

Evaluation of Stress, Anxiety and Depression Levels in Care Givers of Hospitalised Cancer Patients Using DASS-21 Scale Questionnaire-A Cross Sectional Study

Dr. Prathima Shetty¹, Dr. Zubaida Musaina², Dr. Namratha Alva^{3*}, Dr. Veena K.M⁴, Dr. Prashanth Shenoy⁵, Dr. Rachana Prabhu⁶

¹BDS, MDS Additional Professor, Department of Oral Medicine and Radiology, Yenepoya University, Mangalore, Karnataka, India Email Address: dr_prathimashetty@yahoo.co.in

²T. K, BDS, MDS Affiliation: Department of Oral Medicine and Radiology, Subbaiah institute of dental sciences Shivamogga, Karnataka, India Email Address: musainateekay@gmail.com

³*BDS, MDS Affiliation: Lecturer, Yenepoya Dental college, Yenepoya University, Mangalore, Karnataka, India Email Address: dr_namratha@rediffmail.com (Corresponding Author)

⁴ BDS, MDS Affiliation: Head of the department, Yenepoya Dental college, Yenepoya University, Mangalore, Karnataka, India Email Address: veenaomr@gmail.com

⁵BDS, MDS Affiliation: Professor, Department of Oral Medicine and Radiology, Yenepoya University, Mangalore, Karnataka, India Email Address: prashanthshenoy4@gmail.com

⁶BDS, MDS Affiliation: Professor, Department of Oral Medicine and Radiology, Yenepoya University, Mangalore, Karnataka, India Email Address: rachanaprabhu@yenepoya.edu.in

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ABSTRACT

Background: Cancer is the most serious sickness that has a risk of death and may be traumatising for the patients. It also has significant impact on those who provide care for them in order to manage their physical, emotional, social and financial problems. Caregivers frequently prioritize the needs of their patients over their own, which can sometimes result in a decline in their own physical, emotional, and mental wellbeing

Aim: This study aims to investigate stress, anxiety and depression levels in caregivers of cancer Patients

Materials and methods: This cross-sectional investigation included 60 participants aged 20 to 70 years. Psychological well-being of caregivers was evaluated by measuring levels of depression, anxiety, and stress using the DASS-21 questionnaire.

Results: The study included participants aged between 20 and 70 years. The findings revealed a prevalence of stress in 35% of subjects, depression in 31.7%, and anxiety in 30%.

Conclusion: The study findings suggest the prevalence of stress, depression, anxiety were common among caregivers and so it is important to assess the mental health status and attend to the needs of Caregivers..

Keywords: cancer patient caregivers, depression, Anxiety, stress

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INTRODUCTION

Cancer is a chronic condition that necessitates ongoing medical attention. Patients with cancer require both physical and psychological care, particularly when their condition is terminal. A spouse, adult child, relative, partner, or friend who has a close personal relationship with, and offers a wide range of unpaid assistance to, an adult with a serious illness is referred to as a caregiver^[1]. These changes in one's life are frequently viewed as stressors that can make caring for a loved one more difficult^[2] The ones who suffer the most as a result of the patient's care are the relatives who are from low socioeconomic backgrounds.^[3] Therefore, it is crucial to pay attention to wellbeing of both the patients and the caregivers. The purpose of the current study was to evaluate the stress, anxiety, and depression levels of cancer patient caregivers.

Materials and methods

A cross-sectional study was done. Sample size was 60 and Simple random sampling method was used for the collection of samples. After obtaining the ethical clearance for the study, from University Ethical committee, permission from the head of the oncology department was taken and the present study was conducted. The purpose of the study was also explained to the participants. A questionnaire comprising of questions based on the DASS-21 scale translated to local language and explained in detailed among participant's caregivers. The questionnaire consists total of 21 questions and is based on 3 subscales of depression, stress and anxiety. Each subscale comprises of 7 questions. Caregivers of cancer patients were asked to

*Author for Correspondence: dr_namratha@rediffmail.com

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choose scores ranging from 0 and 3 with a higher score indicates more stress, depression and anxiety. They were given required time to answer.

The inclusion criteria were as follows: (1) Patient's caregivers who are above 20 years of age.

(2) Care givers who will be able to communicate well either in Kannada or English or Malayalam.

(3) Care givers who are responding and interested to participate, and available at the time of the study.

(4) Caregivers with no known history of psychiatric disorder.

The Exclusion criterion was as follows. (1) Caregivers who are not interested to be a part of the study. (2) Caregivers of patients suffering from mental illness

Results

The study population comprised individuals aged 20–70 years. The association and relationship between depression, anxiety, and stress were evaluated using the chi-square test. The levels of depression, anxiety, and stress among individual caregivers were calculated as percentages and presented in tabulated form.

The prevalence of depression, anxiety and stress are summarized in the following table

Table -1 Dass 21 with respect to depression

Depression	Frequency	Percentage
Mild	10	16.7
Moderate	8	13.3
Severe	1	1.7

Table -2 Dass 21 with respect to Anxiety

Anxiety	Frequency	Percentage
Mild	11	18.3
Moderate	6	10.0
Severe	1	1.7

Table -3 Dass 21 with respect to stress

Stress	Frequency	Percentage
Mild	14	23.3
Moderate	7	11.7

Table 4-The association between the Depression, Anxiety, Stress, and Relationship

Relation	Depression				p value
	No	Mild	Moderate	Severe	
Spouse	14(73.7%)	3(15.8%)	2(10.5%)	0(0.0%)	0.18
Siblings	9(69.2%)	1(7.7%)	3(23.1%)	0(0.0%)	
Children	17(70.8%)	4(16.7%)	3(12.5%)	0(0.0%)	
Parent	1(25.0%)	2(50.0%)	0(0.0%)	1(25.0%)	

The significant association is not evident between the relationship and depression.

Relation	Anxiety				p value
	No	Mild	Moderate	Severe	
Spouse	16(84.2)	1 (5.3%)	2(10.5%)	0(0.0%)	0.008
Siblings	4(30.8%)	7(53.8%)	2(15.4%)	0(0.0%)	
Children	19(79.2)	3(12.5%)	1(4.2%)	1(4.2%)	
Parent	3(75.0%)	0(0.0%)	1(25.0%)	0(0.0%)	

There is an association between type of relation and anxiety. Majority of the siblings are found to be anxious when compared the other categories of the relationship

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Relation	Stress			p value
	No	Mild	Moderate	
Spouse	12(63.2%)	4(21.1%)	3(15.8%)	0.69
Siblings	9(69.2%)	4(30.8%)	0(0.0%)	
Children	15(62.5%)	6(25.0%)	3(12.5%)	
Parent	3(75.0%)	0(0.0%)	1(25.0%)	

The association between the relationship and the stress is not evident.

Table 5-The association between the Depression, Anxiety, Stress, and Age

Age	Depression				p value
	No	Mild	Moderate	Severe	
Above40	27(67.5%)	7(17.5%)	5(12.5%)	1(2.5%)	0.9
Below 40	14(70.0%)	3(15.0%)	3(15.0%)	0(0.0%)	

The association between depression and age is not evident.

Age	Anxiety				p value
	No	Mild	Moderate	Severe	
Above 40	26(65.0%)	9(22.5%)	5(12.5%)	0(0.0%)	0.26
Below40	16(80.0%)	2(10.0%)	1(5.0%)	1(5.0%)	

The association between anxiety and age is not evident.

Age	Stress			p value
	No	Mild	Moderate	
Above 40	27(67.5%)	7(17.5%)	6(15.0%)	0.247
Below 40	12(60.0%)	7(35.0%)	1(5.0%)	

The association between stress and age is not evident.

Table 6-The association between the Depression, Anxiety, Stress, and Gender

Gender	Depression				p value
	No	Mild	Moderate	Severe	
F	21(65.6%)	6(18.8%)	4(12.5%)	1(3.1%)	0.95
M	20(71.4%)	4(14.3%)	4(14.3%)	0(0.0%)	

The association between depression and gender is not evident.

Gender	Anxiety				p value
	No	Mild	Moderate	Severe	
F	20(62.5%)	5(15.6%)	6(18.8%)	1(3.1%)	0.048
M	22(78.6%)	6(21.4%)	0(0.0%)	0(0.0%)	

There was significant association between anxiety and gender.

Gender	Stress			p value
	No	Mild	Moderate	
F	17(53.1%)	10(31.3%)	5(15.6%)	0.13
M	22(78.6%)	4(14.3%)	2(7.1%)	

The association between stress and gender is not evident

DISCUSSION

Caring for a patient with cancer can place considerable physical and psychological strain on caregivers. This role often requires major adjustments in personal life choices, the assumption of additional responsibilities, and the sacrifice of activities and interests that were once important to them. [2,4]

Stress, anxiety, and depression are all undesirable emotions. Families of cancer patients report greater than average levels of stress due to a variety of factors such as the worry of losing a loved one concern about the suffering of their family member and the added obligations of giving hands-on care during periods of severe illness financial hardship affects family members psychosocial well-being in addition to their physical well-being. [5,3]

This study included 60 subjects between age group of 20 to 70 out of which 31 were males and 29 were females

A large proportion of study subjects were in the age group 20-40 (65%), followed by 41-70 (35%). Large proportions were daughter or son [40%] and then followed by husband or wife [32%] and brother or sister (22%) and father or mother (6%).

In our study the prevalence of depression, anxiety and stress were reported as 31.7%, 30%, 35% respectively

Study by Navya CJ et al, Geng HM et al, Yang et al also showed that stress, depression and anxiety is common among the caregivers of cancer patient similar to our study. [6,7,8] (table 1,2, 3)

Study conducted by Rohit veeramma et al showed that the level of depression and anxiety is higher among female caregivers than male, which is similar to our study finding [9] (table 6)

In our study there was significant association between anxiety and gender (table 6)

We looked for association between depression, anxiety and stress factors to relationship and gender (table 4, 6). There was an association between types of relationship, gender to anxiety. Majority of the siblings are found to be anxious when compared the other categories of the relationship and was statistically significant.

In our study there was no significant association between depression, and stress factors to gender and relationship.

Study conducted by Bimitha Baby et al also showed that there was no significant association between depression, and stress to relationship, gender similar to our study findings [7].

We looked for association between depression, anxiety and stress factors to age and there was no significant association similar to study done by Bimitha et al [7]. (table 5)

We used the Depression, Anxiety and Stress Scale - 21 Items (DASS-21) to measure the emotional states of depression, anxiety and stress [13].

Caregivers are often patient's primary source of support. Diagnosis of cancer is life-changing for not only the patients, but also their caregivers, who often find themselves having to adapt to new life situations. [10,11]

Furthermore, study conducted by Choi JY et al stated that care giving burden is related to type of chronic disease. Cerebrovascular disease, Parkinson's disease, and urinary incontinence significantly increase care giving burden. Presence of behavioural problems in the care recipient was a predictor of a higher care giving burden. In addition, mental issues such as cognitive decline, depression, and sleep disorders in older people were identified as factors that increased caregiver burden. However, in our study these caregivers were excluded [14].

Therefore, it is crucial to implement interventions to enhance caregiver's wellbeing. When a caregiver feels overwhelmed by their role, they should be encouraged to seek assistance from other family members or friends [12]

In addition, Healthcare professionals can help caregivers to face new life situations as well as deal with problems and to support them through direct care or by referral to appropriate services to help meet their needs.

The various techniques to reduce stress, anxiety and depression will depend on individual's specific situation, lifestyle, and needs. Treatment might include psychotherapy (talk therapy), specialized activities like light therapy¹⁵, mindfulness meditation, Brain stimulation therapies like take deep, slow breaths, yoga, massage, imagery, writing, music, or pet therapy and medication, or a combination of both. (AMERICAN CANCER SOCIETY)

Hence depression, anxiety and stress have to be assessed in them and increase awareness among health care providers and simple techniques to reduce stress also should be discussed to them.

LIMITATIONS

The study used a fairly limited sample size. The outcomes of the study should be clarified and confirmed by more research with a bigger sample size.

As our study was conducted at a privately owned cancer institution, it is possible that it does not accurately represent the general community as a whole.

The study did not attempt to interview patients who were too low and incapacitated may also be the limitation of this study. So, the caregiver who we would have anticipated to be the most burdened might have been missed out in the study

CONCLUSION

The results of the study indicate that a considerable proportion of caregiver's experience stress, depression, and anxiety, with prevalence rates of 35%, 31.7%, and 30%, respectively. These findings highlight the need for routine evaluation of caregivers' psychological well-being and timely attention to their mental health needs. Healthcare professionals play a crucial role in supporting caregivers by offering appropriate interventions, facilitating referrals to relevant support services, and helping them manage caregiving challenges while adapting to changes in their daily lives..

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