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A Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge Regarding Life Style Modification among Patients with Renal Failure at Selected Hospitals of Jaipur

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INTRODUCTION

The kidneys are a pair of organs located in the back of the abdomen. Each kidney is about 4 or 5 inches long -- about the size of a fist. Each kidney contains around a million unit called enthrones, each of which is a microscopic filter for blood. It's possible to lose as much as 90% of kidney function without experiencing any symptoms or problems. The kidneys' functions are to filter the blood. All the blood in our bodies passes through the kidneys several times a day. The kidneys remove wastes, control the body's fluid balance, and regulate the balance of electrolytes. As the kidneys filter blood, they create urine, which collects in the kidneys' pelvis funnel-shaped structures that drain down tubes called ureters to the bladder. Each kidney contains around a million units called nephrons, each of which is a microscopic filter for blood. It's possible to lose as much as 90% of kidney function without experiencing any symptoms or problems.1

The kidneys are organs that serve several essential regulatory roles in most animals, including vertebrates and some invertebrates. They are essential in the urinary system and also serve homeostatic functions such as the regulation of electrolytes, maintenance of acid–base balance, and regulation of blood pressure (via maintaining salt and water balance). They serve the body as a natural filter of the blood, and remove wastes which are diverted to the urinary bladder. In producing urine, the kidneys excrete wastes such as urea and ammonium, and they are also responsible for the reabsorption of water, glucose, and amino acids. The kidneys also produce hormones including calcitriol, erythropoietin, and the enzyme renin.2

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Kidneys are the master chemists of your body. They supervise the condition of the blood, segregating damaging substances from valuable ones, proceeding not merely as waste disposal units but like complicated sieves too that salvage valuable substances that slip through the holes. The kidneys preserve the inner environment necessary for life.

Kidneys do entail functions that have an effect on all parts of the body and are involved in complex operations that keep the rest of the body in equilibrium. When the kidneys are injured by disease, other organs are involved. Kidney problems could vary from a slight urinary tract infection to progressive kidney failure.3

Bones can break, muscles can atrophy, glands can loaf, and even the brain can go to sleep without immediate danger to survival. But should not the kidney fail, neither bone, muscle, gland, nor brain could carry on. This statement underlines the importance of kidneys to our lives. Adequate functioning of the kidneys is essential to the maintenance of a healthy body. If there is complete kidney failure and treatment is not given, death is inevitable.5

Renal Failure, also called Kidney failure, is diagnosed when the kidneys are no longer functioning adequately to maintain the normal process. This results in dysfunction in almost all other parts of the body as a result of imbalance in fluid electrolytes,

calcium levels, as well as RBC production and decreased elimination of waste products.6

Renal failure is the partial or complete impairment of kidney function resulting in an inability to excrete metabolic waste products and water, as well as causing functional disturbance of all body systems. Renal failure is classified as acute and chronic.

Acute renal failure is potentially reversible. The mortality rate for intra-renal acute renal failure remains at about fifty percentage, despite advances in the treatment over the last 30 years. Acute renal failure occurs within hours to days when the kidneys lose their ability to remove waste products and excess fluids from the body. The most common cause of this is reduced blood flow to the kidneys, either from dehydration, surgery, a severe infection, or injury. When blood flow to the kidneys decreases, waste products and excess fluids are not adequately removed from the body.7

Chronic renal failure or End Stage Renal Disease usually develops slowly over months to years and necessitates the initiation of dialysis or transplantation for long-term survival. Chronic renal failure is more serious than acute renal failure because symptoms may not appear until the kidneys are extremely damaged. Chronic renal failure can worsen over time, especially when the problem has gone undiagnosed and treatment is delayed.7

Chronic Renal Failure involves progressive irreversible destruction of the nephrons in both the kidneys. It is defined as either kidney damage or Glomerular filtration rate less than 60 milliliters per minute. Kidney damage is defined as pathologic abnormalities or markers of damage actions from proceeding stages.9

The causes of Chronic Renal Failure are generally progressive and mediated by several factors that operate in combination in progression of renal disease, for example, volume disorders, infection, nephritic proteinuria and high protein phosphorous intake. Number of evidence suggests that ameliorating hypertension, reducing proteinuria slows the progression of chronic renal failure.

NEED FOR THE STUDY

Kidneys are one of the vital organs in the human body. Kidneys perform vital functions like excretion of waste products, maintenance of water balance, thus maintaining the homeostasis. In addition, kidneys perform many other functions such as role in Homeostasis, Production of Erythrocyte, Endocrine function, Regulation of Blood Sugar and regulation of Blood Calcium level. Because the kidney performs a wide variety of functions, the effects of loss of Renal function not only in kidney but also in other organ systems.11

The term Chronic renal failure (CRF) typically corresponds to stage 3-5 CKD. The term End Stage Renal Disease (ESRD) represents the terminal stage of CKD where there is uremic syndrome.12

Chronic kidney disease (CKD), is an important, chronic, non-communicable disease epidemic that affects the world including India. Because of the absence of a renal registry in India, the true magnitude of CKD is unknown. Two community-based studies, although methodologically different, have shown a prevalence of chronic renal failure of 0.16% and 0.79%. The cost of maintenance hemodialysis for a single session varies between Rs. 500-2000 between government run and private hospital. The average cost of erythropoietin is approximately Rs. 7500-Rs. 10000/month. The cost of chronic ambulatory peritoneal dialysis with "Y" set at 3 exchanges/week, which most patients in India do, is Rs. 20,000/month. There are hardly any state-funded medical treatment and medical insurance facilities for CKD patients in India.13

Chronic Kidney Disease Stage V, is a chronic illness where the family is expected to perform at least some supportive functions. This includes support for patients dialyzed both in the home and in-center. The burden and fatigue experienced by caregivers for a member of patients with various medical conditions have been identified by investigators, but have been evenly examined. This includes caregivers of CKD patients since it is time-consuming and requires medical interventions needed for the kidney patient, the caregiver is often overlooked.14

Chronic kidney disease (CKD) is a worldwide health problem with an increasing incidence and prevalence, poor outcomes and high cost. Abnormalities in the structure and function of the thyroid gland and in the metabolism and plasma concentration of thyroid hormones are common in patients with chronic kidney disease (CKD).15

Renal disease is growing rapidly in India because of the high prevalence of diabetes and heart disease, which are the root causes of ESRD (End Stage of Renal Disease). The mean age of ESRD patients in India is between 32 and 42 years, compared to 60 and 63 years in developed countries. Renal care issues in India is widely accepted that kidney transplantation is the most effective form of renal replacement therapy (RRT). However transplant in India is severely curtailed due to issues of possible exploitation, lack of donors and the absence of a strong cadaver programme. Hence most patients who can afford it have to opt for dialysis as the only possible option.16

The frequency of CKD continues to increase worldwide as does the prevalence of end-stage renal disease (ESRD). The most common, but not only, causes of CKD are hypertension and diabetes. The presence of CKD is associated with a large increase in cardiovascular (CV) risk. Moreover, CV risk increases proportionally as GFR falls below 60 ml/min. Lastly, death from CV causes is eight-fold higher in CKD, much higher than death from cancer. Consequently, the identification and reduction of CKD has become a vital public health priority.17

In India there are more than 20,00,000 patients with renal failure. 1,00,000 new patients with end-stage renal failure who require treatment, of these patients alone, 9,00,000 patients will require dialysis. Only 2% patients can avail of dialysis treatment. Only 5% patients get transplanted. Less than 0.5% patients undergo peritoneal dialysis. 30-40% of the cases of chronic kidney failure are due to diabetes mellitus and 15% of the cases are due to hypertension.6 India has the largest number of diabetics in the world with prevalence of 3.8% in rural and 11.8% in urban adults. The prevalence of hypertension has been reported to range between 20-40% in urban adults and 12-17% in rural adults.18

Chronic kidney disease is a common condition that is estimated to affect 11% of the U.S population, or 19 million people and >50 million people worldwide. Chronic kidney disease found in 23% of patients with diabetes. Similarly, diabetes is an epidemic scale, with prevalence of 20 million people in the United States and 171 million people worldwide. 45% of diabetic patients receive dialysis therapy. Moderate to severe Chronic Kidney Disease found in 15-23% of patients with diabetes.19

The National Kidney Foundation of the United States piloted from 2017 to 2021 conducted the Kidney Early Evaluation Program (KEEP) to identify individuals at risk of Chronic Kidney Disease and the prevalence of Chronic Kidney Disease among patients with diabetes, hypertension, as well as first-degree relatives of patients with Chronic Kidney Disease. By the end of 2030, KEEP will recruit over 22,000 participants, 26% had albuminuria, around 16% had been found with elevated serum creatinine levels, and others (3%) had asymptomatic urinary abnormalities.20

World Health Organization reported that the most common causes of death are infectious diseases (43 percentage); disease of the circulatory system (24 percentage), perinatal and other unknown causes (10 percentage), cancer (nine percentage) and Chronic Renal Failure (14 percentage). End stage renal disease may be caused by systemic diseases, such as diabetes mellitus; hypertension; chronic glomerulonephritis, pyelonephritis, obstruction of the urinary tract; hereditary lesions, such as in polycystic kidney disease; vascular disorders; infections; medications; or toxic agents.

According to WHO, global burden of disease project, disease of kidney and urinary tract contribute to global burden with approximately 8,50,000 deaths every year and 115,010,107 disability adjusted life years. Chronic kidney disease is the 12th leading cause of death and 17th cause of disability.22

The incidence and prevalence of Chronic Renal Failure at various countries in the Asian Pacific region and reported that there was an average increase in incidence rate of 1.2 to 14.1 percentage and average prevalence rate of 4.2 to 17.3 percentage each year. Every year almost one lakh fresh cases of Kidney failure are reported nationwide and the cumulative base of such cases run nearly 4.5 lakhs in a given year and over two lakhs population die every year in India.23

Nurses must take on important contribution towards maintenance of health in all aspects due to scientific changes in medical science and technology. Those expanding responsibilities of nursing based on growing demands of more knowledge and raise the need for critical evaluation of the educational programs that prepares the nurses to entire into the skillful nursing profession.

The Nurse plays an important role in teaching the patient with renal failure. Because of extensive teaching needed, the researchers should provide ongoing education and reinforcement while monitoring the patient progress and compliance with treatment regimen. From the available literature reviewed it was found that renal failure is a debilitating condition responsible for high morbidity and mortality, and lifestyle modification is effective to prevent and control the disease progression. Therefore insight into the investigator's mind by improving the knowledge regarding lifestyle modification among chronic renal failure patients.

Health care professionals can design coping interventions and assist patient to adapt to their chronic illness. The goal of their interventions is to build on and enhance self-management strategies that the individual may already be utilizing. In additions, the programme offer a systematic approach to the acquisition of personal management skill that emphasizes instruction, and feedback and gradually increase the use of these skills over time. However, short-term outcomes such as knowledge and understanding are important because patients can

hardly be expected to follow treatment regimens they do not understand.

Nurses must take on important contribution towards maintenance of health in all aspects due to scientific changes in medical science and technology. Those expanding responsibilities of nursing based on growing demands of more knowledge and raise the need for critical evaluation of the educational programs that prepares the nurses to entire into the skillful nursing profession.

OBJECTIVES

- To assess pre-test knowledge regarding lifestyle modification among patients with renal failure.
- To assess the post-test knowledge regarding lifestyle modification among patient with renal failure.
- To assess the effectiveness of structured teaching programme by comparing pre-test and post-test knowledge score on lifestyle modification among patients with renal failure.
- To find out the association between the Pre Test knowledge score with selected demographic variables.

OPERATIONAL DEFINITIONS

ASSESS- It is a systematic and logical collection and use of information about education program undertaken for the purpose of improving learning and development of lifestyle modification among renal failure patient.

EFFECTIVENESS- In the study, the effectiveness refers to the extent to which the structural teaching program has achieve the desired effect about lifestyle modification among renal failure patient.

STRUCTURED TEACHING PROGRAM- In this study, it refers to the systematically developed instructional program designed for knowledge and lifestyle modification among patient with renal failure.

KNOWLEDGE- Refers to the level of understanding of patients with regard to lifestyle modification among renal failure.

LIFESTYLE MODIFICATION- It involves altering long-term habits, typically of eating or physical activity and maintaining the new behavior for months or years. Life style modification can be used to treat a range of diseases including obesity.

RENAL FAILURE- It is the end-stage kidney disease, is a medical condition in which the kidneys no longer function. Causes of acute kidney failure include low blood pressure, blockage of the urinary tract, certain medications, muscle breakdown, and hemolytic uremic syndrome.

ASSUMPTION

The researcher assumes that:

- Patients with renal failure have minimal knowledge regarding lifestyle modification.
- Structured teaching program will enhance the knowledge regarding lifestyle modification among patients with renal failure.

HYPOTHESIS

H1-: The post-test knowledge score is significantly higher than the pre-test knowledge score regarding life style modification among renal failure patients.

H2-: There is a significant association between the pre-test knowledge scores regarding lifestyle modifications among patients with renal failure with selected demographic variables.

DELIMITATIONS

The study is delimited to:

- Patient who will be admitted in hospital.
- Patients who will be willing to participate at the time of study.
- Patient who will be able to understand language related Hindi and English.

RESEARCH APPROACH

An evaluative research is an applied form of research that involves finding out how well a programme, practice/policy is working. It involves the collection and analysis of information relating to the functioning of a programme or procedure with the aim of assessing its effectiveness.56

The present study was aimed to assess the effectiveness of Structured Teaching Programme on knowledge regarding lifestyle modification among patients with renal failure at selected hospitals of Jaipur.

The research approach adopted for this study was an evaluative approach. Evaluative approach helps to explain the effect of independent variable on the dependent variable. This approach is considered by the investigator as the most suitable one for this study.

RESEARCH DESIGN

The research design of the study spells out the basic strategies that the researcher adopts to develop accurate and interpretable evidence. It is the overall plan for how to obtain answers to the questions being studied and how to handle some of the difficulties encountered during the research process.57

The design specifies which of the various types of research approach will be adopted and how appropriately the researcher plans to implement a number of scientific controls to enhance the interpretability of the results.

Research design provides a backbone structure of the study. It determines how the study will be organized, when the data will be collected and when interventions are to be implemented.

The pre-experimental one group pre-test post-test research design was considered as the appropriate design for this study. The purpose of a pre-experimental research design is to describe the variables and examine relationships among these variables.

INDEPENDENT VARIABLE

An independent variable was the variable that stands alive, is not dependent on any other. In this study independent variable "refers to structured teaching programme on life style modification for renal failure patients."

DEPENDENT VARIABLE

It was the outcome variable of interest. The variable that was hypothesized to depend on or caused by another variable. In this study knowledge of patients with renal failure as measure was the dependent variable.

DEMOGRAPHIC VARIABLES

An uncontrolled variable that greatly influences the results of the study is called as the demographic variables. In this study the demographic variables include age, religion, gender, occupation, type of diet, source of information, income, and duration of illness.

SETTING OF THE STUDY

Setting refers to the physical locations and conditions in which data collection has been taken place. This study was undertaken in selected hospitals of Jaipur namely Manipal Hospital, Jaipur. The selection of these hospitals done on the geographic proximity, feasibility of conducting study and availability of sample.

POPULATION

Population includes "all possible elements that could be included in research." The requirement of defining population for a research project arises from the need to which the results of the study can be applied. In this study, the population includes 40 patients with renal failure at Manipal Hospital, Jaipur.

SAMPLE

A sample was a small portion of the population selected for observation, analysis and the members of the sample are study subjects. In this study the patients with renal failure at Manipal Hospital, Jaipur were the samples.

SAMPLING TECHNIQUE

Sampling technique was the procedure that the researcher adopts in selecting the samples for the study. Purposive sampling technique was used to conduct the study.

SAMPLE SIZE

The sample comprised of 40 patients with renal failure from Manipal Hospital, Jaipur.

SAMPLE SELECTION CRITERIA

INCLUSION CRITERIA:- who were:

- Patient who are present at the time of study.
- Both male and female.
- Patient who can understand both English and Hindi.

EXCLUSION CRITERIA:- Who were:

- Patient who are not present at the time of study.
- Patient who cannot understand both English and Hindi.

DATA ANALYSIS AND INTERPRETATION

The description of the data analysis is the heart of a research project. It is the communication of measurements, and observation gathered by the researcher. For achieving the results, the collection of data must be processed and analyzed in an orderly coherent fashion. Analysis is a process of organizing and synthesizing data in such a way that research questions can be answered and hypothesis can be tested.

The data collected through structured knowledge questionnaire. Analysis and interpretation of data obtained from structured knowledge questionnaire regarding life style modification among patients with renal failure. Then the findings were printed in different graphs and tables of percentage.

This chapter presents the analysis and interpretation of the data collected to assess the effectiveness of structured teaching programme on knowledge regarding life style modification among patients with renal failure at selected hospitals of Jaipur. The data was analyzed based on the following objectives.

OBJECTIVES OF THE STUDY

The data analysis was based on the following objectives of the study:

- To assess pre-test knowledge regarding lifestyle modification among patients with renal failure.
- To assess the post-test knowledge regarding lifestyle modification among patient with renal failure.
- To assess the effectiveness of structured teaching programme by comparing pre-test and post-test knowledge score on lifestyle modification among patients with renal failure.

- To find out the association between the Pre Test knowledge score with selected demographic variables.

PRESENTATION OF DATA

The analyzed data has been organized and presented in the following sections:

Section I: Description of demographic variables of the patients with renal failure.

Section II: Comparison of pre-test and post-test level of knowledge regarding life style modification of patients with renal failure.

Section III: Effectiveness of structured teaching programme regarding lifestyle modification.

Section IV: Association level of knowledge regarding life style modification with selected demographic variables.

SECTION I: DESCRIPTION OF DEMOGRAPHIC VARIABLES OF THE PATIENTS WITH RENAL FAILURE

Table 4.1: Frequency and percentage distribution of patients as per age

S. No.	Variables	Frequency	Percentage%
1.	**Age**		
	40–50years	06	15%
	51–60years	20	50%
	61–70years	09	22.5%
	Morethan70years	05	12.5%

Table 4.2: Frequency and percentage distribution of patients as per gender

S. No.	Variables	Frequency	Percentage%
2.	**Gender**		
	Male	15	37.5%
	Female	25	62.5%

Table 4.3: Frequency and percentage distribution of patients as per educational status

S. No.	Variables	Frequency	Percentage%
3.	**Educational status**		
	Illiterate	05	12.5%
	Primary education	13	32.5%
	Middle education	20	50%
	UG & Above	02	5%

Table 4.4: Frequency and percentage distribution of patients as per occupation

S. No.	Variables	Frequency	Percentage%
4.	**Occupation**		
	Unemployed	07	17.5%
	Private Job	20	50%
	Government Job	08	20%
	Business	05	12.5%

Fig. 4.4: Table 4.5: Frequency and percentage distribution of patients as per dietary pattern

S. No.	Variables	Frequency	Percentage%
5.	**Type of diet**		
	Vegetarian	16	40%
	Nonvegetarian	24	60%

Table 4.6: Frequency and percentage distribution of patients as per residential area

S. No.	Variables	Frequency	Percentage%
6.	**Residential area**		
	Urban	32	80%
	Rural	08	20%

Table 4.7: Frequency and percentage distribution of patients as per family income

S. No.	Variables	Frequency	Percentage%
7.	**Family Income**		
	Below10000	06	15%
	10001–20000	17	42.5%
	20001–30000	12	30%
	Morethan30000	05	12.5%

Table 4.8: Frequency and g. 4.8: Pie

S. No.	Variables	Frequency	Percentage%
8.	**Past history of kidney disease**		
	Yes	19	47.5%
	No	21	52.5%

Table 4.9: Frequency and percentage distribution of patients as per family history of kidney disease

S. No.	Variables	Frequency	Percentage%
9.	**Family history of kidney disease**		
	Yes	25	62.5%
	No	15	37.5%

Table 4.10: Frequency and percentage distribution of patients as per other chronic disease

S. No.	Variables	Frequency	Percentage%
10.	**Other chronic disease**		
	Hypertension	15	37.5%
	Diabetesmellitus	5	12.5%
	Hyperthyrodism	3	7.5%
	Other	17	42.5%

Table 4.11: Frequency and percentage distribution of patients as per duration of disease

S. No.	Variables	Frequency	Percentage%
11.	**Duration of disease**		
	lessthan1month	10	25%
	1monthto6month	17	42.5%
	6month–1year	8	20%
	Morethan1year	5	12.5%

SECTION II: COMPARISON OF PRE TEST AND POST TEST LEVEL OF KNOWLEDGE REGARDING LIFE STYLE MODIFICATION OF PATIENTS WITH RENAL FAILURE

Table–4.12: Comparison of Pre Test and Post Test Level Knowledge

S. No.	Level of Knowledge	Pre Test		Post Test	
		F	%	F	%
1.	Poor (<50%)	23	57.5%	03	7.5%
2.	Average (50to65%)	16	40%	19	47.5%
3.	Good (>65%)	01	2.5%	18	45%

SECTION III: EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME REGARDING LIFE STYLE MODIFICATION

AREA WISE PRE TEST KNOWLEDGE SCORE OF PATIENTS WITHRENAL FAILURE

Table – 4.13: Area Wise Pre Test Knowledge Score Of Patients With Renal Failure

S. No.	Aspect of Knowledge	Max. Score	Mean	Median	Standard Deviation
1.	Questionnaires related to Concept of renal failure	15	7.25	7	1.654
2.	Questionnaires related to Management of renal Failure	15	7.37	8	1.683

AREA WISE POST TEST KNOWLEDGE SCORE OF PATIENTS WITH RENAL FAILURE

Table–4.14 Area wise Post Test knowledge score patients with renal failure

S. No.	Aspect of Knowledge	Max. Score	Mean	Median	Standard Deviation
1.	Questionnaires related to Concept of renal failure	15	9.75	9	1.608
2.	Questionnaires related to Management of renal Failure	15	9.87	10	1.630

OVER ALL KNOWLEDGE SCORE OF THE PATIENTS WITH RENAL FAILURE REGARDING LIFESTYLE MODIFICATION

There was 40 patients with renal failure was selected for the study. Each of them had to answer 30 questions. Their pre and post-test correct answers were recorded and the mean, mean difference, median, median difference, standard deviation of the test scores and value of 't' test were obtained as below:

Knowledge Test	Mean	Mean Difference	Median	Median Difference	SD	Df	't' Test
Pre Test	14.625	5	15	4	±2.912	39	8.089
Post Test	19.625		19		±2.816		

SECTIONIV: ASSOCIATIONLEVEL OF KNOWLEDGEREGARDING LIFE STYLE MODIFICATION WITH SELECTED DEMOGRAPHIC VARIABLES

Table–4.16: Association Level of with Selected Demographic Variables

S. No.	Variables	df	Table value	x2 Value	Remarks
1.	Age	6	12.59	9.54	NS
2.	Gender	2	5.99	1.34	NS
3.	Educational status	6	12.59	14.98	S
4.	Occupation	6	12.59	13.62	S
5.	Type of diet	2	5.99	7.92	S
6.	Residential area	2	5.99	6.01	S
7.	Family income	6	12.59	10.76	NS
8.	Past history of kidney disease	2	5.99	8.09	S
9.	Family history of kidney disease	2	5.99	3.86	NS
10.	Other chronic disease	6	12.59	11.54	NS
11.	Duration of disease	6	12.59	17.27	S

SUMMARY

The present study aimed to assess the effectiveness of Structured Teaching Programme on knowledge regarding lifestyle modification among patients with renal failure at selected hospitals of Jaipur.

OBJECTIVES OF THE STUDY ARE:

- To assess pre-test knowledge regarding lifestyle modification among patients with renal failure.
- To assess the post-test knowledge regarding lifestyle modification among patient with renal failure.
- To assess the effectiveness of structured teaching programme by comparing pre-test and post-test knowledge score on lifestyle modification among patients with renal failure.
- To find out the association between the Pre Test knowledge score with selected demographic variables.

A review of related research and non-research literature helped the investigator to develop the tool and content for structured teaching programme (STP) regarding life style modification. The literature reviewed further enabled the investigator to develop a conceptual framework, methodology of the study and to decide plan for data analysis.

The research approach adopted for the study was evaluative. The research design was pre experimental one group pre test- post test research design. The independent variable in the study was the structured teaching programme (STP) regarding lifestyle modification and the dependent variable was the knowledge score of patients with renal failure. The study was conducted in the Manipal Hospital Hospital, Jaipur. The sampling technique used to choose the subjects was by purposive sampling technique. The sample comprised of 40 patients with renal failure at selected hospitals of Jaipur.

DISCUSSION

Major finding of the study are summarized as follows:

SAMPLE CHARACTERISTICS

- The majority 20 (50%) of subjects was in the age group of 51-60 years followed by 9 (22.5)% of subjects as in the each age group of 61-70 years, some of them 6 (15%) subjects from 40 – 50

years of age and remaining 5 (12.5%) were from more than 70 years of age.

- Most of sample 25 (62.5%) were female and remaining 15 (37.5%) were male.
- Most of subject 20 (50%) were have completed middle education followed by 13 (32.5%) have completed primary education, some of them 05 were illiterate and remaining 2 (5%) have completed UG and above.
- The occupation of most of samples 20 (50%) was private job, followed by 08 (20%) was government job, some are 07 (17.5%) were unemployed and remaining was 05 (12.5%) were have own business.
- Most of sample 24 (60%) was nonvegetarian followed by 16 (40%) vegetarian.
- Most of samples 32 (80%) was belong from urban area and remaining 08 (20%) from rural area.
- Most of samples 17 (42.5%) was earned between 10001 – 20000 followed by 12 (30%) were earned between 20001–30000, some of them 06 (15%) were earned below 10000 and remaining 05 (12.5%) was earned more than 30000 per month.
- Most of samples 21 (52.5%) samples were not have past history of kidney disease and remaining 19 (47.5%) patients have past history of kidney disease.
- Most of samples 25 (62.5%) samples were have family history of kidney disease and remaining 15 (37.5%) patients not have family history of kidney disease.
- Most of samples 17 (42.5%) samples were have other disease followed by 15 (37.5%) were have hypertension, some of them 5 (12.5%) were have diabetes mellitus and remaining 3 (7.5%) patients have hyperthyroidism.
- Most of samples 17 (42.5%) samples were suffered from 1 month to 6 month period, followed by 10 (25%) were suffered less than 1 month, some of them 8 (20%) the duration of disease was between 6 months to 1 years and remaining 5 (12.5%) the duration of disease was more than 1 year.

DESCRIPTION OF KNOWLEDGE SCORE

The pre test and post test level of knowledge regarding life style modification, during pre test 23 (57.5%) patients with renal failure had poor knowledge, 16 (40%) had average knowledge and 01 (2.5%) patients with renal failure had good knowledge regarding life style modification while during post test 03 (7.5%) patients with renal failure had poor knowledge, 19 (47.5%) patients with renal failure had average knowledge and 18 (45%) patients with renal failure had good knowledge regarding life style modification.

For the pre test the structured knowledge questionnaire consists of two parts. The mean, median and standard deviation of first part that was related to concept of renal failure, were 7.25, 7 and 1.654 respectively. Regarding management of renal failure, mean, median and standard deviation were 7.37, 8 and 1.683 respectively.

While for the post test the structured knowledge questionnaire consists of two parts. The mean, median and standard deviation of first part that was related to concept of renal failure, were 9.75, 9 and 1.608 respectively. Regarding management of renal failure, mean, median and standard deviation were 9.87, 10 and 1.630 respectively.

The mean of pre test score is 14.625 whereas the mean of post test score is 19.625 with 5 mean difference. The median of pre test score is 15 and the mean of post test score is 19 with 4 median differences.

The calculated value of 't' is 8.089 at the 0.05 level of significance and the tabulated value of 't' is 1.96 at the 0.05 level of significance on 39 degree of freedom.

The calculated value is higher than the tabulated value so we can say that the structured teaching programme regarding life style modification can enhance the knowledge of patients with renal failure, it means that the structured teaching programme regarding life style modification is effective to improve the knowledge of patients with renal failure regarding life style modification.

ASSOCIATION OF LEVEL OF KNOWLEDGE SCORE WITH SELECTED DEMOGRAPHIC VARIABLES

The calculated $\chi 2$ (9.54) was less than the table value (12.59), which indicates that there was no significant association between the knowledge level and age of patients with renal failure at 0.05 level of significance. The research hypothesis H2 is rejected.

The calculated $\chi 2$ (1.34) was less than the table value (5.99), which indicates that there was no significant association between the knowledge level and gender of patients with renal failure at 0.05 level of significance. The research hypothesis H2 is rejected.

The calculated $\chi 2$ (14.98) was more than the table value (12.59), which indicates that there was

significant association between the knowledge level and educational status of patients with renal failure at 0.05 level of significance. The research hypothesis H2 is accepted.

The calculated $\chi 2$ (13.62) was more than the table value (12.59), which indicates that there was significant association between the knowledge level and occupation of patients with renal failure at 0.05 level of significance. The research hypothesis H2 is accepted.

The calculated $\chi 2$ (7.92) was more than the table value (5.99), which indicates that there was significant association between the knowledge level and type of diet of patients with renal failure at 0.05 level of significance. The research hypothesis H2 is accepted.

The calculated $\chi 2$ (6.01) was more than the table value (5.99), which indicates that there was significant association between the knowledge level and residential area of patients with renal failure at 0.05 level of significance. The research hypothesis H2 is accepted.

The calculated $\chi 2$ (10.76) was less than the table value (12.59), which indicates that there was no significant association between the knowledge level and family income of patients with renal failure at 0.05 level of significance. The research hypothesis H2 is rejected.

The calculated $\chi 2$ (8.09) was more than the table value (5.99), which indicates that there was significant association between the knowledge level and past history of kidney disease of patients with renal failure at 0.05 level of significance. The research hypothesis H2 is accepted.

The calculated $\chi 2$ (3.86) was less than the table value (5.99), which indicates that there was no significant association between the knowledge level and family history of kidney disease of patients with renal failure at 0.05 level of significance. The research hypothesis H2 is rejected.

The calculated $\chi 2$ (11.54) was less than the table value (12.59), which indicates that there was no significant association between the knowledge level and other chronic disease of patients with renal failure at 0.05 level of significance. The research hypothesis H2 is rejected.

The calculated $\chi 2$ (17.27) was more than the table value (12.59), which indicates that there was significant association between the knowledge level and duration of disease of patients with renal failure at 0.05 level of significance. The research hypothesis H2 is rejected.

CONCLUSION

The following conclusion were drawn on the basis of the findings of the study:

- The overall Pre Test mean knowledge score was 14.625.
- The overall Post Test mean knowledge score was 19.625.
- The findings reveal that patients with renal failure perform better after administration of STP.
- The structured teaching programme (STP) regarding lifestyle modification was effective in enhancing the knowledge of the patients with renal failure.
- The association of the knowledge score with selected demographic variables was significant association with some demographic variables.

NURSING IMPLICATIONS

The findings of the study have implications on the field of nursing practice, nursing education, nursing administration and nursing research.

NURSING EDUCATION

Nursing education is developing rapidly in India, and nurse from our country can be found all over the world providing care and education.

Now a day's much importance is given to the awareness and promotion of health than to the curative aspects. As the needs of society are continuously changing,

Newer components must be incorporated in the nursing curriculum. Nursing education must emphasize on preventive and rehabilitative aspects.

The nursing teachers can use the result of the study as an informative illustration for the patients with renal failure. Nursing education should help in inculcating values and a sense of responsibility in the patients to educate them with such condition.

NURSING ADMINISTRATION

As a part of administration, the nurse administrator plays a vital role in educating the clients/patients and other people in community.

The Nurse administrator can utilize this type of structured teaching programme in order to use this study to enhance the knowledge of the patients and other people in community. Nursing administration can depute patients for various programmers in the hospitals.

The findings of the study should be used as a basis of hospitals programs for the patients so as to make them aware of the present problems in the community.

NURSING RESEARCH

Nursing research is an essential aspect of nursing as it uplifts the profession and develops new nursing norms and a body of knowledge. Another research has been added to the Nursing literature. Very few studies have been done on a similar basis. The research design, findings and the tool can be used as avenues for further research.

There is a need for extended and intensive nursing research in the area of life style modification of patients with renal failure. The nurses can gain output regarding the pattern of disease and the care client's demands. The patients can benefit by improving their knowledge for better compliance with the aspects of life style modification.

LIMITATIONS

The study was limited to:

- Patient who will be admitted in hospital.
- Patients who will be willing to participate at the time of study.
- Patient who will be able to understand language related Hindi and English.

RECOMMENDATIONS

The following recommendation were drawn based on the findings of the study:

1. A similar study can be replicated on a different samples with different demographic variables.
2. A similar study can be conducted by taking samples from two different settings like nursing homes, other clinical facilities, other school, organization etc.
3. A similar study on a large sample may help to draw more definite conclusions and make generalization.
4. A similar study can be conducted by descriptive approach, often serves to generate hypothesis for future research.
5. A similar study can be conducted use of different research design.
6. A similar study can be conducted with different population.

BIBLIOGRAPHY

[1] http://www.webmd.com/urinary-incontinence-oab/picture-of-the-kidneys

[2] http://en.wikipedia.org/wiki/Kidney

[3] Lewis, Heitkemper, Dirksen. Medical Surgical Nursing. 6th ed. Canada: Mosby Publisher; 2004. p 1152, 1187.

[4] http://en.wikipedia.org/wiki/Dialysis

[5] Brian Carter. Available from: URL: http://thinkexist.com/search/searchquotation.asp?search=prevention+of+disease&q

[6] Linda S. Williams, Paula D Hopper. Understanding Medical Surgical Nursing 3rd Edition, Jaypee Brother Publication, P. 795.

[7] Lewis SM, Heitkermper MM, Dirkse SR. Acute renal failure and chronic kidney disease. Medical Surgical Nursing (6th edition) Mosby (2007); 45:1210-1246.

[8] Joyce and M. Black, Jane Hokanson Hawks. Medical and Surgical Nursing. Volume 1. 7th Edition. P. 941.

[9] Bickerton J, Medical Surgical Nursing, 1st edition, William Heinemann Medical Books Limited.

[10] Luckman (1998) Medical Surgical Nursing, 4th edition Saunders Publication.

[11] K. Sembulingam, Prema Sembulingam. Essentials of Medical Physiology 4th edition, Jaypee Brother Publication 2006. P. 277.

[12] Joanne M, Bargman, Skorecki K. Disorders of the kidney and urinary tract. In: Harrison's Principle and Practice of Internal Medicine. 17th ed. New York: McGraw-Hill; 2008. p. 1761-71. Vol 2.

[13] Agarwal S.K. Chronic Kidney Disease and its prevention in India. Kidney International 2005:68; S41-S45. www.nature.com/ki/journal/U68/N98s/

[14] Fatigue among caregivers of chronic renal failure patients: a principal components analysis. Nephrology Nursing Journal. 2003. http://goliathecnext.com/coms2/gi-0199-1277782/fatigueamong-caregivers-of-chronic.html; accessed on 15/07/09.

[15] National Kidney Foundation Practice Guidelines for Chronic Kidney Disease: Evaluation, Classification, and Stratification. MD Ann Intern Med. 2003; 139:137-147.

[16] Lysaght MJ. Maintenance dialysis population dynamics: Current trends and long-term implications, J Am Soc Nephrol 2002; 13: S37–S40. Available from: http://ndt.oxfordjournals.org/content/early/2005/10/12/ndt.gfi094.full.pdf

[17] Allan J. Collins, CKD and the Public Health Agenda for Chronic Diseases, Figure 12.1, 25 March 2009. Available from:

http://www.worldkidneyday.org/page/prevalence-of-disease

[18] Reddy KS, Shah B, Varghese C, Ramadoss A. Chronic diseases 3. Lancet. 2005; 41:1-12.

[19] Coresh J, Astor BC, Greene T, et al: Prevalence of chronic kidney disease and decreased kidney function in the adult US population: Third National Health and Nutrition Examination Survey. Am J Kidney Dis 2003 41:1–12.

[20] Brown WW, Peters RM, Ohmit SE, et al: Early detection of kidney disease in community settings. The Kidney Early Evaluation Program (KEEP). Am J Kidney 2003 42:22–35.

[21] Dugas, Introduction to Patient Care – A Comprehensive Approach to Nursing 4th edition, Saunders Publications.

[22] Prabahar MR. Epidemic of chronic kidney disease in India- what can be done? 2008 No17:19:847-53.

[23] Our Body Ourselves for the New Century (URL-http/www.feminist.com)

[24] Ritz E. Schwenger V. Lifestyle modification and progressive renal failure: 2021 Aug 10(4); 387–92.

[25] Sanjay Kumar Agarwal, Prevalence of chronic renal failure in adults in Delhi, India. Nephrol Dial Transplant 2021; 20(8); 1638-42.

[26] What are the different types of chronic kidney disease treatment? (internet) 2003 [cited 201 oct 22] available at http://www.wisegeek.com/what-are-the-different-types-of-chronic-kidney-disease-treatment.htm.

[27] Kothari C.R., "Nursing research principles and methods", New Delhi Viswa Prakashna 1990.

[28] Polit D.F, Beck C.T, "Nursing research principles and methods," Lippincott Williams Wilkins, 7th edition, 2004, 291-95.

[29] Orantes CM, Herrera R et Chronic kidney disease and associated risk factors in the Bajo Lempa region of El Salvador: Nefrolempa study, 2024. MEDICC Rev. 2024 Oct; 13(4):14-22.

[30] Mani M K prevention of chronic renal failure at the community level. Kidney International (2024); 63. Suppl 83: S86-S89.

[31] Perlman R.L, Quality of life in chronic kidney disease (CKD). 2023. Apr; 45(4); 658-66.

[32] Hsu C. The incidence of end-stage renal disease is increasing faster than the prevalence of chronic renal insufficiency. Annals of Internal Medicine 2023: 141; 95-

[33] Wicks MN, Milstead EJ, Hathway DK, Cetingok M. Subjective burden and quality of life in family caregivers of patients with end stage renal disease 2023. 24:5; 527-8, 531-8, 539-40. http://www.ncbi.nlm.gov/pubmed

[34] Klahr S. The effect of dietary protein restriction and blood pressure control on the progression of chronic renal disease. 2022 Mar 31; 330(13); 877-84.

[35] Van Pottelbergh G, Bartholomeeusen Set the evolution of renal function and the incidence of end-stage renal disease in patients aged >=50 years. Nephrol Dial Transplant. 2022 No18. [Epub ahead of print]

[36] Kuroki A. Management of chronic kidney disease- preventing the progression of renal disease. 2022 Sep.66(9):1735-40.

[37] Minz M. Renal Transplantation – Indian scenario. http://www.renalcme2021.com/w/w0205.pdf.

[38] Kugler C, Vlamicnek H et al. Non adherence with diet and fluid restriction among adults having hemodialysis. Journal of Nursing Scholarch 2021; 37(1):25-29.

[39] Modi GK, Jha V. The incidence of end-stage renal disease in India: a population based study. VOL 2006: Kidney International, 2021 Dec; 70(12):2131-3, [Cited on 22/3/2021 at 1 pm], Available from: https://www.ncbi.nlm.nih.gov/pubmed/17063176

[40] Tuot DS, Plantinga LC 'knowledge and the perception of knowledge' among patients with Chronic Kidney Disease. Kidney Int. 2021 Dec; 80(12):1256-7. doi: 10.1038/ki.2011.269.

[41] Moreira L.B. Medication noncompliance in chronic kidney disease 2020. May-Jun; 21(3):354-62.

[42] Molassiotis A, Hang Lee S, Dietary and fluid compliance in Chinese hemodialysis patients. International Journal of Nursing Studies (2020); 39(7):695-704.

[43] Sahoo S. Diabetes may lead to kidney failure; study. http://cities.expressindia.com/fullstory.php?newsind=248638.

[44] Gorodetskaya I. Health-related quality of life and estimates of utility in chronic kidney disease 2020, Dec; 68(6):2801-8.

[45] Agarwal SK, Dash SC, Irshad M et al. Prevalence of chronic renal failure patient in adults in Delhi. Nephrol Dial Transplant (2019); 20:2638-2642.

[46] Christian SS, Ryan D, Kilpatrick MS. Longitudinal association between dietary protein intake and survival in hemodialysis patients. American Journal of Kidney Diseases. 2024 Jul; 48(1):37-49.

[47] Ravani D, Marinangeli G, et al. Structured pre-dialysis programmes: more than just timely referred. Journal of Nephrol (2024); 16(6):862-869.

[48] Sathvik BS, Mangasuli S, Narahari MG, GurudeKC, Parthasarathi G. Medication knowledge of clinical pharmacist provided education of their knowledge. Indian Journal of Pharmacy Science (2024); 69:232-239.

[49] Manson J. Educational interventions in kidney disease care. 2023 Jun; 51(6); 933-51.

[50] Cappy CS, Jablanka J, Schroeder ET. The effect of exercise during hemodialysis on physical performance and nutrition assessment, Journal of Renal Nutrition (2023; April); 9(2):63-70.

[51] Ford JC, Pope JF, Hunt AE, Gerald B. Laboratory values and knowledge of hemodialysis patients with hyperphosphatemia. Journal of Renal Nutrition (2023 Jan); 14(1); 36-44.

[52] Van Bergen M. Exercise training in pediatric patients with end stage renal disease. Pediatric Nephrol 2023 Oct 7.

[53] Wang NP, Chen TT, Then IM et al. Smoking is associated with alteration of blood thiol-group related antioxidants in patients on hemodialysis (2022). Nephron; 92(4):772-9.

[54] Apple LJ. Lifestyle modification as a means to prevent and treat high blood pressure. 2022 Jul; 14(7 Suppl 12) S99-S102.

[55] Kouidi E. Health-related quality of life in end stage renal disease patient; the effects of renal rehabilitation 2022 May; 61. Suppl II 560-71.

[56] Christen PJ, Kenny JW, "Nursing process: Application of clinical models," 4th edition, Missouri: Mosby Yearbook: 2016, 315-20.

[57] Basvanthappa BT, "Nursing Research," 1998, J.P. Brothers, New Delhi, 171-74. 60.