

A Study to Assess the Level of Stress Among Caregivers of Patients Undergoing Dialysis in Selected Hospitals of Ambala, Haryana

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ABSTRACT

Background: Chronic kidney disease is a long-term progressive condition requiring ongoing dialysis treatment, which significantly affects not only patients but also their caregivers. Caregivers of patients undergoing dialysis often experience physical, psychological, social, and financial stress due to prolonged caregiving responsibilities, frequent hospital visits, and lifestyle disruptions.

Aim and Objectives: The study aimed to assess the level of stress among caregivers of patients undergoing dialysis in selected hospitals of Ambala, Haryana, and to determine the association between caregiver stress and selected socio-demographic variables.

Methodology: A descriptive research design was adopted for the study. The sample consisted of 150 caregivers of patients undergoing dialysis at Maharishi Markandeshwar Institute of Medical Sciences and Research (MMIMS&R), Mullana, Ambala, Haryana. Caregivers were selected using a convenience sampling technique. Data were collected using a structured socio-demographic questionnaire and the standardized Perceived Stress Scale (PSS). Descriptive statistics were used to analyze the data, and the chi-square test was applied to determine the association between caregiver stress and selected demographic variables.

Results: The findings revealed that the majority of caregivers (71.3%) experienced moderate stress, 26.7% had mild stress, and 2% experienced severe stress. A statistically significant association was found between caregiver stress and religion, duration of dialysis, frequency of dialysis per week, and comorbid illness of the patient ($p < 0.05$). No significant association was observed between caregiver stress and age, gender, relationship with patient, occupation, family income, residence, marital status, total number of dialysis sessions, caregiver health condition, and coping strategies.

Conclusion: The study concludes that caregivers of patients undergoing dialysis experience considerable levels of stress, with most caregivers reporting moderate stress. Caregiver stress is influenced by treatment-related factors such as duration and frequency of dialysis and patient comorbidities.

1. Introduction

Chronic renal failure is among the chronic disease which due to persistence of the disease and long treatment process has various effects on the physiological, psychological, functional ability, lifestyle changes, and independence status of the patient and his family. This may result in the burden feeling in caregivers. According to the importance of the subject, this study is to assess the level of caregiver burden in caregivers of haemodialysis patients.¹ Caregivers are people who have the greatest involvement in patient care and assistance during the course of the disease in order to adapt and manage the patient. Families of patients with chronic renal failure should perform supportive and care functions at home or in outpatient centre, such as dialysis units of hospitals. This can affect their mental

health to varying degrees. In this study, 72.5% of caregivers reported moderate to severe levels of caregiver burden. Caregivers of male patients and patients with inadequate income had a higher caregiver burden score. Chronic kidney disease (CKD) is a long-term, progressive condition that requires sustained treatment and lifestyle modifications, significantly affecting patients and their families. Continuous Ambulatory Peritoneal Dialysis (CAPD) and haemodialysis are commonly used renal replacement therapies that depend heavily on family caregivers for daily management, monitoring, and emotional support. Despite their essential role, caregiver burden remains an underrecognized yet critical factor influencing the effectiveness and continuity of dialysis care.

2. Materials and Methods

A descriptive research design was used to achieve the objectives of this study. The sample included 150 caregivers were selected using convenience sampling method. Formal administrative approval was obtained from the Medical Superintendent and ethical committee of MM (Deemed to be University), Mullana, Ambala to conduct the final study. One hundred fifty caregivers were selected using the convenience sampling method. Research participants were enrolled in the study after written informed consent and they were assured about the confidentiality of their response. Permission for pilot study was taken from the Medical Superintendent of MMIMS&R Hospital, Ambala. Permission for final study was taken from the Medical superintendent of MMIMS&R Hospital Consent was prepared and filled for the study subjects regarding their willingness to participate in

the research study. Purpose of the study was explained to the sample subjects before data collection. Tools included a socio-demographic questionnaire and the standardized Perceived Stress Scale (PSS).

Data Collection Procedure

Data collection was carried out after obtaining permission from hospital authorities. Caregivers were approached during dialysis sessions. Written consent was obtained and confidentiality was assured. Each participant completed the questionnaire and PSS in 15–20 minutes.

Data Analysis

Data were analyzed using descriptive and inferential statistics. Frequency and percentage were used to describe variables. Chi-square test was applied to determine association between caregiver stress and selected variables. Significance was set at $p < 0.05$.

Results

The table depicts that (26.7%) having mild stress, (71.3%) maximum caregivers suffer from moderate stress and (2%) of caregivers suffer from severe stress.

Table 1: Distribution of Caregivers According to Stress Level (n=150)

Stress Level	Frequency	Percentage (%)
Mild Stress (0–13)	40	26.7%
Moderate Stress (14–26)	107	71.3%
Severe Stress (27–40)	3	2%

The table 2 depicts association between level of stress of caregiver with the religion, duration of dialysis and frequency per week of dialysis in patients undergoing dialysis in selected hospitals of Ambala, Harvana. It also depicts that there is no association between level of stress of caregiver with age, gender, relation with patient, occupation, family income, residence, marital status, total no. of dialysis done, any health condition of caregiver, and any cope up strategy used to manage the stress of caregiver.

TABLE 2: Association Between Stress Level and Selected Variables

Sociodemographic Variable	Mild	Moderate	Severe	χ^2	df	p
1.Age (in years)						
1.1 <20	1	1	0	7.81	6	0.25NS
1.2 21-40	17	51	0			
1.3 41-60	22	47	3 0			
1.4 >61	0	8				
2.Gender						
2.1 Male	19	61	2	1.24	2	0.53NS
2.2 Female	21	46	1			
3. Relationship with patient						
3.1 Father	4	7	0	5.32	8	0.72NS
3.2 Mother	1 2	4	0 0			
3.3 Daughter	14 19	10	2 1			
3.4 Son		26 60				
3.5 Spouse						
4.Occupation						
4.1 Home maker	8	36	1	12.0	6	0.06NS
4.2 Self employed	21	28	0 2			
4.3 Private Job	10	42	0			
4.4 Government employee	1	1				

5.Religion						
5.1 Hindu	31	79	0 3	18.15	6	0.00*
5.2 Muslim	5	15	0			
5.3 Christian	0	3	0			
5.4 Sikh	4	10				
6.Family income (in rupees)						
6.1 >78,000	3 6	5	0 2	9.65	8	0.29NS
6.2 39,000-77,999	9	21	0 1			
6.3 23,400-38,999	11	32 34	0			
6.4 11,700-23,399	11	15				
6.5 <11700						
7.Residence						
7.1 Rural	23 17	54 53	1 2	1.00	2	0.60NS
7.2 Urban						
8. Marital Status						
8.1 Unmarried	7	18	0	1.63	6	0.95NS
8.2 Married	32	87	3 0			
8.3 Widow	1	1	0			
8.4 Widow(er)	0	1				
9.Duration of dialysis						
9.1 <1 year						
9.2 1-3 year	21	57 35	0 1	13.19	4	0.01*
9.3 >3 year	7	15	2			
	13					
10.Frequency/week of undergoing dialysis						
10.1 Once						
10.2 Twice	18	34	0	12.70	6	0.04*
10.3 Thrice	20	49 22	2 1			
10.4 Quadruple	0	44	0			
	2					

11.Total no. of dialysis done						
11.1 0-50	17	41	0	4.50	4	0.34NS
11.2 51-100	7	22 44	0 3			
11.3 >100	16					

12.Any health condition of caregiver						
12.1 Yes	7	24 83	0 3	1.22	2	0.54NS
12.2 No	33					
13.Comorbid illness of patient undergoing dialysis						
13.1 DM	7	29	1	44.22	8	0.0*
13.2 HTN	17	54	0 0			
13.3 CVD	12	20	2			
13.4Cerebrovascular disease	2	1	0			
13.5 Other	2	3				
14.Any cope up strategy used to manage the stress of caregiver						
14.1 Yes	4	16 91	1 2	1.54	2	0.46NS
14.2 No	36					

3. Recommendations

- 1.The study can be replicated on a large scale to investigate whether the significant findings can be sustained among a larger group.
2. A similar study can be conducted in different settings.
3. The experimental study can be conducted to find out the effectiveness of Progressive Muscle Relaxation Therapy on stress among caregivers of mentally ill patients.
4. A comparative study can be conducted to

- find out the level of stress and care giving burden among care givers of patients are admitted in the selected government and private hospitals.
5. A Qualitative study can be done to assess stress and care giving burden among care givers of chronically ill patients.

4. Conclusion

Caregivers of patients undergoing dialysis

experience substantial stress, predominantly at a moderate level. Stress is significantly influenced by treatment-related factors such as duration and frequency of dialysis and patient comorbidities. Nursing professionals should play a proactive role in identifying caregiver stress and providing appropriate interventions.

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