



“A STUDY TO ASSESS THE EFFECTIVENESS OF COMPREHENSIVE NURSING STRATEGIES ON LEVEL OF THIRST DISTRESS AMONG CHRONIC KIDNEY DISEASE CLIENTS DURING HEMODIALYSIS, AT SELECTED HOSPITAL, PUDUCHERRY”.

Ms. N. Sweetha¹, Mrs. G. Sathyavathy², DR. G. Muthamilselvi³

¹ Pg Student, Department of Medical Surgical Nursing, SMVNC, Puducherry – 605 107

² Associate Professor, Department of Medical Surgical Nursing, SMVNC, Puducherry – 605 107

³ Professor, Department of Medical Surgical Nursing, SMVNC, Puducherry – 605 107

⁴ Principal, Department of Obstetrical and Gynecological Nursing, Sri Manakula Vinayagar Nursing College, Puducherry – 605 107

Corresponding Author: Mrs. G.Sathyavathy

ABSTRACT

Thirst is a common symptom experienced by hemodialysis patients due to the fluid restrictions they must follow to maintain fluid balance. Several studies have investigated the level of thirst distress in hemodialysis patients. One study found that 68% of hemodialysis patients reported moderate to severe thirst, with 23% reporting severe thirst. The main objective of the study was to assess the effectiveness of comprehensive nursing strategies among chronic kidney disease clients undergoing hemodialysis. Quasi-experimental one group pre-test post-test design was adopted for the study. Among 50 hemodialysis clients were selected using non-probability purposive sampling technique. The patient was assessed with demographic variables and modified thirst distress scale and comprehensive nursing care such as sucking ice cubes, gargling and splitting mouthwash solution, and health education and psychological support to the client. The post assessment was carried out with Modified Thirst Distress Scale to evaluate the effectiveness of comprehensive nursing intervention. The study findings revealed that the pre-test level of thirst, 32 (64%) of them had a high level of thirst, 11 (22%) of them had a moderate level of thirst and 7 (14%) of them had a very high level of thirst. In the post-test level of thirst, 30 (60%) of them had a mild level of

thirst and 20 (40%) of them had a moderate level of thirst. The calculated 't' value was 31.486, and the p-value is 0.001. Hence, it is highly significant. Therefore, the study findings concluded that comprehensive nursing strategies was found to be very effective in reducing the level of thirst distress among clients undergoing hemodialysis.

Key words: Thirst distress, Comprehensive Nursing Strategies, Hemodialysis.

INTRODUCTION:

Chronic kidney disease (CKD) is a medical condition characterized by the gradual loss of kidney function over time, leading to the accumulation of waste and excess fluid in the body. Thirst is a common symptom experienced by hemodialysis patients due to the fluid restrictions they must follow to maintain fluid balance. The level of thirst distress can vary among individuals and can be affected by factors such as the length and frequency of hemodialysis sessions, the patient's age, and the underlying cause of their kidney disease. This study revealed that the effective of comprehensive nursing strategies in reducing the level of thirst distress among chronic kidney disease clients during hemodialysis.

Thangjam Sarjubala Devi et al. (2021) have studied the effectiveness of selected nursing strategies on the level of thirst distress among patients undergoing hemodialysis at a selected hospital in Bangalore. The objective of the study is to compare the level of thirst distress among hemodialysis patients in the experimental and control groups to determine the effectiveness of selected nursing strategies on thirst distress and selected demographic variables. This study was under randomized controlled design, and the study subjects included 60 samples. This study reveals that the mean distress score decreased from 23.22 ± 2.59 on the test to 15.77 ± 2.28 on hemodialysis's 2nd and 4th cycle. The study was a statistically significant difference $p = 0.000$ in the thirst distress scores of subjects in the experimental group. The application of moist oral swabs and mouth wash effectively reduced the level of thirst distress among patients under hemodialysis.

STATEMENT OF THE PROBLEM:

“A Study to Assess the Effectiveness of Comprehensive Nursing Strategies on Level of Thirst Distress Among Chronic Kidney Disease Clients During Hemodialysis, At Selected Hospital, Puducherry.”

OBJECTIVES:

1. To assess the level of thirst distress among chronic kidney disease clients during hemodialysis.
2. To evaluate the effectiveness of comprehensive nursing strategies on the level of thirst distress among chronic kidney disease clients during hemodialysis.
3. To associate the pre- interventional level of thirst distress among clients with chronic kidney disease during hemodialysis with their selected demographic variables and clinical variables.

HYPOTHESIS:

- H₁: There is a significant difference between pre and post interventional level of thirst distress among chronic kidney disease clients during hemodialysis.
- H₂: There is a significant association between the level of thirst distress among clients with chronic kidney disease during hemodialysis with their selected demographic variables.

MATERIALS AND METHOD:

The design adopted was quasi-experimental one group pre-test and post-test design. The setting of the study was Dialysis unit at Sri Manakula Vinayagar Medical College and Hospital. The period of data collection was six weeks. Totally 50 clients undergoing hemodialysis were selected by using purposive sampling technique. Pre-test level of thirst distress were assessed by using Modified Thirst Distress Scale and comprehensive nursing care such as sucking ice cubes, gargling and splitting mouthwash solution, and health education and psychological support to the client. and the post assessment was carried out with Modified Thirst Distress Scale to evaluate the effectiveness of comprehensive nursing intervention. The gathered data were analyzed using descriptive and inferential statistics and interpretations were made based on the objectives and hypothesis of the study.

Tool consists of Three Parts:

Part I- Demographic data and assessing the level of thirst distress among chronic kidney disease clients during hemodialysis using modified thirst distress scale.

Part II- Providing Comprehensive Nursing Strategies (providing nursing intervention)

Part III- Assessing the effectiveness of comprehensive nursing strategies on the level of thirst distress among chronic kidney disease clients using Modified Thirst Distress Scale.

Setting of the study

The present study was conducted at Sri Manakula Vinayagar Medical College and Hospital. It is an ultra-modern, multi-specialty tertiary care hospital with medical research facilities. This hospital is 100 meters away from SMVNC. The hospital is a 1050-bed multi-specialty hospital. As a tertiary care hospital, the services are complemented by a day care center, out-patient facilities, and an exclusive center for health checkups. In-patient department of the intensive care unit, critical care unit, respiratory intensive care unit, pediatric intensive care unit, neonatal intensive care unit, and surgical intensive care unit.

Inclusion criteria

- Chronic kidney disease patients, including both male and female.
- Chronic kidney disease patients who are all available at the time of data collection
- Chronic kidney disease patients who are available in hemodialysis units and critical care units.
- Chronic kidney disease patients who are willing to participate in the study

Exclusion Criteria

- Chronic kidney disease patients who are all not available at the time of data collection
- Chronic kidney disease patients who have less hemoglobin level <8.0g/dl.
- Chronic kidney disease patients with severe co-morbidities and undergone major surgery.
- Chronic kidney disease patients who are not available in hemodialysis units and critical care units.
- Chronic kidney disease patients who are unwilling to participate in the study.

RESULTS:

Frequency and Percentage-Wise Distribution of Demographic variable of chronic kidney disease clients during hemodialysis. (N = 50)

S. No.	Demographic variables	Frequency	Percentage
1	Age in years		
	a) 21 - 30 years	0	0%
	b) 31 - 40 years	0	0%
	c) 41 - 50 years	39	78%
	d) ≥ 60 years	11	22%
2.	Gender		
	a) Female	8	16%
	b) Male	42	84%
	c) Transgender	0	0%
3.	Religion		
	a) Hindu	50	100%
	b) Muslim	0	0%
	c) Christian	0	0%

	d) Others	0	0%
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Table 4.1: In the above table, it shows that the age groups, the majority 39 (78%) were in the age group of 41-50 years, 11(22%) were above the age group of 60 years. In the aspect of religion, the data shows 50 (100%) are Hindu.

N = 50

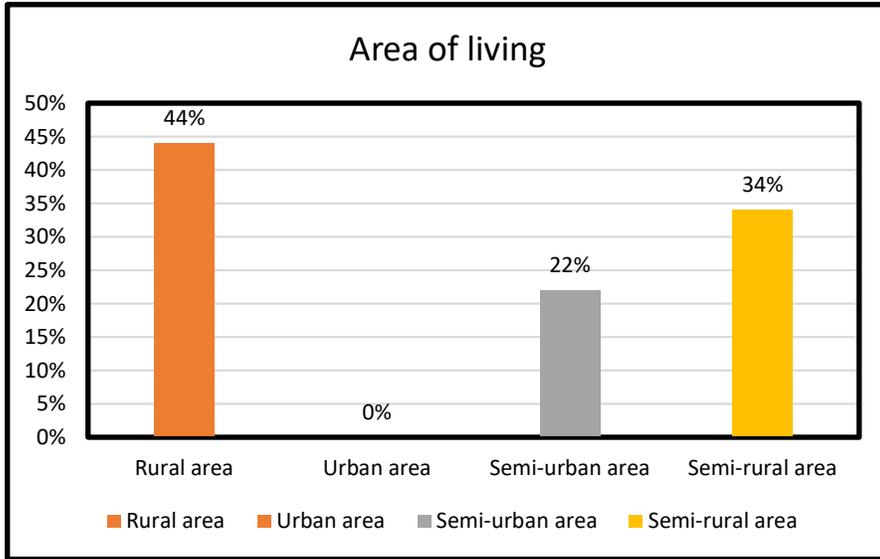
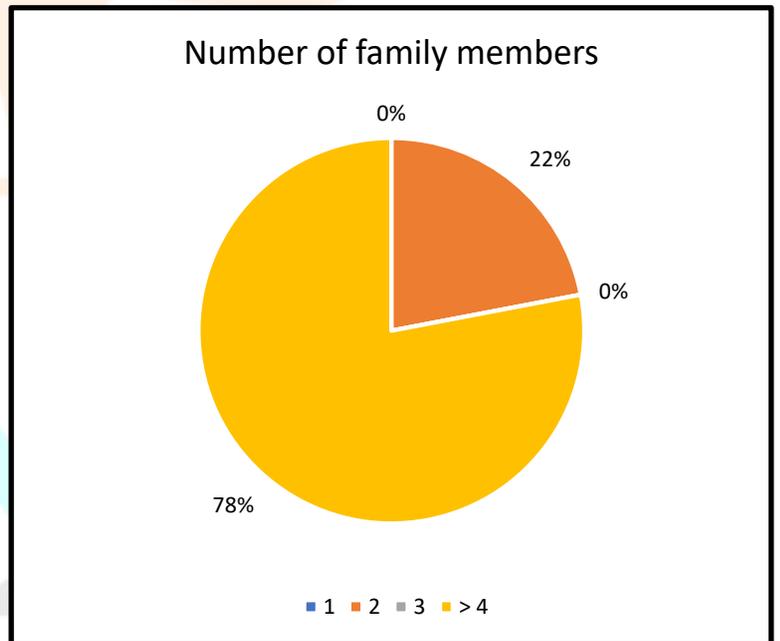


Figure: Bar diagram shows that the area of living among chronic kidney disease clients during hemodialysis, the data shows that the majority 22 (44%) were living in rural areas, 11 (22%) were living in semi-urban area, and 17 (34%) were living in semi-rural areas.

N = 50

Figure: Pie diagram shows family members wise distribution of demographic variables among chronic kidney disease clients during hemodialysis.

In the aspect of the number of family members, results show that 11 (22%) belong to 2 family members, and 39 (78%) belong to more than 4 family members.

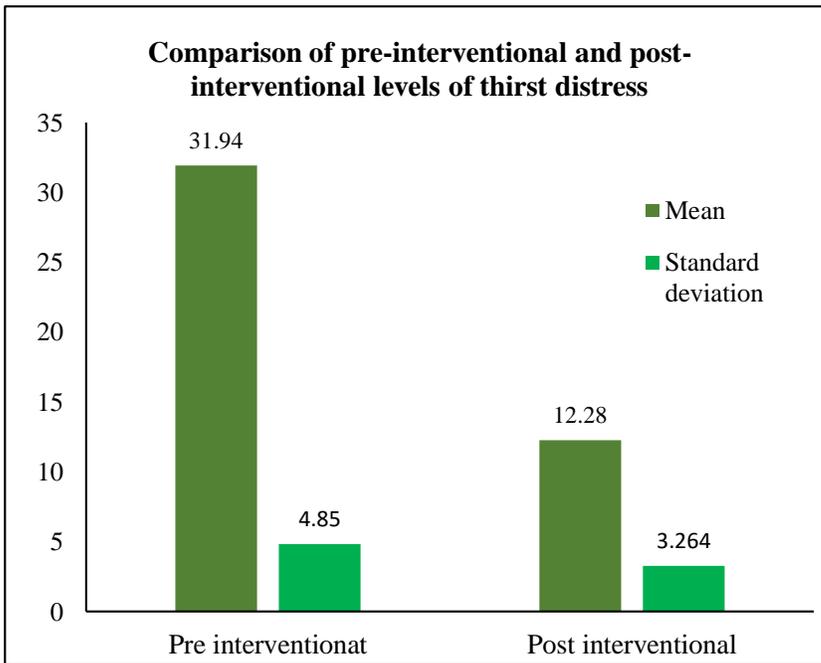


Frequency and Percentage-Wise Distribution of Clinical variable of chronic kidney disease clients during**hemodialysis.****(N = 50)**

S. No	Clinical variables	Frequency	Percentage
1.	Duration of Hemodialysis		
	a) 2-4 Hrs	13	26%
	b) 4-6 Hrs	37	74%
	c) More than 6 Hrs	0	0%
2.	Family History Of Chronic Illness		
	a) Hypertension	13	26%
	b) Diabetes Mellitus	37	74%
	c) Auto-immune disorder	0	0%
	d) Others	0	0%

Table: The above table shows the frequency and percentage-wise distribution of clinical variables among chronic kidney disease clients at hemodialysis.

The result shows that out of 50 clients, the majority 37 (74%) were in the duration of hemodialysis up to 4-6 hours, 13(26%) were in in the duration of hemodialysis up to 2-4 hours. With regards to family history of chronic illness, 37 (74%) had hypertension, 13(26%) had diabetes mellitus.



N = 50

Figure: shows the comparison of pre-interventional and post-interventional levels of thirst distress among chronic kidney disease clients at haemodialysis.

In pre- interventional level, the mean value is 31.94, and the standard deviation value is 4.85, in post-interventional, the mean value is 12.28, and the standard deviation is 3.264.

Association between the pre-interventional level of thirst distress among clients with chronic kidney disease during hemodialysis with their selected clinical variables

N = 50

S. No	Demographic variables	Level of practice								X ² value
		Mild		Moderate		High		Very High		
1	Duration Of He-modialysis:	N	%	N	%	N	%	N	%	X ² = 1.310 p = 0.025* (S)
	a) 2-4 Hrs,	0	0%	4	8%	8	16%	1	2%	
	b) 4-6 Hrs	0	0%	7	14%	24	48%	6	12%	
	c) More Than 6hrs	0	0%	0	0%	0	0%	0	0%	
2.	Family History Of Chronic Ill-ness									X ² = 2.315 p = 0.05* (S)
	a) Hypertension	0	0%	3	6%	10	16%	2	4%	
	b) Diabetes Mellitus	0	0%	6	12%	22	44%	5	10%	
	c) Auto-immune disorder	0	0%	0	0%	0	0%	0	0%	
	d) Others	0	0%	0	0%	0	0%	0	0%	
3.	Past History Of Chronic Illness									X ² = 0.442 p = 0.332
	a) Diabetes Mellitus	0	0%	7	14%	19	38%	3	6%	

	b) Hypertension	0	0%	4	8%	13	26%	4	8%	(NS)	
	c) Cardiovascular Disease	0	0%	0	0%	0	0%	0	0%		
	d) Lupus Nephritis	0	0%	0	0%	0	0%	0	0%		
	e) Others	0	0%	0	0%	0	0%	0	0%		
4.	Body Weight Changes										$X^2 = 1.610$ $p = 0.758$ (NS)
	a) 1-3 Kgs	0	0%	4	8%	8	16%	3	6%		
	b) 4-6kgs	0	0%	7	14%	24	48%	4	8%		
	c) 7-9kgs	0	0%	0	0%	0	0%	0	0%		
	d) >10 Kgs	0	0%	0	0%	0	0%	0	0%		
5.	Number of hemodialysis cycle per week										$X^2 = 5.031$ $p = 0.684$ (NS)
	a) 1-3th Cycles	0	0%	4	8%	8	16%	1	2%		
	b) 4-6 th Cycles	0	0%	5	10%	24	48%	8	16%		
	c) 7-9 th Cycles	0	0%	0	0%	0	0%	0	0%		
	d) >10 th Cycles	0	0%	0	0%	0	0%	0	0%		

Table: The above table shows that there was significance association of duration of haemodialysis, family history of chronic illness among clients with chronic kidney disease during hemodialysis with the pre-interventional level of thirst distress.

MAJOR FINDINGS OF THE STUDY:

The study findings revealed that the **pre-test level of thirst**, 32 (64%) of them had a high level of thirst, 11 (22%) of them had a moderate level of thirst and 7 (14%) of them had a very high level of thirst. In the **post-test level of thirst**, 30 (60%) of them had a mild level of thirst and 20 (40%) of them had a moderate level of thirst.

The pretest mean score for the level of thirst distress was 31.94, SD 4.850 and the post-test mean score for the level of thirst distress was 12.28, SD 3.264. The calculated 't' value was 31.486, and the p-value is 0.001. Hence, it is highly significant.

The finding revealed that there was no significance association between the level of thirst distress among chronic kidney disease clients during hemodialysis with selected demographic variables.

The finding revealed that there was significance association between the level of thirst distress among chronic kidney disease clients during hemodialysis with selected clinical variables.

Hence, Hypothesis **H₂** which was stated earlier “There is a significant association between the level of thirst distress among clients with chronic kidney disease during hemodialysis with their selected demographic variables” was rejected.

CONCLUSION:

This study implies that among the clients undergoing hemodialysis had increased level of thirst distress before administering comprehensive nursing strategies. After providing comprehensive nursing strategies for 2 times within 4 hours of hemodialysis, the level of thirst distress was found to be reduced significantly. Hence, comprehensive nursing strategies were proved to be an effective intervention in reducing the level of thirst distress among chronic kidney disease clients during hemodialysis.

NURSING IMPLICATIONS

The findings of the study have implications for various areas of nursing practice, nursing education, nursing administration and nursing research.

NURSING PRACTICE

- The study results may help the nursing personnel to understand the importance of comprehensive nursing strategies on the level of thirst distress among chronic kidney disease clients during hemodialysis.
- Nurses can motivate the clients to follow the self-care management of specific nursing interventions and prevent complications.

NURSING EDUCATION

Nurse educators should teach the students and include in the syllabus about

- Importance of global burden of hemodialysis clients.
- Develop different tools to assess the level of thirst distress among hemodialysis clients.
- Scoring tools to assess the specific nursing intervention among hemodialysis clients.
- Impart health education measures and components of health education.
- Lifestyle modification needed to prevent or control disease progression, disability status and improve quality of life

NURSING ADMINISTRATION

- Organize Education programme for nursing personnel to update their knowledge regarding hemodialysis and comprehensive nursing strategies.
- Encourage research activities of nurses in these areas.

NURSING RESEARCH

- The study may be valuable reference material for future researchers.

- The findings of the study may help the professional nurses and nursing students to gain knowledge on regarding comprehensive nursing strategies on the level of thirst distress among chronic kidney disease clients during hemodialysis

RECOMMENDATIONS

- Similar studies with a large sample can be conducted in other parts of the country.
- Study can be conducted on the physiological and psychological problems of clients during hemodialysis.

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