

Psychological Consequences among Female Patients Suffering from Breast Tumor

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Abstract: Breast Cancer is defined as an abnormal growth of cells that occurs in the lobes or ducts of the breast. There are 1.67 million new cases of patients suffering from breast cancer yearly. In addition to the physical changes due to the disease, the patients may go through psychological stress. The study was conducted to assess the psychological consequences among female patients suffering from a breast tumor. A cross-sectional study was conducted on 100 female patients, between ages of 25-75 years, suffering from a breast tumor, visiting Sir Ganga Ram Hospital, Lahore. The data were collected by using a questionnaire with informed consent by non-probability convenient sampling. The patients with breast tumor suffered from physiological changes as well as psychological issues. The results revealed that, out of 100 patients, 48 patients had a lump in the breast, 23 patients felt pain, 33 had nipple discharge and 71 patients had gone through depression and mood swings. Moreover, 77 patients had anxiety. Conclusively, it was observed that the most common type of breast cancer was reported as a lump in the breast. Several patients suffered from pain, nipple retraction, nipple discharge, anxiety and depression which led to sleep disturbances. Lastly, breast cancer caused great distress among the patients and it was the main cause of several psychosomatic disorders.

Keywords: Breast Cancer, Psychological Consequences, Sleep Disturbance, Depression, Anxiety.

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I. Introduction

Breast Cancer is the abnormal growth of cells in lobes or ducts of the breast. It slowly multiplies and spreads all over the body. Globally, around 1.67 million new cases of breast cancer had been estimated every year¹. According to the mortality profile, yearly, 30.8% of females die due to breast cancer in Pakistan. Furthermore, females had been at higher risk of breast cancer, as a study showed their number as 52,500 females, and 48,600 suffered from breast cancer annually².

Patients may suffer from any of the three types of breast cancer, i.e. inflammatory breast cancer, invasive breast cancer or/and ductal carcinoma in situ³. Ductal carcinoma in situ arises in the cellular ducts of breast producing a lump in breast with a fluid discharge, while invasive breast cancer spreads outside the lobules to the tissues. It causes fluid excretion from breast followed by pain and inflammation⁴. Moreover, inflammatory breast cancer causes inflammation in the breast, leading to redness, protruding mass and thickening of breast⁵. After the diagnosis, breast cancer can be treated by neoadjuvant therapy, in which the tumor is reduced in size; and later on, the cancer cells are destroyed either by chemotherapy, radiotherapy, immunotherapy, or drug treatment^{6,7}. Consequently, the treatment of breast cancer causes several physiological and psychological side effects. A study showed that at some stage of breast cancer, approximately 30% of females became a victim of psychological issues⁸. Moreover, some side effects of radiotherapy include acute effects that cause skin erythema, decolorization, pigmentation on the surface of the skin, exfoliation and formation of ulcers, whereas, late effects include necrosis, fibrosis, telangiectasia and delayed ulceration followed by severe pain⁹. However, chemotherapy causes alopecia, infertility, preterm menopause which further leads to sexual dysfunction¹⁰. Some other side effects include hair loss, weight gain or weight loss that negatively affects the sexual wellbeing of patients¹¹.

Additionally, peripheral neuropathy causes tingling, numbness and pain in hands and feet due to which patients become unable to perform their routine activities¹². Some studies suggested that some clinical changes

occur in the body due to chemotherapy that originates psychological disorders in the patients, such as disturbed secretion of melatonin, serum serotonin and serum cortisol causes sleep disturbances, fatigue and depression among patients¹³. Furthermore, the severity of cancer along with pain causes sleep disturbances among patients which increases the level of anxiety and depression among them¹⁴. Surgical procedures, such as surgical removal of the breast, surgical scarring and alopecia becomes a subject of great concern for the patients. Mastectomy of the breast causes negative body image due to which the patients feel incomplete and dissatisfied¹⁵. Furthermore, loss of femininity causes consciousness among the patients¹⁶. They feel ashamed while socializing, hence, becomes a victim of social isolation¹⁷.

Lack of femininity and feeling of unattractiveness causes a negative impact on the spouse or relationship which leads them to depression and disturbs their psychological wellbeing¹⁸. A combination of all these factors causes physical and psychological impairments in the patients including depression, anxiety, sadness fatigue and disturbed sleep¹⁹. In the present study, the researcher aimed to address the psychological consequences of breast tumors and to comprehend the underlying causes. If the prevention is not made, the patients would suffer from the negative effects of the disease, such as emotional distress, anxiety and social isolation. The burden of the disease will be increased in society. Moreover, there will be increased mortality and morbidity rates.

II. Material And Methods

A cross-sectional study was conducted having a sample size of 100 patients, aged 20-60 years, suffering from a breast tumor. The study was conducted at Sir Ganga Ram Hospital, Lahore.

Study Design: Cross-sectional study.

Study Location: Tertiary care hospital, Sir Ganga Ram Hospital, Lahore.

Study Duration: June 2019 to September 2019.

Sample size: 100 patients.

Inclusion criteria:

1. Patients suffering from breast tumor
2. Female gender
3. Aged 20-60 years
4. Patients visiting or admitted in the oncology department of Sir Ganga Ram Hospital, Lahore

Exclusion criteria:

1. Adults aged below 20 years and above 60 years
2. Male gender
3. Hospitals besides Sir Ganga Ram Hospital, Lahore
4. Patients who were not suffering from breast tumor

Procedure methodology

After taking permission from the hospital and the department to conduct the research, written informed consent was obtained from the patients before data collection. The data were collected by using a self-structured questionnaire. Sociodemographic data were taken from the patients by the questionnaire. Questions were asked directly from the admitted patients suffering from breast tumors.

Statistical analysis

The data analysis was done by using Microsoft Excel and SPSS version 21.0. *t*-test and chi-square tests were done to analyze the significance of the study. The level of significance of value ≤ 0.05 was considered to have a significant association between two variables.

III. Result

According to table 1, the association between diagnosed type of cancer and confusion among patients was significant as the *p*-value was 0.024.

Table no 1: Association between the type of cancer diagnosed and mood swings among patients.

Type of cancer diagnosed	Confusion		Total	<i>p</i> -Value
	Yes	No		
Invasive Ductal carcinoma	16	10	26	0.024
Lump in breast	15	33	48	
Fibroadenoma	3	9	12	
Fungating mass	2	9	11	
Fibrocystic disease	2	1	3	
Total	38	62	100	

According to table 2, the association between change in the appearance of breast and mood swings of the patients was significant as the level of significance was 0.04.

Table no2: Association between change in breast appearance and mood swings

Change in Breast Appearance	Depression and Mood Swings		Total	p-Value
	Yes	No		
Yes	53	16	69	0.04
No	18	13	31	
Total	71	29	100	

According to table 3, the association between nipple discharges and sleep disturbance affecting the psychological wellbeing of the patients was highly significant as the p-value was 0.008.

Table no3: Association between nipple discharge and sleep disturbance

Nipple Discharge	Sleep Disturbance		Total	p-Value
	Yes	No		
Yes	25	8	33	0.008
No	32	35	67	
Total	57	43	100	

According to table 4, the association between financial strength and depression and mood swings of the patients was significant as the p-value was 0.041

Table no 4: Association between financial strength and depression and mood swings

Financially strong	Depression and Mood swings		Total	p-Value
	Yes	No		
Yes	6	7	13	0.041
No	65	22	87	
Total	71	29	100	

IV. Discussion

The present study conducted on the quality of life of breast cancer patients showed that breast cancer caused depression and sadness among the patients. From a total of 100 patients, 71 patients were undergoing depression and 77 patients were suffering from anxiety. Similar results were found in research conducted by Bower JE et al, which showed that in 60% of females, the rate of depression was increased²⁰.

In the present study, it was observed that out of 100 females, 33 had nipple discharge due to which they had to go through great trouble and distress. Discharge, when oozed out and got in contact with the clothes it caused filth and malodor, causing a feeling of shame to the sufferers. Furthermore, it was associated with the unbearable pain at the located area which made them unable to do their routine work. Females who had nipple discharge often suffered from physical and mental distress, which led them to anxiety. Additionally, certain females avoided going out in such conditions leading to social isolation. Similarly, Naomi I. et al. interlinked the relationship between increased pro-inflammatory cytokines (IL-6, TNF- α) and mood swings, feeling of getting socially isolated and the occurrence of depression by causing sickness behavior. The patients having high pro-inflammatory cytokines factor suffered from mood swings, depression and feeling of social isolation²¹. Additionally, Vempati P et al conducted research in which dominance of pain was present in the patients who had nipple discharge from the breast due to breast cancer²².

The current study showed that patients suffering from breast tumor had poor sleeping habits. It was seen that 57 patients had disturbed sleep that decreased their physical and psychological wellbeing. The patients, when asked about the cause of sleeplessness, 24 patients answered that they couldn't sleep because of depression, whereas, 23 patients were unable to sleep due to the pain and 10 patients couldn't sleep because of unknown reasons. Sleeplessness was also associated with lethargy and mood swings. Similarly, a previous study conducted in 2016 by Habibi F et al, showed that 80.2% of breast cancer patients had sleeping disturbances which were caused by the psychological factors, such as anxiety and depression. Moreover, these patients had poor physical and psychological functioning²³. Another study suggested that chemotherapy caused a poorer quality of sleep, increased level of exhaustion and increased level of symptoms regarding depression throughout treatment compared with the initial days of the treatment; however, the females who were going through the symptoms for the treatment had started, they suffered worse symptoms throughout the treatment²⁴.

V. Conclusion

The current study concluded that majority of the breast cancer patients suffered from lump in breast which had detrimental effects on their physical as well as psychological wellbeing. Certain patients suffered from nipple discharge due to breast cancer which showed a strong association with anxiety and sleep disturbance among them. Furthermore, hair loss was a subject of great concern for the females as hair is a symbol of femininity among females, therefore, hair loss caused a great distress among the females. Whereas, sleep disturbance caused mood swings and confusion among the patients. A combination of all these factors caused physical and psychological disturbances among the patients suffering from breast tumors.

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