b>Domicile</b>			
Urban	(73) 80.3	(33) 68.8	(26)80.3
Rural	(10) 10.4	(5)10.4	(5) 10.4
Ruralurban	(13) 16.3	(10)20.8	(10) 20.8
<b>Marital status</b>			
Unmar	13 (16.3)	(6) 12.5	(7) 21.9
Mar	62 (77.5)	(38) 79.1	(24) 75
Widow	3 (3.8)	(2) 4.3	(1) 3.1
Divorcee	2 (2.5)	(2) 4.3	0

**Tables 2: Psycho-clinical characteristics.**

Characteristics	N (%)	Delayers n=48 (N)%	Nondelayers n=32 (N) %
<b>Life orientation scale (los-r)</b>			
High pessimism	(72) 90.0	(43) 89.5	(29) 90.6
Moderate optimism	(2) 2.5	(2) 4.2	0
High optimism	(6) 7.5	(3) 6.3	(3) 9.4
<b>Life orientation scale (los-r score) mean= 10.19 (s.d=3.972)]</b>			
<b>Coping</b>			
Avoidant	(54) 67.5	(32) 66.7	(22) 68.8
Approach	(26) 32.5	(16) 33.3	(10) 31.2
<b>Dsm-5 short</b>			
Negaffect+disinhibition	(45) 56.3	(28) 58.3	(18) 56.3
Detachment	(35) 42.7	(20) 41.7	(14) 43.7
<b>Size (mean 2.67 cm sd 1.77)</b>			
<b>Size cat</b>			
Upto 2.5 cm	(46) 57.5	(20) 41.7	(26) 81.2
2.5-5 cm	(24) 30.0	(18) 37.5	(6) 18.8
Above 5 cm	(10) 12.5	(10) 20.8	0

Continued.

Characteristics	N (%)	Delayers n=48 (N)%	Nondelayers n=32 (N) %
<b>Nature of complaints</b>			
Lump with or without pain/discharge/skin changes	(74) 96.2	(48) 100	(26) 81.3
Only discharge/only pain	(6) 0.07	0	(6) 18.7
<b>Awareness of cancer risk</b>			
Aware	38 (47.5)	(17) 35.4	(21) 65.6
Not aware	42 (52.5)	(31) 64.6	(11) 34.4
<b>History of any cancer in the family</b>			
Yes	(14) 17.5	(7) 14.6	(7) 21.9
No	(66) 82.5	(41) 85.4	(25) 78.1
<b>Smoking history</b>			
Yes	(7) 96.3	(2) 4.2	(1) 3.1
No	3.7 (3)	(46) 95.8	(31) 96.9
<b>History of tobacco use</b>			
Yes	(76) 95	(3) 6.2	(1) 3.1
No	(4) 5	(45) 93.8	(31)96.9
<b>Diagnosis</b>			
Malignant	(30) 37.5	(21) 43.8	(9) 28.1
Nonmalignant	50) 62.5	(27) 56.2	(23) 71.9

The TTP varied from less than 1 month to 15 months. The average TTP was 6 months. It correlated well with size, religion, awareness about cancer and showed no significant association with other variables. 49 cases (61.3%) presented with delay with more than 5 months TTP. The data was also split based on the median TTP, i.e.5 months into two groups- delayers and non-delayers and analysed Tables 1, 2.

In nondelayers the diagnostic outcome was benign in 23(74.2%) and malignant in 8 (25.8%) and benign in 27(55.1%) and malignant in 22 (44.9%) in delayers respectively. (Statistically not significant)

The population studied, belonged to the similar socioeconomic background. History of any cancer in the family members was noted in 7 cases (22.6%) in non-delayers non-delayers and 7 (14.3%) in delayers.

No significant association was found for nature of domicile with TTP. Although the patients preferred to go to their local doctors /health personnel (37.5%) and hospital set-up (47.5%), there was no statistical significant association with TTP/ domicile. Educational status showed a significant correlation with TTP (Table 4) Size category, education and religion were good predictors for time TTP. (Table 3)

**Table 3: TTP in months with categorical variables showing significant correlation.**

	Characteristics	Correlation	Method
TTP in months	Size cat	(F(2,27) = 9.181, p=.000	Anova
	Marital	(F(3,26) =3.493, p=.021	Anova
	Religion	(F(2,77) = 5.926, p=.004	Anova
	Awareness of risk	(F(1,78) = 9.935, p=.002	Anova
	Size	0.000	Pearson correlation
	Age	0.048	Pearson correlation

**Table 4: TTPDEL5 (delayers) with categorical variables showing significant correlation using chi square.**

	Characteristics	Correlation	Method
TTP Del5 (delayers)	Age group	$X^2$ (2), N= 80), p=5.823, p=060 <sup>b</sup>	Pearson Chi-Square
	size cat	$X^2$ (1), N= 0), p=5.077 <sup>a</sup> , p=0.022	
	Family history	$X^2$ (1), N= 0), p=5.077 <sup>a</sup> , p=0.024	
	DSM	$X^2$ (2), N= 0), p=6.966 <sup>a</sup> , p=0.031	
	Upto or above class 10	$X^2$ (1), N= 0), p=13.713 <sup>a</sup> , p=.000	

**Table 5: Regression Model Summary of TTP and other predictor variables.**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	0.574 <sup>a</sup>	0	0.321	2.916	0.33	38.368	1	78	0.000
2	0.620 <sup>b</sup>	0	0.369	2.812	0.055	6.895	1	77	0.010
3	0.657 <sup>c</sup>	0	0.41	2.719	0.047	6.35	1	76	0.014

a. Predictors: (Constant), sizecat, b. Predictors: (Constant), sizecat, religion, c. Predictors: (Constant), sizecat, religion, edu, d. Dependent Variable: TTPMONTH.

**Table 6 linear regression TTP month with above.**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square change	F change	df1	df2	Sig. F change	
1	.487 <sup>a</sup>	0.237	0.228	3.11	0.237	24.286	1	8	0	0.808

Predictors: (Constant), size, Dependent Variable: TTPMONTH

In terms of predictors specific for delayers, size, age history of cancer in the family and personality traits and education showed good correlation. Linear regression model showed the size to be the best predictor (Tables 5 and 6).

Commonest reason for presentation was lump breast, and it was the change in size or skin changes that brought them to the health care personnel 63/80 (77, 8%). The hospital setup was preferred by the married, educated, urban and the younger.

Denial was the initial response to noticing the lump or discharge, followed by recognising the need to seek social support followed by symptom interpretation as risk for cancer (77.8%)

Denial was the most common way of coping in the young less than 20 years, whereas denial was accompanied by anxious, behaviour disengagement, cursing and venting in the age groups up to upto 50 years and the older were more religious and less anxious. (Statistically not significant).

The younger married felt that fear of disapproval from husbands was the barrier to report to health professional, in all less than 20 years and 60% in 20-30 years. In the older age groups 30 and above the fear of disapproval was much less. The women showed higher pessimism, negative affect traits and avoidant coping styles. (No statistical correlation).

## DISCUSSION

There has been a constant rise (0.5–0.2% per annum) in the incidence of breast cancers all over India and across all age-groups. All lumps developing in the breast may or may not result in carcinoma and breast cancer may present as pain or discharge from the nipple. Benign

breast diseases have been reported to have a 10 times higher frequency than malignancy in women.<sup>1</sup> The World Health Organization introduced early detection of breast cancer as “the cornerstone Discussion of breast cancer control”. However, 20–30% of women delay seeking help for three months or more after the discovery of a BC symptoms. There are studies to identify predictive factors of delay, which could help in defining and planning strategies to reduce this delay.<sup>7</sup>

The average TTP was 6.13 months (median 5 months), similar to other Indian series.<sup>6,10</sup> Delayed TTP was seen in .60 % of cases, whereas delayed TTP has been reported only in a minority in the series by other researchers; 20-30% and 39.1% in Bish et al and Khan series respectively.<sup>11,12</sup>

The association of delayed presentation with socioeconomic status is paradoxical. TTP has been found to be longer in women from poor socioeconomic background in Indian context.<sup>6</sup> On the other hand it was found to associated with higher income group women and was linked to more casual attitude towards their health problems in those women.<sup>13</sup> In our study the economic status has been homogenous for the entire population, so this factor could not be assessed.

Domicile was also not statistically significant in our series, although it was reported that women from urban background are less likely to present with advanced cancer, which can indirectly be an indicator of delayed presentation.<sup>14</sup> Educational status and economic status also have a direct correlation with delayed presentation as also observed by us and was found to be good predictor.<sup>6,12,15</sup> Smoking has been linked to delayed presentation, but no statistical association was found with smoking in our series.<sup>13</sup> Higher age has been linked with the delays as also observed by us.<sup>6,12</sup> It has been found to be good predictor. Religion had no correlation with TTP

but in regression analysis religion was found to be a predictor for delay.

Marital status has no correlation with TTP.<sup>6,12</sup> Family history of cancer has not been found to have a significant correlation with advanced stage of cancer but a negative family history were significantly associated with delayed presentation.<sup>12,14,15</sup> It had an interesting correlation with the size of the lump and awareness about risk of cancer, although having no correlation with TTP. The presence of history of any cancer in any of the family members was reportedly associated with smaller size and shorter time taken to report ( $p < 0.01$ ). We found that presence of any cancer in any family member, not necessarily breast cancer in the family had an association with TTP. This factor possibly may increase their awareness about cancer and risk perception.

Type of breast symptom also has been identified as a predictor of delay; women who report breast lumps are more likely to seek medical care promptly than women with other breast symptoms such as pain, nipple discharge or change in the shape or dimpling of the breasts.<sup>7,8</sup>

In our series the patients mainly reported to the health personnel with main symptom of lump (92%). Change in size, with or without skin changes was reported in (77.8%). *vis a vis*. 65% by Friedman et al.<sup>8</sup> It was the size which was the predictor for delay in our cases with positive correlation with the TTP.

A lower perceived risk was linked to longer TTP, whereas there was no significant relationship between perceived risk and TTP in another study on lung cancer.<sup>15,16</sup> In our series correlation was established between TTP delayed and awareness about risk of cancer. The delays have been associated with symptom detection, symptom interpretation, monitoring and social interactions.<sup>7</sup>

Women's knowledge and perception of being at risk of cancer influence their initial interpretation. Usually women attribute the symptoms to a serious cause, requiring confirmation. They tend to discuss the problem with others first and thereby encouraged to seek medical help. A painless lump can be perceived as not important for some, who considered themselves to be at lower risk of developing breast cancer with reassurances, when they disclosed their symptoms to others.<sup>7</sup> In our series, the patients found the support in the close family member-husband, sister, mother or mother in law, in older women but the younger discussed with their mother, as also observed by other researchers.<sup>7</sup>

Fear can be a facilitators and barriers of breast cancer screening.<sup>10</sup> "Fear seemed to provoke one of two opposite actions in the women that experienced it: delayed seeking of medical attention to avoid confirmation of a cancer diagnosis, or acceleration of medical help-seeking to receive treatment as early as possible".<sup>7</sup> Lack of

awareness about breast cancer, financial problems, treatment worries. fear of cancer, fear of breast loss', 'can't get off work' and 'rather not think about it', denying having breast cancer and thinking it was only a simple mass and it will go and psychological distress were found to be, the most common barriers as reported by Friedman.<sup>8</sup> It was this fear which made even the young as low as 18-20 years to report to the hospital. In these patients the presence of nipple discharge even in absence of lump was the reason to present.

It was considered by Bish et al that older women have less knowledge of breast symptoms and are more likely to appraise a symptom as not serious. In addition, they presumably have more negative attitudes to help seeking. These factors, lead to a reduced intention to help seek and less likelihood of actually seeking help in the event of a symptom occurring.<sup>10</sup> On the other hand Ismail et al demonstrated significant negative correlation between age and knowledge about breast self-examination and positive correlation was found between age of the sample and breast examination. They also found statistically significant positive correlation was found between family history of breast cancer knowledge about breast self-examination.<sup>18</sup> We found significant correlation between family history, size, awareness and age.

The point at which an individual recognizes that their symptoms could be serious is a critical psychological turning point in the time prior to seeking help.<sup>20</sup> Personality traits are strong predisposing factors for elevated experience of distress. Negative affect can be defined as the general dimension of subjective distress, which includes various unpleasant moods, such as fear, anxiety, guilt, tension, hostility etc. It has been shown that negative affect correlates positively with a subjective experience of stress, as well as with maladaptive coping strategies. Those individuals who are high in negative affect usually manifest higher levels of dissatisfaction, distress, anxiety, and a tendency toward focusing on the unpleasant aspects of themselves or, the world / life and the future. On the other-hand positive affect is associated with subjective well-being and tendency to utilise supportive social network and show optimism, adaptive coping strategies and resilience in general. Negative and positive affect can be measured both as trait and state. It is interesting to note that pre-morbid psychological features and coping strategies are more associated with lower quality of life in breast cancer than to cancer-related variables such as severity of illness or type of treatment.<sup>20</sup> Disinhibition is a lack of restraint manifested in impulsivity, acting on a momentary basis without consideration of outcomes or plans. It also makes a person undertake risks without regard for consequences. Detachment is characterized by withdrawal in social situations, avoidance of social contacts and activity as well as lack of initiation of social contact, avoidance of close relationships; interpersonal attachments. It may also result in preoccupation with and sensitivity to criticism or rejection. It is also associated with distorted inference of

other's perspectives as negative. Diminished mutuality with in intimate relationships because of fear of being shamed or ridiculed are also a part.<sup>20,21</sup> These personality traits are particularly important when it comes to the psychological adaptation to illness.<sup>20</sup> TTP can be expected to have a relationship with the personality traits.<sup>23</sup> These traits were also seen in our cases, but showed no statistical correlation with the malignant or non-malignant outcome as well as the delayed presentation.

Folkman and Lazarus defined coping as "the cognitive and behavioural efforts made to master, tolerate, or reduce external and internal demands and conflicts among them." It can also be defined broadly as an effort used to minimize distress associated with negative life experiences.<sup>10,23</sup> Differences in coping responses have been associated with variability in emotional responses to a wide variety of stressful events, with some forms of coping (e.g., planful-problem solving) generally associated with less distress and other forms of coping (e.g., distancing) generally associated with higher levels of distress.<sup>23</sup> It can be divided in to two types: Avoidant Coping and Approach Coping. Avoidant Coping, is characterised by the subscales of denial, substance use, venting, behavioural disengagement, self distraction and self-blame. It is associated with poorer physical health among those with medical conditions. Approach Coping is characterised by the subscales of active coping, positive reframing, planning, acceptance, seeking emotional support, and seeking informational support. Approach Coping is associated with more helpful responses to adversity, including adaptive practical adjustment, better physical health outcomes and more stable emotional responding as compared to avoidant type.<sup>30</sup>

Only a few studies directly addressing coping strategies in relation to breast cancer risk have been found in the literature.<sup>7</sup> Coping methods' are generally associated with longer TTP and only 'confrontive coping', 'seeking social support' and 'problem-solving' strategies were associated with shorter TTP.<sup>7,23,25</sup> Avoidant vs approach based coping was found to be correlated with TTP in our series. Denial as a common coping strategy is influenced by symptom progression. The women who delay seeking help from health professionals due to denial in accepting the possibility of cancer, the development of pain or nipple discharge provoke action, as also reported by our patients.<sup>10</sup>

Life approach/orientation can either be optimistic or pessimistic. Optimism-pessimism is considered to be a single bipolar dimension.<sup>24</sup> Optimism and pessimism are important psychological constructs, that can predict the way, the individuals react to stressful events.<sup>26</sup> Optimism characterizes normal human functioning, as individuals use social and cognitive filters to interpret their experiences into the most favourable future outlook within reasonable limits.<sup>27,28</sup> There are limited data to discuss the effects of optimism, on help seeking behaviors. However, optimism related to the nature of the

symptom or the outcomes of breast cancer had different consequences. Optimistic beliefs related to the nature of symptoms directed the interpretation of symptoms towards less serious labeling, while positive attitudes regarding the outcomes of cancer prompted help seeking of pain or nipple discharge provoked action.<sup>26</sup>

Individual differences in optimism, pessimism, and coping responses have been shown to contribute to variability in distress during stressful situations. Optimism and pessimism and coping were found to be directly related to distress levels prior to breast surgery.<sup>30</sup>

Coping, optimism and pessimism are interrelated to some extent. Optimism has been found to be positively related to the use of problem-solving coping, positive reframing, and tendency to accept reality.<sup>29,31</sup> Optimism has also been found to be negatively related to the use of denial and the attempt to distance oneself from the problem. Pessimism on the other hand has been reported to be associated with the use of overt denial and coping responses that lessen awareness of the problem. Generally more optimistic individuals generally seem to be active "copers" while more pessimistic individuals seem to be avoidant copers. The impact of coping is generally mediated by optimism and/or pessimism and contrary to Carver where impact of optimism was generally mediated by coping responses (i.e., denial, acceptance, with mediating effects of venting, on distress. However, support for the mediational role of coping is not universal.<sup>30</sup>

A sense of pessimism about one's life enhances a woman's risk for adverse psychological reactions to the diagnosis of, and treatment for, breast cancer. This finding suggests the potential desirability of assessing this quality informally in patients, to serve as a warning sign regarding the patient's well-being during the period surrounding and following surgery.<sup>29</sup> Women with a high level of pessimism are at risk for higher levels of anxiety and depression and lowered health-related quality of life in the course of the disease. It seems to be more important not to be pessimistic than to be optimistic and in our study pessimism was seen more.<sup>31</sup>

### **Limitations**

The sample size is small and the study can be expanded on a larger sample size of different socioeconomic backgrounds.

### **CONCLUSION**

Education and increasing awareness about risk of cancer in the women can help them to report for treatment without delay. The understanding of coping, life orientation styles and personality domains and their relationship with TTP in the pre-diagnostic stage can also help in future planning strategies during the course management of treatment for breast cancer. They patients

and can be targeted by an intervention programmes and Women also could be taught how to effectively solve the problem when confronted with a breast problem.

*Funding: No funding sources*

*Conflict of interest: None declared*

*Ethical approval: The study was approved by the Institutional Ethics Committee*

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**Cite this article as:** Sood N, Sood M, Bansal S, Singh DC. Psychosocial profile of women reporting with breast related symptoms and their association with time taken for presentation, a hospital based study. *Int J Community Med Public Health* 2020;7:4356-64.