## Psychiatry

# A PROSPECTIVE STUDY TO ASSESS THE PSYCHIATRIC DISORDER AS CO-MORBIDITY IN CANCER PATIENTS

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**ABSTRACT** Cancer is the one of the leading cause of death, worldwide accounting for 7.6 million deaths that are around 13% of all deaths in 2008, and about 70% of all Cancer deaths occurred in low and middle income countries. Study was planned to assess the Psychiatric disorder as co-morbidity in a group of cancer patients, attending a tertiary care hospital for the treatment .Consecutive Sample of 100 patients was selected for the study, those who attended the clinic in the Department of Radiotherapy, Surgery, and Medical ward for the treatment of cancer, Thanjavur Medical College.we found Psychiatric co-morbidity is highly prevalent in patients with cancer patients. Adjustment disorder and depression are the most common Psychiatric co-morbidity associated with Cancer patients.There is significantly high prevalence of psychiatric co-morbidity among the female cancer patients.There is high prevalence of psychiatric morbidity among the patients with the positive family history of psychiatric illness. No difference with respect to age, Socioeconomic class is seen in terms of co-morbid Psychiatric disorders.

## 1.INTRODUCTION

Cancer is the one of the leading cause of death, worldwide accounting for 7.6 million deaths that are around 13% of all deaths in 2008, and about 70% of all Cancer deaths occurred in low and middle income countries. Death due to cancer are projected to continue to rise above 11million by 2030. In 1980, A Meta Analysis of 58 studies showed that younger patients reported significantly more depression, anxiety and general distress than studies with older patients. A study done by Derogatis et al noted that prevalence of psychiatric co-morbidity is 47% of the cancer patients comparatively high than the general medical patients. More than two thirds of those represent adjustment disorders, 10 to 15 percent major depression, Adjustment disorder is the most common psychiatric co-morbidity seen cancer patients. In-patient studies show higher the incidence of 20% to 45% of depression and 15% to 75% of delirium. Conceptually, these are disorders with emotional and behavioural symptoms which are responses to an identifiable stressor.

Literally the term "Cancer" refers to a set of conditions that have the growth of cells that invade tissues and organs of the human body in common . It is a multisystem illness. The presenting signs and symptoms may be due to primary tumour itself, metastasis, and para-neoplastic syndrome or due to drug treatment. The causes of Cancer are varied, but psychological and behavioural factors such as chronic stress, depression and social isolation may contribute to the initiation and progression of certain cancers by Reiche et.al The awareness about the cancer diagnosis and its relationship to psychiatric morbidity has been a subject of debate. The experience of having "Cancer" has been associated with high levels of psychological stress. Galan noted a relationship between dysphoric affect and cancer long ago. Correlation between Neoplasia and psychological disorder are noted by numerous 18th and 19th century physicians The non awareness on the part of the patients can be attributed to many causes notably illiteracy, denial, decision of family member, and their society. It may also be due to the stigma attached to the word cancer, fear of social and financial implication .Despite of biomedical advance, Cancer is still considered as equal and synonymous with death, pain and suffering. The diagnosis of Cancer causes a number of emotional reactions. These patients develop fear of pain, surgery, dependency, financial burden and fear of death which often result in depression and anxiety. The distress in a patient with cancer may be due to multiple factors. The un-remitting physical symptoms like pain, fatigue, nausea, sleep disturbances may increase the distress. Patients who are being investigated to rule out Cancers also develop distress and anxiety about their outcome.

Recent studies found that the factors such as socio-economic status, social support, performance capacity, recent losses, and awareness of the diagnosis of Cancer might affect the rate of psychiatric disorders .

It is thought that socio-cultural context plays an important role in the occurrence of mental disorders. As Bailey et.al suggested culture may influence symptom expression. In Asia, the individuals suffering from depression tend to presented with somatic symptoms.While neglecting the psychological symptoms. Some Asian patients believe that cancer is a form of God's punishment for their past mistakes therefore, patients and their families are reluctant to discuss their emotional distress and experiences due to cancer. In general, cultural beliefs can also influence, the way the health care system practices, medicine, as well as the mental health help-seeking behaviours of cancer patients with depression).

Various mental disorders are risk factors for the development of some cancers. Mental disorders may appear as co-morbidities with the clinical condition, which may negatively impact disease diagnosis and treatment and emotional and financial costs.

Psychiatric co-morbidity in the medically ill patients is a reality but is often under-diagnosed and untreated as there is a tendency to explain away the symptom experienced by the patients.

Attention to the psychosocial aspects of the disease is equally important to cancer treatment; especially regarding psychopathologies because they significantly impact morbidity, low adherence to treatment, hospitalization duration, prognosis, quality of life, and patient survival

## 2. AIMS

To assess the Psychiatric disorder as co-morbidity in a group of cancer patients, attending a tertiary care hospital for the treatment.

## 3.MATERIALS AND METHODS

**Setting:**
The study was conducted in the Patients, who attending the outpatient clinic and admitted in wards for the treatment of cancer, in the Department of Radiotherapy, Medical Oncology ward and Surgical ward, Thanjavur Medical College Hospital.

**Study Design:**
A "Cross Sectional – Descriptive Study Design" was used in this study.

**Recruitment of Patients:**
Consecutive Sample of 100 patients was selected for the study, those who attended the clinic in the Department of Radiotherapy, Surgery, and Medical ward for the treatment of cancer, Thanjavur Medical College, during the period of January 2017 – June 2017. Those who fulfilled and satisfied the inclusion criteria and willing for the study were selected.

**INCLUSION CRITERIA:**
1.  Patients in the age group of 18 – 65 years.
2.  Histologically proven cases of carcinoma.(ICD 10-C50)
3.  Patients who were aware of their diagnosis.
4.  Those who are willing for the study.

**EXCLUSION CRITERIA:**
1.  Patients below 18 years and above 65 years of age.
2.  Patients with history of Psychiatric illness before the onset of disease.
3.  Patients who are in the immediate post-operative period and patients with severe physical illness
4.  Patients with Brain and Endocrine cancer (Thyroid, Parathyroid, Thymoma, Pituitary) are excluded.
5.  Patients those who were unaware of the diagnosis and those who were unwilling for the study.

**METHODOLOGY**
A sample of 100 patients diagnosed with carcinoma who were attending OP/IP in Radiotherapy ward, medical and surgical ward were selected, assessed and included for the study.

**OPERATIONAL DESIGN:**
1.  The study was been conducted at Thanjavur Medical College & Hospital, duration of 6 months , between the period of January 2017 to June 2017.
2.  The study was approved by Institutional Ethical Committee, Thanjavur Medical College Hospital.
3.  The sample was chosen those who attended Surgical, Medical and Radiotherapy OP/IP.
4.  Every consecutive patient who met the inclusion and exclusion criteria were selected, and included in the study.
5.  The subjects were explained about the nature of the study and informed consent was obtained from them.
6.  Semi- structured proforma was used to collect the Socio Demographic details.
7.  A Complete Physical Examination including Neurological Evaluation and detailed Mental Status Examination was done to all the selected subjects.
8.  All subjects were assessed by General Health Questionnaire -12 (GHQ-12).
9.  All subjects were assessed by MINI International neuropsychiatric interview for diagnosing psychiatric disorder and based on the diagnosis specific scales like Hamilton depression rating scale,Hamilton anxiety rating scale were administered.
10. All subjects were assessed by Kuppuswamy rating scale for socio economic status.
11. Likewise 100 consecutive patients were assessed.

**Statistical design:**
Statistical design was formulated using the data collected as above, for each of the scales and socio-demographic variables percentage analysis and descriptive analysis were used. The central values and dispersion were calculated. In comparison of the data for categorical variables chi-square were used. For multiple comparisons of more than two numerical variables, one way ANOVA and "f" tests were used.

**4. RESULTS**
A total of 100 patients diagnosed with malignancy were included for the study. Patients' age ranged from 18 to 65 years with the mean age of 48.29 years and the median age is 49 years. Among the 100 cancer patients 38 (38.0%) were males and 62(62.0%) were females, majority of them belong to the age group of 36 – 50 years (46.0 %) , 34.0% of patients belong to 50 – 65 years and remaining 20.0% belong to 18 – 35 years group. Among them 88.0% patients were from rural area and remaining 12.0% were from the urban locality. Considering the education status 53% patients were illiterate and 37% of patients were studied primary school. 2.0% studied up to high schools and 7.0% finished higher secondary education only one of them completed degree. Regarding the occupational status, 65.0% were unemployed, 17.0% were employed in semi skilled jobs, 13.0% under unskilled and 5.0% were skilled workers. Among the study groups 54.0% belonged to lower middle, 2.0% from the upper middle, and 27.0% were from upper lower and 17.0% were from the lower socio economic status. Majority of them were married (98.0%) and only 2.0% were unmarried. Most of them (87.0%) belonged to the nuclear family and remaining (13.0%) belonged to joint family. Among the cancer group

29.0% had the past history of using tobacco alone in the form of chewing and smoking, where as 34.0% had past history of alcohol and tobacco. The remaining 37.0% were not exposure to any kind of substances in the past.

**Table –1: Prevelance Of Psychiatric Co-morbidity In Sample Population**

| Psychiatric disorder | Sample size(n=100) | Percentage (100%) |
|---|---|---|
| Yes | 58 | 58.0 |
| No | 42 | 42.0 |

about 58 patients had psychiatric disorder and remaining 42 patients were without psychiatric disorder among the cancer patients.

**Table 2: Diagnostic Entity Of Psychiatric Co-morbidity Among The Sample Population**

| MINI PLUS Diagnosis | SAMPLE SIZE N=58 | Percentage |
|---|---|---|
| Depression | 16 | 27.6% |
| Dysthymia | 3 | 5.2% |
| Panic disorder | 4 | 6.9% |
| PTSD | 2 | 3.4% |
| GAD | 6 | 10.3% |
| Adjustment disorder | 27 | 46.6% |
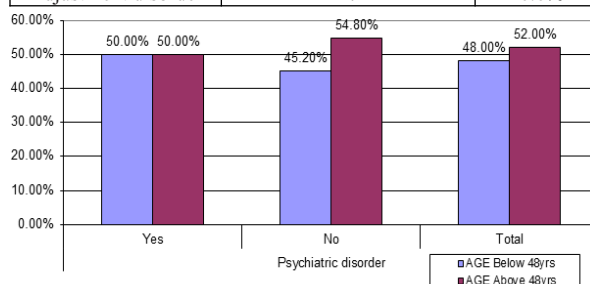


**Figure -1: Age Group And Psychiatric Co-morbidity**

**5.DISCUSSION**
The aim of the study is to evaluate the psychiatric co-morbidity among the cancer patients attending the oncology clinic in tertiary care South Indian Hospital, and to assess the type of psychiatric co-morbidity among the various cancer patients.As the concept of 'General Hospital Psychiatry' or better to say 'consultation liaison psychiatry' is gaining around in the field, more and more researches focusing on psychiatric aspects of medical diseases are coming forth. This study was taken to contribute to the growing body of literature in psycho-oncology worldwide, as data in this respect is limited for Indian population. The present study is a cross sectional descriptive study; consecutive sampling methods were used to recruit the subjects, those who were attending the OP and IP of Oncology Department, South Indian Tertiary Care Hospital for treatment. The sample size consisted of 100 patients. Recruitment was accomplished by using inclusion and exclusion criteria and consent was obtained for participation in the study from each and every patient. All subjects were evaluated using socio-demographic proforma, Kuppuswamy rating scale for socioeconomic scale, General Health Questionnaire-12 (GHQ-12) for screening psychiatric disorder in the medical out-patient population, MINI International Neuropsychiatric Interview for assessing psychiatric co-morbidity, Hamilton Rating Scale(HAM-D and HAM-A) for assessing the severity of Anxiety and Depression. The order of presentation of instruments was kept identical for all subjects. The patients' Socio-demographic profile, Site of Cancer, Stage of Cancer ,Duration of treatment, Treatment variables- Chemotherapy group, Radiotherapy group and Surgical group were compared and analysed. A total of 100 patients diagnosed with malignancy were evaluated for the study. Among them, majority of patients belonged to the age group of 36 – 50 years (46.0 %) , 34.0% of patients belonged to 50 – 65 years and remaining 20.0% belonged to 18 – 35 years. This study had patients' age ranging from 30 to 65 years, with the mean age of 48.29 years and median age of 49 years.

In this study the sample population consisted more of female patients (62.0%), as compared with the male patients 32.0% (Male Vs Female ratio is 1:1.6). Among the 100 cancer patients, 88.0% of them were from rural area and remaining 12.0% were from urban area. Considering theeducational level of patients, 53% patients were illiterate and 37% of them studied upto primary school , 2.0% studied

upto high schools and 7.0% completed their higher secondary education, and only one completed degree. Regarding the occupational status, 65.0% were unemployed, 17.0% were employed in semiskilled job, 13.0% under unskilled and remaining 5.0% skilled workers. Among the study groups, 54.0% belonged to lower middle, 2.0% from upper middle, 27.0% from upper lower and 17.0% from the lower socio economic status. Majority of the patients were married(98.0%) and only 2.0% unmarried. Most of them (87.0%) belong to the nuclear family and about 13.0% belonged to joint family. Among the cancer group, 29.0% had history of using tobacco alone in the form of chewing and smoking, whereas 34.0% had history of using both alcohol and tobacco,the remaining37.0% were not exposed to any kind of substance. In this study among 100 cancer patients, only 13 patients had family history of psychiatric disorder.

Considering the medical co-morbidity like Hypertension and Diabetes mellitus among the sample population, only 16 patients out of 100 had history of Hypertension and Diabetes Mellitus.

### Socio demographic profile and psychiatric co-morbidity in study sample

In this study we consider the mean age to be 48 years. On comparing the median age of 48 years, both the groups are equally distributed among the psychiatric co-morbidity (50%). A Meta Analysis of 58 studies after 1980, showed that studies with younger patients reported significantly more depression, anxiety and general distress than studies with older patients with mean age 50 years or over.

On comparing the sex distribution of the patients, 38% were males and 62% were females with a male female ratio of 1:1.6. Among the 38 male patients, 17 patients had psychiatric co-morbidity and remaining 21 patients were without psychiatric disorder. Among the 62 female patients, 41 patients had psychiatric co-morbidity and 21 patients were without psychiatric disorder. p value =0.035 was statistically significant. Results on comparing found that psychiatric co-morbidity is significantly high among the female cancer patients. A study from Kerala by Pandey et al.[106] also showed the similar results as compared with this study.

Comparing the Educational status, among the 58 cancer patients having psychiatric disorder, majority of them wereilliterates (55.0%), 39.7% studied upto primary school, 3.4% upto high schol and 1.7 % completed upto higher secondary school. In an Indian study conducted by Mendonsa et al, 2010, psychiatric co-morbidity was found to be high among illiterate population, those from lower economic group, rural population and in house-wives. It is argued that people of low social class are unaware of the high risk behaviour that initiates cancer. There is also a reduced knowledge on the early signs of cancer and therby the treatment seeking is also delayed.

Comparing the distribution of patients with psychiatric co-morbidity in terms of type of family, out of 58 patients, 49 patients (84.5%) belong to nuclear family, 9 patients (15.5%) belong to joint family. In a study conducted by Mishra et al[32], 73% of the patients belong to nuclear family.

Comparing the distribution of patients with psychiatric co-morbidity in terms of socio economic status, out of 58 patients, 11 patients (19%) belonged to lower class, 13 patients (22.4%) belonged to upper lower class, 33 patients (56.9%) belonged to lower middle class and 1 patient (1.7%) were in upper middle class. In studies conducted by Agarwal et al, 1990, and Laura E Simonelli et al, 2008, these results argue that psychiatric co-morbidity is common in rural population, and in low socio economic group.Comparing the distribution of patients with psychiatric co-morbidity in terms of family history of psychiatric illness, out of 58 patients, 11 patients (19%) had positive family history and the remaining 47 patients (81%) were without positive family history. Report shows that the family history of psychiatric illness is a predictor of depression in the patients (Kaplan and Saddock, 2009)

### 6.CONCLUSION:

**The study findings reveal, with respect to the Hypothesis that**
1. Psychiatric co-morbidity is highly prevalent in patients with cancer patients.
2. Adjustment disorder and depression are the most common Psychiatric co-morbidity associated with Cancer patients.
3. There is significantly high prevalence of psychiatric co-morbidity among the female cancer patients.
4. There is high prevalence of psychiatric morbidity among the patients with the positive family history of psychiatric illness.
5. No difference with respect to age, Socioeconomic class is seen in terms of co-morbid Psychiatric disorders.

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