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A CROSS SECTIONAL STUDY OF THE PSYCHOLOGICAL DISTRESS AND DEPRESSION AMONG THE ADULT CANCER PATIENTS VISITING A TERTIARY HOSPITAL

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	und: Psychological distress and depression persist in cancer patients, creating an additional		

burden during treatment and making it more challenging in terms of management and control. There are few studies on the prevalence of psychological distress and depression among cancer patients in the central India. Hence the present study was undertaken to study the prevalence of psychological distress and depression in the adult cancer patients. **Method**- A total of 271 patients, age between 18 to 75 years, who have been diagnosed with malignancy and receiving treatment from tertiary health care center were included in the study. They were given the Kessler psychological distress scale (K-10), and their responses were recorded. The Beck depression inventory was utilized to determine the severity of depression. **Results**- Among 271 patients, 112(41.32%) were males and 159(58.67%) females. Maximum patients were in the age group of 40–60 years (43.17%). Total number of patients suffering from distress was 254(93%) out of 271, most of them (53.87%) had distress score ranging from 25-29 (Moderate). Among 271 patients, 235 (86.71%) patients had mild to severe depression, most of them had depression score between 10-18 (mild). Out of 87 head, neck cancer patients, 74 (85.05%) had depression. High rate of depression found in head neck cancer as compared to other types of cancer. **Conclusion**- Using the Kessler and Beck depression inventory, this study indicates the high level of distress and sadness among cancer patients. Screening for psychosocial issues and proper treatments are only the beginning of genuinely integrative cancer care strategy.

KEYWORDS : Cancer; Psychological distress; Depression; Kessler; Beck depression inventor

INTRODUCTION:

Living with the disease and its treatments is difficult for cancer patients. Following a great amount of distress, receiving a cancer diagnosis is linked to psychological symptoms such pain, hopelessness, fear, anxiety, and depression ⁽¹⁾. In comparison to other countries, India has a 38.5% prevalence of psychological distress among cancer patients, compared to a global prevalence of 35.1% ^(2.3).

Due to the effects of their condition, cancer patients also feel psychological distress ⁽⁴⁾. One of the most prevalent psychological conditions impacting cancer patients is depression ⁽⁵⁾. However, using a range of assessment techniques, the numerous research has shown significant levels of depression and psychological distress in cancer patients ^(6, 7). While some studies suggest there is no gender difference, others ^(6, 9) contend that women are more likely to experience depression. In India, there is a lack of comprehensive data regarding depression in cancer patients, hence research into this topic is urgently needed to enhance the diagnosis and treatment of depression and psychological distress in cancer patients.

The notion that depression is a usual response in cancer patients hinders the treatment of depression in cancer patients. But research has shown that depression in cancer patients is a distinct predictor of a greater death rate^(10,11). As a result, effective depression treatment can improve the prognosis for cancer patients. In order to improve the detection and management of depression and psychological distress in cancer patients and hence improve outcomes, we suggest the aforementioned study in the Indian population. This cross-sectional observational study was carried out at the Department of Radiation Oncology at Tertiary Care Hospital from July 2019 to December 2021 after receiving approval from the Institutional Ethical Committee. The study population includes diagnosed cancer patients between the ages of 18 and 75 who attend a tertiary hospital.

The patients who consented to participate in the study were included, and a total of 278 individuals were contacted; 271 of them agreed to participate, while 7 declined because they did not want to. Prior to entering data and following data identification, each patient was contacted and informed about the research project and its goals. After providing thorough information about the study, consent was then requested. They received guarantees about the privacy of their identities and comments. Using simple random sampling, a total of 271 individuals, ranging in age from 18 to 75, who had been diagnosed with cancer, were being treated at a tertiary medical facility, and met the inclusion criteria, were included in the study. Patients who were severely unwell and in medical instability, individuals under the age of 18, patients who were unable to give consent, and patients with cognitive issues like dementia were all excluded from the study.

An interview was held while a proforma was distributed (pen and pencil given to the participants, who they were able to complete in the waiting room). In order to learn more about illness stage and treatment characteristics, demographic information was gathered and medical records were examined. In questionnaires, the respondents were questioned, and their answers were recorded as to whether they had used marijuana in the previous 28 days or not. The Kessler psychological distress scale (K-10)⁽¹²⁾ was

MATERIALS AND METHODS:

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administered to each patient, and the results were recorded. To assess the degree of depression, the Beck depression inventory was used in addition to the Kessler⁽¹³⁾. (Table 1). Total score was recorded for each response. Thusly collected data were combined and examined.

Table 1: Severity of psychological distress according to k10 score ⁽¹²⁾ and interpreting the beck depression inventory (BDI)⁽¹³⁾

Score	Level of psychological distress and depression			
K10 score	10-19	Minimal (Well)		
	20-24 Mild distress			
	25-29 Moderate distress			
	30-50	Severe distress		
Beck	0-9	Minimal (well) Mild depression		
Depression	10-18			
Inventory	19-29	Moderate depression		
	30-63	Severe depression		

Statistical Analysis:

Data was collected and entered in SPSS excel and appropriate analysis was done using MS-EXCEL software. Statistical analysis was done by investigator in terms of frequency and percentage.

OBSERVATIONS AND RESULTS:

A total of 271 cancer patients were enrolled in the study, of them 112 (41.32%) were males and 159 females (58.67%). Most of the patients were in the age group of 40–60 years (43.17%) followed by >60 to 75 years (32.10%) as shown in table 2.

Age group	Male	Female	Total
in years			
18-40	39 (14.39%)	28 (10.33%)	67 (24.72%)
>40-60	41 (15.12%)	76 (28.04%)	117 (43.17%)
>60-75	32 (11.80%)	55 (20.29%)	87 (32.10%)
Total	112 (41.32%)	159 (58.67%)	271 (100%)

Table 2: Demographic details of the patients

Out of a total of 271 patients, 254 (93%) were in distress. The majority of these patients (53.87%) had distress scores between 25 and 29 (moderate), as seen in figure 1. A significant portion of the patients—162/271, or 59.9%—were dependent on others, which was distressing. 161 out of 271 are in distress for other reasons (59.64%). In terms of mental anguish, 148 people (54.69%) and 203 persons (75.26%) respectively reported feeling depressed and fearful. Regarding bodily issues, 206 (76.04%) reported sleeping, followed by 169 (62.50%) who reported eating.

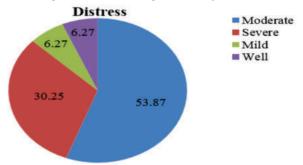


Figure 1: Distribution of patients according to the frequency distribution of distress

235 of the 271 patients (86.71%) reported mild to severe depression. The majority of the 235 patients exhibited depression scores between 10 and 18 (mild), as seen in figure 2.

Among 271 patients, 235 (86.71%) patients had mild to severe

depression. Out of 235 patients, most of the patients had depression score between 10-18 (mild) as depicted in figure 2.

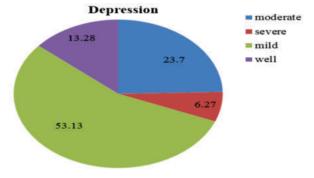


Figure 2: Distribution of patients according to the frequency distribution of depression

Out of 87 head, neck cancer patients, 74 (85.05%) had depression. High rate of depression found in head neck cancer as compared to other types of cancer as shown in figure 3.

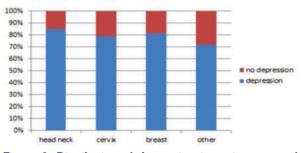


Figure 3: Distribution of depression in various type of cancers

DISCUSSIONS:

Cancer is typically a fatal diagnosis that patients fear and that causes them a lot of pain. It is one of the most difficult things a person can go through, and cancer patients who endure significant amounts of stress for extended periods of time may develop anxiety, depression, or both ⁽¹⁴⁾. The prevalence of psychological discomfort was found to be 93% in the current study, with a significant frequency seen in the group experiencing moderate to severe distress (84.12%). This result is better than the ones that other writers (15-17) have reported. This disparity was mostly caused by the fact that several research utilized various scales and methodologies to measure cancer patients' psychological discomfort. However, it was discovered that adult cancer patients had an 86.71% prevalence of depression, with a high frequency of mild to moderate depression (76.83%). In comparison to earlier literature, the reported rates of depression in the current study were higher $^{(1\hat{B}-21)}$. The discrepancy may be caused by variations in the instruments used to measure depression, the criteria used to define depression, and the populations with cancer that were included in terms of cancer kind, stage, and treatment method. The findings of this study, however, demonstrate that cancer patients experience psychological or psychiatric side effects.

Data now available also hints that cancer patients may become more vulnerable to depression in a number of different ways. A severe diagnosis and the prospect of an impending decline in health status, to name a few, may be risk factors for depression. Treatment with immune response modifiers and chemotherapy regimens, as well as the presence of metabolic and endocrine changes, chronic pain, and significant surgical interventions, may also be contributing factors⁽²²⁾. High-risk patients for depression need

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specialized care and a strong support system. Inability to cope with treatment and symptoms, as well as recovery from chemotherapy side effects and cancer impact, is a result of psychological issues ⁽²³⁾. Cancer patients can avoid depression, and preventative therapy should be given during oncological treatment ⁽²⁴⁾. Depression treatment must begin as soon as possible. Patients may need time to become aware of the psychological nature of their problems; in light of this, urge them to request a psychiatric evaluation or consent to the prescription of psychotropic medications, especially antidepressants ⁽²⁵⁾.

However, sadness and depression are more common in countries like India where there are little mental health facilities. Cancer patients typically suffer undiagnosed and improperly managed depression, which can be detrimental to quality of life, disease progression, and patient compliance. In the current study, head and neck cancer had a higher rate of depression than other cancer kinds, which is comparable to the study done by Messie MJ et al ⁽⁶⁾. Additionally, the current study found that people with head and neck cancer experience distress and despair at considerable rates. Because head and neck cancer treatment can induce facial deformity and varied degrees of functional impairment in the areas of speaking, swallowing, breathing, taste, and smell.

The Kessler scale score for depression was 54.69%. The BDI estimates that 86.71% of persons experience depression. The Kessler scale can therefore be used to assess both distress and depression. The current study did not find any gender differences in distress or depression; however, some investigations have shown that women are more likely to experience depression^(4,14).

CONCLUSIONS:

The current study gave fundamental knowledge about the degree of distress and depression experienced by cancer patients as well as the causes of these emotions. Cancer patients may have psychosocial needs that would go undiscovered without screening. This study, which used the Kessler and Beck depression inventory, shows that cancer patients have a significant level of anguish and melancholy. A truly integrative cancer care strategy begins with screening for psychosocial problems and appropriate therapies. Furthermore, thorough screening can find psychosocial problems before they take up too much time and interfere with medical care. It is vital to design appropriate strategies to help these people manage their discomfort and melancholy as a result.

Recommendations And Suggestions:

- 1. Education and training: Distress and depression management programs by doctors and institutes should be included in ongoing quality improvement projects.
- In all clinical settings, patient care should include methods for identifying and documenting distress and depression at all phases of the disease.
- Oncology care providers need to be knowledgeable and skilled in recognizing and treating patient distress and depression. To ensure that doctors can develop these abilities, education and training programs should be developed. Patients and their families should be made aware that distress and depression management is a crucial component of overall cancer care.
- 2. Screening and evaluation Screening for distress and depression should be done at the first appointment as well as at regular intervals throughout therapy.
- Assessment of the psychosocial domain should be incorporated into clinical health outcome assessments, particularly when disease status has changed (cancer stage changed). Screening should also be carried out when clinically recommended.

 A patient's level and type of distress should be determined and promptly treated.

REFERENCES:

- Breen SJ, Baravelli CM, Schofield PE, Jefford M, Yates PM, Aranda SK. Is symptom burden a predictor of anxiety and depression in patients with cancer about to commence chemotherapy? Med J Aust. 2009;190: S99e–S104.
- Zabora J, BrintzenhofeSzoc K, Curbow B, Hooker C, Piantadosi S. The prevalence of psychological distress by Cancer site. Psycho.Oncology: Journal of the Psychological, Social and Behavioral Dimensions of Cancer. 2001; 10(1):19-28.
- Lopez AD, Murray CC. The global burden of disease, 1990–2020. Nature medicine. 199 Nov; 4(11):1241-3.
- Fann JR, Thomas-Rich AM, Katon WJ, et al. Major depression after breast cancer: a review of epidemiology and treatment. Gen Hosp Psychiatry. 2008; 30:112–126.
- Mitchell AJ et al. Prevalence of depression, anxiety, and adjustment disorder in oncological, haematological, and Palliative-care settings: a meta-analysis of 94 interviews Based studies. Lancet Oncol 2011; 12:160–74.
- Massie MJ: Prevalence of depression in patients with cancer. J Natl Cancer InstMonogr 2004, 32:57-71.
- Mystakidou K, Tsilika E, Parpa E, Katsouda E, Galanos A, Vlahos L: Assessment of anxiety and depression in advanced cancer patients and their relationship with quality of life. Qual Life Res 2005, 14:1825-33.
- Kissane DW, Maj M, Sartorius N, editors. Depression and cancer. John Wiley & Sons; 2011 Jul 7.
- Wellisch DK, Kaleita TA, Freeman D, Cloughesy T, Goldman J. Predicting major depression in brain tumor Patients. Psycho. Oncology. 2002; 11(3):230-8.
- Hann D, Baker F, Denniston M, Gesme D, Reding D, Flynn T, Kennedy J, Kieltyka RL. The influence of social Support on depressive symptoms in cancer patients: age and gender differences. Journal of psychosomatic Research. 2002; 52(5):279-83.
- Lloyd-Williams M, Shiels C, Taylor F, Dennis M. Depression—an independent predictor of early death in patients with advanced cancer. Journal of affective Disorders. 2009; 113(1):127-32.
- Andrews G, Slade T. Interpreting scores on the Kessler Psychological Distress Scale (K10). Aust N Z J Public Health. 2001; 25(6):494-7.
- Gordon Jackson-Koku. Beck Depression Inventory. Occupational Medicine 2016;66(2):174–175.
- Mason A, Juyal R, Das SC, Shikha D, Saini S, Semwal J. Prevalence and correlates of psychological distress among cancer patients in a tertiary care hospital in northern India. Int J Community Med Public Health 2019; 6:2223-8.
- Khalil A, Faheem M, Fahim A, Innocent H, Mansoor Z, Rizvi S, et al. Prevalence of Depression and Anxiety amongst Cancer Patients in a Hospital Setting: A Cross-Sectional Study. Psychiatry J. 2016; 2016:3964806.
- Kim GM, Kim SJ, Song SK, Kim HR, Kang BD, Noh SH, et al. Prevalence and prognostic implications of psychological distress in patients with gastric cancer. BMC Cancer. 2017; 17:283.
- Kumar R, Singh KK, Rae AA, Singh RK, Singh GR. Prevalence of Anxiety and Depression among Cancer Patients. J Med Sci Clin Res. 2016;4(11):13696–9.
- Berihun F, Haile S, Abawa M. Archives of depression and anxiety prevalence and correlates of anxiety and depression among cancer patients in the University of Gondar comprehensive specialized Hospital, Northwest Ethiopia. Arch Depress Anxiety 2017; 3:42–8.
 Wondie Y, Mehnert A, Hinz A. The hospital anxiety and depression scale
- Wondie Y, Mehnert A, Hinz A. The hospital anxiety and depression scale (HADS) applied to Ethiopian cancer patients. PLoS One 2020;15:e0243357.
- Naser AY, Hameed AN, Mustafa N, et al. Depression and anxiety in patients with cancer: a cross-sectional study. Front Psychol 2021; 12:585534.
- Yan X, Chen X, Li M, et al. Prevalence and risk factors of anxiety and depression in Chinese patients with lung cancer a cross-sectional study. Cancer Manag Res 2019; 11:4347–56.
- Sotelo JL, Musselman D, Nemeroff C. The biology of depression in cancer and the relationship between depression and cancer progression. International Review of Psychiatry. 2014; 26(1):16–30.
- Kim YH, Choi KS, Han K, Kim HW. A psychological intervention programme for patients with breast cancer under chemotherapy and at a high risk of depression: A randomised clinical trial. Journal of Clinical Nursing. 2018; 27(3–4):572–81.
- Zahid JA, Grummedal O, Madsen MT, Go¨genur I. Prevention of depression in patients with cancer: A systematic review and meta-analysis of randomized controlled trials. Journal of Psychiatric Research. 2020; 120:113–23.
- Dauchy S, Dolbeault S, Reich M. Depression in cancer patients. EJC Supplements. 2013; 11(2):205.