

# The Effectiveness of Structured Teaching Programme On Knowledge Regarding Complications of Hemodialysis Among Kidney Failure Patients at Selected Hospital in Chennai

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**Abstract:** Different internal organ biological process challenge the functions of form and puts human life danger. Two such necessary pathogens unit of measurement acute and chronic nephrosis. Acute internal organ injury is common among hospitalized patients. The aim of the study is to evaluate the effectiveness of structured teaching programme on knowledge on complications of kidney failure. The data were analyzed by using descriptive statistics (mean, standard deviation, frequency and percentage) and inferential statistics (chi-square, 't' test). There was an association of pretest level of knowledge in demographic variables showed at ( $P < 0.05$ ). The findings of the study concluded that Structured Teaching Programme was very effective in improving the knowledge of patient with kidney failure on complication on hemodialysis. This also concluded that periodical positive reinforcement is always needed among patient with kidney failure to manage the complications of hemodialysis.

**Keywords:** Complications, Hemodialysis, Kidney failure.

## 1. Introduction

Different internal organ biological process challenge the functions of form and puts human life danger. 2 such necessary pathogens unit of measurement acute and chronic nephrosis. Acute internal organ injury is common among hospitalized patients.

It affects some 3-7% of patients admitted to the hospital and shut to 25-30% of patients among the medical aid unit. depending on the cause, a proportion of patients will ne'er regain full viscus perform, thus having end-stage nephrosis requiring lifelong analysis or an internal organ transplant.

Before the advancement of recent medication, acute internal organ injury could also be explicit as uremic poisoning. starting around 1847, this term was used to describe reduced excretion output, presently noted as oliguria.

Acute internal organ injury because of acute hollow gangrene was recognized among the 40's among the United Kingdom, where crush injury victims throughout the London Blitz developed uneven gangrene of viscus tubules, resulting in a fulminate decrease in viscus perform. Once the cause is found,

the goal of treatment is to revive internal organ perform and stop fluid and waste from buildup among the body whereas the kidneys heal. but in early years itself some had the vision and bravery to risk everything in search of the answer for stretching nephrosis and additionally the initial clinical analysis on auremic man was performed in New Style calendar month 1924 by martyr Hass in Federal Republic of Germany.

Chronic kidney disease (CKD) has been additional and additional recognized as a world health burden. folks with CKD unit of measurement at risk for progressive loss of internal organ perform and nephrosis. One in each of the foremost common treatment for nephrosis is hemodialysis.

Haemodialysis is a life saving measure for patients with chronic kidney disease. Haemodialysis is an ongoing process where patients experience complications such as hypotension, muscle cramps, disequilibrium syndrome and nausea during the procedure. It is estimated that 33 to 86% of patients experience muscle cramps during haemodialysis, which results in early termination of haemodialysis session. There is a need for special attention for diagnosis and management of during haemodialysis to avoid the need for termination of the haemodialysis procedure.

Chronic kidney disease (CKD) has been increasingly recognized as a global health burden. Individuals with CKD are at risk for progressive loss of kidney function and kidney failure. One of the most common treatment for kidney failure is haemodialysis. Worldwide statistics shows that 9,20,000 people are undergoing haemodialysis per day, which constitutes about 7-8% of the total population (Stephanie Titze et al., 2015). The beginning and ending supportive therapy for the kidney failure ishaemodialysis. (Robert A Star, 2012).

## 2. Methods

The conceptual framework adopted for the study was based on Ernestine Wiedenbach's, The Helping Art Theory. A quasi-experimental pretest, post-test control group design was

Table 1  
 Distribution of samples according to demographic variables

S.no.	Demographic variable	Control group (n=55)		Experimental Group (n=55)	
		n	%	n	%
1	Age				
	(a) 20-30 years	12	21.8	3	5.5
	(b)31-40 years	18	32.7	9	16.4
	(c)41-50 years	17	30.9	21	38.2
	(d) 51-60 years	8	14.5	22	40.0
2	Sex				
	(a) Male	35	63.6	32	58.2
	(b) Female	20	36.4	23	41.8
3	Marital status				
	(a)Single	8	14.5	16	29.1
	(b)Married	44	80.0	35	63.6
	(c)Widow	3	5.5	3	5.5
	(d)Divorced	-	-	1	1.8
4	Educational qualification				
	(a) Illiterate	10	18.2	10	18.2
	(b)Primary education	14	25.5	15	27.3
	(c)Secondary education	18	32.7	13	23.6
	(d)Graduates	13	23.6	17	30.9
5	Occupation				
	(a) House-wife	13	23.6	11	20.0
	(b)Skilled worker	19	34.5	17	30.9
	(c)Self-employment	20	36.4	19	34.5
	(d)Professional	3	5.5	8	14.5
6	Family income				
	(a) BelowRs3000/-	25	45.5	28	50.9
	(b) Rs3001-4000/-	11	20.0	19	34.5
	(c) Rs4001-5000/-	12	21.8	8	14.5
	(d)Rs above 5000/-	7	12.7	-	-
7	Family history of kidney failure	15	27.3	19	34.5
	(a) Grand parents	13	23.6	14	25.5
	(b) Parents	12	21.8	14	25.5
	(c) Relatives	15	27.3	8	14.5
	(d) None				
8	Duration of illness	16	29.1	23	41.8
	(a) 1-3years	21	38.2	15	27.3
	(b)3-5years	18	32.7	17	30.9
	(c) Above 5years				
9	Medications	13	23.6	16	29.1
	(a)oral sprinolactone	17	30.9	15	27.3
	(b)frusemide	-	-	-	-
	(c) Combined	13	23.6	12	21.8
	(d) Any other medicines	12	21.8	12	27.8
	(e) All the above				
10	Source of information	18	32.7	14	25.5
	(a) Television	13	23.6	13	23.6
	(b)Radio& Newspaper	12	21.8	15	27.3
	(c) Neighbors & friends	12	21.8	13	23.6
	(d)Health workers				

adopted for this study. The sample comprised of 110 patients with kidney failure who were selected by convenient sampling technique. The Structured Questionnaire was prepared and validated by experts. It comprises of demographic profile and 30 multiple choice questionnaire. Reliability of the tool was checked by using test retest technique. The reliability score was 0.9. It indicates highly reliable. After the pilot study the data

collection procedure was done.

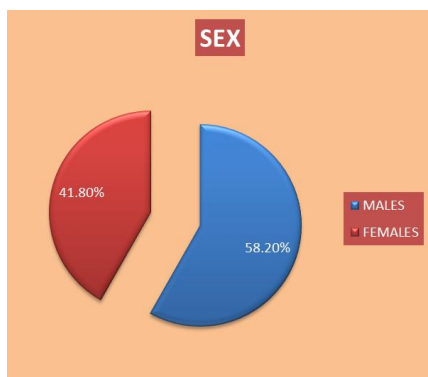
The study was conducted for 4 weeks. The pretest was conducted by self-structured questionnaire for experimental and control group. Structured Teaching Programme was administered, for 45 minutes using (Laptop)following the pretest to experimental group. The data were collected by using Structured Questionnaire. The investigator visited the samples

on 15th day and clarified all the doubts as part of positive reinforcement. Then the post test was conducted on 21th day. The same was repeated for control group without structured teaching programme. The data were analyzed by using descriptive statistics (mean, standard deviation, frequency and percentage) and inferential statistics (chi- square, 't' test). The data depicts that the control group pre and posttest scores showed that 31(56.4%), 23(41.8%) and 23(41.8%) had inadequate knowledge and 24(41.8%), 32(43.6%) had moderately adequate knowledge. Pretest and posttest scores of experimental group revealed that majority of the participants 31(56.4%), 24(43.6%) had inadequate and moderately knowledge in pretest. But in the posttest majority of participants showed 35(63.6%) adequate and moderately adequate knowledge. None of these participants had inadequate knowledge. The posttest comparison between the control and experimental group revealed that there was a statistical significant ( $p < 0.05$ ) improvement in knowledge of experimental group after structured teaching programme. There was an association of pretest level of knowledge in demographic variables showed at ( $P < 0.05$ ), there was no association in post-test between the knowledge and the selected demographic variables.

The findings of the study concluded that structured teaching programme was very effective in improving the knowledge of patient with diabetes on complication of diabetes. This also concluded that periodical positive reinforcement is always needed among patient with kidney failure to manage the complications of hemodialysis.

The table 1 evident that, regarding the distribution of samples were in the age group of 41-50 years 21(38.2%), the most of them were males 35(63.6%). Half of the samples were married 35(63.6%). The majority of the samples educational qualification were secondary education 18(32.7%) and family income were below Rs. 3000/-25(45.5%), one by third of samples 28(50.0%) grandparents were with the history of kidney failure Among the samples 23 (43.3%) were suffered with 1-3 years of duration of illness. A considerable amount of samples receive 18 (32.7%) source of information from television.

Distribution of samples demographic variables in experimental group.



Comparison of level of knowledge in post-test for control group and experimental group.

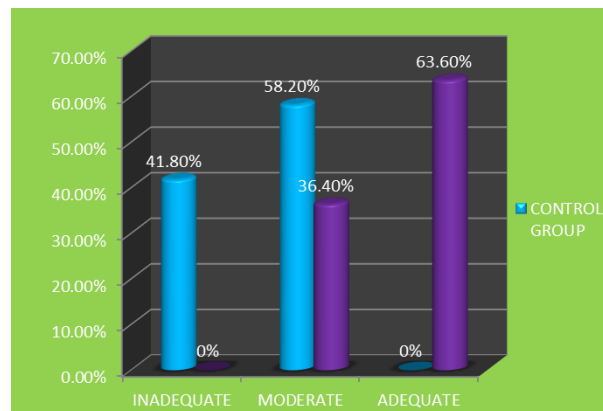
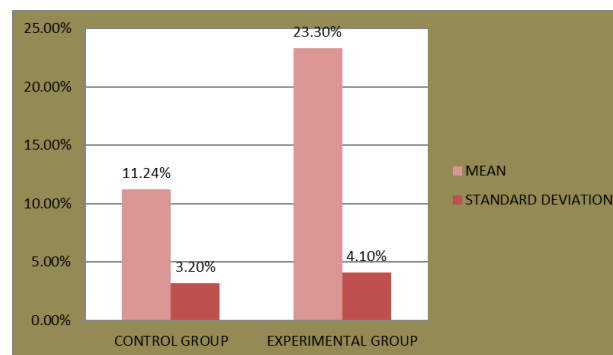


Table 2  
Comparison of level of knowledge on complication of hemodialysis in posttest between control and experimental group (N=110)

S. no.	Posttest	Mean	S.D	'T' value	'p' value
1.	Control group	11.2364	3.2487	17.305	0.000* (S)
2.	Experimental group	23.2909	4.12164		

\* $p < 0.05$ , S: Significant

The posttest comparison between the control and experimental group reveals that there was a significant ( $p < 0.05$ ) improvement in knowledge of experimental group after structured teaching programme.



Comparison of level of knowledge on complication of hemodialysis in post-test between control and experimental group and its significance.

### 3. Conclusion

This paper presented an overview on effectiveness of structured teaching programme on knowledge regarding complications of hemodialysis among kidney failure patients at selected hospital in Chennai.

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