

Stressors and the Coping Strategies among Patients Undergoing Hemodialysis

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Abstract: *Stress in human life is often equated with tension, anxiety, worry and pressure. Chronic renal failure is threatened with many potential losses and changes in lifestyle, but as the disease progresses, the patient physically may not be able to cope up, Patients receiving HD use various strategies to cope with the stressors related to their disease and the treatment procedures. Objectives-To assess the level of stress and coping strategies used by patients among patients undergoing hemodialysis. And to assess the relationship between these stressors and the coping strategies used by patients undergoing hemodialysis. Method: Descriptive cross sectional study design. Sample size was 30 and the sampling technique used was convenient sampling technique. Study was conducted at Krishna hospital karad. Results: About 97% patients undergoing hemodialysis had severe stress In that 50% of patients undergoing hemodialysis always adopt emotion focused and problem orientation as their coping strategies, while 90% of patient sometimes used avoidance oriented coping strategy, while the others 56% sometime use the coping strategy of seeking support and isolated thoughts. Conclusion: The overall assessment reveals that though the subjects at undergo severe stress of the procedure they undergo. Modification in coping strategies and planned interventions are desirable.*

Keywords: Stressors, Coping Strategies, Hemodialysis

1. Introduction

Dialysis is most commonly prescribed for patients with temporary or permanent kidney failure. People with end-stage renal disease (ESRD) have kidneys that are no longer capable of adequately removing fluids and wastes from their body or of maintaining the proper level of certain kidney-regulated chemicals in the bloodstream. For these individuals, dialysis is the only treatment option available outside of kidney transplantation. India gets 1.5 lakh (150,000) patients with kidney failures every year and a majority of them die within five years. 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 [1].

The only alternative to dialysis for ESRD patients is a successful kidney transplant. However, demand for donor kidneys has traditionally far exceeded supply [2]. Life on dialysis is a perpetual challenge due to demanding treatment schedule and dietary restrictions. The dialysis depends on machine for survival conflicts with the independence needed to maintain a normal life. A number of stress and coping mechanism factors operate in patients on maintenance hemodialysis (HD). These include physiological, psychological, socio-economic, financial and marital problems depending on the machine, limited activities and treatment related problems. Life on dialysis (ESRD) shows similarities with other chronic disorders in that there are

threats to autonomy, a considerable burden of illness and changes in functional status. Patients requiring long term HD, often have financial problems, difficulty in holding a job, waning a sexual desire and impotence, depression from being chronically ill and fear of dying. Younger patients worry about marriage, having children and the burden that they bring to their family [3]. These physical and psychological stresses can lead to delirium, depression, anxiety, suicide, uncooperative behaviour, sexual dysfunction and psychosis. Patients with ESRD experience different levels of stress in response to various types of stressors. How stress is resolved is important to this population because it can contribute to greater morbidity and even to earlier mortality [4][5]. Patients receiving HD use various strategies to cope with the stressors related to their disease and the treatment procedures. The kind of coping strategies they use also depends on their personal experience, social support system, individual beliefs, and availability of resources [6][7].

Stress in human life is often equated with tension, anxiety, worry and pressure. Chronic renal failure is threatened with many potential losses and changes in lifestyle. In the initial stages a patient may need only rest and dietary restrictions but as the disease progresses, the patient physically may not be able to cope up with his work and hence take medical leave for hospitalization to reduce his working hours or even may refrain from going to work that may affect the whole family, especially if the patient is the breadwinner. A study conducted by Steven D Weisbord, Sharon S. Carnody

suggest that extremely ill dialysis patients have marked symptom of burden, considerably impaired health-related quality of life and frequently lack advance directives[8]. Many studies have examined the stressors of patients with ESRD. Stapleton categorized stressors faced by patients with ESRD as being related to physiological need, psychological need, role disturbance, and daily activity[9]. Mok and Tam studied 50 patients with ESRD in Hong Kong to determine the stressors encountered and the coping methods used; they found fluid limitation to be the most frequently identified stressor, followed by food limitation, itching, fatigue, and cost[10]. Moreover, Tsay and colleagues, using the Hemodialysis Stressor Scale (HSS) to assess 57 patients with ESRD in Taiwan, found the major stressors to be limitations on time and place related to employment, limitations on fluid intake, transportation difficulties, loss of bodily function, length of dialysis treatment, and limitation of physical activities[11]. Other studies concluded that physiological stressors were more troublesome than psychosocial stressors in patients receiving hemodialysis (HD)[12][13].

Patients receiving HD use various strategies to cope with the stressors related to their disease and the treatment procedures. The kind of coping strategies they use also depends on their personal experience, social support system, individual beliefs, and availability of resources[10][7]. Mok and Tam reported that the most common coping methods used by patients with ESRD include "accepting the situation because very little could be done," followed by "telling oneself not to worry because everything would work out fine" and "telling oneself that the problem was really not that important." [10] Some researchers categorized the coping strategies as problem-focused or emotion-focused [14][15]. Problem-focused coping is directed toward managing or changing a stressful situation, or it involves addressing the problem that causes distress [14], whereas emotion-focused coping involves explaining stress as inability to control one's own circumstances¹⁵ and its purpose is to ameliorate the negative emotions associated with the problem [13]. Some researchers have found that patients with ESRD have both psychological and physiological stressors and that they use problem-focused coping strategies more often than emotion-focused coping strategies in response to those stressors [16][17][18], others have found that patients receiving HD use more evasive coping strategies[19] and emotion-focused coping strategies[20].

In addition to identifying the coping mechanisms that patients with ESRD use when facing various stressors related to HD, research should also clarify the relationship between stress and coping strategies. Literature in this regard, particularly in patients receiving HD, is still limited and inconsistent. For example, Baldree et al. [21], in a survey of 32 patients receiving HD, did not find any significant relationship between stressors and coping scores,

whereas Gurklis and Menke¹⁶, in their survey of 68 patients on HD, reported a positive relationship between total stressor scores and total coping scores. More recently, Ersoy-Kart and Guldu[22], studying 55 patients receiving HD in Turkey, found that these patients had lower coping scores and were vulnerable to stress. Therefore, it is important to understand the extent of stress experienced by patients facing various stressors related to HD and the relationship between the patients' coping strategies and the stress factors.

2. Statement of the Problem

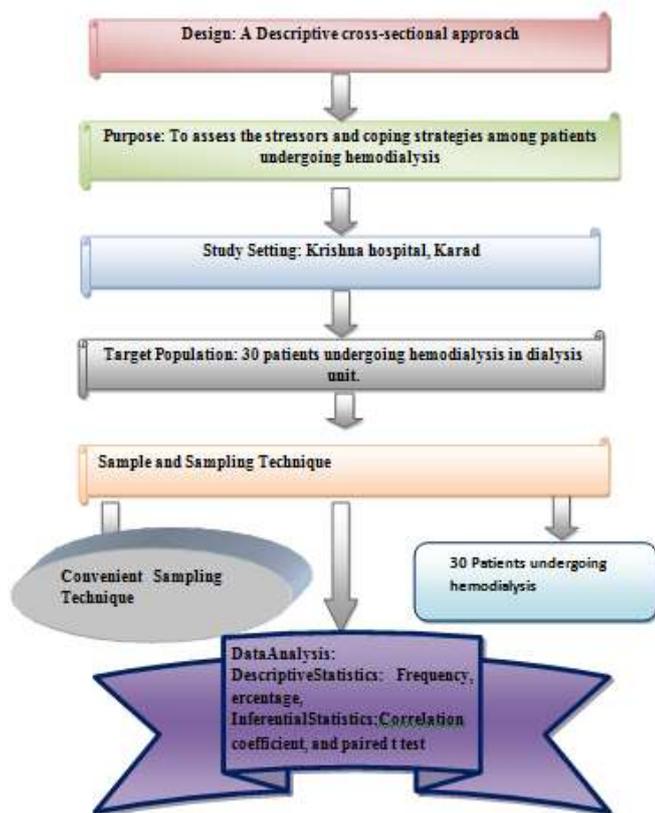
"A study to assess the stressors and coping strategies among patients undergoing haemodialysis admitted at Krishna hospital, Karad."

3. Objectives

- To assess the level of stress among patients undergoing hemodialysis.
- To assess the coping strategies used by patients undergoing hemodialysis
- To assess the relationship between these stressors and the coping strategies used by patients undergoing hemodialysis.

4. Methodology / Approach

The research method adopted for the present Descriptive cross sectional study approach and the investigator has selected the Descriptive cross sectional study design.



5. Results and Discussion

Table 1: Frequency and percentage distribution of demographic variables of patients undergoing haemodialysis

Sr. No	Description	Frequency	Percentage
11	AGE		
	25-45	9	30.0 %
	46-65	15	50.0 %
	66 and above	6	20.0 %
22	SEX		
	Male	17	56.7 %
	Female	13	43.3 %
33	MARITAL STATUS:		
	Single		
	Married	28	93.3
	Widow/Widower	2	6.7
	Divorced/separated		
44	EDUCATION STATUS:		
	No formal education	7	23.3 %
	Primary	10	33.3 %
	High School	6	20.0 %
	Undergraduate and above	7	23.3 %
55	OCCUPATION		
	Employed	10	33.3%
	House wife	12	40.0%
	Unemployed	1	3.3%

	Retired	7	23.3%
	FAMILY TYPES		
	Extended	6	20.0%
	Joint	24	80.0%
	CAUSES OF HAEMODIALYSIS		
66	Diabetes	4	13.3%
	Hypertension	6	20.0%
	Renal disease	19	63.3%
	Other		0 %
	Unknown	1	3.3%
	DURATION OF DIALYSIS: (MONTHS)		
77	1-11	14	46.7%
	12-24	11	36.7%
	25and above	5	16.7%
	NUMBEROF COMORBIDITES		
88	0		
	1	13	43.3%
	2	16	53.3%
	3	1	3.3%

The table 1 shows that, with regard to age, 50% patients belong to age group of 46-65, 30% belong to 25-45 age groups while in the age group of 66 and above there are 20% of patients undergoing haemodialysis. With regard to the sex majority of the patients was male 56.7%, while 43.3% are female. From the above table it indicates that 33.3% had primary education, while 23.3% had no formal education, also the same were undergraduate and above. In majority of the samples, 40% were house wives 33.3% were employed and 23.3% were retired. Pertaining to the type of family, majority were in joint family 80%, where as 20% had extended family. In context with the causes of haemodialysis majority of patients 63.3% had renal disease, 20% had hypertension as causes of disease while 13.3% had diabetes as causes of haemodialysis. From the above table it was seen that 46.7% had 1-11 months duration of dialysis while 36.7% patient's duration of dialysis was 12-24 months.

Table 2: Assessment of Level Of stress among the patients undergoing hemodialysis

Sr. No	Category	Frequency	Percentage
1.	Mild	0	0%
2.	Moderate	1	3.3%
3.	Severe	29	96.7%

From the above table no 2 it was shown that 97% patients had severe stress while 3% patients had moderate stress among patients undergoing haemodialysis.

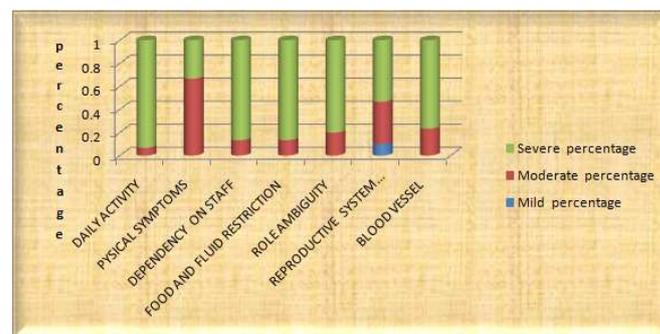


Figure 1: Type of stressors among hemodialysis patients

From the above figure it is shown 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, also 76.7% patients had stress related to the problems of blood vessel, moderate stress 66.7% was seen of physical symptoms, while 10% patients had mild stress of reproductive system functioning among the patients undergoing hemodialysis.

Table 4: Frequency and percentage distribution of patients undergoing hemodialysis with regard to stressors of daily activity

Sr. No	Daily Activity	Never		Some Times		Always	
		Frequency	%	Frequency	%	Frequency	%
1.	Uncertainty about future	2	6.7	8	26.7	20	66.7
2.	Changes in bodily appearance	1	3.3	17	56.7	12	40.0

3.	Limited styles of clothing	5	16.7	14	46.7	11	36.7
4.	Cost factors	-	-	-	-	30	100
5.	Transportation to/from unit	-	-	3	10	27	90
6.	Vacation limitations	1	3.3	5	16.7	24	80

The above table no 4, shows that majority of 100% patients had always stress of cost factor, 90 %had fear of transportation, along with 80%had always stress of vacation limitations, and 66.7% had stress of uncertainty about future. While 56.7% had sometimes stress of changes in bodily appearance and, 16.7% had never stress of limited styles of clothing.

Table 5: Frequency and percentage distribution of patients undergoing hemodialysis with regard to stressors of physical symptoms

Sr . No	Physical Symptoms	Never		Some Times		Always	
		Frequency	%	Frequency	%	Frequency	%
1.	Nausea /Vomiting	-	-	23	76.7	7	23.3
2.	Muscle Cramps	-	-	15	50	15	50
3.	Joint Stiffing	1	3.3	21	70	8	26.7
4.	Fatigue	-	-	6	20	24	80
5.	Loss Of Bodily Function	1	3.3	15	50	14	46.7

From the above tables, it was seen 80% had always stress of being fatigue, while 76.7% had sometimes stress of having nausea / vomiting, 70% also had sometimes stress of joint stiffing .the 50% of patients showed both always and sometimes stress of muscle cramps.

Table 6: Frequency and percentage distribution of patients undergoing hemodialysis with regard to stressors of dependency on staff

Sr . No	Dependency On Staff	Never		Some Times		Always	
		Frequency	%	Frequency	%	Frequency	%
1.	Frequent hospital admission	-	-	11	36.7	19	63.3
2.	Dependency on staff	-	-	6	20	24	80
3.	Depende	-	-	7	23.	23	76.

	ncy on doctors				3		7
4.	Fear of being alone	-	-	8	26.7	22	73.3
5.	Fear of staff turnover	-	-	14	46.7	16	53.3

The data in above table shows that 80% patients had always the stress of depending on staff, 76.7%had also always the stress of depending on doctor, while 46.7% had sometimes fear of staff turnover.

Table 7: Frequency and percentage distribution of patients undergoing hemodialysis with regard to stressors to food and fluid restriction

Sr . No	Food And Fluid Restriction	Never		Some Times		Always	
		Frequency	%	Frequency	%	Frequency	%
1.	Food limitation	-	-	9	30	21	70
2.	Fluid limitation	-	-	5	16.7	25	83.3
3.	Activity limitation	-	-	7	23.3	23	76.7

From the above table it was shown that 83.3% of patients always had stress of fluid limitation while 76.7% had stress of activity limitation, and sometimes 30% had stress of food limitation.

Table 8: Frequency and percentage distribution of patients undergoing hemodialysis with regard to stressors of role ambiguity

Sr . No	Role Ambiguity	Never		Some Times		Always	
		Frequency	%	Frequency	%	Frequency	%
1.	Changes in family responsibilities	-	-	9	30	21	70
2.	Role reversal with spouse	1	3.3	6	20	23	76.7
3.	Role reversal with children	1	3.3	7	23.3	22	73.3
4.	Job interference	1	3.3	8	26.7	21	70

From the above table it was shown that 76.7% patients had always stress about the role reversal with spouse and 73.3% had also always the stress about the role reversal with children.30% had sometimes stress of changes in family responsibility.

Table 9: Frequency and percentage distribution of patients undergoing hemodialysis with regard to stressors of reproductive system functioning

Sr. No	Reproductive System Functioning	Never		Some Times		Always	
		Frequency	%	Frequency	%	Frequency	%
1	Decrease sexual drive	5	16.7	11	36.7	14	46.7
2	Decrease ability to procreate	4	13.3	11	36.7	15	50

From the above table it was seen that 50% patients had always the stress of decrease ability to procreate, while 46.7% had always stressed of decrease sexual drive.

Table 10: Frequency and percentage distribution of patients undergoing hemodialysis with regard to stressors of blood vessel

Sr. No	Blood Vessel	Never		Some Times		Always	
		Frequency	%	Frequency	%	Frequency	%
1.	A-V fistula operation	-	-	29	96.7	1	3.3
2.	A-V fistula cannot be punched	-	-	23	76.7	7	23.3
3.	Insufficient blood	2	6.7	5	16.7	23	76.7

Table 12: Frequency and percentage distribution of patients undergoing hemodialysis with regard to coping strategies used as problem orientation

Sr. No	Problem Oriented	Never		Sometimes		Always	
		Frequency	%	Frequency	%	Frequency	%
1.	Tried to look at the problem objectively & see all the sides	4	13.3	24	80.0	2	6.7
2.	Tried to keep the situation under control	6	20.0	21	70.0	3	10.0
3.	Wanted to be alone to think things out.	1	3.3	15	50.0	14	46.7
4.	Tried to change the situation	5	16.7	20	66.7	5	16.7
5.	Tried to find out more about the problems	6	20.0	21	70.0	3	10.0
6.	Tried to handle things one step at a time	5	16.7	21	70.0	4	13.3
7.	Thought about how you had handled other problems in the past	4	13.3	23	76.7	3	10.0

flow of A-V fistula							
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From the above data it was shown that 96.7% patients had sometimes stress of A-V fistula operation and 76.7% had always the stress of insufficient blood flow of A-V fistula.

Analysis of the structured questionnaire on coping mechanism adopted by patient undergoing haemodialysis

Table 11: Assessment of coping strategy adopted by patient undergoing haemodialysis

Sr. No	Coping Strategies	Never		Some Time		Always	
		Frequency	%	Frequency	%	Frequency	%
1	PROBLEM ORIENTED	-	-	15	50.0%	15	50.0%
2	EMOTION FOCUSED	-	--	15	50.0%	15	50.0%
3	SEEKING SUPPORT			17	56.7%	13	43.3%
4	AVOIDANCE ORIENTED	3	10.0%	27	90.0%		
5	ISOLATED THOUGHTS			17	56.7%	13	43.3%

From the above shown table it is seen that 50% of patients undergoing hemodialysis always adopt emotion focused and problem orientation as their coping strategies, while 90% of patient sometimes used avoidance oriented coping strategy, while the others 56% sometime use the coping strategy of seeking support and isolated thoughts.

8.	Told yourself not to worry because everything would work out fine	2	6.7	22	73.3	6	20.0
9.	Tried to work out a compromise	3	10.0	21	70.0	6	20.0
10.	Set up a plan of action	5	16.7	21	70.0	4	13.3
11.	Learned something new to deal with the problem	4	13.3	20	66.7	6	20.0
12.	Told yourself that this problem was really not that important	3	10.0	22	73.3	5	16.7
13.	Tried different solutions	5	16.7	23	76.7	2	6.7
14.	Tried to get out the situation	3	10.0	23	76.7	4	13.3
15.	Tried to use relaxation techniques(meditation,yoga,other methods as reading, listening music)	3	10.0	24	80.0	3	10.0

The above table shows that 46.7% always wanted to be alone to think things out. 80% sometimes tried to look at the problem objectively and see all the sides, also tried to use

relaxation technique. While 20 % never tried to keep the situation under control, and tried to find out more about the problem.

Table 13: Frequency and percentage distribution of patients undergoing hemodialysis with regard to coping strategies used as emotion focused

Sr. No	Emotion Focussed	Never		Some Times		Always	
		Frequency	%	Frequency	%	Frequency	%
1.	Told yourself that the problem was someone else's fault	11	36.7	12	40.0	7	23.3
2.	Resigned yourself to the situation because things looked hopeless	13	43.3	16	53.3	1	3.3
3.	Worried about the problem	8	26.7	14	46.7	8	26.7
4.	Blamed yourself for getting into such a situation	9	30.0	14	46.7	7	23.3
5.	Depended on others to help you	3	10.0	8	26.7	19	63.3
6.	Told yourself that you were having some bad luck	1	3.3	12	40.0	17	56.7
7.	Cried	14	46.7	11	36.7	5	16.7
8.	Talked the problem over with family or friends	-	-	6	20.0	24	80.0

The data in the table shows that 80% patients had always coped by talking the problem over with family or friends as the coping strategies .and 56.7% always told themselves that they were having some bad luck. While 53.3% patients some time resigned themselves to the situation because things looked hopeless.46.7% worried about the problem

and blamed him for getting into such situation, While 46.7% never used coping as cried.

Table 14: Frequency and percentage distribution of patients undergoing hemodialysis with regard to coping strategies used as seeking support

Sr. No	Seeking Support	Never		Some Times		Always	
		Frequency	%	Frequency	%	Frequency	%
1.	Talked the problem over with a professional person (such as doctors, Nurse ,minister, teacher, or counselor)	-	-	3	10.0	27	90.0
2.	Prays or put your trust in God	1	3.3	13	43.3	16	53.3
3.	Took out your tensions on some else	10	33.3	14	46.7	6	20.0
4.	Smoked more than usual	29	96.7	1	3.3	-	-

The data in the table shows that 90% patients always used coping by talking the problem over with a professional person (such as doctors, nurse, minister, teacher, or counsellor. Whereas 46.7 %patients sometime used coping

of taking out tension on some else, also 96.7%never used smoking as coping strategy.

Table 15: Frequency and percentage distribution of patients undergoing hemodialysis with regard to coping strategies used as avoidance oriented

Sr. No	Avoidance Oriented	Never		Some Times		Always	
		Frequency	%	Frequency	%	Frequency	%
1.	Ate more than usual	29	96.7	1	3.3	-	-
2.	Got mad or let off steam	29	96.7	1	3.3	-	-
3.	Took a drink to make yourself feel better	29	96.7	1	3.3	-	-
4.	Tried to get away from the problem for a while	3	10.0	27	90.0	-	-

From the above table it was shown that 90% patients tried to get away from the problem for a while, whereas 96.7%

never used ate more than usual, got mad or let off steam, and tried a drink to make them feel better.

Table 16: Frequency and percentage distribution of patients undergoing hemodialysis with regard to coping strategies used as isolated thoughts

Sr. No	Isolated Thoughts	Never		Some Times		Always	
		Frequency	%	Frequency	%	Frequency	%
1.	Tried to put the problem out of your mind and think of something else	1	3.3	25	83.3	4	13.3
2.	Accepted the situation because very little could be done	1	3.3	16	53.3	13	43.3

The above table shows that 43.3% always accepted the situation because very little could be done. Whereas 83.3% sometimes tried to put the problem out of mind and think of something else as the coping strategy.

Table 17: Analysis of relationship between stressors and coping strategies adopted by the patients undergoing hemodialysis

N=30		Coping	Stress
Coping	Pearson Correlation	1.000	-.234
	Sig. (2-tailed)		.213

Number of points=30

Correlation coefficient (r) = -0.234

95% confidence interval= -0.5481 to 0.1381

Test-Is r significant than zero

The two tailed P value is 0.2135, considered not significant.

The above table reveals that Pearson correlation was used to find out the relationship between the coping strategies and stressors of the patient undergoing haemodialysis, on calculating it showed that the Correlation coefficient (r) = -0.234 which is negatively associated with each other(it showed negative correlation) where as on obtaining P value, it showed that the value was 0.2135, considered not significant.

6. Discussion

The study showed that 97% patients had severe stress while 3% patients had moderate stress among patients undergoing hemodialysis, while this was supported by the cross sectional study conducted on 50 patients with end stage renal disease which revealed that the overall mean stress score in the CHD patients was higher (78.3%) than in CPD patients (43.3%).

Further it was seen 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, also 76.7% patients had stress related to the problems of blood vessel, moderate stress 66.7% was seen

of physical symptoms, while 10% patients had mild stress of reproductive system functioning among the patients undergoing hemodialysis. Mok and Tam[10] studied 50 patients with ESRD in Hong Kong to determine the stressors encountered and the coping methods used; they found fluid limitation to be the most frequently identified stressor, followed by food limitation, itching, fatigue, and cost. Moreover, Tsay and colleagues, using the Hemodialysis Stressor Scale (HSS) to assess 57 patients with ESRD in Taiwan, found the major stressors to be limitations on time and place related to employment, limitations on fluid intake, transportation difficulties, loss of bodily function, length of dialysis treatment, and limitation of physical activities.[11]. Other studies concluded that physiological stressors were more troublesome than psychosocial stressors in patients receiving haemodialysis (HD)[12][13].

The study revealed that it is seen that always 50% of patients undergoing hemodialysis adopt emotion focused and problem orientation as their coping strategies, while 90% of patient sometimes used avoidance oriented coping strategy, while the others 56% sometime use the coping strategy of seeking support and isolated thoughts. This was supported by some researches done by which they found that patients with ESRD have both psychological and physiological stressors and that they use problem-focused coping strategies more often than emotion-focused coping strategies in response to those stressors[16][17][18]. others have found that patients receiving HD use more evasive coping strategies[19] and emotion-focused coping strategies[20]. Also one more study revealed that Patients used problem-oriented coping methods significantly more than affective-oriented methods[21].

There was also a study who found that patients preferred coping strategies that were emotion-oriented or involved avoidance or isolated thoughts. Patients receiving HD may be continuously appraising their symptoms, the disease progression with respect to their significance for well-being, and survival; therefore, different coping strategies will appear interchangeably. From the perspective of psychological health, although we expect patients would try

to use healthier coping strategies, for example, positive thinking or problem-solved coping strategies, when facing chronic diseases, it would be arbitrary to say that using coping strategies that are emotion-oriented or that involve avoidance or isolated thoughts would harm their psychological well-being.

Pearson correlation was used to find out the relationship between the coping strategies and stressors of the patient undergoing haemodialysis, on calculating it showed that the Correlation coefficient (r) = -0.234 which is negatively associated with each other (it showed negative correlation) where as on obtaining P value, it showed that the value was 0.2135, considered not significant.

This was supported by Baldree et al.[21], in a survey of 32 patients receiving HD, did not find any significant relationship between stressors and coping scores, whereas Gurklis and Menke[16], in their survey of 68 patients on HD, reported a positive relationship between total stressor scores and total coping scores. More recently, Ersoy-Kart and Guldu[22], studying 55 patients receiving HD in Turkey, found that these patients had lower coping scores and were vulnerable to stress. Therefore, it is important to understand the extent of stress experienced by patients facing various stressors related to HD and the relationship between the patients' coping strategies and the stress factors. In summary, most of the studies examining the relationship between stresses and coping strategies for patients receiving HD are limited in sample size and seem to have inconsistent results.

7. Conclusion

Stress in human life is often equated with tension, anxiety, worry and pressure. Chronic renal failure is threatened with many potential losses and changes in lifestyle. In the initial stages a patient may need only rest and dietary restrictions but as the disease progresses, the patient physically may not be able to cope up with his work and hence take medical leave for hospitalization to reduce his working hours or even may refrain from going to work that may affect the whole family, especially if the patient is the breadwinner. Patients undergoing chronic hemodialysis experience severe stress, Nurse should focus on the patient care to attain the optimal quality of life.

It is seen that as like the other condition like diabetes, cancer hemodialysis patients to undergo number of stressors, but it totally depends on the patients how to cope up, As stressors accumulate, the various coping dimensions that compose social problem-solving may have limited buffering power to prevent a perceptual threshold from being crossed where the persons thinks "I am stressed and I am not as happy with many important areas of my life, as I was before ,I had all these stressful events going on."This may be especially true when a person is coping with a major and chronic medical

condition ,such as End stage renal disease, where the disease state itself, and its associated stressors ,may inhibit quality of life relative to the premorid state.

8. Future Scope

8.1 Nursing Practice

Nurses are key persons of a health team, who play a major role in the health promotion and maintenance. It is a practicing profession, so that the researchers generally integrate findings into practice.

- Each member of the health care team has a responsibility to educate each other. Teaching session can be conducted for staff nurses, which will help in improvement of knowledge regarding stress and coping strategies.
- Nursing personnel should help the patients undergoing hemodialysis organize daily life skills to meet with the challenges of living in a stressful condition.
- Nurses should develop a positive attitude among the patients undergoing hemodialysis.
- Nurses should cultivate interest in applying various coping mechanisms and thus improve own health and patient care.
- Nurses should have the initiation to assert positive thoughts for the patients undergoing hemodialysis continuously and widely in relation to good health outcomes.
- Nurses should utilize their knowledge to assess the level of stress of the patients undergoing haemodialysis, and motivate them to practice the positive coping strategies.
- Nurse can conduct structured training program on knowledge regarding dialysis, care to be taken, and complication to be avoided, to manage stress for patients undergoing haemodialysis, in the dialysis unit that will help in improvement for both nurses and patients undergoing hemodialysis.

8.2 Nursing Education

The present study emphasis on enhancement regarding knowledge among nursing students, and staffs regarding the stressors and the coping strategies used by the patients undergoing hemodialysis.

- In order to achieve this nurse as an educator should focus on assessment of level of knowledge regarding the stressors and coping strategies used by the patients undergoing hemodialysis. Strengthening the subject in nursing curriculum.
- Nursing schools, college, and teachers should come forward and encourage the students to improve their knowledge.

8.3 Nursing Administration

- Nursing leaders should enhance coping strategies among the hemodialysis patients by reinforcement of training through the readymade video package.
- The special implication of nursing administration that they should pay attention to all patients undergoing hemodialysis.
- Being a nursing administrator, one can arrange in-service education and special training programs, counseling and training regarding various aspects of assessing level of knowledge regarding the care of hemodialysis patients in various aspects.
- The nurse administrator should take responsibility of equipping the specialized area with current recent journals and publications. The guidelines, protocols and checklist for assessment of level of knowledge regarding the care of hemodialysis patients in various aspects and must be incorporated.
- Nursing personnel can offer opportunity to create awareness among nursing students, staffs regarding stressors faced by the patients undergoing hemodialysis.

8.4 Nursing Research

- The study will serve as a valuable reference material for the future investigators.
- The assessment done by the researcher will provide the baseline data for various others nursing personnel for caring out various therapies for the patients undergoing hemodialysis.
- Large scale studies can be conducted in large samples to describe the assertiveness among nursing students.
- The Study can be replicated in other parts of the country and on large sample.
- An experimental study can be carried out to find out the effectiveness of a relaxation program in reducing the stress levels and enhancing coping strategies among the patients undergoing hemodialysis.
- There is a need to carry out more researches to detect the strategies that can be effectively administered to reduce the stress among the patients undergoing hemodialysis.

9. Suggestions

1. A health education team has to be organized in order to provide education for the patients undergoing hemodialysis regarding stress and coping strategies.
2. Development of journals, manuals and hand books on stress and coping strategies and audiovisual aids will help health workers to take care of the patients in a best way.
3. In-service education can be conducted for staff nurses regarding stress and how to cope with the stress in daily life among the patients undergoing hemodialysis.
4. Recreation facilities may be provided in hospitals and in the dialysis room

5. Providing adequate knowledge to the staff and their attitude towards the patients will reduce stress.
6. Encourage better interpersonal relationship and social relationship at work.
7. Support networks may be provided for the patients undergoing hemodialysis.

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