

Perceived Stress and Anxiety Symptoms among Caregivers of Hospitalized COVID-19 active cases in Dharwad Institute of Mental Health and Neurosciences-COVID Special Hospital, Karnataka, India

Sateesh Rangarao Koujalgi¹, Raghavendra Bhemappa Nayak²

¹Associate Professor & In-charge Head, Department of Psychiatric Social Work,

²Professor of Psychiatry, Department of Psychiatry

Dharwad Institute of Mental Health and Neurosciences (DIMHANS), Dharwad, Karnataka, India

ABSTRACT

Background: As per our knowledge studies have not been done around the world on the immediate family of Covid-19 inpatient active cases since the onset of the Covid-19 epidemic. The presence of a severe Covid-19 condition in inpatients may impact the whole family, especially the primary caregivers. This study aims to assess perceived stress and anxiety in primary caregivers of hospitalized persons with Covid-19 in a tertiary care hospital in India. **Methods:** A cross-sectional study was conducted. Forty-five caregivers of patients with Covid-19 were taken up for the study. The assessment tools of the study included socio-demographic details, Perceived Stress Scale-10 (PSS), and Hamilton Anxiety Rating Scale (HAM-A). The selected data were analyzed through quantitative and qualitative methods. **Results:** Study findings suggest that high perceived stress was seen in the majority of the caregivers. They also manifested high levels of anxiety and there was a significant positive correlation between perceived stress and anxiety among caregivers. **Conclusions:** The study found that in inpatient care during the Covid-19 epidemic primary caregivers of Covid-19 patients experienced enormously high levels of perceived stress, potentially impairing their ability to cope with the event.

Keywords: Caregiver, mental health, Covid-19 positive cases

INTRODUCTION

The World Health Organization on 30th January 2020 announced that the coronavirus outbreak (COVID-19) is a Public Health Emergency of International concern.^[1] This epidemic has had a significant impact on human lives. Mild stress could be useful in cognitive performance, while pervasive and persistent stress can result in psychological distress.^[2] The inpatient care of Covid-19 patients can cause stress but this could be transient and may resolve once the patient is recovered providing the absence of psychiatric disorder in caregivers. Greenhaus & Beutell^[3] defined assuming an extra role during a stressful situation may cause family conflict in the special form of inter-role conflict. During the second

wave hospital, inpatient care was increased, and the number of deaths increased. This could be one factor that precipitated stress in caregivers. Moreover, Covid-19 inpatient care affects the family's mental health and is considered a significant public health concern.^[4] The research did not look into the mental health of family caregivers of Covid-19 cases and no studies were conducted on inpatient care of Covid-19 cases. The inpatient care of Covid-19 cases is stressful for family caregivers. With this background and formal observation, the present study was conducted to measure the stress levels and anxiety in family caregivers of hospitalized Covid-19 patients.

Address for Correspondence:

Dr. Sateesh Rangarao Koujalgi
Incharge Head, Department of Psychiatric Social Work,
Dharwad Institute of Mental Health and Neurosciences
(DIMHANS), Dharwad - 580008, Karnataka, India
Email: sati_ya@yahoo.com

How to Cite the Article:

Koujalgi SR, Nayak RB. Perceived Stress and Anxiety Symptoms among Caregivers of Hospitalized COVID-19 active cases in Dharwad Institute of Mental Health and Neurosciences-COVID Special Hospital, Karnataka, India. Indian J Psychiatr Soc Work 2022;13(1):5-19.

Access the Article Online

DOI:

10.29120/IJPSW.2022.v13.i1.298

Quick Response Code



Website: www.pswjournal.org



MATERIAL AND METHODS

This was a cross-sectional descriptive study. It was conducted on patients admitted to the in-patient wards of DIMHANS COVID acute care hospital. Caregivers of Covid-19 patients who were admitted for care between the periods of 04-05-2021 to 15-06-2021 were considered for the study. The study sample was selected using the purposive sampling method. The Institute ethics panel approved the study and permission was obtained from the director to conduct the study was sought. Respondents who gave written consent were included in the study. Family caregivers who communicate in the Kannada language were recruited. Relatives who were diagnosed with any sort of psychiatric disorder and who were on treatment for such disorders were excluded from the study. Family caregivers loved one who was residing with the patient for the last year at the same residence was included in the study. Forty-five samples were selected for the present study. The scales were translated to the vernacular Kannada language. The translated Kannada version scales were administered on four cases to seek out any modification required. The content of both English and Kannada versions was examined by mental health professionals of the institute and they endorsed it as adequate. The caregivers reported that no changes were required within the scales. Caregivers were told they can withdraw from the study at any time even after consenting to the study and the given information was kept in the confidential record of the Institute. Before the collection of data, respondents were explained that the study has three categories i.e. the questionnaire consisted of socio-demographic profiles, perceived stress scale, and anxiety rating scale. The data was analyzed through SPSS-20 using descriptive statistics viz. mean, the standard deviation to the continuous variables, and number and percentage for categorical. The correlation was used to measure the relationship between two variables.

Researchers had developed a specially designed questionnaire to collect socio-demographic datasheets, and that was used to assess the socio-demographic details of the study population. The PSS-10 is a self-reported rating scale.^[5] The

PSS-10 consists of 10 items, with each item having five responses (0 to 4) on a Likert scale. It measures the perceived stress in an event in which the individual felt unpredictable or uncontrollable, in the last one month. The 4, 5, 7, and 8 items are having reverse scoring. A score ranging from 0-13 indicates low stress, a score ranging from 14-26 implies moderate stress and a score ranging from 27-40 indicates high perceived stress. Depending on respondent perception, the total score is considered in the perceived stress category. A higher score implies higher perceived stress. The Hamilton Anxiety Rating Scale (HAM-A) is a rating scale that measures the severity of anxiety symptoms. The scale consists of 14 items, each indicating a series of symptoms, measuring both psychic anxiety and somatic anxiety. The HAM-A is a valid and reliable scale for measuring anxiety across clinical populations. The items of the instrument are scored on a scale of 0 (not present) to 4 (severe) with a total score of 0-56, wherein less than 17 indicates mild severity, 18-24 mild to moderate severity and 25-30 moderate to severe.^[6]

RESULTS

Table one describes socio-demographic details of the study population. A total of 45 caregivers participated in the present study. All of them were urban domiciles. The mean age of participants was 43.44±9.11 years. Thirty-one (68%) belonged to the male gender and the rest 14(31%) belonged to the female gender. Out of 45 caregivers, 42 (93.3%) were part of a nuclear family and the rest 3(6.7%) were part of a joint family. A majority of them were employed 38 (84.4%) and 7 (15.6%) were unemployed. Considering family monthly income, 27 (60%) were earning more than Rs. 30,000 per month and the rest were earning less than Rs. 30,000 per month i.e. 18 (40%). Most of the study population were educated i.e 39 (86.7%) and the rest 6 (13.3%) were uneducated. Considering relationships with the patient, 1 (2%) were either father or mother, 11 (24.4 %) were husbands, 19 (42.2%) were wife's, 10 (22.2%) were sons and 4 (8.9%) of them were daughters. Table two indicates the perceived stress among caregivers of Covid-19 inpatient care cases. A large portion of caregivers of patients of Covid-19 cases had

experienced high perceived stress 73%, and the total perceived stress Mean \pm SD score was 17.64 ± 1.87 . Table three shows the anxiety among caregivers of Covid-19 inpatient care, 75.6% of caregivers experienced a significant amount of anxiety i.e. Mean \pm SD score of 29.11 ± 4.23 . Table 4 demonstrates that there was a significant positive correlation between perceived stress and anxiety in caregivers of patients with Covid-19. ($r = 0.518$, $P = 0.01$).

Table 1 Socio-demographic details of caregivers (n=45)

| Variables | Category | f % / Mean (Sd) | |
|-----------------------------|---------------|------------------|------|
| Age of caregivers in years | | 46.44 \pm 9.11 | |
| Gender | Male | 31 | 68.9 |
| | Female | 14 | 31.1 |
| Marital status | Married | 41 | 91.1 |
| | Unmarried | 2 | 4.4 |
| Type of family | Nuclear | 42 | 93.3 |
| | Joint | 3 | 6.7 |
| Employment status | Employed | 38 | 84.4 |
| | Unemployed | 7 | 15.6 |
| Monthly family income in Rs | < 30.000 | 27 | 60.0 |
| | >30.000 | 18 | 40.0 |
| Education status | Educated | 39 | 86.7 |
| | Uneducated | 6 | 13.3 |
| Relationship with patient | Mother/Father | 1 | 2.2 |
| | Husband | 11 | 24.4 |
| | Wife | 19 | 42.2 |
| | Son | 10 | 22.2 |
| | Daughter | 4 | 8.9 |
| Domicile | Urban | 45 | 100 |
| | Rural | - | - |

Table 2 Perceived stress among caregivers of Covid-19 patient

| Variables | f | % |
|---|----|------|
| Degree/Level of stress | 12 | 26.7 |
| 0-13, Low stress | | |
| 14-26, Moderate stress | 12 | 26.7 |
| 27-40, High perceived stress | 33 | 73.3 |
| Overall perceived Stress (Mean \pm S.D.) 17.64 ± 1.87 | | |

Table 3 Anxiety among caregivers of Covid-19 patient

| Variables | Frequency | % |
|--|-----------|------|
| Non-Anxious | 11 | 24.4 |
| Anxious | 34 | 75.6 |
| Overall anxiety (Mean \pm S.D.) 29.11 ± 4.23 | | |

Table 4 Correlation between overall perceived stress and anxiety

| Variable | r | P |
|------------------|-------|--------|
| Perceived stress | 0.518 | 0.01** |

*- $P < 0.05$, ** - $P < 0.01$, *** - $P < 0.001$

DISCUSSION

The univariate data analysis of the present research work revealed that caregivers of inpatient Covid-19 cases experienced high levels of perceived stress and a considerable amount of anxiety. The results also revealed that there was a positive correlation between high perceived stress and anxiety. There are no supportive studies in the literature on caregivers on covid-19.inpatient to the best of our knowledge this is the first study assessing perceived stress and anxiety among caregivers of Covid-19 inpatient admitted cases at a facility. The Director of DIMHANS has started at Dharwad District a Covid-19 acute care hospital in collaboration with District Hospital Dharwad with proper permission from the district administration. The acute care hospital can admit and treat around 165 cases with the medical faculty of Karnataka Institute of Medical Sciences. In this hospital, a psychosocial wing has been initiated to address the psychosocial need of caregivers where both the psychiatric social worker and clinical psychologist are posted. Here we felt the need to have research studies and accordingly we designed the current study. We searched similar literature but did not find any such studies. Covid-19, epidemic can be transient, and related stress due to Covid-19 may subside once the epidemic decreases.^[7-9] So cannot be compared with other long-run and chronic diseases studies.

The references in the comment are not core studies on Covid-19 positive cases of caregivers, and moreover, these studies have looked into how already existing medical conditions have been affected due to or during the covid-19 period. Hence, these studies are not suitable for the current study results discussion. The results of the present study may sense the need for supportive intervention during inpatient treatment. Therefore, the researchers described their observation and interpretation which can add to the current literature. The current study interpretation is that caregivers may feel more alone and helpless as they do not have access to other relatives due to the fear of Covid-19 contamination. They have to access a new tertiary social support network to combat the demands of the pandemic. This can lead to high stress and anxiety. During the peak period of the pandemic, there were also fewer medical bed facilities. Stress can lead to changes in emotional, physiological and behavioural responses.¹⁰ It was observed that the caregiver who uses the denial defence mechanism is prone to have a higher rate of stress and anxiety. Our clinical observation during counselling is quoted here. Acute isolation of inpatient care lessens the social interaction time between caregivers and patients. The caregivers who are hesitant to accept the event and are having relatively low tolerance may adopt negative coping skills. This induces stress and anxiety. Even more, families having family dysfunction or conflict before a Covid-19 positive diagnosis may experience high stress among family caregivers. This may be predominant especially in those who are having poor or low family intimacy. When a caregiver experiences high stress it makes it difficult for them to cope.

The present study has three main implications for the present pandemic: detailed psychosocial assessment of caregivers, psychosocial treatment and prevention of depression and stress-related anxiety disorders. While conducting the psychosocial assessment the caregiver's ecological, environmental and social support system must be taken into consideration. The treatment protocol must include the psychosocial intervention of such admitted cases. Further, it is needed to teach the caregivers management of

anxiety, positive coping strategies, tips to overcome stress and anxiety symptoms, a healthy routine, relaxation methods, problem-solving, acceptance of the situation, finding alternatives to adapt to the situation and not give much importance to thoughts which precipitate anxiety and worries. They should also be taught sleep hygiene techniques. Other parameters in intervention may involve connecting with family members, friends and discussing or ventilating their worries and also not blaming oneself by taking excessive responsibility for what is happening around you.

CONCLUSIONS

Caregivers of Covid-19 positive cases undergo a high level of stress and anxiety, additionally perceived stress was positively correlated with anxiety. This is a Mental Health concern. Furthermore, studies are required to establish these findings in the Indian Population.

Conflict of Interest: None

Source of Funding: None

Ethical Clearance: Institute Ethics Committee of Dharwad Institute of Mental Health and Neurosciences approval was obtained

REFERENCES

1. Sohrabi C, Alsafi Z, O'Neill N, Khan M, Kerwan A, Al-Jabir A, et al. World Health Organization declares global emergency: A review of the 2019 novel coronavirus (COVID-19). *Int J Surg* 2020;76: 71-6.
2. Yaribeygi H, Panahi Y, Sahraei H, Johnston TP, Sahebkar A. The impact of stress on body function: A review. *EXCLI J*. 2017;16:1057-72. doi:10.17179/excli2017-480
3. Greenhaus JH, Beutell NJ. Sources of conflict between work and family roles. *Academy of management review* 1985;10(1):76-88.
4. Al Dhaheri AS, Bataineh MF, Mohamad MN, Ajab A, Al Marzouqi A, Jarrar AH, et al. (2021) Impact of COVID-19 on mental health and quality of life: Is there any effect? A cross-sectional study of the MENA region. *PLoS ONE* 16(3): e0249107. doi: 10.1371/journal.pone.0249107

5. Cohen S, Kamarck T, Mermelstein R. A global measure of perceived stress. *J Health Soc Behav.* 1983; 24(4):385–96.
6. Hamilton M. The assessment of anxiety states by rating *Br J Med Psychol* 1959;3(2):50-5.
7. Fong TK, Cheung T, Chan WC, Cheng CP. Depression, Anxiety and Stress on Caregivers of Persons with Dementia (CGPWD) in Hong Kong amid COVID-19 Pandemic. *Int J Environ Res Public Health* 2021;19(1):184. doi: 10.3390/ijerph19010184.
8. Sharma R, Jafra BS, Tiewsoh K, Kumar K, Kaur N, Sharawat IK, Dawman L. Distress, anxiety, and its correlates among caregivers of children with kidney diseases during COVID-19 pandemic lockdown. *Arch Pediatr.* 2022:S0929-693X(22)00009-4. doi: 10.1016/j.arcped.2022.01.003.
9. Li Q, Zhang H, Zhang M, Li T, Ma W, An C, Chen Y, Liu S, Kuang W, Yu X, Wang H. Prevalence and risk factors of anxiety, depression, and sleep problems among caregivers of people living with neurocognitive disorders during the COVID-19 pandemic. *Frontiers in psychiatry.* 2021:1516. doi: 10.3389/fpsy.2020.590343
10. Schulz R, Sherwood PR. Physical and mental health effects of family caregiving. *Am J Nurs.* 2008;108(9 Suppl):23-27. doi:10.1097/01.NAJ.0000336406.45248.4c

Submitted on: 25-03-2021

Revised on: 25-07-2022

Accepted on: 07-07-2021

Published on: 16-02-2021