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An Assessment of the Mental Health of Mastectomized Women in South India

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Abstract

Aim: The present study is aimed at understanding the psychiatric morbidity among mastectomized women and in identifying differences in depression, anxiety, psychological impact and well-being based on psychiatric diagnosis.
Method: One hundred and sixty breast cancer patients who had undergone mastectomy and were on either on adjuvant therapies or on waiting list were interviewed. The Mini-International Neuropsychiatric Interview (M.I.N.I.) - Plus, Hospital Anxiety and Depression Scale, the Impact of Event Scale and the Psychological General Well-Being Schedule were used.
Results: Around 68% of patients did not meet psychiatric diagnosis, while the remaining 32% patients were found to have psychiatric morbidity. Of these, 15% diagnosed with adjustment disorders, 13% patients with a major depressive disorder, while 4% patients with anxiety disorders. A significant difference in anxiety, depression, psychological impact and well-being was found among mastectomized women who were grouped on the basis of their psychiatric diagnosis.
Conclusion: Psychiatric morbidity is evident in patients. This study reinforces the need for identifying psychiatric disorders among women who are undergoing mastectomy, in order to provide adequate psychological treatment.

Keywords: morbidity, mastectomy, MINI, depression, anxiety

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Introduction

Women diagnosed with breast cancer face a lot of challenges. Breast cancer is associated with decreased quality of life and increased psychological distress (Compas & Luecken, 2002). Previous research shows that psychological distress occurs throughout the course of illness (Iwamitsu et al., 2005; Shelby & Golden-Kreutz, 2008). Decreased self-worth and attractiveness, feeling deformed, inadequate, sad, embarrassed, frustrated, and/or a sense of loss are the major psychological concerns among breast cancer patients (Ashing-Giwa et al., 2004).

Psychological reactions of patients who have undergone mastectomy were initially described by Renneker and Cutler (1952), and later by Maguire et al. (1978). They emphasized the need for psychiatric treatment in breast cancer patients. However, much of the expected psychiatric disorders in cancer patients are often unrecognized and untreated (Fallowfield, Ratcliffe, Jenkins, & Saul, 2001).

Various psychiatric disorders (aka psychiatric morbidity), can be identified in breast cancer patients (Grabsch et al., 2006). Adjustment disorders, which is a common diagnosis among breast cancer patients, is an emotional response to a severe physical illness and it is exacerbated when patients fail to effectively manage stress and adequate coping strategies (Patra & Sarkar, 2013). Diagnosis of adjustment disorder with depressed mood is more prevalent in breast cancer patients (10.6%) than adjustment disorder with mixed anxiety and depressed mood (4.5%), (Morasso et al., 2001). Other studies have suggested that adjustment disorders may vary between 20% (Okamura, Yamawaki, Akechi, Taniguchi, & Uchitomi, 2005) and 45% (Akechi, Okuyama, Imoto, & Yamawaki, 2001; Shandilya, Thapar, & Kaur, 2015). The prevalence of major depressive disorder in such patients has also been found to range from 2% to 38.8%, while that for anxiety disorders between 16% to 29.6% (Atesci et al., 2004; El-Hadidy et al., 2012; Morasso et al., 2001; Okamura et al., 2005; Qiu et al., 2012).

Anxiety and depressive symptoms are more prevalent in breast cancer patients which may also develop in the form of psychopathology (Fafouti et al., 2010). Perception of a real threat produces anxiety. As diagnosis of cancer is a real threat, it is normal to develop anxiety after the diagnosis of cancer. Hence, it is better to screen out cancer patients who develop anxiety as a disorder (Baqutayan, 2012). Breast cancer patients have higher levels of both trait and state anxiety when compared to healthy women (Janiszewska, Lichodziejewska-Niemierko, Gołebiewska, Majkowicz, & Rutkowski, 2013). High levels of depression and anxiety were positively related to an increased level of passive coping style, in cancer patients, leading to poor health-related quality of life (Ardebil, Bouzari, Shenas, Zeinalzadeh, & Barat, 2011; Wang et al., 2014). Breast cancer patients reduce their anxiety either by seeking ways to eliminate cancer or by avoiding their cancer-related thoughts (Baqutayan, 2012).

The prevalence of Post-Traumatic Stress Disorder (PTSD) in breast cancer patients may vary between 2% (Green et al., 1998) and 32.2% (Naidich & Motta, 2000). Studies further suggest that nearly 51.5% of newly diagnosed breast cancer patients were found to have moderate to severe symptoms of PTSD (Bulotienė & Matuizienė, 2014). Avoidance and intrusion symptoms were found to be the most common in these patients (Bleiker, Pouwer, Van der Ploeg, Leer, & Ader, 2000). Avoidance refers to distressing memories, thoughts, feelings or external reminders of the event. Intrusion is characterized by unbidden thoughts and images, troubled dreams, strong pangs or waves of feelings, and repetitive behavior (Horowitz, Wilner, & Alvarez, 1979). Breast cancer patients diagnosed with high levels of intrusion and avoidance tend to maintain up to two years after diagnosis (Arnaboldi et al., 2014), and the frequency of intrusive thoughts seems to be positively related to psychological distress (Vickberg, Bovbjerg, DuHamel, Currie, & Redd, 2000). Post traumatic symptoms were found to persist even after recovery from cancer (Amir & Ramati, 2002). Psychological wellbeing of a person includes both feeling good and functioning effectively. While feeling good, consist of happiness, contentment, interest, confidence and affection, functioning effectively, involves the development of one's potential, having some control over one's life, sense of purpose and experiencing positive relationships (Huppert, 2009). Even though painful emotions can occur at any time in life, managing negative emotions is essential for maintaining long term well-being (Huppert, 2009).

While studying the psychological aspects of cancer survivors, it was found that their psychological well-being was impaired (Costanzo, Ryff, & Singer, 2009). Stress related to breast cancer is associated with disruptions in quality of life and increased levels of psychological distress (Compas & Luecken, 2002). In addition, quality of life at the time of diagnosis of breast cancer becomes poor in these patients due to decrease in social wellbeing which is further reflected as sexual problems, family stress and financial burden (Pakseresht, Ingle, & Garg, 2011). A better understanding of the psychiatric morbidity of mastectomized patients, can inform the need for additional psychological treatments. Considering the above reviews it is evident that prevalence of psychiatric disorders in breast

cancer patients varies from one study to another. So the major aim of this study is to understand the psychiatric morbidity of women after the surgical removal of their breast and to determine the differences in the intensity of anxiety, depression, psychological impact and psychological well-being among patients who were identified with various psychiatric disorders.

Method

Participants

The participants in this cross-sectional study were women from central Kerala, South India, who had undergone mastectomy. These women were further divided into three groups, namely: patients who had recently undergone mastectomy, those who were undergoing chemotherapy after mastectomy, and those who were undergoing radiation after mastectomy and chemotherapy. Patients who were admitted for each of these treatments were selected for this study on the basis of stratified random sampling method (Kothari, 2004). Thus, three strata were formed in order to make the randomization easier and to get more representative data from women undergoing different stages of active treatment, which included a group of patients who had recently undergone surgery without any adjuvant therapy, patients undergoing chemotherapy after surgery and patients undergoing radiation therapy after surgery and chemotherapy. Care was taken to avoid women with physical handicap, past history of mental disorders, and those who had metastasis. A total of 160 participants were randomly taken for the study from the available patients at the Surgery and Oncology Department of Amala Institute of Medical Sciences, Thrissur, Kerala, after the approval of the investigator's research proposal by the ethics committee and by the authorities of Amala Institute of Medical Science for a nine-month period. The women selected were within the age range of 30-80. They were either employed or unemployed with different marital status such as married, unmarried, widow or divorced.

Instruments

Mini-International Neuropsychiatric Interview (M.I.N.I.) – Plus

M.I.N.I. - Plus is a short diagnostic instrument (Sheehan et al., 1998) designed for the assessment of psychiatric disorders according to DSM-IV and ICD-10. The M.I.N.I. - Plus is built up of 15 modules that correspond to diagnostic categories and collects information about 23 axis-I problem areas in relation to current and past symptoms. From this interview, patients with psychiatric morbidity can be identified. The specificity of M.I.N.I. - Plus was good for all diagnosis. The sensitivity and positive predictive values of MINI are acceptable and the inter-rated reliability was high, Kappa coefficients ranged between 0.65 and 0.85. Sensitivity and specificity ranged between 0.75 and 0.92, 0.90 and 0.99, respectively. Its positive predictive values (PPV) ranged between 0.60 and 0.86, and negative predictive values (NPV) were between 0.92 and 0.99; accuracy was between 0.88 and 0.98 (Marques & Zuardi, 2008).

Hospital Anxiety and Depression Scale (HADS)

The Hospital Anxiety and Depression Scale (Zigmond & Snaith, 1983) was originally designed to assess psychological distress of patients in medical and surgical settings. The two scales assessing anxiety and depression were designed to measure affective states independently of physical symptoms in patients. The HADS contains 14 items and consists of two subscales: anxiety and depression. Each item is rated on a four point scale from 0 to 3, giving maximum scores of 21, both for anxiety and depression. The higher the total scores the higher the level of anxiety or depression. A subscale score between 8 and 10 indicates a doubtful case, whereas a subscale

score above 11 suggests a definite case. HADS has very good psychometric properties. Regarding the scale's reliability, in the study of Bjelland, Dahl, Haug, and Neckelmann (2002) Cronbach's alpha for HADS - A was 0.83 and for HADS-D was 0.82. Correlations were obtained between HADS and other commonly used questionnaires like Beck's Depression Inventory (BDI), General Health Questionnaire (GHQ-28) and Clinical Anxiety Scale, ranging from 0.49 to 0.83, indicating good concurrent validity (Bjelland et al., 2002)

Impact of Event Scale (IES)

The Impact of Event Scale (IES; Horowitz et al., 1979) was used to assess current subjective distress in relation to any life event. The specific life event and the date of its occurrence were recorded. In this self-report scale, the subject is asked rate the items on a 4-point scale according to how often each has occurred in the past 7 days. The 4 point on the scale are: 0 (not at all), 1 (rarely), 3 (sometimes), and 5 (often). The IES consists of 15 items, seven of which measure intrusive, eight avoidance and, when combined, they provide a total subjective stress score. Impact of Event Scale has good internal consistency and, thus, intrusion and avoidance subscales have good reliability. For IES Intrusion subscale, mean α is 0.86 and for Avoidance mean α is 0.82.The content validity of impact of event scale is reported to be 0.63 (Sundin & Horowitz, 2002).

Psychological General Well-Being Schedule

The Psychological General Well-Being Schedule, developed for the National Centre for Health Statistics by Dupuy (1984), assesses how the individual feels about his *inner personal state*, and, thus, it measures self-representation of intrapersonal affective or emotional states reflecting a sense of subjective well-being or distress. The scale has 22 items that are aggregated to provide scores in six subscales such as anxiety, depressed mood, positive well-being, self-control, general health and vitality. It is a six-point scale ranging from 0 to 5. The higher the score, the less anxiety and depression symptoms. Test retest reliability coefficient ranges from 0.68 to 0.85 with an internal consistency of 0.95. Correlation between Psychological General Well-Being Schedule and other scales such as Zung's Self-Rating Depression Scale, Personal Feelings Inventory—Depression, General Health Questionnaire and the State-Trait Anxiety Inventory, and Center for Epidemiologic Studies Depression scale, ranges from 0.59 to 0.78 indicating good concurrent validity (McDowell, 2006).

Procedure

One of the team researchers, a registered Clinical Psychologist, visited Amala Institute of Medical Sciences inpatient units, specifically, the Oncology and Surgery Departments. A good personal rapport with those who were selected for the study was established; the purpose of the visit was explained and informed. Consent was given by the patients who were willing to collaborate in the study. In order to ascertain the diagnosis, patients were invited for a structured interview using M.I.N.I.–Plus in the oncology and surgical wards. They were interviewed for an hour to identify whether they have any psychiatric diagnosis. Patients presenting psychiatric morbidity were then asked to fill the HADS, IES, and Psychological General Well-Being Schedule, a self-reported assessment of psychological states. Questionnaires were filled in the presence of the researcher, who was available to help the patients with any difficulties. If their physical condition is inadequate for completing the questionnaire, data is collected within two to three days when they are physically fit to do the same.

Statistical Analysis

Frequency analysis and descriptive statistics were carried out in order to explore demographic variables, anxiety, depression, psychological impact and psychological well-being. Analysis of variance (One-way ANOVA) was

carried out to determine whether there were any significant difference in the variables anxiety, depression, psychological impact and psychological well-being among mastectomized women who were grouped in to three on the basis of psychiatric diagnosis such as major depressive disorder, anxiety disorders and adjustment disorders. Duncan's multiple-range test (DMRT) was used for pairwise comparison to determine precisely in which of the above mentioned three groups difference existed, i.e., to understand in what way the intensity of psychological variables varies from one psychiatric diagnosis to another. Statistical analysis was carried out using SPSS Statistics (Version 20.0 Chicago: SPSS Inc).

Results

The percentage of psychiatric disorders observed among breast cancer patients, in the present sample, has been graphically illustrated (Figure 1 to Figure 3). Figure 1 shows that among the 160 patients surveyed 68% did not have psychiatric disorders, as assessed by the M.I.N.I. - Plus. The remaining 32% patients were found to have psychiatric morbidity, such as adjustment disorders, major depressive disorder and anxiety disorders. From this it is evident that adjustment disorders are mostly seen in these patients when compared to other psychiatric disorders.

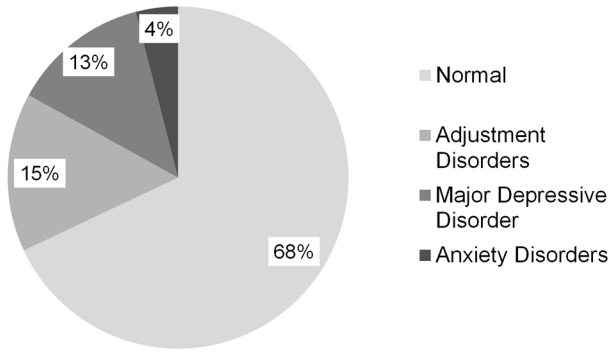

Figure 1. Representation of the percentage of major psychiatric disorders in mastectomized women.

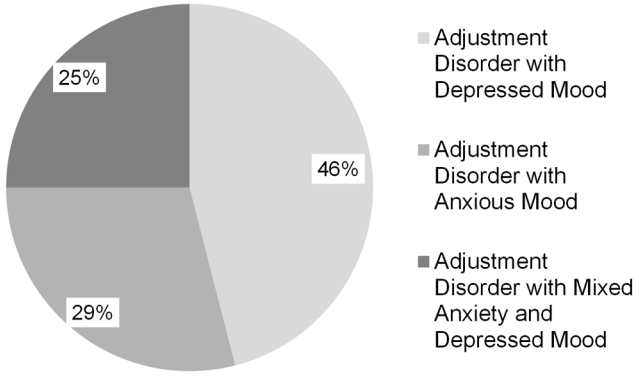

Figure 2. Representation of the percentage of adjustment disorders, by subtypes, in the sample.

Adjustment disorder with depressed mood, adjustment disorder with anxious mood and adjustment disorder with mixed anxiety and depressed mood were the different subtypes of adjustment disorders observed in mastectomized women (Figure 2). Amongst these subtypes, adjustment disorder with depressed mood is the most common diagnosis. In Figure 3 we can see that generalized anxiety disorder (GAD), post-traumatic stress disorder, specific phobia and panic disorder are the most usual anxiety disorders, in mastectomized women. Generalized anxiety disorder (GAD) and post-traumatic stress disorder are equally prominent among these patients.

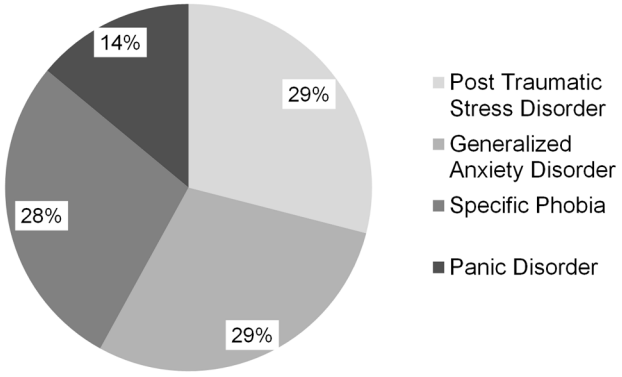

Figure 3. Representation of the percentage of subtypes of anxiety disorders, in the sample.

Table 1 shows that most of the women involved in the study are in the age group of 41 to 50 years old (35.63%).

Table 1

Descriptive Statistics of Mastectomized Women Under Study

Variable	*N*	Percentage
Age		
31-40	26	16.25
41-50	57	35.63
51-60	40	25.00
>60	37	23.12
Parenthood		
With children	138	86.25
Without children	22	13.75
Employment		
Employed	43	26.87
Unemployed	117	73.13
Marital Status		
Unmarried	4	3.75
Married	128	80.00
Divorced	5	3.13
Widow	21	13.12
Treatment		
Surgery	63	39.38
Chemotherapy	66	41.25
Radiation	31	19.37

Most of them are married (80.00%), unemployed (73.13%) and have children (86.25%). The women who were receiving chemotherapy after surgery (41.25%) are the majority of the participants under study.

Table 2 indicates that there is a significant difference in the scores of hospital anxiety and depression in mastectomized women who were grouped on the basis of the diagnosis of major depressive disorder, anxiety disorders and adjustment disorders, $F(2, 48) = 28.64$, $p < .001$, $\eta^2 = .54$. Duncan's Multiple Range Test (DMRT) results also indicate that the group of patients diagnosed with adjustment disorders differs significantly from patients with major depressive disorder and anxiety disorders. The scores on Hospital Anxiety and Depression Scale are lower in patients with adjustment disorders when compared with patients with major depressive disorder and anxiety disorders. There is also a considerable difference in anxiety scores among these patients, $F(2, 48) = 31.07$, $p < .001$, $\eta^2 = .56$. Among the three groups, anxiety is significantly higher in patients with anxiety disorders and lower in patients with adjustment disorders.

Table 2

F-value of ANOVA and Results of Duncan's Multiple Range Test for Hospital Anxiety and Depression Among Groups Based on Diagnosis (Major Depressive Disorder, Anxiety Disorders and Adjustment Disorders)

Outcome	Group	*N*	*M*	*SD*	*F*	*p*
Anxiety					31.07	<.001
	Major Depressive Disorder	20	13.65_b	2.39		
	Adjustment Disorders	24	10.04_a	1.78		
	Anxiety Disorders	7	16.57_c	2.57		
	Total	51	12.35	3.18		
Depression					15.14	<.001
	Major Depressive Disorder	20	14.60_b	2.39		
	Adjustment Disorders	24	10.83_a	2.97		
	Anxiety Disorders	7	9.57_a	1.71		
	Total	51	12.13	3.28		
Hospital Anxiety & Depression					28.64	<.001
	Major Depressive Disorder	20	28.30_b	4.26		
	Adjustment Disorders	24	20.95_a	2.56		
	Anxiety Disorders	7	26.14_b	1.46		
	Total	51	24.54	4.72		

Note. Means with similar letter as subscript are homogeneous.

For depression, F value indicates a considerable difference between the three groups, $F(2, 48) = 15.14$, $p < .001$, $\eta^2 = .38$. The results of DMRT showed a significant difference and higher depression level in patients with major depressive disorder when compared to those diagnosed with adjustment disorders or anxiety disorders. However, the adjustment disorders and the anxiety disorders groups did not differ significantly on mean score of depression.

In Table 3, it is observed that a significant difference in the impact of the event and its dimension among the groups of patients who differ in psychiatric diagnosis (major depressive disorder, anxiety disorders and adjustment disorders). There is also a significant difference in intrusion between these three groups, $F(2, 48) = 12.27$, $p < .001$, $\eta^2 = .33$. DMRT results (cf. Table 3) further confirms that intrusion for patients diagnosed with adjustment disorders is lower compared to patients with anxiety and major depressive disorder. Avoidance is significantly different, $F(2, 48) = 5.32$, $p = .008$, $\eta^2 = .18$, and higher in patients diagnosed with anxiety disorders when compared

to patients diagnosed with major depressive disorder and adjustment disorders. F value indicates that there is a significant difference in impact of event among the three groups, $F(2, 48) = 9.36$, $p < .001$, $\eta^2 = .28$, impact of event is significantly higher for anxiety disorders when compared to the impact in the group of patients with major depressive disorder and adjustment disorders. The group of patients diagnosed with major depressive disorder and adjustment disorders did not differ significantly.

Table 3

F-value of ANOVA and Result of Duncan's Multiple Range Test for Impact of Event Among Groups Based on Diagnosis (Major Depressive Disorder, Anxiety Disorders and Adjustment Disorders)

Outcome	Group	N	M	SD	F	p
Intrusion					12.27	<.001
	Major Depressive Disorder	20	23.50_b	4.39		
	Adjustment Disorders	24	18.45_a	3.88		
	Anxiety Disorders	7	25.14_b	3.02		
	Total	51	21.35	4.82		
Avoidance					5.32	.008
	Major Depressive Disorder	20	15.75_a	7.49		
	Adjustment Disorders	24	15.54_a	7.24		
	Anxiety Disorders	7	25.28_b	6.62		
	Total	51	16.96	7.87		
Impact of Event					9.36	<.001
	Major Depressive Disorder	20	39.25_a	10.06		
	Adjustment Disorders	24	34.00_a	8.69		
	Anxiety Disorders	7	50.42_b	5.15		
	Total	51	38.31	10.30		

Note. Means with similar letter as subscript are homogeneous.

Except for vitality, all the other dimensions of psychological general wellbeing showed a significant difference between patients with major depressive disorder, anxiety disorders and adjustment disorders (Table 4). Significant differences in anxiety were found among the three groups $F(2, 48) = 10.79$, $p < .001$, $\eta^2 = .31$. Further analysis using DMRT (cf. Table 4) indicated that higher levels of anxiety were found in patients with anxiety disorders while lower levels were present in patients with adjustment disorders.

It was found a significant difference for depressed mood among the three groups, $F(2, 48) = 4.87$, $p = .012$, $\eta^2 = .16$. DMRT indicated that the group of patients with major depressive disorder had the highest score for depressed mood and it significantly differed from patients with anxiety and adjustment disorders. Results of ANOVA for positive well-being significantly differed among these groups, $F(2, 48) = 3.31$, $p = .045$, $\eta^2 = .12$, and is lower for patients diagnosed with anxiety and major depressive disorder when compared to patients diagnosed with adjustment disorders. However, patients diagnosed with anxiety and major depressive disorder did not differ significantly. Self-control was also significantly different among the three groups, $F(2, 48) = 4.16$, $p = .021$, $\eta^2 = .14$, and its mean value is significantly higher for patients who have adjustment disorders and lower for anxiety disorders; self-control in patients having major depressive disorder did not significantly differ from adjustment disorders and anxiety disorders. General health among the three groups was found to vary significantly, $F(2, 48) = 4.17$, $p = .021$, $\eta^2 = .14$. The mean value emerging from Duncan's analysis of general health indicated significantly better

Table 4

F-value of ANOVA and Result of Duncan's Multiple Range Test for Psychological Well- Being Among Groups Based on Diagnosis (Major Depressive Disorder, Anxiety Disorders and Adjustment Disorders)

Outcome	Group	N	M	SD	F	p
Anxiety					10.79	<.001
	Major Depressive Disorder	20	7.15_{b}	2.34		
	Adjustment Disorders	24	9.83_{c}	2.82		
	Anxiety Disorders	7	5.00_{a}	3.21		
	Total	51	8.11	3.18		
Depressed Mood					4.87	.012
	Major Depressive Disorder	20	4.60_{a}	1.93		
	Adjustment Disorders	24	6.66_{b}	2.42		
	Anxiety Disorders	7	6.42_{b}	2.50		
	Total	51	5.82	2.42		
Positive Well-being					3.31	.045
	Major Depressive Disorder	20	4.30_{a}	2.45		
	Adjustment Disorders	24	6.62_{b}	3.58		
	Anxiety Disorders	7	5.42_{b}	1.71		
	Total	51	5.54	3.11		
Self-Control					4.16	.022
	Major Depressive Disorder	20	5.70_{a}	2.40		
	Adjustment Disorders	24	7.29_{b}	2.52		
	Anxiety Disorders	7	4.71_{a}	1.88		
	Total	51	6.31	2.55		
General Health					4.17	.021
	Major Depressive Disorder	20	3.70_{a}	1.62		
	Adjustment Disorders	24	5.45_{b}	2.12		
	Anxiety Disorders	7	$5.28_{a,b}$	2.98		
	Total	51	4.74	2.20		
Vitality					1.69	.195
	Major Depressive Disorder	20	6.20_{a}	2.46		
	Adjustment Disorders	24	7.58_{a}	2.18		
	Anxiety Disorders	7	6.85_{a}	3.43		
	Total	51	6.94	2.51		
Psychological General Well-Being					6.41	.003
	Major Depressive Disorder	20	31.65_{a}	11.17		
	Adjustment Disorders	24	43.45_{b}	11.39		
	Anxiety Disorders	7	33.71_{a}	11.30		
	Total	51	37.49	12.46		

Note. Means with similar letter as subscript are homogeneous.

values for adjustment disorders and lower values for major depressive disorder. However, general health of patients having anxiety disorders did not significantly differ from those with major depressive disorder and adjustment disorders. F value for vitality indicates that there is no significant difference among the three groups of breast cancer patients diagnosed with major depressive disorder, anxiety disorders and adjustment disorders, $F(2, 48) = 1.69$, $p = .194$, $\eta^2 = .06$. Psychological general well-being differed significantly among the three groups, $F(2,$

48) = 6.41, p = .003, η^2 = .21, and the psychological well-being of patients with adjustment disorders is significantly higher compared to patients with major depressive disorder and anxiety disorders.

Discussion

The present study examined psychiatric morbidity among newly diagnosed breast cancer patients who have undergone mastectomy or who are either waiting or undergoing adjuvant treatments. Findings indicate that psychiatric diagnosis in mastectomized women comprises major depression, anxiety disorders and adjustment disorders, similarly to the results of the study conducted by Tünel, Vural, Evlice, and Tamam (2012). Conclusions regarding the prevalence of psychiatric disorders are consistent with the results suggested by Atesci and colleagues (2004). As reported by Akechi and colleagues (2001), and Okamura and colleagues (2005), cases of adjustment disorders were more common among cancer patients and the incidence of adjustment disorders in the present investigation is similar to the findings of Morasso and colleagues (2001) and Christensen and colleagues (2009). The risk of depression is high in the first year after the diagnosis of breast cancer (Qiu et al., 2012) and in the present study, major depression is frequently identified. Among anxiety disorders, generalized anxiety disorder and post-traumatic stress disorder are frequently diagnosed in breast cancer patients (Hill et al., 2011, Mehnert & Koch, 2007; Palmer, Taggi, DeMichele, & Coyne, 2012) which is consistent with the results of the current study.

Objective screening of psychiatric disorders in breast cancer patients using diagnostic interviews can be ascertained by self-administered rating scales. These self-rating questionnaires also help in understanding intensity variation of psychological symptoms among different psychiatric disorders. Results of this study indicates that intensity in anxiety were considerably higher in patients with anxiety disorders and frequency of depressive symptoms were found more in major depressive disorder which is also evident in diagnostic classifications like ICD-10 and DSM IV (Kaplan & Sadock, 1998). Impact of event is determined by the intrusion and avoidance of thoughts and behaviours related to a particular unpleasant event. These are considered as the sub-clinical symptoms of one of the anxiety disorders called post-traumatic stress disorder (Sundin & Horowitz, 2002). The findings of the present study also suggest that the group of patients with anxiety disorders has high levels of impact when compared to the other groups.

Present study shows that among the three group studied, Psychological well-being was comparatively high in patients with adjustment disorders than in major depressive and anxiety disorders. Self-control is less in patients with anxiety disorders. These patients tend to overestimate the probability of harm and danger in particular situations, and underestimate their coping abilities when dealing with threats. Thus, patients perceive the loss of control in a given situation (Kaplan & Sadock, 1998) and believe that they are unable to control anything that happens in their life, being so afraid to face cancer and its treatment that often suffer through the process. They also feel that they are unable to tolerate the diagnosis and the treatment. For this reason, self-control is lower in the group of patients with anxiety disorders than in the other groups. Patients anxiety is also associated with the fear of death, still, those with a positive sense of well-being present less fear (Pollak, 1980). The present study also confirms that the general health of breast cancer patients is worse in patients diagnosed with depressive disorder. According to Shim and colleagues (2006), depression has a detrimental effect on health related quality of life among patients with breast cancer, and poor quality of life was also found to have an association with depression (Malik & Kiran, 2013). As anxiety, depression and overall stress are greater for mastectomized patients diagnosed with anxiety

and major depressive disorder, psychological general well-being is higher for the adjustment disorders group when compared to patients with major depressive disorder and anxiety disorders.

A major limitation of this study is that participants were selected only from Central Kerala. Also, further improvements can be done by conducting it as a longitudinal study with breast cancer patients, from the phase of diagnosis until the completion of treatment, which may allow understanding the changes or fluctuations in the psychosocial factors affecting the patients. This may be particularly useful for determining the moment when psychological help should be rendered.

Conclusion

Although psychiatric diagnosis was confirmed in less than half of the newly diagnosed breast cancer patients, those who were identified having psychiatric disorders were mainly categorized under three types of diagnosis such as, adjustment disorders, major depressive disorder or anxiety disorders. The present study confirms that patients, who were diagnosed with a psychiatric disorder using a scientific diagnostic interview, also differed in their self-rated psychological distress level. The findings of the present study suggest that there is a need for assessment of the mental health status of breast cancer patients who are undergoing treatment for cancer. The main rationale behind routine distress screening is to guarantee that cancer patients receive appropriate mental health care. The identification of psychiatric disorders using diagnostic interview and self-report measures are equally beneficial for both therapist and breast cancer patients as it provides a correct evaluation of the psychological distress present in these patients. Not only that, when it comes to managing mental health issues, these evaluations provide strong evidence about the changes in the psychological status of the patient.

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Competing Interests

The authors have declared that no competing interests exist.

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