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Original Article

Prevalence of anxiety and depression among cancer patients in a community hospital of Bangladesh

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Background: Patients with cancer often face psychological issues. Some nations have incorporated psychological assessments into cancer care; however, Bangladesh has minimal exposure of the discipline.

Objectives: To examine the prevalence and associated factors of anxiety and depression among cancer patients attending in a private referral hospital in Bangladesh.

Methods: The Hospital Anxiety and Depression Scale (HADS) tool was used to evaluate cancer patients by a cross-sectional study design. Eighty patients were recruited using a purposive sampling strategy. Descriptive statistics and chi-square tests were used to investigate the association of variables with anxiety and depression.

Results: The majority of cancer patients had moderate to severe depression (56.2%) and moderate to severe anxiety (42.5%). Anxiety was associated with marital status (p=0.020), financial state of the patient (p=0.003).

Conclusions: The prevalence of anxiety and depression among cancer patients was high, indicating the necessity of screening and counselling for anxiety and depression in cancer patients to help them cope with and influence their mental well-being.

Declaration of interest: None

Keywords: Cancer; depression; anxiety.

Introduction

Cancer is a serious disease that affects sufferers' physical and mental well-being. The worldwide prevalence of cancer cases was 14.1 million in 2012, and it is predicted to rise to 21.6 million by 2030, affecting cancer care and the number of required health care professionals significantly.[1] Psychological difficulties play a significant role in cancer settings from the communication of the diagnosis to the care of the end-of-life stage.[2,3] Diagnosis of cancer can lead to psychological distress or other significant mental illness in about 30% of patients.[4-6] Anxiety and depression are common cancer symptoms that are sometimes overlooked. According to a recent clinical practice review, depression affects roughly 20% of cancer patients, and anxiety affects about 10%, compared to 5% and 7% in the general population.[1]

Anxiety and depression are prevalent in cancer patients, but they aren't well-known cancer consequences, despite the fact that they impair the quality of life and survival, comply with therapy, and expense.[7] Depression is a difficult topic to research in people with cancer because conditions are distinctive to each patient.[8] Anxiety and depression have shown to coexist in cancer patients.[9-11] This is significant because patients with coexisting

depression have more severe symptoms, longer healing times and a heavier burden on medical resources than those with a single disorder.[12] Patients with cancer may feel that their emotional needs are not as satisfied as they are physiologically. However, the American Cancer Society says that those who suffer from anxiety and depression can be assisted nearly often.[13] Depression is a common complaint among cancer patients. However, there is only limited data for Asian communities regarding that.[14]

Different patients with cancer claim that their psychosocial requirements were not understood by those who in charge, they were ignorant of it and did not refer them to relevant options such as counselors or psychiatrists.[15] Many countries have lately begun to incorporate psycho-oncology into cancer care as part of a multidisciplinary strategy that includes psychological support. In order to avoid and manage psychosocial concerns that arise with cancer care, several high-resource countries have integrated psychological and social assistance with the engagement of oncology nurses, social workers, psychologists, and psychiatrists. The majority of low-resource countries, such as Bangladesh, have yet to create psychological assistance for cancer patients.[16] Cancer is Bangladesh's sixth prevalent cause of death and 60% of cancer patients die in 5 years after diagnosis. Bangladesh has between 1.3 and 1.5 million cancer patients, with about 0.2 million new cases diagnosed annually. Lung, mouth-oropharynx, esophageal, and stomach cancers are the most common in Bangladeshi men, while cervical and breast types of cancer are most common in women.[17] The majority of cancer hospitals in Bangladesh do not provide proper service or show any attention for cancer patients' psychological difficulties. As a consequence, we need to know how common anxiety and sadness are among cancer patients. Once we know the prevalence of anxiety and depression in cancer patients, we can provide them with psychological support. The objective therefore of this research is to examine the prevalence of anxiety and depression in Bangladeshi cancer patients and to explore its significance to various influencing demographic factors and & clinical characteristics.

Methods

Using a structured interviewing method, a cross-sectional survey design[18] was adapted to assess the prevalence of anxiety and depression among cancer patients in a community hospital in Bangladesh and to see if demographic factors & clinical characteristics had any effect on their anxiety and depression levels. Data was collected using a purposive sampling technique between April 15th, 2018 and June 15th, 2018 that was focused on engaging the targeted participants. The study included 80 cancer patients from a cancer hospital's inpatient and outpatient units. Cancer patients who were stable enough to communicate but did not have any severe comorbid brain injury/ trauma or psychotic illness were included in the study, ranging in age from 15 to 65 years. After receiving ethical approval from the ethics committee of the Department of Educational and Counselling Psychology at the University of Dhaka, structured interviews were conducted with all participants who volunteered to participate. The Bangla version of Hospital Anxiety and Depression Scales (HADS)[19] was chosen to measure the psychological burden of cancer patients based on prior investigations on the psychological impacts of cancer diseases on cancer patients.[20-22] Demographic information was gathered to determine the associated factors, which included gender, marital status, education level, residence, occupational status, and socioeconomic status. The questionnaire also included information about the patient's clinical and medical history, including 1) type of cancer, 2) stage of cancer, 3) treatment being sought, and 4) treatment finance. The Hospital Anxiety and Depression Scales (HADS) were previously used in several global studies to assess anxiety and depression in cancer patients.[23, 24] The original and translated Bangla versions of the HADS sub-scales for anxiety and depression had a correlation coefficient of 0.76 and 0.94, respectively.[19] Translated Bangla version of HADS has been a widely used measure in patient related studies in Bangladesh.[25,26] HADS is a self-report questionnaire with a four-point Likert scale ranging from 0-3 and a total scoring range of 0 to 21, designed to detect patient distress. The HADS has 7 items in each two subscales for anxiety and depression. The overall score for both subscales was classified into four psychological effect levels: 0–7 (normal), 8–10 (mild), 11–14 (moderate), and 15–21 (severe). Individuals are classified as not clinically depressed/anxious (total score on each sub-scale 8), borderline (scoring 8-10), or clinically depressed/anxious (score>11) depending on their total score on each sub-scale.[27] Eighty individuals were selected for the study's final data analysis. IBM SPSS Statistics 16.0 was utilized for statistical analysis.

Results

Of the 80 patients, 47 (58.8%) were males and 33 (41.2%) were females. 41(51.3%) participants were from rural and the remaining 39 (48.8%) were from urban. Regarding marital status, the majority of the participants were married 66 (82.5%). According to their educational level, a very little number of participants (35%) had completed bachelor & above degree. Most of our participants (52.5%) belong to middle class in terms of socio-economic status (Table 1).

Table 1: Sociodemographic profile of cancer patients (N=80)

Characteristic	Frequency (n)	Percentage (%)
Sex		
Male	47	58.8
Female	33	41.2
Marital status		
Single	13	16.3
Married	66	82.5
Educational level		
Primary or below	21	26.2
Higher secondary or below	31	38.7
Bachelor or above	28	35
Residence		
Rural	41	51.3
Urban	39	48.8
Occupational status		
Service	20	25.0
Business	11	13.7
Housewife	21	26.2
Labour	21	26.2
Unemployed	7	87.5
Socioeconomic status		
Lower class	26	32.5
Middle class	42	52.5
Upper middle class	12	15

Table 2: Clinical characteristics of cancer patients (N=80)

Variable	Frequency (n)	Percentage (%)
Type of cancer		
Breast cancer	16	20
Gastrointestinal tract	13	16.3
Head and neck	10	12.5
Bone and soft tissue	6	7.5
Lung	15	18.8
Ovarian	8	10
Cervical	2	2.5
Other cancers	10	12.5
Type of treatment		
Chemotherapy	51	63.75
Surgery	12	15
Radiotherapy	17	21.25
Stage of cancer		
Stage 1	6	7.5
Stage 2	39	48.8
Stage 3	28	35
Stage 4	7	8.8

Breast cancer was found to be more common (20%) amongst study respondents than any other type of cancer. The majority of those who took part in the study (63.7%) were receiving chemotherapy as part of their treatment. In terms of disease stage, stage 2 and 3 had the highest frequency (48.8% and 35%, respectively). The frequency of Stages 1 and 4 (7.5% and 8.8%, respectively) was lower. The main explanation could be that cancer patients may not be able to come hospital in early (stage 1), whilst stage 4 patients are near death and must remain at home. (Table 2).

The mean anxiety score of the cancer patients found was 11.1 (±2.8) while the mean depression score was 10.5 (±2.5). Table 3 reveals that 45 (56.2%) of the 80 cancer patients were clinically anxious while 34 (42.5%) respondents were clinically depressed.

Table 3: Distribution of sample according to different diagnosis level of anxiety & depression (N=80)

Symptom	Severity	Frequency (n)	Percentage (%)
Anxiety	Normal(0-7)	4	5
	Borderline (8-10)	31	38.7
	Clinically anxious (11-21)	45	56.2
Depression	Normal (0-7)	8	10
	Borderline (8-10)	38	47.5
	Clinically depressed (11-21)	34	42.5

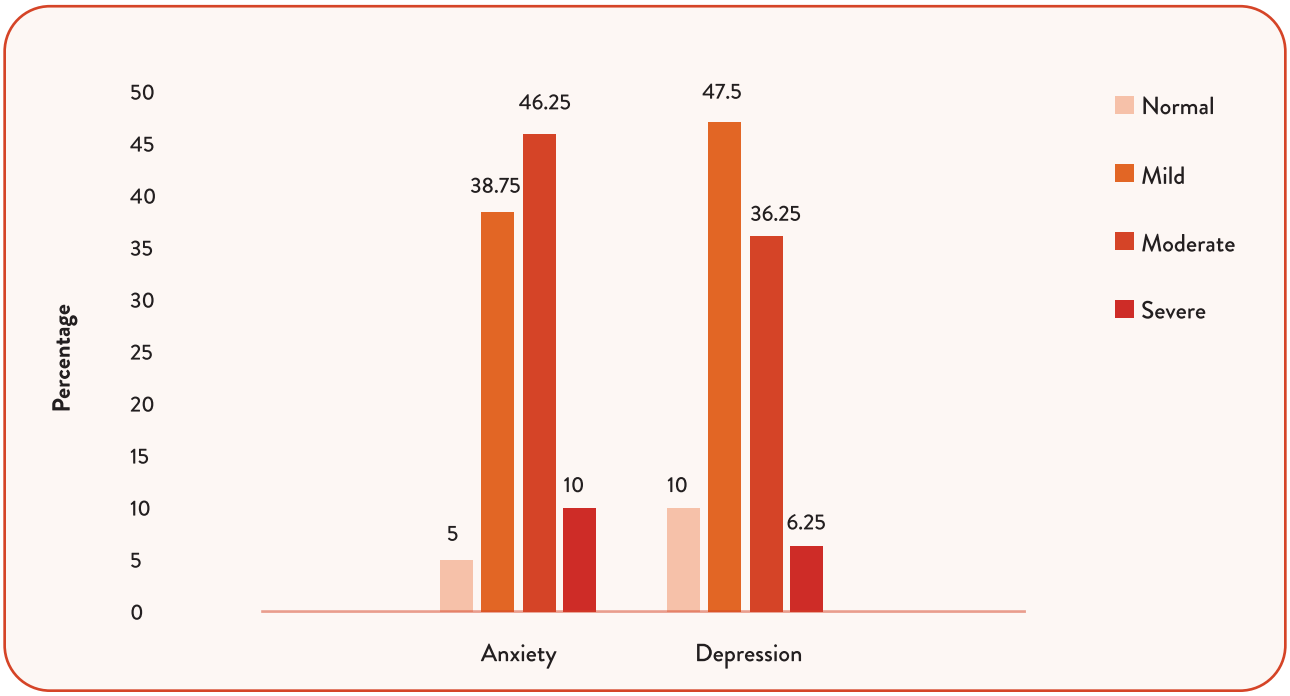

Figure 1: Distribution of sample according to the psychological effect levels of anxiety & depression.

In this study, 76 of the 80 cancer patients had anxiety symptoms, with mild (38.75 %) and moderate (46.25 %) symptoms being more prevalent. A substantial majority of patients (72 out of 80) had depression symptoms, with 47.5 % reporting mild symptoms and 36.5 % reporting severe symptoms. (Figure 1).

Chi-square was performed to predict the association of various demographic, clinical factors with the presence of mild to severe levels of depression and anxiety symptoms on cancer patients. (Table 4, Table 5). A significance level of $p < 0.05$ was used.

Table 4: Association between demographic profile of cancer patients with anxiety and depression levels (mild to severe) (N=80)

Variables	Category	Anxiety				Depression			
		N	%	χ2	P value	N	%	χ2	P value
Gender	Male	43	56.5	6.5	0.089	43	56.5	1.50	0.68
	Female	33	43.4			29	38.1		
Marital status	Single	11	14.4	14.4	0.02**	12	16.6	6.1	0.408
	Married	65	81.2			60	83.3		
Residence	Rural	40	52.6	2.5	0.475	41	53.9	4.2	0.24
	Urban	36	47.3			39	51.3		
Educational status	Primary or below	20	26.3	12.4	0.64	21	29.1	15.8	0.393
	Higher secondary or below	29	38.1			27	37.5		
	Bachelor or above	27	35.5			24	33.3		
Occupation	Service	17	22.3	17.1	0.14	15	20.8	10	0.61
	Business	11	14.4			10	13.89		
	Housewife	21	27.6			20	27.78		
	Labour	20	26.3			20	27.78		
	Unemployed	7	9.21			7	9.7		
Socio economic status	Lower	25	32.8	5.8	0.44	25	34.7	10.36	0.11
	Middle	39	51.3			39	54.1		
	Upper middle	12	15.7			8	11.1		

Table 5: Association between clinical characteristics of cancer patients with Anxiety and Depression levels (mild to severe) (N=80)

Variables	Category	Anxiety				Depression			
		N	%	χ2	P value	N	%	χ2	P value
Treatment finance	Government	3	3.94	13.4	0.03**	4	5.5	4	0.66
	Personal	73	96			68	94.4		
Type of cancer	Breast	16	21	31.9	0.06	13	18	23.3	0.43
	Gastrointestinal tract	13	17.1			11	15.2		
	Head & neck	10	13.1			9	12.5		
	Bone & soft tissue	5	6.5			6	8.3		
	Lungs	14	18.4			15	20.8		
	Ovarian	8	10.5			7	9.7		
	Cervical	2	2.6			2	2.7		
	Others	8	10.5			9	12.5		
Disease stage	Stage 1	6	7.8	11.7	0.23	5	6.9	6.4	0.69
	Stage 2	38	50			34	47.2		
	Stage 3	26	34.2			26	34.2		
	Stage 4	6	7.8	9.5	0.39	7	9.2	14.4	0.45
Types of therapy	Chemotherapy	48	63.1			47	65.2		
	Radiotherapy	16	21			14	19.4		
	Surgery	12	15.8			11	15.2		

From Table 4, it is evident that there existed a significant association between marital status & anxiety responses ($\chi 2=14.4$, $p= 0.020$) among cancer patients. Table 5 also shows a significant association between treatment finance of patients & anxiety related responses ($\chi 2=13.4$, $p= 0.003$) among cancer patients. Other variables including gender, age, residence, education status, occupation, socio-economic status and treatment finance exhibited no significant association with anxiety levels. On the contrary, no association was discovered between depression and any of the variables studied.

Discussion

Our study findings showed higher prevalence rate in anxiety but lower in depression levels in comparison with a study of cancer patients in Northwest Ethiopia.[28] The reason for this disparity could be that cancer patients in Ethiopia receive better care, which could include psychological therapy for chronic illness patients. Type of cancer & stage of cancer did not have any association with anxiety and depression which corresponds with a study of cancer patients in Northwest Ethiopia.[28] In contrast to a study conducted with cancer patients in Iran, the type of treatment was not associated with anxiety and depression.[29]

Based on the results the following Discussions can be can be drawn. The results presented in this study confirm that cancer patients suffer from psychological or psychiatric complications. The current study makes recommendations to the various stakeholders based on the findings of this study. A patient counseling and support unit should be in place to help cancer patients in reducing anxiety and depression. Because cancer is a chronic and frustrating disease condition, policies and programs addressing psychological burden should be considered in order to reduce the associated psychosocial difficulties with the disease. Furthermore, extensive research with larger samples is recommended, considering other research design accompanied with qualitative methods to estimate the magnitude of anxiety and depression symptoms and factors contributing to these psychosocial problems. Another limitation is the use of a small sample size, which may have an impact on the association of explanatory variables with anxiety and depression. The cross-sectional design of the present research does not allow for causal inferences. It would have been better if qualitative data had been included.

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