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Depression among cancer patients: A major epidemic

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Abstract
A descriptive study aimed to assess the level of depression among cancer patients of regional cancer centre, Agartala has been conducted with 100 no. of cancer patients selected by consecutive sampling. For this study, self-structured demographic tools and Zungdepression scale has beenused for measuring level of depression. Descriptive statistics has been used for data analysis. Majority of data were in age group 37-46 years, male, completed primary education, and businessman, family income within 5000, from nuclear family, having two children and from Hindu community. Results of study revealed that maximum patient were in mild depression (73%). This study result can be replicated in the nursing education, practice, and administration to assess the depression level of student and staff for better utilization of services and promoting quality of life.

Keywords: Depression, cancer patient, zung depression scale

Introduction
Depression affects 121 million people and is among the leading causes of disability worldwide. Untreated depression leads to personal suffering and increased mortality. Although the prevalence of depression varies considerably globally, the most common symptom of depression are depressed mood, insomnia and fatigue. The report on Global burden of disease estimates the point prevalence of unipolar depressive episodes to be 1.9% for men and 3.2% for women [1], and one-year prevalence has been estimated to be 5.8% for men and 9.5% for women.

Cancer accounts for nearly 3 lakhs deaths annually in India, exceeded only by heart disease; major depressive disorder accounts for 4.4% of the global disease burden, and the disability adjusted life tear (DALYs) for depression in the near future will be greater than cancer. A strong body of evidence demonstrate in coexistence of depression for solid tumours ranging from 20 to 50%. 3 found out of 201 recently diagnosed cancer patients, 15% met the criteria for major depressive disorder, some reported among breast cancer patient. There is reason to relieve that many patients affected by subclinical depression go undetected. More research is needed to establish the prevalence of depressive disorders in the years after diagnosis using standardized diagnosis criteria [2, 3]. Studies have reported the presence of psychological disorders (i.e., anxiety, depression, adjustment disorders) in approximately 30% of patients [12-16], although this percentage varies depending on the specific disorder and study. The prevalence of depression, in particular, ranges from 1.5% to over 53% [17-18]. Bukberg and his team reported that roughly 25% of cancer patients report severe depressive symptoms, with the prevalence increasing in those with advanced illness to 77%. Additional information regarding the prevalence of depression in cancer has been reported by Massie [19, 20].

Objective
Behind this study the assumption was daily clinical experiences which represents the depressed moods, uneasiness, anxiety, maladjustment of the cancer patients. The objective of this study is to assess the level of depression among cancer patients.

Materials and Methods
Quantitative research approach is used to measure the level of depression of cancer patient. Design of present study is nonexperimental (descriptive) and 100 patients were taken by convenience sampling. They were given demographic questionnaire for assessing socio-demographic data. The inclusion criteria of the study participants were:
1. Cancer patient of Regional Cancer Centre, Agartala,
2. Who were willing to participate,

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3. Who were present in the date of data collection.

Data has been collected for 15 days from 9am to 1pm. Zung Depression Scale is used for measuring level of depression of clients. All clients were very much enthusiastic and interested about study and researcher did not find any difficulty in collecting data from the participants.

Results
Distribution of study population according to socio-demographic variables by using frequency and percentage.

Table 1: frequency and percentage distribution of age, sex and education of group. N=100

Items		Frequency	Percentage
Age in years	17-26	3	3%
	27-36	4	4%
	37-46	36	36%
	Above 46 years	71	71%
sex	Male	74	74%
	Female	26	26%
Education	Illiterate	13	13%
	Primary	62	62%
	Higher secondary	17	17%
	Graduation	8	8%

Table 2: Frequency and percentage distribution of type of family, occupation and family income of group. N=100

Items		Frequency	Percentage
Types of family	Nuclear family	72	72%
	Joint family	28	28%
Occupation	bachelor	34	34%
	business	46	46%
	Private employee	12	12%
	Govt. employee	8	8%
Family income	Less than 3000	27	27%
	3000-5000	32	32%
	5001-7000	17	17%
	More than 7000	24	24%

Table 3: Frequency and percentage distribution of no. of children and religion of group. N=100

Items		Frequency	Percentage
No. of children	1no.	21	21%
	2no.	47	47%
	More than 2	32	32%
Religion	Hindu	85	85%
	Muslim	14	14%
	Christian	1	1%
	Other	0	0

Table 1,2,3shows the demographic data that majority of samples were above 57 years (57%), male (76%), completed primary education (64%), business in profession (40%), family income 3001-5000, nuclear family (72%), having 2 child (47%), from Hindu community (85%).
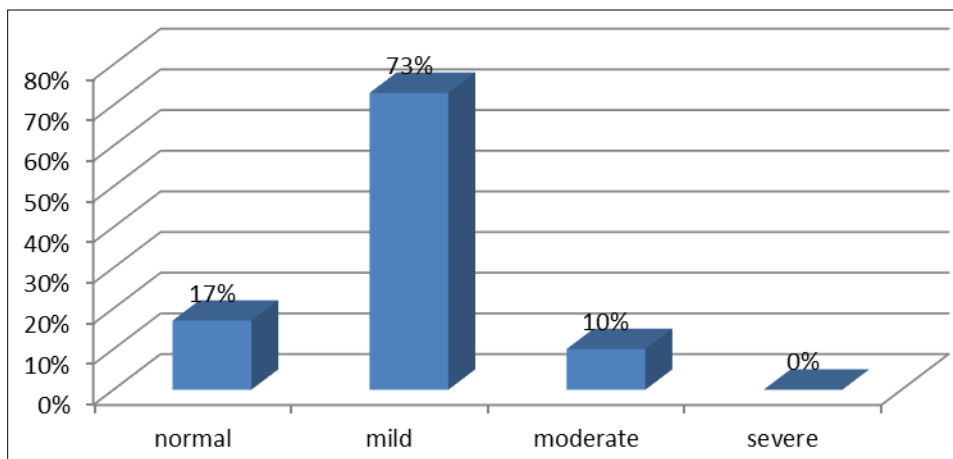Comparison of depression by using frequency and percentage N=100.

Fig 1: Depression level of group using frequency and percentage.

The figure represents 73% patients are in mild depression, 10% are in moderate depression, no patient found in severe depression in our study. 17% patients do not have any kind of depression.

Discussion

This study aimed to identify the level of depression among cancer patients. In this study 73% patients were in mild depression, 10% were in moderate depression, no patient found in severe depression in our study. 17% patients do not have any kind of depression.

Depressed cancer patients are at increased risk of mortality compared with non-depressed patients [5]. Although treatment non-participation accounts for some of the increased risk, evidence from animal studies and human studies suggests that the chronic stress response, which may contribute to the development of depression in cancer, may also contribute to increased cancer invasiveness, reduced tumour surveillance by the body, increased angiogenesis, reduced tumour suppressor gene activity and reduced cellular apoptosis [7].

A cross sectional study have been done by Abdallah Y Naser, Anas Nawful Hameed, Naur Mustafa *et al.* [10], revealed that the prevalence of depressive and anxious symptomatology among cancer patients was 23.4% and 19.1-19.9%, respectively. Increased likelihood of depressive and anxious symptomatology was detected among patients in the inpatient setting (37.1% and 35.6-37.6%, respectively). A total of 1,011 patients (399 inpatients and 612 outpatients) formed the study sample. Patients' psychological status was assessed using the Hospital Anxiety and Depression Scale (HADS), the Patient Health Questionnaire (PHQ-9), and the Generalized Anxiety Disorder 7-item (GAD-7) scale. The prevalence rate of depressive and anxious symptomatology was estimated by dividing the number of patients who exceeded the borderline score: 10 or more for each subscale of the HADS scale, 15 or more for the GAD-7 scale, and 15 or more in the PHQ-9 by the total number of the patients. Screening of frequently prescribed anxiolytics and antidepressants was investigated, revealing that for the most part, SSRI's were prescribed, but as low as 15.5% of depressed and anxious patients received the required treatment [11]. Study findings demonstrated a higher prevalence of depressive symptomatology in the inpatient setting and advanced disease stages. In addition, the underutilization of antidepressant therapy was observed. There is a need to consider mental disorders as part of the treatment protocol for cancer patients. Enhanced clinical monitoring and treatment of depression and anxiety of cancer patients are required. In a study of Japanese patients (n = 220) who had cancer and who were diagnosed with major depression after being referred for psychiatric consultation, approximately 50% reported suicidal ideation. In a retrospective analysis of predictors of suicidal ideation, researchers found that those with more symptoms of major depression and poorer physical functioning were significantly more likely to report suicidal ideation [21].

Some medications have been implicated in causing depression-like symptoms in cancer patients. The DA receptor-2 antagonist haloperidol, occasionally used in the treatment of chemotherapy-associated nausea, reduces dopaminergic transmission in the brain and has been linked to the development of depressive symptoms [22].

Immunotherapy agents, including INF-α, used in some cancers have been reported to cause depression in up to 50% of patients by the mechanisms explained above [24-28].

Younger age is consistently associated with higher rates of psychological distress and psychiatric syndromes in adults with cancer [29, 30]. However, specific differences in rates of depression between Adolescence and young adult and non-Adolescence and young adult cancer populations are varied due to differences in how cases of depression are identified in studies. One study that utilized data from the 2009 US population based Behavioural Risk Factor Surveillance System, which included AYA cancer survivors and non-cancer controls, reported that AYA cancer survivors reported poorer mental health twice as frequently as AYAs without cancer [31]. A recent Danish cancer registry study reported substantially higher rates of hospitalization for depression in patients diagnosed with cancer compared with the cancer-free population. Patients 15 years and older were at highest risk for depression severe enough to warrant hospitalization within the first year following a cancer diagnosis, and remained at elevated risk in subsequent years [32].

The majority of the studies in the preceding discussion assessed depression in adult cancer patients, although the age ranges varied widely and often included individuals who could be classified as elderly or old age. A separate body of literature focuses on depression in children with cancer. Both children and the elderly, however, have issues that need to be considered when assessing depression in the cancer patient [22].

Conclusion

Depression remains unrecognised co- morbidity among cancer patient, with major implications on patient suffering, quality of life, mortality, prognosis and health care expenditure. Findings of present study clearly indicate the magnitude of the problem which underscores the need of health of the professionals for planning effective screening programme to identify the depression among cancer patients. Early diagnosis and treatment of depression will improve the quality of life, wellbeing and survival rate among cancer patients.

This Study was limited with only 100 patients of indoor and outdoor patients of Regional cancer centre; it can be used for larger group. Depression is a burning issue nowadays, which is spoiling all age group resulting suicide in many cases. This tool can be used for students in all age group, all professional institute and also in community to rule out the level of depression and to improve quality of life.

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