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STRESSOR AND COPING AMONG PATIENTS ON HEMODIALYSIS- A CORRELATIONAL STUDY

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ABSTRACT

Background: Chronic kidney disease (CKD) is life-threatening condition which is characterised by a gradual loss of kidney function over time. Hemodialysis remains the most common form of treatment for ESRD. Hemodialysis patients are subjected to multiple psycho- social and physiological stressors. The purpose of this present study was to assess the relationship between stressor and coping among patients undergoing hemodialysis in a tertiary care hospital. **Methods:** Research approach was quantitative approach. This descriptive correlational study included 150 sample with end stage renal failure and were undergoing hemodialysis. Convenience sampling technique were used for the study. Three tools were used in this study. Tool I used to assess the sociodemographic and clinical data, Tool II was Hemodialysis stressor scale and Tool III was Lazarus coping scale. Descriptive (frequency, percentage, mean and standard deviation) and inferential statistics (Pearson coefficient correlation) were used to analyse the data. **Results:** study findings revealed that 95 (63.3%) had mild stress while only 9 (6%) had severe stress. Pearson correlation showed there is no significant relationship between stressor and coping strategies among haemodialysis patients except stress and confrontive coping (r value is 0.155, p=0.05) and stress and escape avoidance (r value is 0.215, p= 0.008). **Conclusion:** If the nurse is able to identify the different stressors and coping strategies adopted by patients with ESRD will help the nurses and other health care professionals to plan and implement an effective care. The study result showed getting adequate information regarding hemodialysis also helps to alleviate the stress level of the patient.

KEYWORDS: Stressor, coping, Hemodialysis, Chronic kidney disease.

BACKGROUND

Chronic kidney disease (CKD) is life-threatening condition which is characterised by a gradual loss of kidney function over time.[1] It is a severe disorder which hinders the physical, emotional and social well-being of an individual. In India, it has been recently estimated that the incidence rate of ESRD to be 229 per million population, and >100,000 new patients enter renal replacement programs annually.[2] The goal of management of CKD is to maintain kidney function and homeostasis for as long as possible. Management of CKD is accomplished primarily with medications and diet therapy, although dialysis also be needed to decrease the level of uremic waste products in the blood and to control electrolyte balance.[3] Hemodialysis remains the most common form of treatment for ESRD compared to peritoneal dialysis or renal transplantation. Hemodialysis patients are subjected to multiple psycho- social and physiological stressors and may be threatened with many potential losses and lifestyle changes.[4] Hemodialysis treatment is very expensive. The medicines are also equally costly and a majority of the patients are not able to afford this treatment. Adding to the problem, health insurance policies do not cover the cost of dialysis owing to the high cost.[5]

Stress in human life is often equated with tension, anxiety, worry and pressure. The social support systems in contrast to developed countries are not well established in countries like India. Patients subjected to hemodialysis experience stress of different nature and their coping ability varies. It is an accepted fact that stress is a part of human life and it can cause either beneficial or detrimental effects on human beings which can affect physical, emotional, economical, spiritual and social aspects.[1]

Patients with end stage renal disease, who require long-term dialysis, experience many stressors that they must cope in order to achieve an acceptable quality of life. Nephrology nurses who understand the stress of patients living with dialysis and who are familiar with coping strategies of the patient, may use or ideally play to facilitate the process of adaptation from the patient and their families prospective.[6]

Nursing personnel can provide better support for the patients in order to overcome their stresses and to use more appropriate coping mechanisms by better understanding of hemodialysis patients' life experience. Identifying stressors and coping strategies used by patients with ESRD may help nurses and health care providers to gain a clearer understanding of the condition of these patients and thus institute effective care planning. Considering increasing number of the hemodialysis patients and according to the theory of Lazarus & Folkman (1984), which states that coping mechanisms should be measured and evaluated according to a person's culture, society, values and attitude. Findings of other countries can't be used in India because of cultural, religious and social differences.

METHODOLOGY

The purpose of this present study was to assess the relationship between stressor and coping among patients undergoing hemodialysis in a tertiary care hospital. Research approach was quantitative approach. This descriptive correlational study included 150 sample with end stage renal failure and were undergoing hemodialysis. Convenience sampling technique were used for the study. Three tools were used in this study. Tool I used to assess the sociodemographic and clinical data, Tool II was Hemodialysis stressor scale and Tool III was Lazarus coping scale. Descriptive (frequency, percentage, mean and standard deviation) and inferential statistics (Pearson coefficient correlation) were used to analyse the data.

RESULTS

Socio-demographic data revealed that most of the patients 68 (45.3%) were belongs to the age group of 59-78 years. 100 (66.7%) were males. Regarding the marital status 123 (82%) married. Monthly income depicts that most of the individuals have a monthly income greater than Rs. 20,000 per month 53(35.3%). Regarding occupation 65 (43.3%) are employed and most of the patients belongs to a nuclear family 124 (82.7%).

Table 1: Frequency and percentage distribution of clinical variables.

n = 150

Sl No.	Clinical Characteristics	Frequency	Percentage
1.	**Co-morbidities**		
	No comorbidities	1	0.7%
	Diabetes Mellitus	38	25.3%
	Hypertension	24	16%
	Both Diabetic Mellitus and Hypertension	84	56%
	CAD	1	0.7%
	COPD	2	1.3%
2.	**Duration**		
	Less than one year	15	10%
	1 to 2 year	74	49.3%
	> 3year	61	40.7%
3	**Access**		
	Right AVF	61	40.7%
	Left AVF	66	44%
	IJC	20	13.3%
	FC	3	2%

Table 1 reveals that most of the sample 84 (56%) had both diabetes mellitus and hypertension as co-morbidity. Regarding duration of hemodialysis 74 (49.3%) of sample who were undergoing hemodialysis from the past 1 to 2 years and most of them had Left AVF 66 (44%) as their access site for hemodialysis.

Table 2: Distribution of sample based on level of stress.

n = 150

Category	Frequency	Percentage (%)
No stress	15	10
Mild stress	95	63.3
Moderate stress	31	20.7
Severe stress	9	6

Table 2 depicts the severity of stress among hemodialysis patients. Among the sample 95 (63.3%) had mild stress while 9 (6%) had severe stress.

Table 3: Mean and Standard Deviation of Stress and Coping among hemodialysis Patients in Various Aspects.

n = 150

Different aspect of stressor and coping	Minimum	Maximum	Mean	Standard Deviation
Physical Stressor	0	17	8.35	3.543
Psycho-Social stressor	4	70	33.54	14.075
Overall stress	7	85	41.82	16.341
Confrontive coping	0	42	8.25	4.920
Distancing	0	18	8.71	4.131
Self controlling	0	21	9.29	4.678
Seeking social support	0	18	9.55	4.504
Accepting responsibility	0	12	5.69	3.072
Escape avoidance	0	24	9.78	5.444
Planful problem solving	0	18	7.67	4.383
Positive reappraisal	0	20	10.85	4.930
Overall coping	0	193	93.39	39.187

Table 4: Level of coping among Hemodialysis patients.

n = 150

Sl No	Level of coping	Frequecy	Percentage (%)
1	Never	37	24.7
2	Sometimes	86	57.3
3	Always	27	18.0

Table 4 shows majority, 86 (57.3%) sample were using coping strategy sometimes.

Table 5: Correlation between stressor and coping strategies among haemodialysis patients.

n = 150

Variables	r value	P value
Stress Coping	0.134	0.102
Coping Physical stressor	0.028	0.737
Coping Psychological stressors	0.146	0.077
Stress Confrontive coping	0.155	0.05*
Stress Distancing	0.085	0.3
Stress Self-controlling	0.143	0.082
Stress Seeking social support	0.039	0.638
Stress Accepting responsibility	0.131	0.110
Stress Escape avoidance	0.215	0.008*
Stress Planful problem solving	0.121	0.140
Stress Positive re-appraisal	0.010	0.907

*significant at $p<0.05$

Table 5 reveals there is no significant relationship between stressor and coping strategies among haemodialysis patients except stress and confrontive coping (r value is 0.155, p=0.05) and stress and escape avoidance (r value is 0.215, p= 0.008).

DISCUSSION

In the present study 95 (63.3%) had mild stress while 9 (6%) had severe stress. Contradictory to this study, the result of another study conducted by Shinde M, Mane P S to assess Stressors and the Coping Strategies among Patients Undergoing Hemodialysis showed 97% patients had severe stress while 3% patients had moderate stress among patients undergoing haemodialysis. Present study result showed sample were having the high mean score (33.54) in psychosocial stressor. The above study result showed that majority of the patients had severe stress of daily activity 93%, 86.7% patients had the stress of dependency on staff and food and fluid restriction respectively, while 10% patients had mild stress of reproductive system functioning among the patients undergoing hemodialysis.[4]

The present study result showed Positive reappraisal coping strategy had the highest mean among the coping strategies (10.85) and the lowest mean was accepting responsibility (5.69). Result of the present study was supported by another study conducted by Ahmad MM, Al Nazly EK among 131 Jordanian patients. The purpose of this study was to identify stressors perceived by Jordanian patients on hemodialysis, and the coping strategies used by them. Stressors perceived by participants on hemodialysis and the coping strategies were measured using Hemodialysis Stressor Scale, and Ways of Coping Scale-Revised. Findings showed that patients on hemodialysis psychosocial stressors scores mean was higher than the physiological stressors mean. Positive reappraisal coping strategy had the highest mean among the coping strategies and the lowest mean was accepting responsibility.[7]

In this study Pearson Correlation reveals there is no significant relationship between stressor and coping strategies among haemodialysis patients except stress and confrontive coping (r value is 0.155, p=0.05) and stress and escape avoidance (r value is 0.215, p= 0.008). this was supported by the findings of a study conducted by Neupane N, Parajuli P, Mehta RS to assess Stressors and Coping Strategies among the Patients undergoing Maintenance Haemodialysis. Study result showed that there is no significant correlation between stress and coping strategies.[8]

CONCLUSION

Identifying stressors and coping strategies used by patients with ESRD may help nurses and health care providers to gain a clearer understanding of the condition of these patients and thus institute effective care planning. Attention should be focused towards the psychosocial stressors of patients on hemodialysis and also helping patients utilize the coping strategies that help to alleviate the stressors. The study result showed getting adequate information regarding hemodialysis also helps to alleviate the stress level of the patient.

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