



BODY IMAGE AND ILLNESS PERCEPTION OUTCOMES AMONG BREAST CANCER PATIENT AFTER MASTECTOMY

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ABSTRACT

Background And Need of Research: Over the last decades, Breast cancer has exceeded lung cancer. Mastectomy is the choice of treatment and has a relatively good prognosis, but is considered as one of the most destructive treatments from a psychological point of view and leaves an impact on one's self-esteem, femininity, and body image, causing more trauma than cancer itself. The aim of the study was to assess the Body image and Illness perceptions that a patient experiences along with the disease and whether physiotherapy plays any role in combating these psychological aspects.

Methods: This is a cross-sectional phase I study done on patients who underwent any type of mastectomy after breast cancer. BIPQ and BDDE were obtained after 2 months of surgery i.e. after their engagement in the community.

Result: Various parameters of BIPQ and BDDE show drastic reductions in self-esteem, femininity, feelings, emotions, and body image dissatisfaction. Further, these parameters are more severely affected in urban patients than those living in rural areas. As the duration after surgery increases, body image dissatisfaction reduces.

Conclusion: Most of the patients with mastectomy have body image dissatisfaction and higher brief illness perception after mastectomy which can be reduced by timely physiotherapy intervention on shoulder dysfunction and lymphedema.

Keywords: Breast cancer. Mastectomy, Brief illness perception, Body image

INTRODUCTION

Over the last decades, the incidence of breast cancer has exceeded the incidence of lung cancer as the most commonly diagnosed cancer and the fifth largest cause of death due to cancer in the world, with an estimated 2.3 million cases and 0.68 million deaths in 2020 alone, and the cases are expected to reach double of present scenario i.e. 4.4 million in 2070. Among the female population, breast cancer accounted for about 24.5% of all cancer cases and 15.5% of deaths due to cancer, ranking first for prevalence and mortality in the majority of the world countries in 2020. In India, breast cancer is one of the most commonly diagnosed cancers after cervical cancer contributing to almost 39.4 % of the total cancer for the year 2020 [1, 2].

Breast cancer, when diagnosed and treated promptly has a relatively good prognosis compared to other types of cancer. There are still a remarkable number of patients with palpable breast masses at the time of diagnosis, stipulating the need to improve the strategies for early diagnosis, which allows physicians to determine the correct diagnosis promptly, thus advancing the chances of treatment and lowering mortality rates after breast cancer [3, 4]. The diagnosis and treatment of breast cancer may have a great influence on body image, particularly when in our society the breast is considered as a symbol of femininity and sexuality. Body

image is defined as the mental picture of one's body, an attitude about the physical self and state of health, appearance, normal functioning, wholeness, and sexuality. For women, Body image includes feeling feminine and attractive [5].

It is not surprising that in our breast-conscious society, Mastectomy is considered one of the most destructive treatments from a psychological point of view and leaves an impact on one's self-esteem, femininity, and body image, causing more trauma than cancer itself. Clinicians have realized that the treatment of breast cancer may adversely affect body image and this has led to the taking on account approaches of breast-preservation strategies in order to keep up with one's body integrity and gratification with appearance [6]. A series of research studies comparing the two surgical approaches has affirmed to the view that conservative surgeries are related to the preservation of body image in contrast to mastectomy. Illness perceptions, which are defined as cognitions, feelings, and emotions about the symptoms a patient experiences along with the disease in general, seem to affect patients' attachment with the disease, which as sequelae affects the quality of life of patients. Also, it was supported by the evidence, that the quality of life of patients with breast cancer is affected by factors such as pain, fear of recurrence, fatigue,

depression, feelings of decreased womanhood and attractiveness, and dissatisfaction with the body image, self-esteem, and sexuality, and these factors are especially relevant after mastectomy.

In the study by Pikler and Winterowd (2003) it was stated that the better one's body image, the better women coped with cancer showing the significance of body image as a concept in the life of women. Higher levels of self-confidence in surviving with breast cancer were found in women who had better body image perceptions [7, 8]. The need to measure specific effects, such as the impact on body image and sexuality and related quality of life has become increasingly apparent as the sequelae of cancer treatments have been researched [9-11]. This is particularly important when body integrity is broken or body function is hampered as a consequence of the medical intervention. So, the aim of the present study is to assess the Body image and Illness perceptions among breast cancer patients after mastectomy.

MATERIALS AND METHODS

This is a prospective observational study done over a period of 12 months on breast cancer patients after mastectomy. The study was conducted in a multispecialty Dhiraj hospital located in the Vadodara district of Gujarat, India. Patients with age between 18 to 70 years, diagnosed with breast cancer and undergone mastectomy, medically stable patients, without psychiatric disorder or/and

family history of mental disorders, patients without major somatic disease except for breast cancer, and patients without a substance abuse history were included in the study whereas any patient with neurological and/or cardiorespiratory and/or musculoskeletal disorders were excluded from the study. Body dysmorphic disorder examination questionnaire and Brief illness perception questionnaire were the outcome measures used in the study.

A total of 25 women, meeting the eligibility criteria participated in the study. For those who were willing to participate in the study, a written informed consent form was obtained from them. A participation information sheet was given to them explaining the details of the study. The Subjects were screened and assessed and those fulfilling the inclusion and exclusion criteria were recruited for the study. Those subjects who were recruited for the study were assessed and received routine physiotherapy management during their hospital stay. Patients were instructed to visit the physiotherapy department after discharge when they came for follow-up after at least two months. At that time, apart from routine assessment and physiotherapy, their perception of illness using the Brief Illness Perception Questionnaire (BIPQ) and their body image using the Body Dysmorphic Disorder Examination (BDDE) were assessed. The questionnaires were

administered in the form of interviews during their visits.

The BDDE was used for the evaluation of body image. As reported in previous studies, the BDDE is a specific 34-item questionnaire that measures the degree of dissatisfaction with a particular part of the body, contributing to the diagnosis of body dysmorphic disorders. A total score is calculated as the sum of the ratings for all items, except items 1 to 3, 22, 33, and 34, for a maximum score of 168. A cut-off score of 66 or more indicates some degree of dissatisfaction with one's appearance. The questionnaires were administered in the form of interviews at least after a month of mastectomy surgery during routine visits in the oncology wards of a university hospital.

RESULTS AND DISCUSSION

A total of 52 subjects participated in the study and at the time of discharge from the hospital they were instructed to come for the follow-up. But only 25 patients came back for the follow-up. The remaining 27 patients were unable to come for follow-up because of household activities (12), having other health issues (9), death (1), and other reasons (5). Various parameters of BIPQ and BDDE of recruited 25 subjects were assessed which showed a drastic reduction in self-esteem, femininity, feeling, emotions, and body image dissatisfaction. Further, these parameters are more severely affected in patients belonging to urban communities than

in rural community patients. Further as the duration after surgery increases, body image dissatisfaction decreases. Urban patients are exposed to more number of people in their daily routine who are concerned with the patient's problem, probably they feel more severity of illness symptoms (**Table 1**).

The BDDE is a specific quality-of-life instrument that deals solely with the patient's body image. The questionnaire includes 34 questions that evaluate the degree of dissatisfaction relating to a given physical feature and facilitate the diagnosis of body dysmorphic disorder. Commonly this scale is being used in various psychiatric disorders. Out of a total of 26 patients, 16 patients had scored more than 66 suggesting that these patients have some sort of body dysmorphic disorder. James C. Rosen and Elena Ramirez in their study compared 45 women with anorexia or bulimia nervosa to 51 men and women with body dysmorphic disorder (BDD) and 50 nonclinical controls and concluded that the eating disorder patients were mainly preoccupied with weight and body shape. BDD subjects had more diverse physical complaints and reported more negative self-evaluation and avoidance due to appearance. However, the two groups showed equally severe body image symptoms overall and were clearly abnormal compared with controls. Both types of patients had negative self-esteem, but eating disorder patients had more widespread psychological symptoms.

Because of poor body image, most of the patient's daily routine, social function, and quality of life are also affected (**Figure 1**).

Brief illness perception questionnaire (BIPQ)

The Brief Illness Perception Questionnaire (Brief IPQ) was used to measure illness perceptions. It consists of 8 items evaluating consequences, timeline, treatment, personal control, identity (that is, the severity of illness symptoms), concern, emotions, and illness comprehensibility using a 10-point Likert scale. The participants were assessed two times using the questionnaire that is after the mastectomy surgery at the time of discharge and at the follow-up at least after one month. The severity of Illness symptoms is one of the important components assessed by questions number 1,2,5,6 and 8 (Daily life, Perception over illness, experience of symptoms, Concern about illness, Emotional aspects). In this the higher the score, the more is the

severity of illness perception. The mean score of illness perception was 25.16. Out of 25 subjects included in the study, a total of 14 subjects (56%) had scores of more than 25 (more than half of the total score) suggesting more of illness symptoms. The remaining 11 subjects (44%) had a mean score less than 25. Some of the patients require chemotherapy and radiotherapy post-mastectomy which have a high risk of side effects like hair loss, fatigue, skin changes, etc. Probably presence of these side effects also plays a role in the high perception of illness (**Figure 2**).

In terms of comprehensibility, were assessed by question number 3,4, and 7 (Control over illness, help from treatment, understanding the illness) mean score was 20.16. Here lesser the score more is the involvement. Comprehensibility is less affected as they now understand the disease, have good control over it, and receive help and treatment from surgery and physiotherapy (**Figure 3**).

Table 1: Demographics characteristics of participants

Variable	Categories	N
Age	20-30 years	00 (00%)
	30-40 years	09 (36%)
	40-50 years	07 (28%)
	Above 50 years	09 (36%)
Sex	Female	25 (100%)
	Male	00 (0%)
Marital status	Married	23 (92%)
	Unmarried	00 (0%)
	Widow	02 (08%)
Demography	Rural	17 (68%)
	Urban	08 (32%)
Occupation	Farmer and daily wages	07 (28%)
	Homemaker	13 (52%)
	Govt. or private job	01 (04%)
	Any other	04 (16%)
Economic status of family	Poor	14 (56%)
	Average	09 (36%)
	Good	02 (08%)

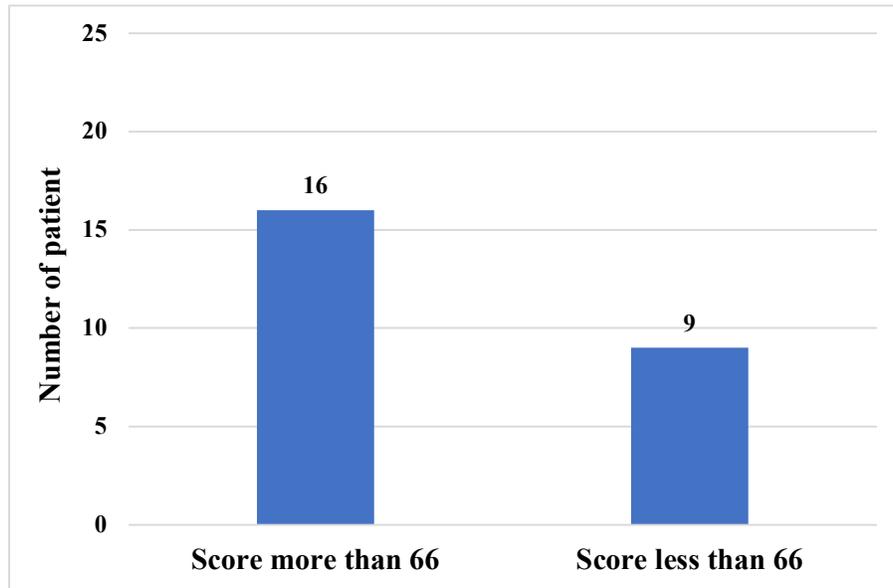


Figure 1: Body Dysmorphic Disorder Examination

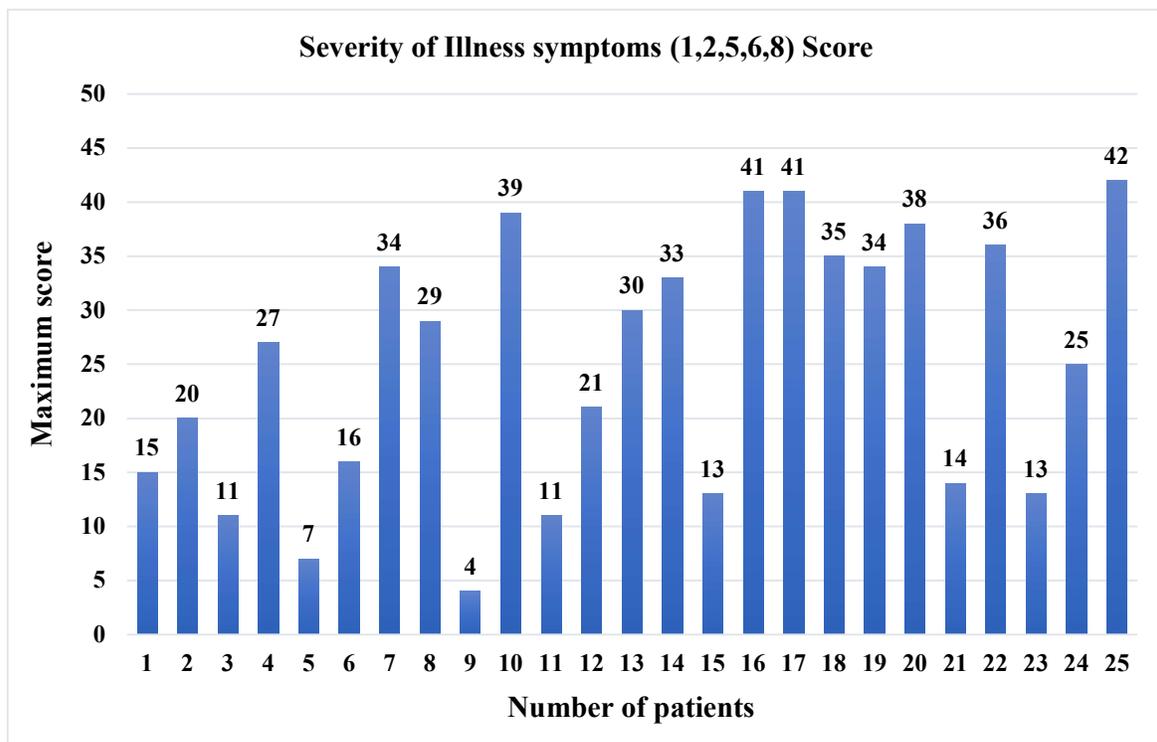


Figure 2: Severity of Illness symptoms (component of BIPQ)

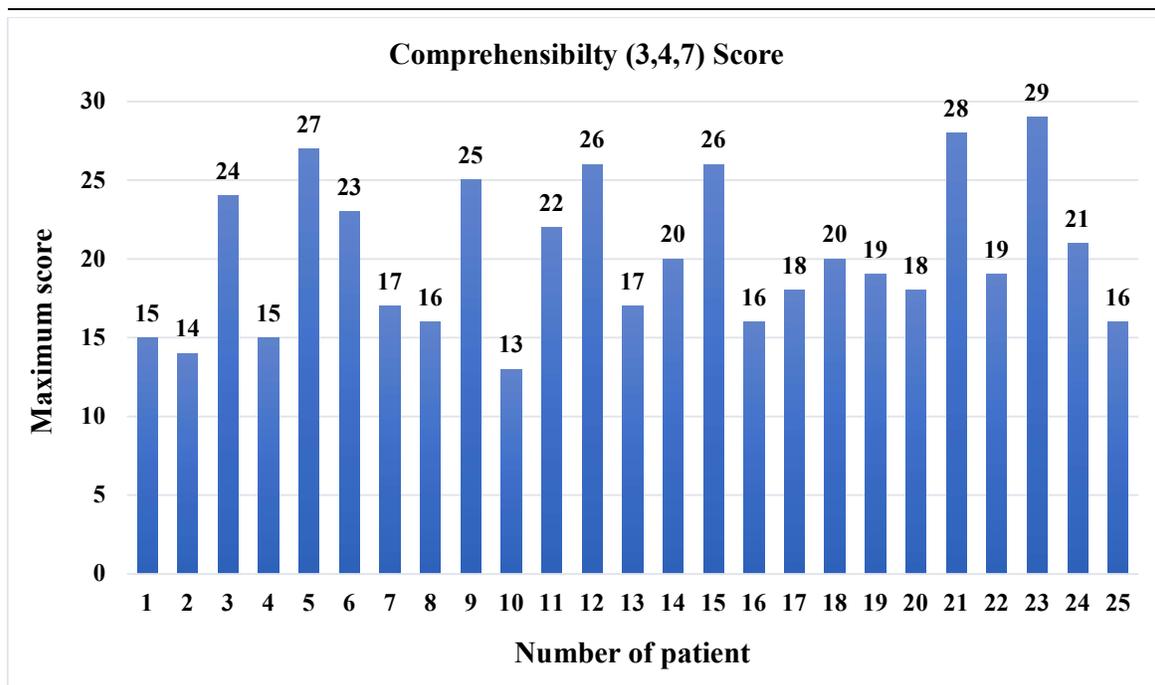


Figure 3: Comprehensibility (component of BIPQ)

Physiotherapy is commonly prescribed in post-mastectomy patients which focuses on improving shoulder range of motion, improving thoracic mobility, and ultimately improving quality of life which in turn reduces illness perception and improves body image satisfaction.

CONCLUSION

Most of the patients with mastectomy have body image dissatisfaction and higher brief illness perception after mastectomy which ultimately affects their quality of life.

CLINICAL IMPLICATIONS: Generally, after mastectomy, chemotherapy, and physical therapy are the main forms of treatment. However, as the results of this study explain the need for psychological rehabilitation which is neglected in almost all cases of mastectomy.

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