



Original Article

GENDER SPECIFIC PSYCHOLOGICAL DISTRESS IN CANCER PATIENTS WITH UNDERAGE CHILDREN

J AKTER¹, MH KHAN², FG KHAN³

Abstract

Background: Psychological distress has become an epidemic among cancer patients. Less is known about the pattern of anxiety and depression in cancer patients with minor children. Gender issue is also important in this regard. Psychological distress is an important predictor of quality of life in cancer patients. A majority of these disorders are eminently treatable.

Materials and methods: A cross-sectional comparative study was done to compare anxiety and depression status between cancer patients having and not having minor children, attending at National Institute of Cancer Research Hospital, Oncology department in Dhaka Medical College Hospital and in Uttara Adhunik Medical College Hospital. The study was conducted for the time period from September, 2012 to June, 2013. In study group, having underage children, 123 cancer patients were included. Whereas in comparison group without having underage children, 116 patients were selected. Purposive sampling was applied. Cancer patients in both groups were selected randomly, each between the age from 20 to 60 years, corresponding to Karnofsky Performance Scale Score > 79. All The included cancer patients were married and did not have history of substance use or any prior psychiatric illness or co morbidities related to development of secondary psychiatric disorders. Distress among the patients were measured with the Hospital Anxiety and Depression Scale (Two sub scales – A – Anxiety subscale and D – Depression subscale).

Result: In the study group, 60.2% respondents was male and 39.8% was female. And in comparison group male and female

ratio was 42.2% and 57.8%. Mean age of the participants in study group was 36.97±4.37 and in comparison group was 42.98±11.74 years respectively. The mean duration since diagnosis was 12.85±13.11 months in study group and 11.53±6.72 months in comparison group. Majority of the respondents in study group were suffering from gynaecological cancer (25.2%) and gastro intestinal cancer (25.2%). Whereas majority cancer patients in comparison group were gynaecological cancer (31%) and haematolymphoid cancer (20.7) as well. Metastasis was present in 42.3% patients in study sample and 64.7% patients in comparison group. It was noticed that, both male and female in study group were found significantly more distressed than the comparison group ($p < 0.001$). In study group mean anxiety score in male ($n=74$) was 15.72±2.314 and in female ($n=49$) was 12.06±2.802, i.e. father with minor children were suffering from more anxiety than the mother ($t = 7.878$, $p < 0.001$). Mean depression score in male (study group) was 11.91±2.489, whereas in female it was 17.55±2.542, i.e. female cancer patients with minor children were found more depressed than male ($t = 12.211$; and $p < 0.001$). In comparison group, mean anxiety score among male ($n=49$) was 7.27±1.630 and in female ($n=67$) mean anxiety score was 8.84±1.592. Female were more anxious than male in comparison group ($t = 5.196$; $p < 0.001$). In this group, mean depression score in male was 9.671±1.651 and in female it was 8.58±2.161. Male without minor children were found more depressed than female in this group ($t = 2.958$; $p = 0.004$).

But among all the cancer patients majority of female were found anxious (93.1%) i.e prevalence of anxiety was more in female. And majority of the male respondents (95.1%) were depressed; (odds ratio; depression in male: female = 3.120; CI at 95% level – from 1.176 to 8.276).

Conclusion: Cancer father with minor children were more prone to development of higher anxiety. And anxiety was more prevalent in female among all the cancer patients with and without minor children.

Key words: Psychological distress, underage children, gender

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Introduction

An estimated 22.4% of cancer cases occur in individuals between 21 and 55 years of age¹. These are prime child-bearing and parenting years, so a substantial proportion of survivors in this age range may have minor children. Cancer and its treatment pose unique challenges to survivors with minor children and may have a more negative impact on these individuals and their families, compared to survivors without children or those with adult children. Cancer diagnosis and treatment has considerable impact on the parents having minor children. Distress and functioning may vary depending on gender of the parent with cancer as well.

Emotional distress has been found as a core indicator of a patient's health, well-being and has installed it as the sixth vital sign². When a parent receives a diagnosis of cancer, it is acknowledged in the literature that the demands of this illness add to the normal challenges of parenting³. Being diagnosed with a life threatening disease such as cancer induces a new situation in life which requires adjustment a lot. Studies confirm that about a third of newly diagnosed cancer patients develop clinically significant psychological distress. At a time when many wish to be engaged emotionally with loved ones, these disturbances decrease patients' emotional, social and cognitive function. Mental health is the most important contributor to the quality of life of the person himself as well as to the other residing with him. It is indispensable to personal wellbeing, family wellbeing and interpersonal relationships. Anxiety and depression are the most common psychological problems in cancer patients⁴. Clinical anxiety has been observed in 15-30% of cancer patients and depression in 20-25%⁵. In the diagnostic phase, adjustment disorders with anxious and depressive mood are seen in about 30% of cases, but major depression or other severe psychological symptoms are not common in this period⁶. Emotional distress of cancer patients has been widely investigated, and identified as a significant and ongoing problem⁷.

Methodology

A cross sectional comparative study was conducted among cancer patients in National Institute of Cancer Research Hospital, Oncology department of Dhaka Medical College Hospital and Uttara Adhunik Medical College Hospital. Only the married cancer parents were included. The study group had underage children

(child below 18 years of age) and the comparison group had no underage children. All the study population were asymptomatic or minimally symptomatic cancer patients on active anticancer treatment. The patients were recruited from the hospital during their ambulant treatment or follow-up. They had no history of prior psychiatric illness or neurological diseases (i.e. parkinson's disease, huntington's disease, cerebrovascular accidents, multiple sclerosis and alzheimer's disease). Selected medical illnesses were excluded (i.e. cushing's syndrome, type I/type II diabetes mellitus, end stage renal disease and coronary heart disease). In study group 123 cancer parents were selected, while in comparison group 116 parents were included with the purposive sampling technique. Direct face to face interview had done and available hospital records had examined. Interviewer administered semi structured questionnaire was used for collection of data. The questionnaire included demographic information, clinical information and distress measuring questions. Demographic and medical data had been obtained from the participants and from their medical records. Psychiatric assessment had done with the questionnaire according to HADS-D (A version of 14 items Hospital Anxiety and Depression Scale). The HADS-D separately measures anxiety and depression in adults with physical illness. The scale comprises 14 statements relevant to either generalized anxiety (7 statements) or depression (again 7 statements) which the patient rates based on their experience over the past week. After processing and cleaning, data was analyzed with SPSS 19.0. Descriptive statistics as well as the comparative tests were used to characterize the variables and associations. T-tests had been used for continuous variables and χ^2 (chisquare) statistics had been used for binary variables.

Result

Males accounted for 60.2% respondents in study group and 42.2 % in comparison group. Age of the respondents varied from 20 to 60 years. In study group 55.3% patients were below 40 years of age. Whereas 66% respondents in comparison group was above 40 years of age. Mean age in study group was 36.97 ± 4.37 and in comparison group was 42.98 ± 11.76 years. 84.6% cancer patients with minor children were married and rest were widow/divorced/separated. In group having no underage children, 78.4% were living married life.

Table-I
Sociodemographic characteristics of cancer patients.

Characteristics	Study group*	Comparison group*	X ² -value	p-value
Sex				
Male	74(60.2)	49(42.2)	7.676	0.006
Female	49(39.8)	67(57.8)		
Age group (in years)				
20 – 39	68(55.3)	39(33.6)	11.331	0.001
40 – 60	55(44.7)	77(66.4)		
Marital status				
Married	104(84.6)	91(78.4)	27.256	<0.001
Widow/divorced/ Separated	19(15.4)	25(21.6)		

*Percentage in parenthesis

It was observed that majority participants in both groups had suffered from gynaecological cancer. 25.2% in study group and 31% in comparison group. 2nd major type was gastrointestinal cancer in study group and haematolymphoid cancer in comparison group. Type of cancer was significantly different between the groups ($p < 0.05$).

Table-II
Distribution of type of cancer.

Type of cancer	Study group*	Comparison group*	X ² -value	p-value
Guynaecological	31(25.2)	36(31)	13.159	0.041
Gastrointestinal	31(25.2)	21(18.1)		
Haematolymphoid	9(7.3)	24(20.7)		
Oropharyngeal	18(14.6)	9(7.8)		
Lung	13(10.6)	11(9.5)		
Genitourinary	16(13.0)	12(10.3)		
Other	5(4.1)	3(2.6)		

*Percentage in parenthesis

The two groups were not significantly different with the distribution of disease duration ($p = 0.333$). Mean duration since diagnosis of cancer was 12.85 ± 13.107 months in study group and 11.53 ± 6.716 months in comparison group.

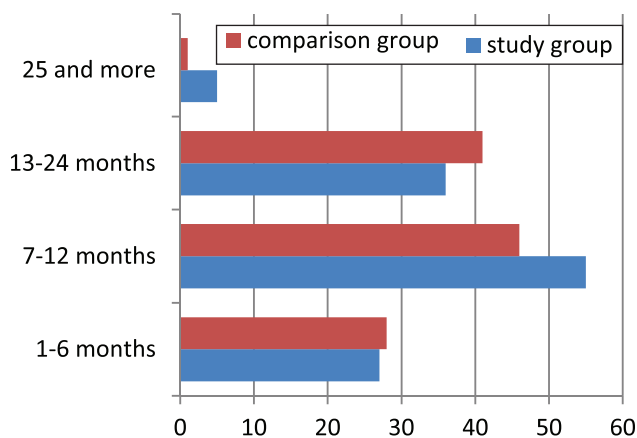


Fig.-1: Duration since diagnosis of cancer in both groups

Metastasis was absent in majority of respondents in study group (57.7%). In other group 64.7% had no history of metastasis as well.

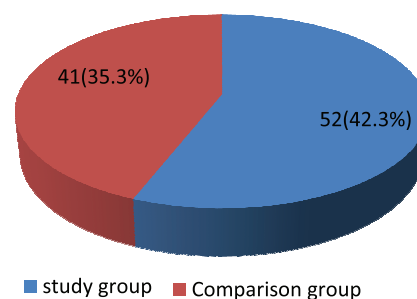


Fig.-2: Metastasis in cancer Patients

In study group, mean anxiety score among male was 15.72 ± 2.314 . And in female it was 12.06 ± 2.802 . The difference between the group was highly significant ($p < 0.001$); i.e. father with minor children were more anxious than the mother.

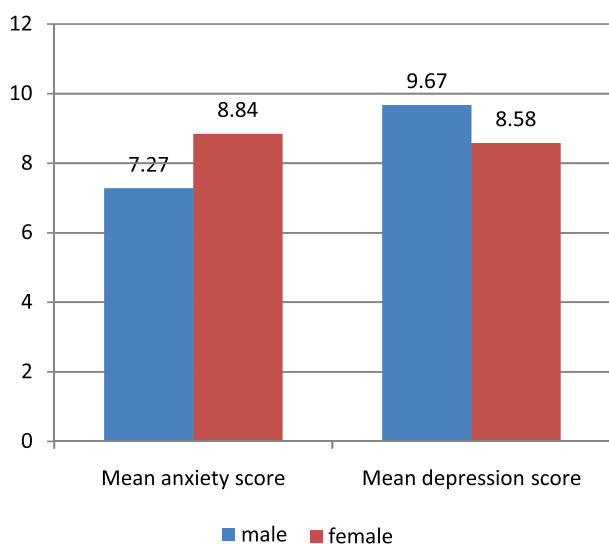


Fig.-3: Mean score of anxiety and depression between male and female in study group.

In comparison group mean anxiety score among male was 7.27 ± 1.630 . And in female it was 8.84 ± 1.592 . The difference between the group was highly significant ($p < 0.001$).

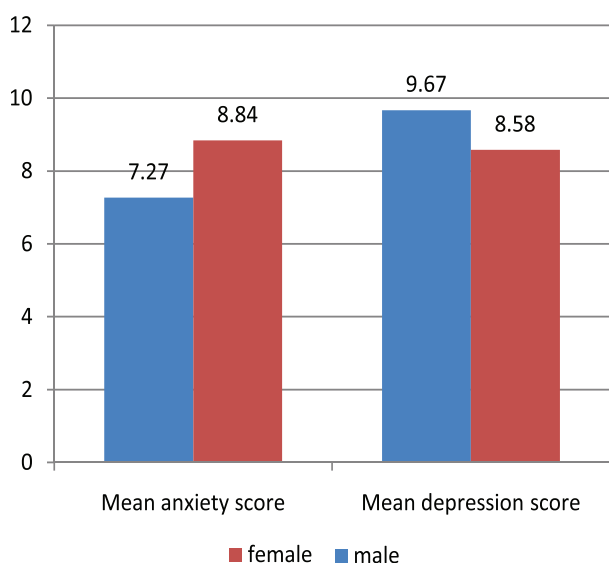


Fig.-4: Mean score of anxiety and depression between male and female in comparison group.

In this study a total of 123 male and 116 female had participated (including both study group and comparison group). Of them 93.1% female and 75.6% male was diagnosed anxious; i.e. anxiety was more prevalent in female cancer patients. Whereas depression was more prevalent in male cancer patients (95.1% in male and 86.2% in female).

Table-III
Gender Specific psychological distress in all cancer patients.

Psychological distress	Sex of the respondents (N=239)		χ^2 -value	p-value
	Male*	Female*		
Anxiety				
Present	93(75.6)	108(93.1)	13.663	<0.001
Absent	30(24.4)	8(6.9)		
Depression				
Present	117(95.1)	100(86.2)	5.677	0.01
Absent	6(4.9)	16(13.8)		

*Percentage in parenthesis

Discussion

Currently it is consensual that approximately one third of all oncology patients experience significant level of emotional distress associated with cancer diagnosis and treatment and which warrants psychological treatment⁸. In this study 239 cancer patients had been investigated. Of them 123 was in study group and 116 in comparison group. Respondents in study group had underage children. The comparison group had no underage children.

Mean age in study group was 36.97 ± 4.37 and in comparison group was 42.98 ± 11.76 years. In study group 55.3% was below 40 years. Whereas 66% respondents in comparison group was above 40 years. Age of the respondents varied from 20 to 60 years. An estimated 22.4% of cancer cases occur in individual between 21 and 55 years of age¹. These are prime child bearing and parenting years. Affected parents may experience heightened distress related to worry about not seeing their children grow up, inability to perform usual parenting activities, the strain of multiple roles while ill, anger or resentment at multiple real or perceived losses and the untimeliness of their illness⁹. In study group 84.6%,

and in comparison group 78.4%, cancer patients were married and rest were widow/divorced/separated. It could show that in women, younger age (<40 years) as well as the marital status including married increased anxiety.

Type of cancer was significantly different between the groups ($p < 0.05$). It was observed that majority participants in both groups had been suffering from gynaecological cancer. 25.2% in study group and 31% in comparison group. 2nd highest type was gastrointestinal cancer in study group and haematolymphoid cancer in comparison group. The result could show that the psychological distress could be modulated in cancer patients by cancer type. Other data on this issue showed that women with gynaecological cancer, felt more distressed than patients suffering from other types of cancer^{10,11}. The two groups were not significantly different with the distribution of disease duration ($p = 0.333$). Mean duration since diagnosis of cancer was 12.85 ± 13.107 months in study group and 11.53 ± 6.716 months in comparison group. This is because, only the minimally symptomatic or no symptomatic cancer patients were included in this investigation. Metastasis was absent in majority of respondents (57.7%) in study group. In other group 64.7% had no history of metastasis as well. Appearance of metastasis did not found related with increased distress. However the latter finding needs to be interpreted carefully, because not all patients knew whether there was clinical evidence of metastasis at the time of their study participation.

Anxiety prevalence was, 99.2% in study group and 70.7% in comparison group. In matter of depression, prevalence was more in the study group as well; i.e. parents with minor children were psychologically more distressed than the other group. This is partly in line with the finding on this issue¹². Males accounted for 60.2% respondents in study group ($n=123$). And the rest were female. In this group, mean anxiety score among male was 15.72 ± 2.314 . And in female it was 12.06 ± 2.802 . This difference between male and female was highly significant ($p < 0.001$); i.e. father with minor children were more anxious than the mother. This finding is contradictory with previous finding on gender-specific experience of distress of cancer patients with minor children. A study observed psychological distress of female partners of cancer patients with underage children (by HADS-D). Every

second female partner showed clinically anxiety scores. On average, the female partners were significantly more anxious than male cancer patients. Regarding the degree of depression, between the partners there were no differences. With regard to mental distress, a medium correlation was found on the pair level¹³. In another survey, at five universities, (Taking part in the German multisite research project 'Psychological services of children of parents with cancer' supported from 2009 to 2012 by the German cancer aid) on psychological distress in cancer patients with and without under age children, they have found 17.49% parent in study group with underage children were anxious and majority of them were mother¹². 42.2% were male in comparison group. Mean anxiety score among male in this group was 7.27 ± 1.630 . And in female it was 8.84 ± 1.592 . The difference between the group was highly significant ($p < 0.001$). Female cancer patients without having minor children had been suffering from more anxiety than their male partner. As per previous findings female gender have been associated with higher emotional distress. However, psychological distress (anxiety and depression) is modulated in cancer patients by parenthood and gender.

A total of 123 male and 116 female had been participated ($N=239$, including both groups) during the investigation. Of them, 93.1% female and 75.6% male was diagnosed anxious; i.e. anxiety was more prevalent in female cancer patients. which fits in well with other data on this issue. As mentioned by Williamson and Schulz; overall, younger age and female gender have been associated with higher emotional distress. According to a met-analysis in 2008 and 2009 by Hagedoorn and Hoffman, woman tend to suffer more psychological distress and anxiety than man (standardized mean difference = 0.31). In this study, depression was more prevalent in male cancer patients (95.1% in male and 86.2% in female). However, findings are sometimes inconsistent, not allowing for a clear conclusion.

Conclusion

Cancer father with minor children were more prone to development of higher score of anxiety. But anxiety was more prevalent in female among all the cancer patients.

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