Research

Depression and Self-Esteem Among Preoperative and Postoperative Breast Cancer Patients in Peshawar

Hafsa Iqbal¹, Alam Zeb Khattak²

¹Department of Psychology, Preston University Kohat, Peshawar Campus, Pakistan
²Department of Psychology, International Islamic University, Islamabad, Pakistan

*Corresponding Author

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Abstract: The current study was conducted to find out the level of depression and self-esteem among the preoperative and postoperative. Level of self-esteem and depression among post operative (mastectomy and lumpectomy) were also investigated.

Method: The cross-sectional study was conducted at Institute of Radiotherapy and Nuclear Medicine (IRNUM) at the province of Khyber Pakhtunkhwa, Peshawar. 120 sample of breast cancer were selected. 60 were preoperative and 60 were postoperative breast cancer patients. Their age ranges from 26 years to 55 years. Purposive sampling technique was used in the study. Urdu version of self-esteem scale (1999) and Depression scales were used (1992). SPSS 21 version was used for data analysis. Results: It was hypothesized in the study that there is a significant negative correlation between self-esteem and depression in preoperative and postoperative Breast Cancer. The results also shows the negative correlation amongst self-esteem and depression in lumpectomy and mastectomy Breast Cancer patients. Conclusion: it was concluded that there is no significant difference between the degree of depression and self-esteem in preoperative, postoperative, mastectomy and lumpectomy patients.

Keywords: IRNUM, breast cancer, self-esteem, depression, preoperative, postoperative.

INTRODUCTION

Breast Cancer is the most fatal and terrific disorder among female patient in the world. It is the most common type of cancer among women. The Breast is the organ of feminine beauty and body attractiveness and source of feeding for babies. Breast Cancer patients are facing a lot of difficulties due to stigmatization, disturbed body image and loss of physical attractiveness. Numerous women adjust to the situation and to their physical conditions, while there are certain women victims undergo a lot of difficulties like stress, anxiety, and depression. Along with the undesirable and uncontrolled growth of cancer cells, the patients are facing chronic and continuous pain. This earlier research indicates concerns of the Breast
Cancer patient’s negative psychological factors like stress, anxiety, depression, coping, life satisfaction and body image (Malik, & Kiran, 2013).

Different treatment procedures of Breast Cancer play an important role like surgery, radiotherapy, while chemotherapy causes important body changes and also affects their self-esteem. Removal of the breast during surgery is the loss of femininity while chemotherapy is very expensive and the patients cannot financially afford it. Moreover, radiotherapy and surgery are less expensive as compared to chemotherapy (Sebastian, Manos, Bueno & Mateos, 2008).

Like other countries, Pakistan is also facing a lot of difficulties to handle the issues of Breast Cancer. The Pakistan Atomic Energy Commission established the major and leading cancer hospital in Khyber Medical University, Peshawar. The aim of the institute is to provide diagnostic and treatment services to cancer patients of Khyber Pakhtunkhwa and adjoining areas. IRNUM is the fifth institute of Pakistan, which are operating under control of the Pakistan Atomic Energy Commission. It provides services to 53000 patients per year.

LITERATURE REVIEW

Breast cancer:

Breast Cancer is defined as the unwanted and out of control growth of abnormal breast cells that can overrun nearby tissues and spread to other organs through blood vessels or lymph nodes. These cancer cells form a lump or also called a mass tumor. The breast is made from glands which are responsible for milk production, called lobules, so mostly, the Breast Cancer begins in that area of the breast tissues. Lobules are connected to the nipple through ducts (Breast Cancer facts and figure 2015-16). Enache (2011) conducted a study on a sample of 30 females who have gone through a mastectomy, the surgical treatment of Breast Cancer. It is to be examined the negative psychological outcomes that are anxiety, low self-esteem and depression due to the reaction of the social circle and relatives.

Stages of breast cancer:

Staging also defines what treatment should be given to the patients. The stages are defined as, the total early stage of cancer is the stage 0;

- Stage 1, in which the size of the cancer tumor is about to ¾ inch or smaller.
- Stage 2 is defined as in which the tumor size is ¾ to 2 inches. The cancer lymph nodes must or may not be clear for cancer.
- Stage 3, in which the tumor size is bigger than 2 inches and auxiliary lymph nodes are clear.
At stage 4, the clear metastatic Breast Cancer tissues (Preston, 2010)

Categorization of breast cancer on the basis of surgical treatment:

In the current research study, for developing a common understanding of the group of Breast Cancer patients can be divided into two categories on the basis of surgical treatment, i.e. Preoperative and Postoperative Breast Cancer. Preoperative staging is defined as one wherein Breast Cancer patients at this stage are recommended for surgical treatment that is either for mastectomy or lumpectomy. At the surgical stage, in which there is no option of treatment other than removing the breast, either one breast operated and or two breasts removed through operation. The mastectomy treatment option is very fearful and anxious for females having Breast Cancer. And this treatment disfigures the body of the females. (Lloyd, et al., 2000)

Lumpectomy is a breast-saving surgical treatment option, this is only to remove the malignant tumor, lymph nodes and marginal surrounding tissues). While the Postoperative stage is defined as one in which Breast Cancer patient has undergone a surgery both mastectomy and lumpectomy (American Cancer Society, 2013).

Breast Cancer and Psychological issues

The different psychological issues are identified among females of Breast Cancer. The depressive disorder is the most occurring issue. The symptoms of depressive disorder which are common are resulting from the Breast Cancer are insomnia, lack of appetite, inability to pay attention, nightmares, guilty feeling, hopelessness, trouble returning to work and social spots (Reich, Lesur, & Perdrizet-Chevallier, 2008).

The other main psychological cause is due to the surgical treatment of the Breast Cancer in which the whole breast is removed or only the affected portion of the breast is removed. Both are disturbing stage for females because the breast is signs of beauty. They feel less attractive physically as well as sexually. There is a lot of emotional changes in the females who have undergone the surgical treatment (Manos, Sebastián, Bueno, Mateos and Torre, 2015).

Self-esteem:

According to Brandon (1995) the term self-esteem is define to somebody's average experience of self-respect or personal value. Kim et al, (2015) conducted a research on 168 females to investigate the extent of depression, self-esteem, and stress, according to the treatment phase that is the preoperative, postoperative and chemotherapy. They found out from the results that the level of depression and level of stress is higher in the preoperative group as compared to other treatment phases that is postoperative and chemotherapy groups.
Depression:

The diagnosis of depression among cancer patients is not so easy, that’s how the side effects of the treatment can separate from the symptoms of depression. Some symptoms of depression are non-definite that it can lead to various problems such as tiredness, loss of appetite and interest in daily life. But for the treatment of depression, it is significant to identify the early signs of depression. If the person feel low mood more than two weeks, so he should take help. The other signs and indications of depression are sad moods, lack of interest in pleasurable events, lack of motivation for every activity in life, disturbed sleep that is problematic in initiation of sleep or wake up early, guilt feelings, irritability, crying spells, feeling oversensitive, hopelessness feelings, and suicidal thoughts. The physical symptoms are the loss of energy, body fatigue, and lack of interest in sex and panic attacks (Walker and Kelly, 2005).

The interplay of breast cancer and depression:

The psychological issues which might be anxiety and depression are commonplace in females who have been diagnosed with Breast Cancer; those disorders are frequently unobserved and left unprocessed worsening the remedy final results. (Lueboonthavatchai, 2007). Moreover, the depressing consequences of Breast Cancer and its treatment can cause significant changes in associations and emotional well-being of mutually the cancer victim and also a nearby family associates (Badger, et al, 2007).

The level of depression is an emotional disturbance displaying anxiety, despair, loss, and helplessness, full of failure, and worthlessness with the aid of having a bad notion of self in the path of adapting to a stressful event (Kim, et al, 2015).

The interplay of breast cancer and self-esteem:

Breast Cancer is the most life-threatening illness, the negative consequences of the illness lead to lower the self-esteem and cause psychological distress. Self-esteem is negatively associated with distress and positively associated with wellbeing Different researchers have found that those who have cancer, having low self-esteem as compared to those who have not cancer (Carpenter, 1997)

Breast cancer and type of surgery:

The current time surgeries for Breast Cancers include mastectomy, mastectomy with reconstruction, or lumpectomy. After the remedy of surgery it left scars on the body and also due the removal of breast, it disfigured the body shape. It is concluded that scarring resulted in lower scores of self-esteem. However, females are suffered from each physical and
psychological issue as a result of cancer treatments. The lifestyles-threatening diagnosis of Breast Cancer itself starts negative impact on a woman’s physical and psychological state. (Ogden & Lindridge, 2008).

**STATEMENT OF THE PROBLEM**

The above-cited studies revealed that there is the limited study in Khyber Pakhtunkhwa to indicate psychological problems in Breast Cancer patients. Going into more in-depth, certain questions arise about the Breast Cancer patient’s psychological problems and their intensity level before and after treatment (Preoperative and Postoperative stages).

The present study will examine the level of self-esteem and depression among the preoperative group, those Breast Cancers diagnosed patients who have been recommended for the surgical treatment either mastectomy or lumpectomy and Postoperative group are those Breast Cancer patients who have been operated through mastectomy or lumpectomy after diagnosing by the general practitioner. And to find out the level of depression and in Breast Cancer patients, according to surgery that is either mastectomy or lumpectomy.

**SIGNIFICANCE OF THE STUDY**

To address such type of queries, as mentioned above in the present work, there is a need to conduct a study on specific Breast Cancer patients in the hospital of district Peshawar namely Institute of Radiotherapy and Nuclear Medicines (IRNUM). The diagnosis and treatment of Breast Cancer elicit greater distresses in females, which lead to different psychological problems like depression, self-esteem and instill poor coping mechanism which affects their quality of life. This study will be useful to identify the level of depression and self-esteem in preoperative and in postoperative Breast Cancer patients. The study findings will be supportive to recommend some psychological strategies for identifying the group who has low self-esteem and high depression. Particularly cognitive behavior therapy and stress management for enhancing coping mechanism that how to deal with the current challenging circumstances and to minimize the depression and enhance self-esteem for the better quality of life. It can be used for further research studies. The present study will be also helpful in the area where the clinical psychologists work for Breast Cancer patients more easily after compiling the present research findings.

**HYPOTHESES OF THE STUDY**

Following hypotheses have been formulated for the present study

1. There is a statistically significant difference in depression and self-esteem among preoperative and postoperative Breast Cancer patients.
2. There is a statistically significant difference between the degree of depression and self-esteem in Breast Cancer patients with mastectomy as compared to lumpectomy.
3. There is no significant difference between the degree of depression and self-esteem in preoperative, postoperative, mastectomy and lumpectomy.

METHODOLOGY

Research design:
The Cross-sectional research design was used in the present research study. It was used to compare the two groups of Breast Cancer patients, the preoperative and the postoperative.

Population:
The population of breast cancer patients was registered at Institute of Radiotherapy and Nuclear for the last year 2017 was 3,200.

Sample:
Among those Breast Cancer patient, 120 samples were selected, in which 60 patients were preoperative Breast Cancer patients and 60 were postoperative Breast Cancer patients. One hundred and twenty female patients were ranging in ages from 26 years to 55 years (IRNUM) for the last year 2017 was 3,200.

INSTRUMENTS:

Following instruments were used in the present study

Self-esteem Scale (1999):
This instrument self-esteem was developed by Farida Rifai and Pervaiz Naeem Tariq (1999). This scale consists of 29 total items. High scores, on the scale indicate a high level of self-esteem while low score indicate low self-esteem. The score range for this scale is 0-116. The alpha reliability coefficient is .83 for the scale. The Alpha coefficient for the sub-scales of the instruments ranged from .64 to .78 (Rifai and Tariq, 1999)

Depression scale (1992)
The depression scale was developed by Siddiqui and Shah (1992). It is for both clinical and non-clinical samples. It consists of 36 items. The response options for this scale are, none of the time and are scored as 1, 2 stands for sometimes, 3 stands for most while 4 stands for all the time. This scale measures the levels, mild, moderate and severe depression. Alpha reliabilities of Siddiqui Shah Depression scale is .92.

Procedure for data collection:
Before the collection of data, the proper permission was requested from the authority of hospital in which the data were collected. Two scales were used for data collection.
**Inclusion criteria:** Only female patients were included in the research

**Exclusion criteria:** The sample whose age was less than 26 and whose sample age was more than 55 years were excluded

**Variables of the study:** Breast Cancer is the independent variable, while depression and self-esteem are dependent variables in both preoperative and postoperative conditions.

**RESULTS AND DATA ANALYSIS**

**Table 1**
Preoperative Breast Cancer patients (N=60)
Correlations among Depression and Self-esteem

<table>
<thead>
<tr>
<th>Correlations</th>
<th>Self-esteem</th>
<th>Depression</th>
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<tbody>
<tr>
<td>Self-esteem Pearson Correlation</td>
<td>1</td>
<td>-.487**</td>
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<td>Sig. (2-tailed)</td>
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<td>N</td>
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</table>

**.** Correlation is significant at the 0.01 level (2-tailed).

Table 1 indicated the correlation between self-esteem and depression among the preoperative group of 60 participants. There is a strong negative correlation between self-esteem and depression. The value of the 2 tailed Pearson correlation is -.487, which is highly significant at 0.01 level.

**Table 2**
Postoperative Breast Cancer patients (N=60)
Correlations among depression and self-esteem

<table>
<thead>
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</table>

**. Correlation is significant at the 0.01 level (2-tailed).

Table 2 indicated the correlation between self-esteem and depression among the postoperative group of 60 participants. The strong negative correlation between self-esteem and depression was reported. The value of 2 tailed Pearson correlations was -0.519, which was highly significant at 0.01 levels.

**. Correlation is significant at the 0.01 level (2-tailed).

The above 1 and 2 tables shows no significant difference among the degree of depression and self-esteem in both preoperative and postoperative groups of 60 patients each. In both group, the negative correlation was found between depression and self-esteem.

Table 3

Postoperative (Lumpectomy) (N=30)
Correlations among Self-esteem and Depression

<table>
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<tr>
<th></th>
<th>Self-esteem</th>
<th>Depression</th>
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<tbody>
<tr>
<td>Self-esteem Pearson Correlation</td>
<td>1</td>
<td>-0.467**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>0.009</td>
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<tr>
<td>N</td>
<td>30</td>
<td>30</td>
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<tr>
<td>Depression Pearson Correlation</td>
<td>-0.467**</td>
<td>1</td>
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<td>Sig. (2-tailed)</td>
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**. Correlation is significant at the 0.01 level (2-tailed).
Table 3 indicated the correlation between self-esteem and depression among 30 participants of lumpectomy (postoperative) group. There is a strong negative correlation between self-esteem and depression. The value of the 2 tailed Pearson correlation was -.467, which is highly significant at 0.01 level.

**Table 4**
Postoperative (Mastectomy) (N=30)
Correlations among Self-esteem and Depression

<table>
<thead>
<tr>
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<th>Self-esteem</th>
<th>Depression</th>
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<tbody>
<tr>
<td>Self-esteem Pearson Correlation</td>
<td>1</td>
<td>-.564**</td>
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<tr>
<td>Sig. (2-tailed)</td>
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<td>.001</td>
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<td>N</td>
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<td>30</td>
</tr>
<tr>
<td>Depression Pearson Correlation</td>
<td>-.564**</td>
<td>1</td>
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<td>Sig. (2-tailed)</td>
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<td>.001</td>
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<tr>
<td>N</td>
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</table>

**. Correlation is significant at the 0.01 level (2-tailed).

Table 4 indicated the correlation between self-esteem and depression among 30 participants of mastectomy (postoperative) group. The Strong negative correlation between self-esteem and depression was reported. The Value of the 2 tailed Pearson correlation was -.564, which was highly significant at 0.01 level.

**Table 3 & 4**
Comparison between Lumpectomy and Mastectomy Breast Cancer patients (N=60)

<table>
<thead>
<tr>
<th></th>
<th>Self Esteem</th>
<th>Depression</th>
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<tbody>
<tr>
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<td></td>
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<td>0.001</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).

Comparison of results postoperative group (Lumpectomy and Mastectomy). The above-mentioned table 8 and 9 indicated the difference between 30 patients of lumpectomy and 30 patients of mastectomy groups. In both groups, the strong negative correlation was found between self-esteem and depression which was -.467 & -.564 respectively. While no significant difference was found between all variables of the lumpectomy and mastectomy.

**DISCUSSION**

The present research study aimed to find out the relationship of self-esteem and depression in preoperative and postoperative breast cancer and also in lumpectomy and mastectomy of breast cancer females patients in Peshawar.
According to results of the current study negative correlation was found between self-esteem and depression among preoperative and postoperative breast cancer patients. Pearson correlation of self-esteem and depression was -.487 in preoperative group and in postoperative group Pearson correlation of self-esteem was -.519. Which indicate that those breast cancer patients who have scored high on self-esteem scale, so there level of depression was low and those who scored low on self-esteem were highly depressed. According to previous study Reich, Lesur and Chevallier (2008) early and advance stage there was no statistical difference in terms of psychological discomforts, that depression was common among breast cancer patients. Difference among all mentioned variables were non-significant because in preoperative stage if the patient is diagnosed with cancer and recommended for the surgery, so they have fearful feelings, sever pain and have death thoughts while in postoperative condition the patients were feeling depressed due disturbed body image. The second hypothesis states that there was a statistical difference among mastectomy and lumpectomy of breast cancer patients. The current study results reported little bit of variation. According to the results the difference was minimal and non-significant. Pearson correlation of depression in lumpectomy patient’s was -.467 and self-esteem was 1. Pearson correlation of depression is -.564 and self-esteem is 1. in mastectomy. Both groups showed a very little statistical difference, which oppose the hypothesis. Sebastian, Manos, Bueno and Mateos (2008) concluded that there is a little difference of self-esteem, according to the type of surgical treatment that was mastectomy and lumpectomy.

In the current study we hypothesized that patient with breast cancer, who received score high on self-esteem scale, so they were scored low on the depression scale. Self-esteem was the term related the overall evaluation of oneself. It also measures body image. Self-esteem may be based on positive and negative evaluation of self also reported that married women with high self-esteem was disturbed less after surgery either lumpectomy and mastectomy, while on the other hand women who was low self-esteem, so they were more disturbed after surgery (lumpectomy and mastectomy).

CONCLUSION

The result findings of the current study revealed that there is no significant difference in the level of depression and self-esteem among the preoperative and the postoperative Breast Cancer patients. The total score on the depression scale was used to measure the high and low level of depression and self-esteem scale, the total score was used to measure the high and low level of the Breast Cancer women before and after the surgery. Results of the current study correlated the preoperative depression level and level of self-esteem with the
postoperative depression. There is the number of factors which contribute to affect level of depression among cancer patients. Financial problems among cancer diagnosed patients are mostly associated with the high depression and low self-esteem is that the lower income among the society, due to which they suffer a lot for the treatment, the other factor is the lower educational level that they have worried about due to which they are unaware about the treatment process of the cancer. The other factor is, the less family support and husband support for this critical illness due to which they suffer a lot. In mostly all of cancer diagnosed female they need support from the family and especially from their husband which in turn create better-coping abilities and resiliency. In case of unavailability of this support, the patients are sufferings from a lot of difficulties to fight against cancer. The other promoting factor in the prevalence of depression in the dysfunctional thoughts about the surgical option for the Breast Cancer treatment that the body image was disfigured due to the removal of Breast Cancer tissues or the removal of one breast or two breasts. Which was the devastating effect was the beauty of the females. In the preoperative stage cancer, patients are very disturbed due to severe pain, fear of operation and fear of death while in the postoperative stage the patients are severely disturbed due to disfiguration and disturbed body image.

RECOMMENDATIONS FOR FUTURE RESEARCH

1. The results of the study may be generalized to study other types of cancers like uterine cancers in females, gastric cancers, and scrotal cancers in males.

2. Data for this study was collected from IRNUM hospital Peshawar only; it may be extended to other hospitals of the provinces of Pakistan.

3. Longitudinal studies may also be conducted on the other variables of cancer patients like general health, life satisfaction and family support etc.

4. The depression and self-esteem among Breast Cancer females before and after surgery may also be generalized to the other treatment phase of treatment that is chemotherapy and radiotherapy.

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