International Journal for Multidisciplinary Research (IJFMR)
E-ISSN: 2582-2160 ● Website: www.ijfmr.com ● Email: editor@ijfmr.com

A Study To Evaluate The Effectiveness Of Water Mouth Spray On Level Of Thirst Distress Among Patients Undergoing Hemodialysis At Shri Vinoba Bhave Civil Hospital Silvassa

Anuja Nair[1], Sapthiga Barnabas[2]

[1]M.Sc. Nursing, Department of Medical and Surgical Nursing, Shri Vinoba Bhave College of Nursing, Silvassa
[2]Assistant Professor, Department of Medical and Surgical Nursing, Shri Vinoba Bhave College of Nursing, Silvassa

Abstract

Background: Hemodialysis is a standard treatment of end stage renal disease or failure that has been practiced now for nearly quarter of a century. Thirst is a common problem for people on dialysis, and if the patient feels thirsty, it probably means he/she is trying to stay within the fluid limits. Dialysis patients often report their desire to drink more fluids, patients feel more distress and discomfort due to thirst intensity and restriction in fluid intake.
Aims: The aim of the study is to reduce the thirst distress among the hemodialysis patient using the mouth water spray.
Methodology: A quasi experimental research design through non probability convenient sampling 61 samples were selected from the dialysis department of Shri Vinoba Bhave Civil Hospital, silvassa. The final study was conducted from 16/08/22-16/09/22. Pre-test was taken using demographic performa and thirst distress scale, water mouth spray was given to the patients and on the next visit to the dialysis the post test was taken for the experimental group and the control group was not given any intervention. The data was analysed and interpreted based on descriptive and inferential statistics.
Result: The result of the study shows that the post-test the mean in exp grp were (27.63) and control group were (21.2) and the P value is < 0.001 which is highly significant. Thus, the result evidences that the water mouth spray was effective in reducing the thirst distress among hemodialysis patients.
Conclusion: Hence it can be concluded that the water mouth spray was effective in reducing the thirst distress among hemodialysis patients.
.

Keywords: Effectiveness, thirst distress, water mouth spray, hemodialysis patients.

1. INTRODUCTION

Chronic kidney disease (CKD) is a progressive loss of kidney function over a period of months or years through five stages. It is one of the most common severe public health problems worldwide. In India, Screening and Early Evaluation of Kidney Disease (SEEK), a community based voluntary health

screening program which was started in 2006, showed the overall prevalence of CKD in the SEEK India cohort to be 17.2%, with nearly 6% of patients having CKD stage 3–5. In 2020, as per Global Burden of Disease study, 405,000 people were estimated to have died and is one of the largest rises among the top causes of death. Based on different epidemiological data, chronic kidney disease effects on average 10% of the population around the world. This could be due to an increased proportion of aging population and increased prevalence of civilization diseases such as diabetes, hypertension or obesity[1]

End stage renal disease (ESRD), for most patients, is the result of kidney function deterioration over a period of time that is secondary to another chronic medical condition such as diabetes or hypertension. Treatments that are currently available for ESRD include renal transplantation and a number of forms of renal dialysis. Hemodialysis is a standard treatment of end stage renal disease or failure that has been practiced now for nearly quarter of a century. Thirst is a common problem for people on dialysis, and if the patient feels thirsty, it probably means he/she is trying to stay within the fluid limits. Thirst can occur in two different ways, namely, primary or secondary. Although primary thirst is a physiological need and has a regulatory effect on body fluid homeostasis, the effect of secondary thirst is not a homeostatic regulation. Primary thirst is classified into two categories according to origin: intracellular, which results from an increase in plasma osmotic pressure, and extracellular, which results from a decrease in plasma volume and blood pressure. Generally, these mechanisms take action together to develop thirst and stimulate both the thirst centers in the hypothalamus and the pituitary's release of antidiuretic hormone (vasopressin). Extracellular thirst also stimulates the renin–angiotensin–aldosterone system, causing reabsorption of water and sodium. Dialysis patients often report their desire to drink more fluids, patients feel more distress and discomfort due to thirst intensity and restriction in fluid intake.[3]

OBJECTIVES

- To assess the thirst distress among hemodialysis patient.
- To assess the effectiveness of selected intervention on thirst distress among hemodialysis patients.
- To find the association between thirst distress with their selected demographic variables among hemodialysis patient

2.METHODOLOGY

The research approach adopted for this study was quantitative (quasi experimental research) approach.
The Research design used in the study was quasi experimental research design [Non randomized control group pre-test post-test design]. Sample size was 60 children with lower respiratory tract infection and the sampling technique used was non – probability purposive sampling technique.
Tool used for data collection was standardized tool consisting of 8 statements to which the sample will rate on 1-5 the maximum score will be 40 and minimum score 8. The data interpretation was done by Descriptive statistics and Inferential statistics.

3.RESULTS

SECTION A: Description of demographic variables of the patients undergoing hemodialysis at Shri Vinoba Bhava Civil Hospital Silvassa

Table-1 Frequency and percentage wise distribution of the demographic data of patients undergoing hemodialysis at Shri Vinoba Bhava Civil Hospital Silvassa

(n=60)

SR No	Demographic variables	Experimental group (n=30)		Control group (n=30)		Total	
		F	%	F	%	F	%
1	**Weight:**						
	2kg	1	3.3	0	0	1	1.7
	3kg	13	43.3	16	53.3	29	48.3
	4kg	16	53.3	14	46.7	30	50
2	**Age (in years):**						
	21 – 30	0	0	0	0	0	0
	31 – 40	6	20	6	20	12	20
	41 – 50	24	80	24	80	48	80
	51 – 60	0	0	0	0	0	0
3	**Gender:**						
	Male	19	63.3	19	63.3	38	63.3
	Female	11	36.7	11	36.7	22	36.7
4	**Education:**						
	Illiterate	0	0	0	0	0	0
	Primary school	0	0	0	0	0	0
	Higher secondary school	32	70	24	80	45	75
	Degree	9	30	6	20	15	25
5	**Dialysis:**						
	≤5 years	11	36.7	11	36.7	22	36.7
	6-10 years	18	60	17	56.7	35	58.3
	>10 years	1	3.3	2	6.6	3	5
6	**Quenches' thirst by:**						
	Drinking water	23	76.7	23	76.7	46	76.7
	Water gargles	7	23.3	7	23.3	14	23.3
7	**Feel thirstier**:						
	Dialysis	3	10	4	13.3	7	11.7
	Summer season	27	90	26	86.7	53	88.3

SECTION B (A): Comparison of mean and SD of pre-test and post-test thirst distress scores of the experimental group

Table-2 Mean, SD and mean% between Experimental pre and post-test to assess to evaluate the effectiveness of selected intervention on level of thirst distress among patients undergoing hemodialysis at Shri Vinoba Bhava Civil Hospital Silvassa

n=60

Level of thirst distress		Experimental group – pre-test			Experimental group – post test			Difference in mean %
	Max. score	Mean	SD	Mean%	Mean	SD	Mean%	
Overall	40	28.1	1.03	70	21.2	0.80	53	17

(B)Comparison of post-test thirst distress scores of the experimental and control group

Table-4:4 Unpaired "t"-test was found between control post-and experimental post-test to evaluate the effectiveness of selected intervention on level of thirst distress among patients undergoing hemodialysis at Shri Vinoba Bhava Civil Hospital Silvassa

n=60

level of thirst distress	Control post test		Experimental post test		Mean difference	't'-value	P-value
	Mean	SD	Mean	SD			
Overall	27.63	0.93	21.2	0.81	6.43	28.68	P<0.001*** (HS)

*-P<0.05, significant and **-P<0.01 &***-P<0.001, Highly significant

SECTION III:

4.4 ASSOCIATION BETWEEN PRE-TEST THIRST DISTRESS SCORE OF THE HEMODIALYSIS PATIENTS AND DEMOGRAPHIC VARIABLES

Table 4:4 Association for level of thirst distress in pre-test and selected demographic data.

n=60

SR N.	Demographic variables	<=median		>median		χ2-value	p-value
		F	%	f	%		
1	**Weight gain:** 2 3 4	 1 20 23	 1.7 33.3 38.3	 0 9 7	 0 15 11.7	0.817 (df=2)	0.665 NS
2	**Age (in years):** 21 – 30 31 – 40 41 – 50 51 – 60	 0 10 34 0	 0 16.7 56.7 0	 0 2 14 0	 0 3.3 23.3 0	0.817 (df=2)	0.665 NS

3.	**Gender :**						
	Male	32	53.3	6	10	6.27	0.012*
	Female	12	20	10	16.7	(df=1)	S
4.	**Education :**						
	Illiterate	0	0	0	0	1.81	0.178
	Primary school	0	0	0	0	(df=1)	NS
	Higher secondary school	35	58.3	10	16.7		
	Degree	9	15	6	10		
5.	**Dialysis:**						
	<=5	14	23.3	8	13.3	1.92	0.388
	6-10	28	46.7	7	11.7	(df=2)	NS
	>10	2	3.3	1	1.7		
6.	**Quench your thirst:**						
	Drinking water	30	50	16	26.7	6.64	0.010*
	Water gargle	14	23.3	0	0	(df=1)	S
7.	**Feel more thirsty:**						
	Dialysis	4	6.7	3	5	1.06	0.303
	Summer season	40	66.7	13	21.7	(df=1)	NS

*p<0.05 significant, ** p<0.01 & ***p<0.001 Highly significant

4.DISCUSSION

Among the hemodialysis patient calculated experimental group pre-test mean 28.1 ± 1.03 and post-test mean 21.2 ± 0.80 with the mean difference of 17. Hence H_1 accepted as there is a significant difference between the pre-test and post-test thirst distress scores of the experimental group.

5. CONCLUSION

Application of water mouth spray was effective in reducing the level of thirst distress among patients undergoing hemodialysis and these interventions can be incorporated in the routine care of patients undergoing hemodialysis.

REFERENCE

1. Modi GK, Jha V. The incidence of end-stage renal disease in India: a population-based study. Kidney international. 2006 Dec 1;70(12):2131-3.
2. Kher V. End-stage renal disease in developing countries. Kidney international. 2002 Jul 1;62(1):350-62
3. Kara B. Determinants of thirst distress in patients on hemodialysis. International Urology and Nephrology. 2016 May 23;48(9):1525–32. s+
4. Porcu M, Fanton E, Zampieron a. thirst distress and interdialytic weight gain: a study on a sample of haemodialysis patients. Journal of Renal Care. 2007 Oct 12;33(4):179–81.

5. Porcu M, Fanton E, Zampieron A. Thirst distress and interdialytic weight gain: a study on a sample of haemodialysis patients. Journal of Renal Care. 2007 Oct 12;33(4):179–81.
6. Hyman A, Mendelssohn DC. Current Canadian Approaches to Dialysis for Acute Renal Failure in the ICU. American Journal of Nephrology. 2002;22(1):29–34.
7. Molaison EF, Yadrick MK. Stages of change and fluid intake in dialysis patients. Patient education and counseling. 2003 Jan 31;49(1):5-12.
8. Ford C, McCormick D, Parkosewich J, Derycke-Chapman K, Marshall J, Mancarella J, et al. Safety and Effectiveness of Early Oral Hydration in Patients After Cardiothoracic Surgery. American Journal of Critical Care. 2020 Jul 1;29(4):292–300.
9. Gulia S,Kumar V,Khatri N, effectiveness of an intervention bundle on thirst intensity and dry mouth among among patient admitted in ICU. Int J Health Sci Res,2019;9(5):397-408
10. Sacrias G, Rathinasamy E. Effect of nursing interventions on thirst and interdialytic weight gain of patients with chronic kidney disease subjected to hemodialysis Introduction. Brunei Darussalam Journal of Health [Internet]. 2015 [cited 2022 Dec 29];6(1):13–9. Available from: https://ihs.ubd.edu.bn/wp-content/uploads/2017/04/2015-v61-p13.pdf