



# EFFECTIVENESS OF INFORMATIVE BOOKLET ON KNOWLEDGE REGARDING POST DIALYSIS HOME CARE AMONG CAREGIVERS OF CHRONIC RENAL FAILURE PATIENTS UNDERGOING HEMODIALYSIS AT SELECTED HOSPITAL AT MEHSANA, GUJARAT

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**Abstract:** This study has been undertaken to investigate effectiveness of informative booklet on knowledge regarding post dialysis home care among caregivers of chronic renal failure patients undergoing hemodialysis at selected hospital at Mehsana, Gujarat. The sample size was 30 selected using purposive sampling technique. Self-Structured knowledge questionnaire was used to assess the knowledge of post dialysis home care among the caregivers of Chronic Renal Failure patients undergoing hemodialysis. Significant improvement of knowledge level score was obtained while comparing pretest and posttest knowledge level scores. Tabulated t value is greater than tabulated value t at 5% level of significance. So the null hypothesis got rejected. The study concluded with the view that the need for further research to explore more.

**Index Terms** – Post dialysis, home care, chronic renal failure, hemodialysis, caregivers.

## I. INTRODUCTION

Chronic Renal Failure is a reformist irreversible disintegration in renal capacity wherein the body's ability to look after metabolic, liquid and electrolyte balance fails, bringing about uremia which contribute the patient to depend up on hemodialysis for the support of the inward milieu and to keep away from uremia. In beginning phase of renal harm, side effects might be decreased through hemodialysis, control of liquid admission and guideline of diet, and utilization of drug, as renal capacity decline, these medicines become inadequate.

Dialysis is needed for therapy when patient support sufficient kidney damage and moves into the fifth or last phase of Chronic Kidney Disease, likewise alluded as Chronic Renal Failure or End Stage Renal Disease. Hemodialysis is the treatment technique that is done to help the weak kidney. If there should be an occurrence of renal deficiency hemodialysis is never really squander and harmful items from the blood in which glasslike substances will go through a semipermeable film. In 1884 Thomas Graham had first evolved Hemodialysis and father of dialysis is considered as Dr William Koff.

One of the worldwide general medical conditions influencing 5-10% of total populace overall is Chronic Kidney Disease (CKD). Ongoing Kidney Diseases are advancing as a most significant wellbeing danger. Individuals experiencing kidney illnesses at last require a costly and deep rooted Renal Replacement Therapy. Patients who endure with Chronic Kidney Disease must be taken consideration at home for a more extended time before Kidney Transplantation and they rely upon irregular dialysis and medications to keep up ideal wellbeing

One of the principal mechanical advancements in medication is dialysis. It is the solitary treatment yet permits a patient with end stage kidney inability to live long, sound and beneficial lives. As of now, about 2.4 million individuals are alive on dialysis around the world. In India, dialysis is saved for the extremely rich, or to those fortunate enough to be good for full clinical repayment. Every other person faces devastating long haul installment and dropping down into profound neediness. It is approximated that around 200,000 new patients create End Stage Renal Failure consistently in India. In spite of the fact that around 66% of the starters to pull out and be sentenced to death. A large portion of these patients are youthful, in the most awesome aspect of presence in their lives – family pay maker or paramour of the house. Losing them has overpowering effect on the families as well as cuts down the efficiency of whole society and cut downs the public pay.

As the size of the working class, and individuals with "expendable earnings" has grown up, the quantity of individuals chasing – on remaining on – dialysis is rising. Dialysis focuses, till as of late the watchman of enormous urban communities, are opening

regularly even in little urban areas, along these lines bringing the treatment near patients' homes. It is assessed that presently in India at around 100,000 patients are on dialysis. India's interest for dialysis is maturing at a pace of 31%, contrasted with 6% in the US and 8% in the remainder of the world.

Subsequently, the scholar planned to attempt the current investigation to survey the effectiveness of informative booklet on knowledge regarding post dialysis homecare among caregivers of chronic renal failure patients undergoing hemodialysis

## II. OBJECTIVE OF THE STUDY.0

1. To assess the level of knowledge regarding post dialysis home care among caregivers of Chronic Renal Failure patients undergoing hemodialysis.
2. To evaluate the effectiveness of informative booklet on post dialysis home care among caregivers of Chronic Renal Failure patients undergoing hemodialysis.

## III. HYPOTHESIS

**H<sub>1</sub>**- There will be significant improvement in the level knowledge of caregivers of chronic renal failure patients undergoing hemodialysis after the administration of informative booklet post-test than pre-test.

**H<sub>0</sub>**- There will be no significant improvement in the level knowledge of caregivers of chronic renal failure patients undergoing hemodialysis after the administration of informative booklet post-test than pre-test

## IV. RESEARCH METHODOLOGY

Research methodology is a deliberate method to take care of a problem. It is the method by which scientist approach their work of depicting, clarifying, and foreseeing marvels. It intends to give the work plan of exploration

### 4.1 Research Approach

In this study the researcher had adopted the quantitative evaluative approach to assess survey the effectiveness of informative booklet on knowledge regarding post dialysis homecare among caregivers of chronic renal failure patients undergoing hemodialysis.

### 4.2 Research Design

The researcher adopted the pre experimental one group pre-test post-test design for the present study.

### 4.3 Setting of the Study

The study was conducted in the Nephrology department at Shree Krishna Multi-Specialty hospital, Mehsana, Gujarat. This hospital has a bed strength of 400. This hospital is accessible to all as it is located in the heart of the city. The hospital has well equipped wing of Nephrology that consists of inpatient as well as outpatient department.

### 4.4 Population and Sample

Caregivers of Chronic Renal Failure patient undergoing hemodialysis are considered as target population and among those caregivers who met inclusion criteria and exclusion criteria are considered as accessible population. Sampling technique was non probability purposive sampling. The sample size of the study was set to be 30.

### 4.5 Description of the Tool

The tool consist of two sections.

#### Section – A:

##### Part-A: Patient demographic Variables:-

It consists of various demographic variables of patient such as age, sex, education, occupation, marital status, type of hemodialysis access, duration of undergoing hemodialysis, number of hemodialysis per week, restriction of food and fluid, presence of other chronic diseases.

##### Part-B: Caregivers Demographic Variables:-

It consists of various demographic variables of caregiver such as age, sex, education, occupation, place of residence, relationship with patient, marital status and sources of information.

#### Section – B:

Self-Structured knowledge questionnaire was used to assess the knowledge of post dialysis homecare among the caregivers of Chronic Renal Failure patients undergoing hemodialysis. It consists of 30 multiple choice questions including general information on Chronic Renal Failure and Hemodialysis, care of vascular access, Nutrition, care of Chronic Renal Failure patient with Hypertension, Travel and Exercise.

Preparation of final draft of informative booklet was prepared after incorporating the suggestions of experts and based on related review of literature, research and non-research related literature and objectives.

### 4.6 Method of Data Collection

Data collection was done for a period of four weeks. The researcher met the subjects and explained about the purpose of the research and assured confidentiality and anonymity and consent was obtained from the subjects.30 samples were selected using purposive sampling technique. The researcher adopted pre experimental one group pretest posttest research design. The demographic variables were collected by using structured interview questionnaire. During pre-test the caregiver's knowledge of post dialysis home care was measured by multiple choice questions, which had 30 questions for 20 minutes. Then the subject received Structured Teaching Programme regarding post dialysis home care for 30 minutes. On 8th day post-test was done by researcher as like pre-test to assess the effectiveness of informative booklet on Knowledge regarding post dialysis home care among caregivers of chronic renal failure patients undergoing hemodialysis.

## V. RESULTS AND DISCUSSION

## 4.1 Descriptive Statics

In the session the research scholar list down the descriptive statistics obtained from the study. Table 4.1 depicts about the Distribution Of demographic variables of the patients.

**Table 4.1: Distribution of demographic variables of the patients**

(N=30)

S. No	Demographic variables of the caregivers	Number	Percentage
1	<b>Age</b>		
	a) 21 - 30	4	13
	b) 31 - 40	5	17
	c) 41 - 50	5	17
	d) 51 - 60	5	17
	e) 61 - 70	8	26
	f) 71 - 80	3	10
2	<b>Sex</b>		
	a) Male	22	73
	b) Female	8	27
3	<b>Education</b>		
	a) No formal education	1	3
	b) Primary Education	5	17
	c) Secondary Education	3	10
	d) Higher secondary Education	12	40
	e) Collegiate	9	30
4	<b>Occupation</b>		
	a) Government employee	3	10
	b) Private employee	5	17
	c) Self employee	8	26
	d) Home maker	5	17
	e) Unemployed	9	30
5	<b>Marital Status</b>		
	a) Married	21	70
	b) Unmarried	7	23
	c) Separated	2	7
6	<b>Types of hemodialysis access</b>		
	a) AV Fistula	22	73
	b) Central venous catheter	8	27
7	<b>Duration of undergoing hemodialysis</b>		
	a) Less than 1 Year	14	47
	b) More than 1 Year	16	53
8	<b>Number of hemodialysis per week</b>		
	a) 2 times	18	60
	b) 3 times	12	40

Table 4.2 describes about the distribution of demographic variables of the caregivers

**Table-4.2: Distribution of Demographic Variables of the Caregivers****(N=30)**

S. No	Demographic variables of the caregivers	Number	Percentage
1	<b>Age</b>		
	a) 21 - 30	5	17
	b) 31 - 40	6	20
	c) 41 - 50	8	26
	d) 51 - 60	5	17
	e) 61 - 70	5	17
2	<b>Sex</b>		
	a) Male b) Female	7 23	23 77
3	<b>Education</b>		
	a) No formal education	2	7
	b) Primary Education	8	27
	c) Secondary Education	4	13
	d) Higher secondary Education	5	17
e) Collegiate	11	36	
4	<b>Occupation</b>		
	a) Government employee	2	7
	b) Private employee	2	7
	c) Self employee	10	33
	d) Home maker	14	46
e) Unemployed	2	7	
5	<b>Place of residence</b>		
	a) Rural b) Urban	11 19	36 64
6	<b>Relationship with patient</b>		
	a) Spouse	14	47
	b) Siblings	1	3
	c) Children	7	23
d) Others	8	27	
7	<b>Source of information</b>		
	a) Magazines	2	6
	b) Friends	8	27
	c) Health professional	17	57
d) None	3	10	

## 4.2 Figures and Table

Table 4.3 shows distribution of Pre-test and post-test scores on level of knowledge among caregivers of Chronic Renal Failure patient regarding post dialysis Home care.

**Table 4.3: Distribution of Pre-test and Post-test scores on level of knowledge among caregivers of Chronic Renal Failure patients regarding post dialysis Home care.**

(N=30)

S.No	Aspects of post dialysis home care	Pre-test						Post-test					
		<50%		50-75%		>75%		<50%		50-75%		>75%	
		No	%	No	%	No	%	No	%	No	%	No	%
1	General information on Chronic Renal Failure and Hemodialysis	9	30	10	33	11	37	-	-	1	3	29	97
2	Care of vascular access	17	57	12	40	1	3	-	-	5	17	25	83
3	Nutrition	26	87	4	13	-	-	2	6	20	67	8	27
4	Care of Chronic Renal Failure with Hypertension	3	10	24	80	3	10	-	-	8	27	22	73
5	Travel and Exercise	16	54	10	33	4	13	4	14	13	43	13	43

As per the table 4.3, concerning the knowledge on general information on Chronic Renal Failure and hemodialysis, 9(30%) of them had inadequate knowledge, 10(33%) of them had moderately adequate knowledge and 11(37%) of them had adequate knowledge in pre-test, whereas in post-test none of them had inadequate knowledge, 1(3%) had moderately adequate knowledge and 29(97%) majority of them had adequate knowledge.

Regarding knowledge on care of vascular access, 17(57%) of them had inadequate knowledge, 12(40%) of them had moderately adequate knowledge, 1(3%) of them had adequate knowledge in pre-test, whereas in post-test none of them had inadequate knowledge, 5(17%) of them had moderately adequate knowledge and 25(83%) of them had adequate knowledge.

Concerning knowledge on nutrition, 26(87%) of them had inadequate knowledge, 4(13%) of them had moderately adequate knowledge and none of them had adequate knowledge in pre-test, whereas in post-test 2(6%) of them had inadequate knowledge, 20(67%) of them had moderately adequate knowledge and 8(27%) of them had adequate knowledge.

Regarding knowledge on care of chronic renal failure patients with hypertension, 3(10%) of them had inadequate knowledge, 24(80%) of them had moderately adequate knowledge and 3(10%) of them had adequate knowledge in pre-test, whereas in post-test, none of them had inadequate knowledge, 8(27%) of them had moderately adequate knowledge and 22(73%) of them had adequate knowledge.

Concerning knowledge on travel and exercise, 16(54%) of them had inadequate knowledge, 10(33%) of them had moderately adequate knowledge and 4(13%) of them had adequate knowledge in pre-test, whereas in post-test, 4(14%) of them had inadequate knowledge, 13(43%) of them had moderately adequate knowledge and 13(43%) of them had adequate knowledge.

Table 4.4 shows comparison of pre-test and post-test knowledge scores of caregivers of Chronic Renal Failure patients regarding post dialysis home care.

**Table 4.4: Comparison of pre-test and post-test knowledge scores of caregivers of Chronic Renal Failure patients regarding post dialysis home care.**

(N=30)

S.No	Aspect of post dialysis home care	Pre test		Post test		Calculated paired 't' value	Tabulated value of 't'
		Mean	SD	Mean	SD		
1	General information on Chronic Renal Failure and Hemodialysis	1.97	0.97	2.97	0.1	5.88	2.05
2	Care of vascular access	5.37	1.32	9.27	0.85	15.96	
3	Nutrition	3.77	1.87	7.63	1.32	15.96	
4	Care of Chronic Renal Failure patients with Hypertension	1	0.45	1.73	0.46	6.64	
5	Travel and Exercise	1.5	0.85	2.3	0.64	5.71	

Calculated value of **t** is greater than tabulated value **t** at 5% level of significance. The null hypothesis is rejected. There is a significant difference between pre-test and post-test scores on knowledge of general information on chronic renal failure and hemodialysis.

Calculated value of **t** is greater than tabulated value **t** at 5% level of significance. The null hypothesis is rejected. There is significant difference between pre-test and post-test scores on knowledge of care of vascular access.

Calculated value of **t** is greater than tabulated value **t** at 5% level of significance. The null hypothesis is rejected. There is a significant difference between pre-test and post-test scores on knowledge of nutrition.

Calculated value of **t** is greater than tabulated value **t** at 5% level of significance. The null hypothesis is rejected. There is a significant difference between pre-test and post-test scores on knowledge of Chronic Renal Failure patients with hypertension.

Calculated value of **t** is greater than tabulated value **t** at 5% level of significance. The null hypothesis is rejected. There is a significant difference between pre-test and post-test scores on knowledge of travel and exercise.

## V. CONCLUSION

The tabulated value shows that the study was effective and informative booklet was effective in terms of increasing the knowledge of caregivers of chronic renal failure patients undergoing hemodialysis. The study concluded with a view that this study on post dialysis home care would become a valuable reference material for further research.

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