

## ORIGINAL ARTICLE - PUBLIC HEALTH

## A STUDY ON PREVALENCE OF ANXIETY AND DEPRESSION AMONG FAMILY CARE GIVERS OF CANCER PATIENTS IN TERTIARY CARE CENTRE, CHENNAI.

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Abstract

**Introduction:** Care giver's role in cancer patients is eminent one. Without caregivers' contribution the cancer patients cannot lead a better quality of life. Anxiety and depression will be quite common among care givers of cancer patients, if their anxiety and depression is within the acceptable limit. If the level is more than the acceptable limit their quality-of-care giving is diminished. Hence, this study is assessing the prevalence of anxiety and depression in the present scenario is getting importance.

**Objective :** To assess the level of anxiety and depression among family caregivers of cancer patients.

**Methods:** A cross sectional study conducted in tertiary hospital Chennai. 100 caregivers of cancer patients are included in this study during the period of July and August 2016. After obtaining informed consent from care givers of cancer patients, detail was collected by face-to-face interview using HADS questionnaire designed for this study.

**Results:** The prevalence of anxiety and depression of among family caregivers of cancer patients is 80% and 67% respectively and it is more common among female care givers than males.

**Conclusion:** This calls for more psychotherapeutic intervention to address the problems and to improve their quality of life thereby preventing them from physical and mental health deterioration.

**INTRODUCTION**

Cancer is a group of diseases involving abnormal cell growth with the potential to invade or spread to other parts of the body. Early diagnosis is essential to reducing cancer morbidity and mortality since cancer stage at the diagnosis is the most important determinant of treatment options and patient survival. Palliative care is essential and effective for adequate symptom control and management of pain in cancer patients. Patients living with and dying from cancer have the fundamental right to do have a care with the dignity and comfort, irrespective of their disease or where they live. Cancer is predicted to be an increasingly important cause of morbidity and mortality in the next few decades, in all regions of the world.

**Caregivers of Cancer Patients**

Caregiver as the person who most often helps the person with cancer and is not paid to do so. Professional care providers are paid to give care. They tend to have more limited roles. Caregivers may be partners, family members, or close friends. Most often, they're not trained for the caregiver job. Many times, they are the lifeline of the person with cancer. Caregivers have a huge influence of both positive and negative on how the cancer patient deals with their illness. Their encouragement can help the patient stick with a demanding treatment plan and take other steps to get well, like eating healthy meals or getting enough rest. Good communication between caregiver and cancer patients is the most important part of care giving. They should make

sure that the patient know that he/she is always open to listening, even about tough topics.

**Stress Among Caregivers**

Stress is both a cause and effect of cancer. Cancer causes stress not only to the patient but also to the caregivers. They often experience stress, anxiety, and depression on the course of the role as a caregiver. Anxiety and depression among caregivers ultimately affect the quality of care that is being provided to the patient. Among them, psychological and emotional problems pose a great threat to the caregivers than the patients themselves. Palliative caregiving is stressful, challenging and can impact the caregiver's physical, emotional, psychological, and social well-being. Understanding lived experiences of caregivers of cancer patients on palliative care is important for the health professionals to improve the support, guidance, and education given to the caregivers of cancer patients on palliative care.<sup>2</sup>

Stress among caregivers ultimately affects quality of care that is being provided to the patient. This is also because they are unprepared to provide care, have inadequate knowledge



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about care giving along with financial burden, physical and emotional stress. Thus, interventions are needed to help caregivers to strengthen their confidence in giving care and come out with better quality of care.<sup>3</sup> Thus, it is essential to identify caregivers with risk of negative health outcomes and intervention is required to attenuate the anxiety and depression associated with the caregiving experience.

## OBJECTIVES

- To find the level of caregiver burden of patients with cancer.
- To assess the level of anxiety and depression among family caregivers of cancer patients.

## METHODOLOGY

**STUDY DESIGN:** A cross sectional study.

**STUDY SETTING:** The study is conducted in the Departments of Oncology and Radiotherapy, Govt. Stanley Medical College and Hospital.

**STUDY DURATION:** The study is conducted from July 2016 till October 2016.

**STUDY POPULATION:** The sample is drawn from the family caregivers of cancer patients attending OP and admitted in the wards of Departments of Oncology and Radiotherapy, Govt. Stanley Medical College and Hospital.

**SAMPLE SIZE:** In a study of "Care giving impact on depressive symptoms of family care givers of terminally ill patients in Taiwan Siew Tzuh Tang, RN, DNSc Associate Professor, School of Nursing Chang Gung University, Taiwan",<sup>4</sup> The prevalence of clinical depression in care givers is 75.9%. Hence, with relative precision of 12% of prevalence the sample size is taken as 100.

**INCLUSION CRITERIA:** Caregivers of patients with any cancer. Primary caregivers of the cancer patients. Caregivers of any age/gender.

Caregivers irrespective of their relation to the patient.

**EXCLUSION CRITERIA:** Caregivers not willing to participate.

**PLACE OF STUDY:** Government Stanley Hospital, Chennai.

**HUMAN SUBJECT PROTECTION:** Study done after obtaining permission from IEC.

**METHOD OF COLLECTION:** After getting informed consent from the students, details were obtained using HADS (Hospital Anxiety and Depression Scale) questionnaire designed for the study. The questionnaire contained demographic details of the caregivers and questions to assess the level of anxiety and depression among the caretakers.

**DATA ANALYSIS:** Data was entered in MS EXCEL and analyzed using EPI INFO 7.2

## RATIONALE OF THE STUDY:

This study attempts to study the caregiver's level of anxiety and depression. If caregiver's emotional and physical health is not preserved, the quality of care they deliver may suffer and more demands placed on the health care system by the patients and caregivers. Because of these psycho social issues faced by the caregivers, this study focuses to understand the level of anxiety and depression experienced by them in the process of providing care.

## RESULTS

### I-Types of tumours in patients, sex, age and socio economic class distribution in care givers (Figure 1,2,3,4)

Among the study population, 49 patients had Gastrointestinal tumours, 22 patients had tumours of the female reproductive tract, 14 patients had CA Breast, 8 patients had CA lung, 7 patients had other tumours like Hodgkins lymphoma, Synovial carcinoma of knee joint, Malignant melanoma, etc., (Figure 1)

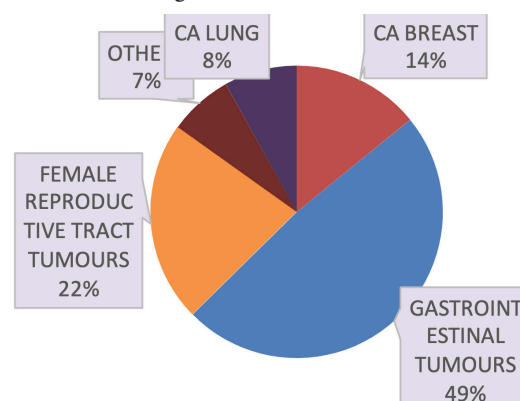


Figure-1: Prevalence of different types of Cancers in the Study

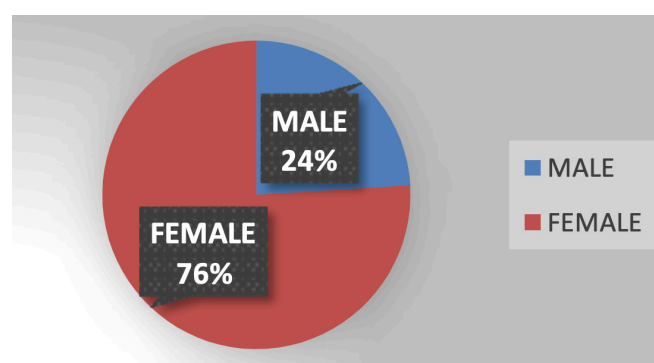


Figure-2: Sex Distribution of the Study Population

Among the study population, 24 caregivers were male, 76 caregivers were female. (Figure 2)

Among the study population, 3 caregivers were under the age of 20, 18 caregivers were between 20-29 years of age, 23 caregivers were between 30-39 years of age, 27 caregivers were between 40-49 years of age, 19 caregivers were between 50-59 years of age, 10 caregivers were above the age of 60. The mean age of the caregivers in the study population is 42 years. (Figure 3)

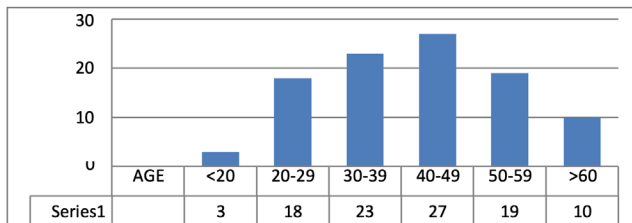


Figure-3: Age Distribution among the Study Population

Among the study population as per B G Prasad Socio economic classification, 6 caregivers belonged to upper class, 31 caregivers belonged to upper middle class, 32 caregivers belonged to middle class, 26 caregivers belonged to lower middle class, 5 caregivers belonged to lower class. (Figure 4)

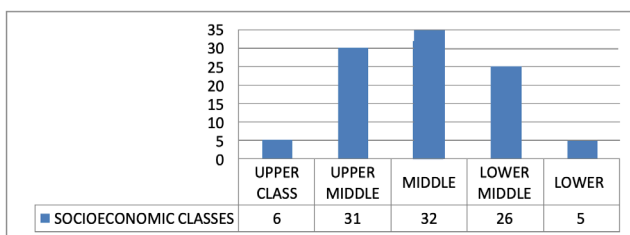


Figure-4: Socioeconomic Class Distribution of the Study Population

## II-Anxiety and severity of anxiety in care givers (Figure 5,6)

Among the study population of 100 caregivers, 80% of the caregivers were anxious, 20% of the caregivers were not anxious (Figure 5)

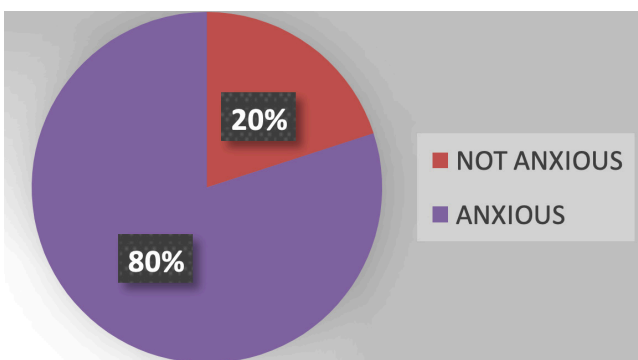


Figure-5: Prevalence of Anxiety among the study Population

Among the study population, 20% of the caregivers were not anxious, 25% of the caregivers had mild anxiety, 34% of the caregivers had moderate anxiety, 21% of the caregivers had severe anxiety (Figure 6)

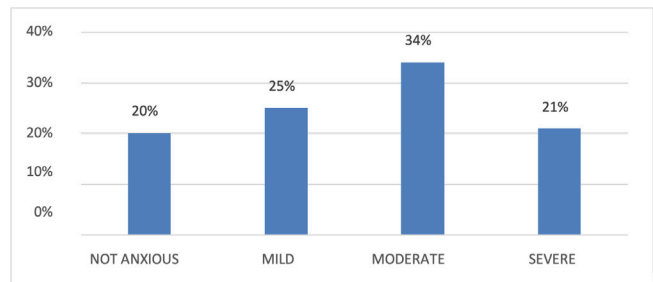


Figure-6: Frequency of severity of Anxiety among the Study Population

## III-Depression and severity of depression in care givers (Figure 7,8)

Among the study population of 100 caregivers, 67% of the caregivers were depressed, 33% of the caregivers were not depressed. (Figure 7)

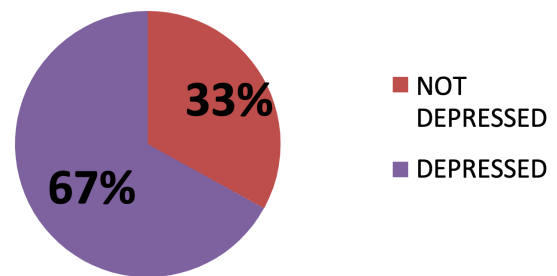


Figure-7: Prevalence of Depression among the Study Population

Among the study population, 33% of the caregivers were not depressed, 31% of the caregivers had mild depression, 25% of the caregivers had moderate depression, 11% of the caregivers had severe depression. (Figure 8)

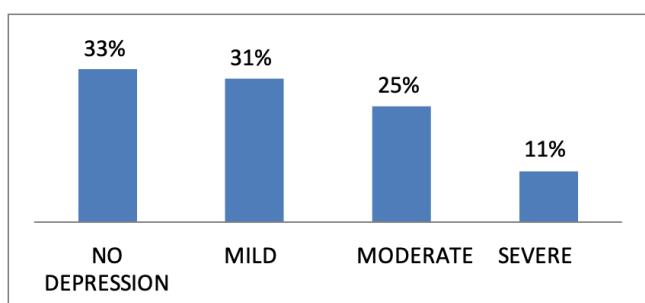


Figure-8: Frequency of severity of Depression among the Study Population

IV-Anxiety and depression among male and female caregivers (Figure 9,10)

Among the study population, 70.2% of the males and 80.3% of the females were anxious. 29.8% of the males and 19.7% of the females were not anxious. Thus, the prevalence of anxiety is more in female caregivers than in male caregivers. The probability value according to Chi-Square test is 0.0308 (which is less than 0.05). Hence, the result is statistically significant. (Figure 9).

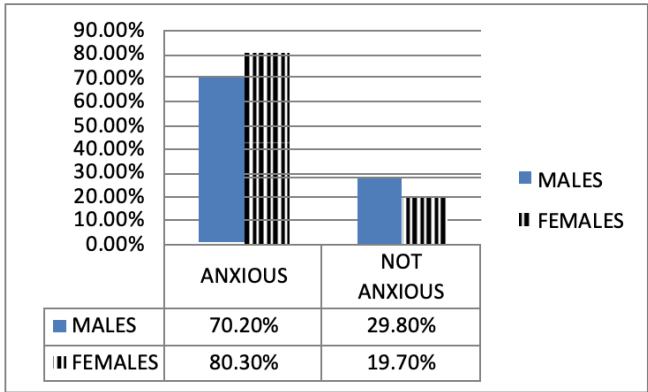


Figure-9: Frequency of Anxiety among male And female Caregivers

Among the study population, 54.2% of the males and 71.1% of the females were depressed. 45.8% of the males and 28.90% of the females were not depressed. Thus, the prevalence of depression is more in female caregivers than in male caregivers. The probability value according to Chi-square test is 0.0256 (less than 0.05). Hence, the observed result is statistically significant. (Figure 10)

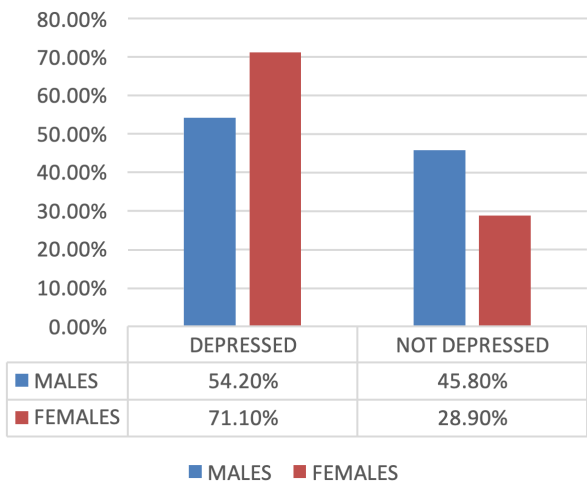


Figure-10: Prevalence of Depression among Male and Female Caregivers

V-Anxiety and depression among care givers of above and below 30 years of age (Figure 11,12)

Among the 100 caregivers, 25 caregivers were below 30 years of age and 75 caregivers were above the age of 30 years. 85.3% of the caregivers above the age of 30 and 64% of the caregivers under the age of 30 were anxious. Thus, the prevalence of anxiety is more in caregivers above 30 years of age. The probability value according to Chi-Square test is 0.0433 (less than 0.05) which is statistically significant. (Figure 11)

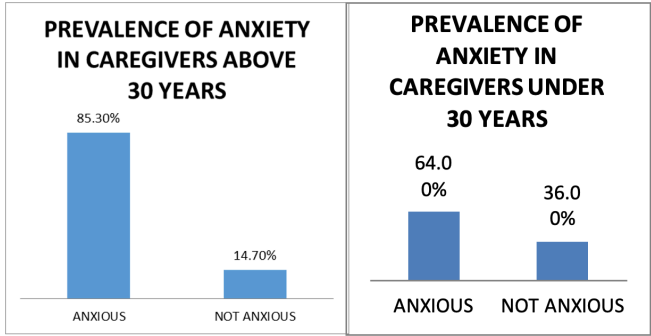


Figure-11: Frequency of Anxiety among caregivers under 30 years of age and caregivers above 30 years of age

Among the study population, 74.7% of the caregivers above 30 years of age and 41.3% of the caregivers below 30 years of age were depressed. Thus, the frequency of depression is more in caregivers above 30 years of age. The probability value according to Chi-Square test is 0.0099 (less than 0.05). Hence, the observed result is statistically significant. (Figure 12)

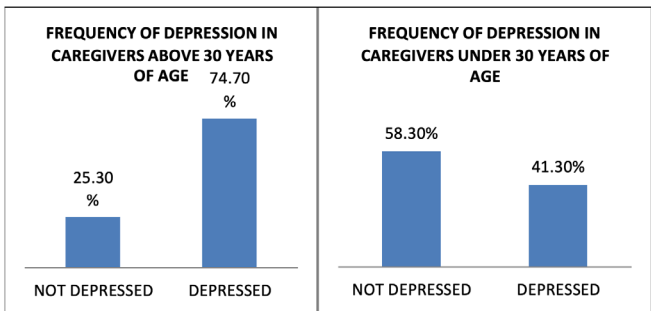


Figure-12: Frequency of Depression among caregivers under the age of 30 and caregivers above the age of 30

VI-Anxiety and depression among care givers from upper and lower socio-economic class (Figure 13, 14)

Among the study population, 78.4% of the caregivers from upper socioeconomic class and 81% from the lower socioeconomic class were anxious. Thus, the frequency of

anxiety is more in caregivers from lower socio economic classes. The probability value according to Chi-Square test is 0.0027 (less than 0.05). Hence, the observed result is statistically significant. (Figure 13)

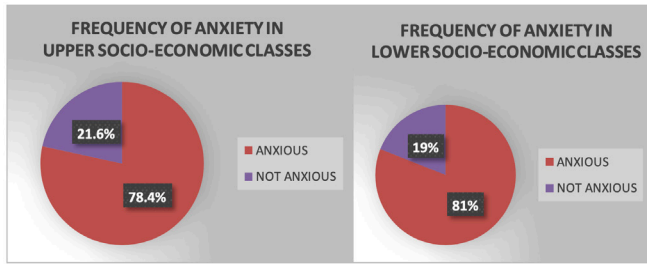


Figure-13: Frequency of Anxiety among caregivers from Upper and Lower Socioeconomic Classes

Among the study population, 62% of the caregivers from upper socioeconomic class and 70% of the caregivers from low socioeconomic class were depressed. Thus, the frequency of depression is more in caregivers from low socioeconomic classes. The probability value according to Chi-Square test is 0.0322 (less than 0.05). Hence, the observed result is statistically significant. (Figure 14)

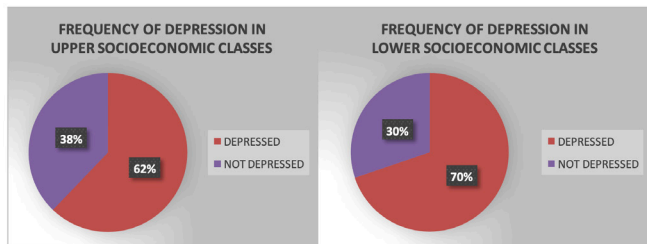


Figure-14: Frequency of Depression among caregivers from Upper and Lower Socioeconomic Classes

## VII-Relationship to the patient and anxiety, depression among care givers (Figure 15,16,17)

Among the study population, 42% of the cancer patients were the spouses of the caregivers. 32% of the cancer patients were the caregiver's parents, 12% of the cancer patients were the caregiver's in-laws, 6% of the cancer patients were the caregiver's siblings, 5% of the cancer patients were the caregiver's children, 3% of the cancer patients were the caregiver's grandparents. (Figure 15)

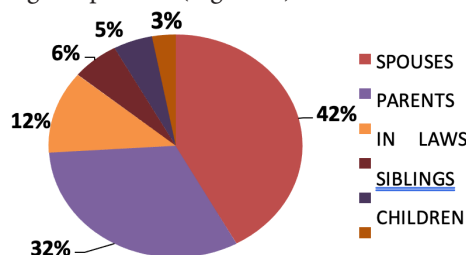


Figure-15: Relationship of the patient to the caregiver

Among the study population, 83% of the caregivers nursing their parents, 95.2% of the caregivers nursing their spouses, 80% of the caregivers nursing their children, 66.7% of the caregivers nursing their siblings and 65.6% of the caregivers nursing their in-laws were anxious. Caregivers who were nursing their parents, spouses and children had a higher frequency of anxiety than the caregivers nursing their siblings and their in-laws. The probability value according to Chi-square test is  $> 0.05$ . Thus, the observed result is not statistically significant. (Figure 16)

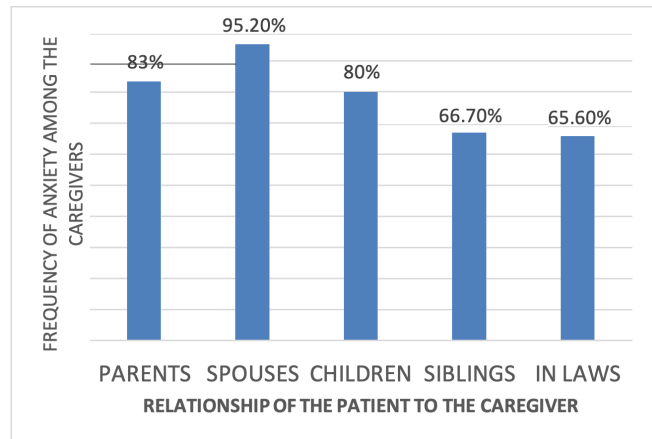


Figure-16: Frequency of Anxiety among the caregivers according to their relationship to the patient

Among the study population, 75% of the caregivers nursing their parents, 78.6% of the caregivers nursing their spouses, 80% of the caregivers nursing their children, 52% of the caregivers nursing their siblings and 50% of the caregivers nursing their in-laws were depressed. The frequency of depression was found to be higher in the caregivers nursing their parents, spouses and children than those nursing their siblings and in-laws. The probability value according to Chi-Square test is 0.026 (less than 0.05). Hence, the observed result is statistically significant. (Figure 17)

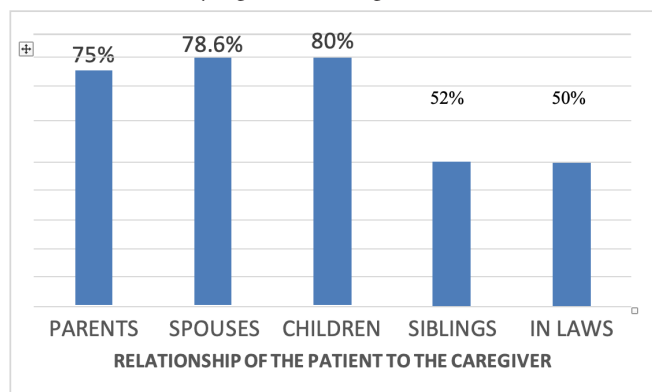


Figure-17: Frequency of depression among the caregivers according to their relationship to the patient



### VIII-Anxiety, depression among caregivers of earning and dependent patients (Figure18,19,20)

Among the study population of 100 caregivers, 55% of the caregivers were nursing financially dependent patients, 45% of the caregivers were nursing earning patients. (Figure 18)

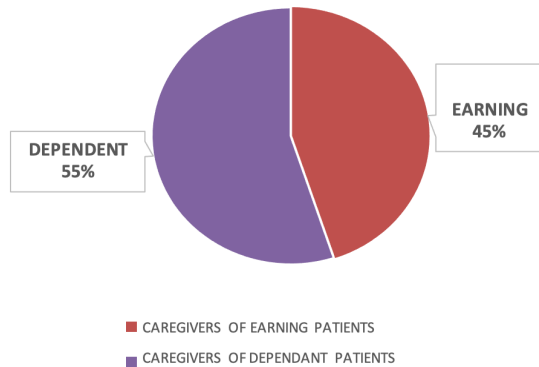


Figure-18: Caregivers of earning patients vs caregivers of financially dependent patients

Among the study population, 82.2% of the caregivers of earning patients were anxious and 17.8% of the caregivers of earning patients were not anxious. 78.2% of the caregivers of dependent patients were depressed and 21.8% of caregivers of dependent patients were not depressed. Thus, the frequency of anxiety is higher in caregivers of earning patients than the caregivers of dependent patients. The probability value according to Chi-Square test is 0.0453 (less than 0.05). Hence, the observed result is statistically significant. (Figure 19)

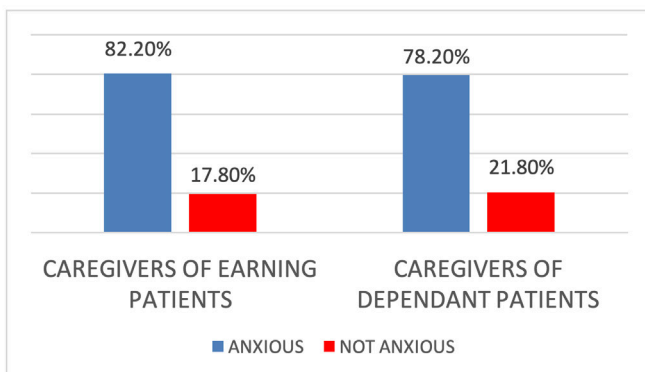


Figure-19: Frequency of anxiety among caregivers of earning patients and caregivers of financially dependant patients

Among the study population, 77.8% of the caregivers of earning patients were depressed and 22.2% were not depressed. 58.2% of the caregivers of financially dependent patients were depressed and 41.8% of the patients were not depressed. Thus, the frequency of depression is higher in caregivers of earning patients than the caregivers of financially dependent patients. The probability value according to Chi-

Square test is 0.0389 (less than 0.05). Hence, the observed result is statistically significant. (Figure 20)

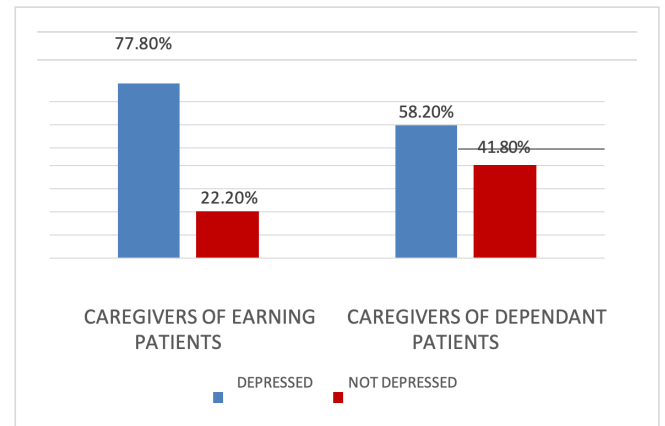


Figure-20: Frequency of depression among caregivers of earning patients and caregivers of financially dependant patients

### DISCUSSION

The descriptive study was conducted among 100 family caregivers of patients with cancer attending OP and admitted in the wards of Department of Oncology and Radiotherapy, Govt. Stanley Medical College and Hospital during the period of July 2016 to October 2016 to assess the level of anxiety and depression. Gastro intestinal tract tumors are the most common in the study (49%). In females, breast cancer and reproductive tract tumours are more common. The age group of the caregivers was from 18 to 70 years. Majority of the caregivers (50%) belong to the age group 30-49 and majority (76%) were females.

Female caregivers were more anxious and depressed than males. According to the study conducted by L.L.Northouse D. Mood, T.Templin et al., female caregivers have the highest psychological distress since they spend more time providing care, provide more complex care and receive less support from others.<sup>5</sup>

Caregivers below 30 years of age were less anxious and depressed than those above 30 years. This is in contrast with a study that stated that adult children of patients often take on the caregiving role, leaving themselves little time or energy for their immediate family or themselves leading to stress.<sup>6</sup>

Caregivers from upper socioeconomic classes cope up with stress better than those lower classes. This result is in concordance with the study conducted by Laizner et al. who stated that the various factors which lead to increased anxiety and depression in lower socioeconomic classes were lack of awareness and knowledge, financial constraints, family resistance, transportation issues, incongruent goals between health care providers and the patient.<sup>7</sup>

Anxiety and depression were more when the cancer patients were their spouses, parents or children. Studies have shown that spouses are as distressed as cancer patients. 20-30% of spouses suffer from psychological impairment and mood disturbances as the result of the spouse's cancer.<sup>8</sup>

The caregivers are affected more when the cancer patients were earning members of the family. Cancer appears to reduce a person's chance of being employed and many cancer patients are unable to work, need to take leave without pay. Since most of the cancer patients were in lower paid jobs, being affected by cancer creates a financial burden for the family members both in outright expenses and lost income and benefits.<sup>9</sup>

The overall results of the study shows that caregivers suffer from anxiety and depression. These caregivers are challenged by a loss of meaningful conversation, emotional closeness and changes in the patient's personality. Because of these factors the caregivers face stress which in turn affects the quality of their life. The burden of the caregivers are exaggerated by fewer social activities due to over workload of the caregivers. The role of a Social Worker here is to assess the mental health of the caregivers and to provide interventions to help the caregivers cope with lifestyle changes.

The type of interventions are classified into three groups:

1. Psycho educational
2. Skills training
3. Therapeutic counselling<sup>10</sup>

Educational support was most beneficial for caregivers when it was problem focused such as on behavioral management. A combination intervention which included individual and family counselling sessions may help the caregivers to cope well with the stress.

Family physicians can have a significant impact on the health and well-being of the caregivers. By assessing the caregivers' level of burden including the issue of depression, the physician can identify the caregivers who are at high risk for physical and emotional problems. Family physicians can prepare the caregivers for the many phases of the challenging role of caregiving.<sup>11</sup>

## CONCLUSION

The study which was conducted among 100 family caregivers of cancer patients attending OP and admitted in the wards of Departments of Oncology and Radiotherapy, Govt. Stanley Medical College and Hospital during the period of July 2016 to October 2016 assessed the level of anxiety and depression.

The principal findings of our study are:

- The prevalence of anxiety among family caregivers of cancer patients is 80%.
- The prevalence of depression among family caregivers of cancer patients is 67%.
- The prevalence of anxiety and depression were more among female caregivers.
- The prevalence was more when the cancer patients were spouses, parents or children to the caregivers.
- The prevalence was more in caregivers from lower socioeconomic classes.

## RECOMMENDATIONS

This calls for more psychotherapeutic interventions to address the problems of care givers and to improve the quality of life of caregivers of cancer patients and thereby preventing them from physical and mental health deterioration.

Frequent psychiatric counselling sessions should be arranged at the care givers level to provide mental and moral support to them.

## LIMITATIONS

The study conducted in hospital setup, to increase the validity of study the study need to be conducted at the community level. To ensure external validity the study has to be conducted with more number of samples.

**ACKNOWLEDGMENTS :** Nil

**CONFLICT OF INTEREST :** Nil

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