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Prevalance of Psychiatric Morbidity in the Primary Caregivers of Individuals on Dialysis for End Stage Renal Disease – A Cross Sectional Study

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ABSTRACT

Background & Objectives: Family caregivers are considered as hidden patients experiencing physical and mental disorders. This affects the quality of not only their lives but also the health care provided to patients. This study aimed to investigate the psychiatric morbidity and its related factors among the caregivers of patients undergoing hemodialysis.
Methods: 30 consecutive caregivers of dialysis patients attending the dialysis unit in department of Nephrology were included. Socio-demographic data of both patients and caregivers was obtained using a semi structured proforma. Psychiatric morbidity was assessed using Mini-International Neuropsychiatric Interview (MINI).
Results: Majority of the caregivers were less than 60 years of age, females, literates, employed, were related as spouses of patients followed by children. 93.3 % of caregivers had psychiatric morbidity most common being major depressive disorder (43.4%).

Key Words: *Psychiatric Morbidity, Primary Caregivers, Dialysis, Renal Disease*

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INTRODUCTION

Globally, 753 million people suffer from chronic kidney disease. End stage renal disease (ESRD) is defined as "the last-stage of chronic kidney disease when GFR is of ≤15 ml/min, where dialysis/ transplant is needed for the patient to stay alive". It is estimated that ≈55000 patients are on dialysis in India. Dialysis population is growing at the rate of 10-20% annually [1, 2].

Primary care giver is defined as "a person belonging to patient's informal support system that takes care of and is responsible for the patient, and commits most of his or her time to that task without receiving any economic retribution." Often, family members become involved in patients' treatment for end-stage renal disease (ESRD) as primary care givers. The role of care giver includes administering medication; assisting in daily activities; overseeing treatment adherence; monitoring patients' health; scheduling, providing transportation to, and attending medical appointments; advocating for patients; and offering emotional support [3]. Involvement of family members lead to improved self-management behaviours and treatment adherence, enhanced quality of life, decreased mortality in these patients [4, 5]. Patient undergoing dialysis needs support from their primary caregivers, which can be a burden for those around them. Nephrologists stress upon the need for support from the caregivers for the long-term well being of the patients undergoing dialysis.

Although involvement in patients' treatment can be rewarding for family members (eg, developing a sense of self-worth), several studies have shown that it can also impose burdens on them (eg, financial), jeopardize their health (eg, physical injuries) and well-being (eg, depression), and conflict with their other roles or responsibilities (eg, work performance) [6, 7 & 8]. ESRD patients are more prone to an array of psychiatric disorders, most common being depression. Stress in these patients can also have a negative impact on the caregivers. This leads to increase psychiatric morbidity in them [9].

Studies have shown that there was higher prevalence of psychiatric morbidity such as depression and anxiety in caregivers if there was a greater impact on functioning of the patient [10] Caregivers of haemodialysis patients are facing significant burden and studies have shown that more than one third are moderate to severely depressed [11] Loss of role, perceived marital strain and depression in the patient can contribute as a trigger for depressive effect on spouse. Also, due to increasing dependency of these patients, the spouse of these patients can feel isolated due to loss of social activity, increased workload, and negative economic consequences. These couples have also been reported to have higher incidence of depression, difficulty with sexual adjustments, and perception of decreased intimacy along with communication problems [12, 13].

The caregiver-burden also translates to the care patient receives. It is therefore important to assess the psychiatric morbidity of the primary care givers.

METHODS

Study design and population

This was a cross-sectional study conducted at the haemodialysis unit in Kempegowda Institute of Medical Sciences and Research Hospital, Bangalore.

Inclusion Criteria:

1) Primary caregivers of the Patients Undergoing dialysis for ESRD for 6 months or more
2) Primary caregivers of the Patients Undergoing dialysis for ESRD Aged > 18 years

Exclusion Criteria:

1) Primary care giver/ patient not willing to be a part of the study
2) Primary caregivers of Patients Undergoing dialysis for ESRD with physical comorbidities other than Diabetes Mellitus and Hypertension
3) Primary caregivers with known psychiatric illness

After obtaining the approval of the institutional ethics committee, patients and their primary caregivers fulfilling the inclusion criteria will be included in the study. A total of 30 subjects agreed to participate and were included in this study. Every subject was provided with information regarding the study and written informed consent was obtained.

Assessment of Patients was done using Semi-structured proforma containing – Socio-demographic details, severity and duration of the illness. Assessment of Caregiver was done using Semi-structured proforma containing – Socio-demographic details and Psychiatric morbidity was assessed by MINI international neuropsychiatric interview (MINI) [14].

Statistical Analysis:

The data collected was analysed statistically using descriptive statistics namely Mean, standard deviation, percentage wherever applicable. Appropriate parametric and non parametric tests were used. SPSS20 was used for statistical analysis.

RESULTS

Socio demographics:

Patients: Mean age of the patients with ESRD in our study was 49.1 years, with majority being males (80%). Majority of the patients were employed, with modified Kuppuswamy classification of skilled labourers and above (66.8%). 86.7% of the patients had received at least 7 years of formal education. Most of the patients were from urban area (76.6%).

Table 1: Socio-demographic details of the patient:

Age of the Patient	N	%	Gender of the patient	N	%
21 – 30	3	10.0	Male	24	80.0
31-40	7	23.3	Female	6	20.0
41-50	7	23.3	**Income**		
51-60	5	16.7	≥52,734	5	16.7
61-70	8	26.7	26,355-52,733	3	10.0
Occupation of the patient			19,759-26,354	5	16.7
Un employed	3	10.0	13,161-19,758	7	23.3
Unskilled	4	13.3	7,887-13,160	3	10.0
Semiskilled	3	10.0	2,641-7,886	6	20.0
Skilled	8	26.7	≤2,640	1	3.3
Clerical	2	6.7	**Education**		
Semi-professional	8	26.7	primary school	4	13.3
professional	2	6.7	middle school	8	26.7
Residence			High school	6	20.0
Rural	7	23.3	intermediate and post high school diploma	7	23.3
Urban	23	76.7	graduate /post graduate	5	16.7
Duration of dialysis			**Frequency of dialysis**		
<1 years	12	40.0	2/ week	24	80.0
1- 2 years	8	26.7	3/week	6	20.0
2 - 3 years	6	20.0			
3 - 4 years	2	6.7			
> 4 years	2	6.7			

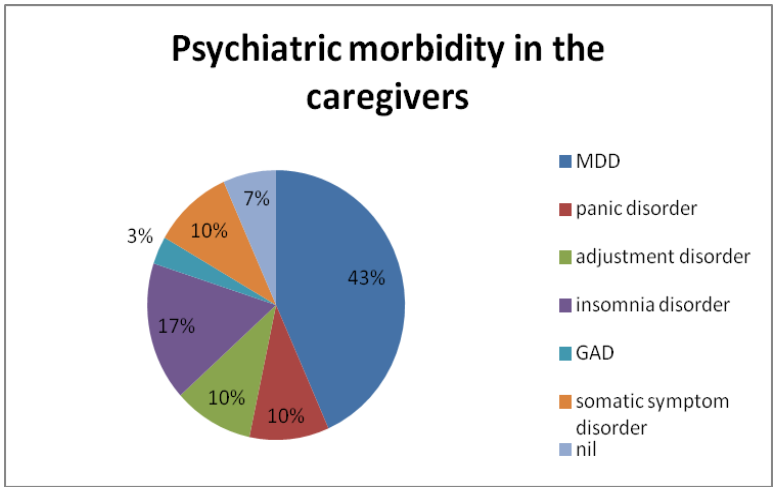
Caregiver:

Mean age of the primary caregivers in our study was 40.4 years, 70% of them being females. 60% of the primary care givers were spouses and 60% were unemployed. 76.6% of the caregivers had at-least 7 years of formal education.

Table 2: Socio-demographic details of the caregiver:

Age of the care giver	N	%	Gender of the care giver	N	%
21 – 30	8	26.7	Male	9	30.0
31-40	6	20.0	Female	21	70.0
41-50	10	33.3	**Occupation of the caregiver**		
51-60	2	6.7	Un employed	18	60.0
61-70	4	13.3	Unskilled	3	10.0
Relationship with the patient			Semiskilled	2	6.7
Spouse	18	60.0	Skilled	3	10.0
Sibling	3	10.0	Clerical	1	3.3
Parent	1	3.3	Semi professional	2	6.7
Child	8	26.7	Professional	1	3.3
Education					
Illiterate	2	6.7			
primary school	5	16.7			
middle school	4	13.3			
high school	8	26.7			
intermediate and post high school diploma	1	3.3			
graduate /post graduate	9	30.0			
Professional degree	1	3.3			

93.3% of the caregivers had psychiatric morbidity when assessed through MINI. 43.4% of them were suffering from depression and 16.7% had insomnia. panic disorder (10%), adjustment disorder (10%), somatic symptom disorder (10%) and Generalized anxiety disorder (3.3%) were the other most common psychiatric morbidities observed in this cohort. (Graph 1)



Graph 1: Psychiatric morbidity in the caregivers.

Association of psychiatric morbidity in caregivers with patient and caregiver factors:

We found no statistically significant correlation between psychiatric morbidity in the caregivers and patient factors - age (p= 0.54), gender (p= 0.27), income (p= 0.48), duration of the illness (p= 0.95) and frequency of the dialysis (p= 0.46). Caregiver factors such as age (p= 0.48), gender (p=0.52), relationship with the patient (p=0.15) and education (p=0.94) also showed no statistically significant association.

DISCUSSION

The objective of the current study was to assess the psychiatric morbidity in the primary caregiver of ESRD patients on dialysis.

The mean age of caregivers in our study was 40.4 years. Most of the hemo-dialysis caregivers were females, married and were housewives. This was similar to the other studies conducted in the past [15, 16]. This could be explained by the fact that most of our patients are married, employed males and now a days there are more of nuclear families with house wives being assigned more traditional roles and responsibilities.

According to the study conducted by Saed et al in, of the 180 caregivers assessed (males- 56.7%, females- 43.3%), the prevalence of moderate and severe depression was 33.4% ($P < 0.001$). Depression was positively associated with Marriage and unemployment, while household income showed negative association. They found no correlation of depression with gender and education level [9]. Similar findings were observed in other studies conducted by Shayaka et al and Gerogianni et al. [15, 17] In our study we found that 93.3 per cent of caregivers had psychiatric morbidity, out of which major depressive disorder was the most common one accounting for 43.4 per cent followed by insomnia disorder, panic disorder, adjustment disorder and somatic symptom disorder. We did not find any association between psychiatry morbidity and socio-demographics of the patients/ caregivers.

Higher prevalence of psychiatric morbidity in our study population can be attributed to the fact that most of the ESRD patients were employed males, and hence their illness resulted in higher financial and emotional burden on the caregiver. Also, as majority of the caregivers were females, their need to play multiple gender roles along with taking care of the patient which may have been emotionally taxing, increasing the risk for psychiatric morbidity. Finally, as the duration of ESRD in our study population was <1 years, the family, including the patient and the primary caregivers would still be adjusting to the diagnosis and its implications (emotional, financial and social) and hence resulting in higher psychiatric morbidity.

CONCLUSION

ESRD is a chronic illness requiring frequent hospital visits and dialysis. Primary caregiver plays a major role in the care of the patient. They are more susceptible to psychiatric morbidity which would in turn reflect on the patient care and long-term prognosis. Hence it becomes imperative to screen this population for the presence of depression, anxiety and other psychiatric disorders and provide timely intervention. This would not only improve patient care, but also the quality of life of the caregiver.

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