

A study on prevalence of psychiatric comorbidity in female patients with breast cancer

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ABSTRACT

Background: The growing awareness of the psychological impact of the diagnosis and treatment of cancer on quality of life has created the need for deeper insights into the adjustment process, its disorders, and effective strategies for the treatment of psychiatric morbidity.

Objectives: The study was conducted to find out the prevalence of psychiatric comorbidity among the female breast cancer patients admitted in Surgery or Radiotherapy units of a tertiary care hospital.

Material & Methods: The sample was taken from sixty female non pregnant, non lactating breast cancer patients consenting for study admitted in Guru Gobind Singh Medical College, Faridkot aged between 18-60 years. The patients for study were screened by General Health Questionnaire (GHQ 12). After screening the patients who were found to have positive psychological stress, were further interviewed individually and final diagnosis was made on the basis of DSM-IV-TR criteria for mental disorders.

Results: The number of patients with psychiatric morbidity was found in 45% of breast cancer patients. The clinical diagnosis as per DSM-IV criteria's in majority of the patients (59.25%) was Adjustment Disorder. Major Depressive disorder was found in 22.2% patients. Generalised Anxiety Disorder was found in 14.8% patients. Somatoform Disorder was found in 3.7% patients. More number of patients with advanced stage of cancer (21) were found to be having diagnosable psychiatric illness than patients with early stage of cancer (6).

Conclusions: The results of the study have implications for clinical training, practice and policy initiatives. Integrating mental health into general health care, effective mass media coverage, networking between mental health-professionals and other health professionals, community-based health services are required.

Key Words: Psychological stress, psychiatric morbidity, general health questionnaire, generalised anxiety disorder, major depressive disorder

Introduction

Cancer is a serious and potentially life-threatening illness which has an effect on physical and emotional well being of patients and their families. The diagnosis of cancer in itself is a stressful event causing significant psychological distress.^[1-4] In this era of improved cancer care, it is still often believed that pain and death is inevitable for cancer patients.^[5] Breast cancer remains the most widely studied type of cancer with respect to its psychosocial

impact.^[6] This is due in large measure to its high prevalence, but also reflects the fact that the disease affects women of all ages, involves complex care, and concerns a body part with great significance to women and their partners.

Breast cancer is the most common cause of cancer death among women worldwide. Over all it is the fifth most common cause of cancer death.^[7] Incidence is more common in high income countries, but in recent years it has increased in less

developed regions such as Africa, Asia and Latin America.^[8] It was estimated that about 230,480 women were diagnosed with and 39,520 women died of cancer of the breast in 2011.^[9]

Common risk factors for breast cancer are female sex, advancing age, early age of menarche, advancing age at first live birth, race and ethnicity, oestrogen exposure, breast density, geographical influence, obesity, environmental toxins, and first degree relative with breast cancer.^[10] Cancer patients experience several stressors and emotional upheaval. Fear of death, interruption of life plans, changes in body image and self-esteem, changes in social role and lifestyle are all important issues to be faced.^[11] Many researchers have reported that six mental disorders occur more frequently in cancer patients to warrant a detailed assessment and clinical intervention. Three represent direct reaction to illness; adjustment disorder, major depression and delirium. Others (primarily anxiety disorders, personality disorders and major depressive illness) are pre-existing conditions often exacerbated by the illness.^[12]

In a study it was found that 47% of cancer patients had sufficient distress to receive a diagnosis of a psychiatric disorder. Adjustment disorder with depressed mood and/ or anxious mood was by far the most common diagnosis (68%), major depressive disorder was next (13%), followed by organic mental disorder (8%), personality disorders (7%) and pre-existing anxiety disorder (4%).^[13]

Strong predictors of anxiety and depression in breast cancer patients are poor family relationship and functioning, maladaptive problem and conflict solving, and presence of pain and fatigue. Promoting patient's social support,

especially emotional support from family, and enhancing patient's coping skills may reduce the patient's psychological stress and psychiatric morbidities. Treatment of breast cancer patients should focus on reduction of patient's disturbing symptoms such as adequate pain control, and lessening the treatment complications. Moreover being alert on patient's emotional reactions and potential psychiatric disorders is essential.^[14] Addressing the psychosocial and psychosexual needs of patients with breast cancer improves quality of survival and may even enhance length of survival from other, comorbid conditions and events, even if not from cancer.

Material and Methods

The present study was carried out in Guru Gobind Singh Medical College and Hospital Faridkot on sixty female breast cancer patients admitted in Department of Surgery and Department of Radiotherapy. Informed written consent was taken from each and every patient. Patients selected in the study will fulfilled the inclusion criteria of between 18-60 years of age, opting for informed written consent for study and diagnosed as a case of breast cancer were inducted in study. Patients below and above specified age in inclusion criteria, refusing consent for interview, suffering from severe medical illness which will prevent patient from giving interview, having any past history of psychiatric disorder, having cancer of any other site than breast, who are mentally retarded, having cognitive impairment or are pregnant or lactating were not included in the study. The socio-demographic data like age, sex, income of family, residence and type of family was recorded in a semi-structured proforma. Patients for study were screened by

General Health Questionnaire (GHQ 12). After screening the patients who were found to have positive psychological stress, were further interviewed individually and final diagnosis was made on the basis of DSM-IV-TR criteria for mental disorders.

Results

Socio Demographic Profile

The maximum number of the patients 30(50%) were of the age group 51-60 years, followed by 21(35%) of the age group 41-50 years and minimum number of patients 9(15%) were in the age group 30-40 years. In regard to the occupation of the patients, 57 of the patients were housewives, followed by 2 were labourer and only 1 patient was teacher. The majority of the patients 27(45%) were illiterate, followed by 20(33.3%) were primary pass, followed by 10(16.7%) were middle pass, followed by 2(3.3%) were secondary pass and only 1(1.7%) patient was graduate. Of the sample patients 58(96.7%) were married and 2(3.3%) were widow. 19(31.67%) patients were living in a nuclear family while 41(68.33%) were residing in joint family structure. The patients belonging to Sikh community constituted 80% (n=48) of the sample followed by 18.3% (n=11) students of Hindu community and 1.7% (n=01) of the sample consisted of patients belonging to Muslim community. The 23(38.3%) of the patients were living in urban region while 37(61.7%) were living in rural region. The majority i.e. 45(75%) of patients were having family income between Rs10000- 20000 per month followed by 11(18.3%) having family income less than Rs10000, and only 4(6.7%) of patients were having a family income between Rs 20000-30000 per month. (Table 1)

In study sample of 60 patients, 27(45%) patients were in advanced stage of cancer while 33(55%) patients were in early stage of cancer

Table 1: Socio Demographic profile of the subjects

Age (years)	N (%)
30-40	09(15%)
41-50	21 (35%)
51-60	30 (50%)
Occupation	
Housewife	57(95%)
Labourer	02 (3.3%)
Teacher	01 (1.7%)
Education	
Illiterate	27 (45%)
Primary Pass	20 (33.3%)
Middle Pass	10 (16.7%)
Secondary Pass	02 (3.3%)
Graduate	01 (1.7%)
Marital Status	
Married	58 (96.7%)
Widow	02 (3.3%)
Family type	
Joint	41 (68.33%)
Nuclear	19 (31.67%)
Religion	
Hindu	11 (18.3%)
Sikh	48 (80%)
Muslim	01 (1.7%)
Region	
Urban	23 (38.3%)
Rural	37 (61.7%)
Income of family (Rs./month)	
<10000	11 (18.3%)
10000-20000	45 (75%)
20000-30000	04 (6.7%)

Findings of Screening Instrument (General Health Questionnaire-12)

It was developed by David Goldberg in 1974 as one of the first mental screening devices for medical and surgical settings. It is a measure of morbidity. It identifies sub-threshold states, disturbance of mood and decreased well being. GHQ-12 scores are computed by responses obtained as per Likert scoring (0-1-2-3). Those patients having GHQ score of 12 or more were further assessed by a detailed history and diagnosis was made according to DSM -IV

TR criteria. Administration of screening instrument revealed that 33 (55%) patients were having GHQ Scores equal or more than 12, meaning that these patients were having psychological strain and required further evaluation for diagnosable psychiatric illness whereas, 27(45%) patients were having GHQ Scores less than 12 and did not require further evaluation. The screening instrument scores showed that, of 33 patients who showed psychological stress (i.e. scored more than or equal to 12 on GHQ 12 screening), 23 were from advanced stage of cancer and 10 were in early stage of cancer. This difference was found to be statistically significant. (Table 2)

Findings on clinical evaluation: Out of 33 patients found positive for psychological stress upon screening, 27 (81.81%) were found to be having a diagnosable mental

illness. The psychiatric diagnosis wise (according to DSM IV TR criteria) distribution of the patients is shown in Table 3. A statistically significant difference was found in patients having psychiatric illness when compared with stage of cancer (Table 4). It was found that of 27 patients having diagnosable psychiatric condition, 21 were from advanced stage of cancer whereas 6 of the patients were from early stage of cancer.

Correlation of psychiatric illness with socio demographic variables: While correlating the occurrence of psychiatric illness with socio demographic variables, it was found that more patients (63%) living in nuclear families had diagnosable psychiatric illness as compared to those living in joint families (37%) whereas no correlation was found in any of the other socio demographic variables. (Table 5)

Table 2: GHQ Score wise' distribution of total sample as per Stage of Cancer

GHQ Score	Stage of Cancer	
	Early	Advanced
<12	23	4
≥12	10	23

$\chi^2=18.072$; $df=1$; $p \text{ value}=0.00(*S)$

Table 3: DSM-IV (TR) Diagnosis-wise distribution of total sample (n=60)

DSM-IV(TR) Diagnosis	No. of patients (%)
Adjustment disorder	16(26.7%)
Major Depressive Disorder	06(10%)
Generalized Anxiety Disorder	04(6.7%)
Somatoform Pain Disorder	01(1.7%)
No- Diagnosis	33(55%)

Table 4 Psychiatric Illness wise' distribution of total sample as per Stage of Cancer (n=60)

Psychiatric Illness	Stage of Cancer		Total
	Early	Advanced	
Yes	06	21	27
No	27	06	33

$\chi^2=21.310$; $df=1$; p value= $0.00(*S)$

Table 5 Distribution of patients with or without Psychiatric illness on the basis of type of family (n=60)

Family type	Patients without Psychiatric Illness	Patients with Psychiatric Illness
	N (%)	N (%)
Joint	31 (93.9%)	10 (37.0%)
Nuclear	02 (6.1%)	17 (63.0%)

Discussion

In our study, majority of patients (50%) belonged to age group 51-60 and mean age of patients was 50.8 which is near earlier studies by Montazeri et al in 2001 in Tehran, Iran conducted on 56 patients with breast cancer where the mean age was 45.4 years, [28] In study by Kissane DW et al in 2004 the mean age of participants suffering from breast cancer was 49.8 years. [29]

In present study, no significant correlation was found in prevalence rate of psychiatric disorders and the occupation of the patients as most of the patients were housewives. However, Ogce F et al in 2007, found that unemployed breast cancer patients significantly had more psychological distress than employed patients. [30] In this study 33(55%) patients were having GHQ Score ≥ 12 indicating the presence of psychological stress in these patients, further 27 (45%) were found to be suffering from diagnosable psychiatric

illness which is similar to earlier studies of Fallowfield L et al in 2001, on 2297 patients using GHQ 12 as screening instrument where they found that 837 (36.4%) of 2297 patients had GHQ scores suggestive of psychiatric morbidity. [31] In another study by Atesci FC et al in 2003, investigating the prevalence of psychiatric morbidity among cancer patients on 150 patients with the diagnosis of cancer diagnoses where all patients were evaluated using GHQ and Hospital and Anxiety Depression Scale (HADS) and diagnosis was made according to the criteria of DSM-IV with the SCID-I interview 28.7% of cancer patients were found to have a DSM-IV Axis I diagnosis. [32]

Simpson JSA et al in 2002, in their study on breast cancer patients found that there was clear evidence of a cross-sectional relationship between social support and psychiatric morbidity at each time point, as those women with DSM-III-R diagnoses had significantly less social

support.^[33] In present study, no significant correlation was found in prevalence rate of psychiatric disorders and the marital status of the patients it could be due to the constitution of the sample as our study had 97% of married participants.

Burgess et al in 2005, in their study on breast cancer patients found that longer term depression and anxiety, were associated with previous psychological treatment, lack of intimate confiding relationship, younger age and severely stressful non cancer life experiences. Lack of intimate confiding support also predicted more protracted episodes of depression and anxiety.^[26] Ogce F et al in 2007, in their study on Turkish breast cancer patients found that the women with high social support scores had assistance provided by family, a special person or a friend.^[30] These women had low psychiatric morbidity as compared to women with no support. In our study patients living in nuclear families had more psychiatric morbidity due to lack of intimate confiding support which is similar with above studies.

In our study 45% patients met DSM-IV criteria for diagnosis of psychiatric disorders 16(59.25%) patients were of Adjustment Disorder, 6(22.22%) of Major Depressive Disorder, 4(14.8%) patients of Generalized Anxiety Disorder and 1(3.7%) patient of Somatoform Pain Disorder. It is somewhat similar to the result observed in studies by El-Hadidy MA et al in 2012 which found that 38.8%, 29.6%, and 9.2% of the patients had major depressive disorder, generalized anxiety disorder, and panic disorder, respectively^[34] and study by Grabsch B et al in 2006 which found that 42% of the women (97/227) had a psychiatric disorder, 35.7%(81) of these had depression or anxiety or both. Specific diagnoses were minor depression in 58

women (25.6%), major depression in 16 (7%), anxiety disorder in 14 (6.2%), and phobic disorder in 9 (4%) and 17 (7.5%) women had more than one disorder.^[35]

Looking at the findings of our study among the female breast cancer patients, significant proportion of psychiatric morbidity was observed among these patients. There is a growing importance and need to treat these psychiatric disorders and all possible measures are to be taken for their early detection. There is also a need to conduct a large scale survey of psychiatric disorders in these patients to see the nature and extent of prevailing morbidity to trace its developmental course and study its psychosocial determinants which are known to contribute to psychiatric disorders.

In view of the above discussion, it is concluded that it is imperative to carry out more studies and to follow up them longitudinally to understand the natural history of psychiatric disorders in cancer patients. The results of the study have implications for clinical training, practice and policy initiatives. Integrating mental health into general health care, effective mass media coverage, networking between mental health-professionals and other health professionals, community-based health services are required.

References

1. Pirl WF. Evidence report on the occurrence assessment and treatment of depression in cancer patients. *J Natl Cancer Inst Monogr* 2004;32:32-9.
2. National comprehensive cancer network (NCCN): Standards of care and management of distress penal. Distress management version 1 2007.
3. Zabora J, Brintzenhofe S, Zoc K, Curbow B, Hooker C, Piantadosi S. The

- prevalence of psychological distress by cancer site. *Psychooncology* 2001;10(1):19-28.
4. Massie MJ. Prevalence of depression in patients with cancer. *J Nat Cancer Inst Monogr* 2004; 32:57-71.
 5. Powe BD, Finne R. Cancer fatalism: the state of the science. *Cancer Nurse* 2003;26:454-65.
 6. Rowland JH, Massie MJ. Psycho-social adaptation during and after breast cancer. In: Harris JR, Lippman ME, Morrow M, Osborne CE editors. *Diseases of the breast*. Philadelphia: Lippincott, Williams & Wilkins; 2009.p.1103-23.
 7. World Cancer Research Fund/American Institute for Cancer Research. *Food, nutrition and physical activity, and the prevention of cancer: a global perspective*. Washington, DC: American Institute for Cancer Research (AICR); 2007.
 8. Parkin DM, Bray F, Ferlay J, Pisani P. *Global cancer statistics 2002*. *CA Cancer J Clin* 2005;55(2):74-108.
 9. Iester SC. The breast. In: Kumar V, Abbas A, Fausto N, Aster J, Editors. *Robbins and Cotran, Pathologic Basis of Disease*. 8th ed. Philadelphia: Elsevier; 2010.p.1076-77.
 10. Howlader N, Noone AM, Krapcho M, Neyman N, Aminou R, Waldron W et al. *SEER Cancer Statistics Review, 1975-2008*, National Cancer Institute. Bethesda. Available from: http://seer.cancer.gov/csr/1975_2008.
 11. Pasquini M, Biondi M. Depression in Cancer patients: a critical review. *Clinical Practice Epidemiological Mental Health*. 2007;3:2.
 12. Devita VT, Hellman S, Rosenberg SA. *Cancer: Principles and Practice of Oncology*. 4th ed. Philadelphia: Lippincott Williams & Wilkins; 1993.p.2226-27.
 13. Derrogatis LR, Marrow GR, Fetting J, Penman D, Piatesky S, Schamel AM et al. Prevalence of Psychiatric disorders among cancer patients, *JAMA* 1983;249:751-57.
 14. Lueboonthavatchai P. Prevalence and psychosocial factors of anxiety and depression in breast cancer patients. *J Med Assoc Thai* 2007 Oct;90(10):2164-74.
 15. Morris T, Greer HS, White P. Psychological and social adjustment to mastectomy. *Cancer* 1977;40:23-81.
 16. Maguire GP, Lee E, Bevington D, Kuchman C, Crabtree R, Cornell C. Psychiatric problems in the first year after mastectomy. *BMJ* 1978;1:963-65.
 17. Larys JCM, Margolese RG, Poisson R, Shibata H, Fleischer D, Lafleur D et al. Depression and body image following mastectomy and lumpectomy. *J Chronic Dis* 1987;40:529-34.
 18. Grandi S, Fava GA, Cunsolo A, Gozzetti G, Trombini G. Depression associated with mastectomy. *Med Sci Res* 1987;15:283-84.
 19. Meyer L, Aspergren K. Long-term psychological sequelae of mastectomy and breast conserving treatment for breast cancer. *Acta Oncol* 1989;28:13-18.
 20. Fallowfield LJ, Hall A, Maguire GP, Baum M. Psychological outcomes of different treatment policies in women with early breast cancer outside of a clinical trial. *BMJ* 1990;301:575-80.
 21. Maraste R, Brandt L, Olson H, Ryde-Brandt B. Anxiety and depression in breast cancer patients at start of adjuvant radiotherapy. *Acta Oncol* 1992;31:641-43.

22. Goldberg JA, Scott RN, Davidson PM. Psychological morbidity in the first year after breast surgery. *Eur J Surg Oncol* 1992;18:327–31.
23. Sneeuw KCA, Aaronson NK, van Wouwe MCC, Sergeant JA, van Dongen JA, Bartelink H. Prevalence and screening of psychiatric disorder in patients with early stage breast cancer. Paper presented at the International Congress of Psychosocial Oncology, October 12–14, 1992, Beaune, France. *Qual Life Res.* 1993;2:50–51.
24. Alexander PJ, Dinesh N, Vidyasagar MS. Psychiatric morbidity among cancer patients and its relationship with awareness of illness and expectations about treatment outcome. *Acta Oncol* 1993;32:623-26.
25. Watson M, Haviland JS, Greer S, Davidson J, Bliss JM. Influence of psychological response on survival in breast cancer: a population based cohort study. *Lancet* 1999;354:1331-36.
26. Burgess C, Cornelius V, Love S, Graham J, Richards M, Ramirez A. Depression and anxiety in women with early breast cancer: five year observational cohort study. *BMJ* 2005;330:702.
27. Mehnert A, Koch U. Prevalence of acute and post-traumatic stress disorder and comorbid mental disorders in breast cancer patients during primary cancer care: a prospective study. *Psychooncology* 2007;16:181–83.
28. Montazeri A, Jarvandi S, Haghghat S, Vahdani M, Sajadian A, Ebrahimi M et al. Anxiety and depression in breast cancer patients before and after participation in a cancer support group. *Patient Educ Couns* 2001;45(3):195-8.
29. Kissane DW, Clarke DM, Ikin J, Bloch S, Smith GC, Vitetta L, et al. Psychological morbidity and quality of life in Australian women with early stage breast cancer: a cross-sectional survey. *Med J Aust* 1998;169(4):192-6.
30. Ogce F, Ozkan S, Baltarli B. Psychosocial Stressors, Social Support and Socio-demographic Variables as Determinants of Quality of Life of Turkish Breast Cancer Patients. *Asian Pacific Journal of Cancer Prevention* 2007;8:79-82.
31. Fallowfield L, Ratcliffe D, Jenkins V, Saul J. Psychiatric morbidity and its recognition by doctors in patients with cancer. *British Journal of Cancer* 2001;84:1011–15.
32. Atesci FC, Oguzhanoglu NK, Baltarli B, Karadag F, Ozdel O, Karagoz N et al. Psychiatric disorders in cancer patients and associated factors, *Turk Psikiyatri Derg* 2003;14(2):145-52.
33. Simpson JSA, Carlson LE, Beck CA, Patten S. Effects of a brief intervention on social support and psychiatric morbidity in breast cancer patients. *Psycho-Oncology* 2002;11:282–94.
34. El-Hadidy MA, Elnahas W, Hegazy MAF, Hafez MT, Refky B, Wahab KMA. Psychiatric morbidity among Egyptian breast cancer patients and their partners and its impact on surgical decision-making. *Breast Cancer: Targets and Therapy* 2012;4:25–32.
35. Grabsch B, Clarke DM, Love A, McKenzie DP, Snyder RD, Bloch S et al. Psychological morbidity and quality of life in women with advanced breast cancer: a cross-sectional survey. *Palliat Support Care* 2006;4(1):47-56.

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