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A Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge Regarding Kidney Transplantation among ESRD Patients at Selected Hospitals at Mandya (Dist.)

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Abstract:- Introduction: Kidneys are the most 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 functions, and regulation of blood calcium level. Methods: A pre experimental research approach with one group pre-test design which includes manipulation, without control and randomization. The study includes 30 patients who are selected as a sample by non-probability convenient sampling technique. Result: We enrolled 30 samples. Thus we concluded that the overall pre-test knowledge of experimental group is having the same level of knowledge, the main value of experimental group was 4.5 (30%). The overall post-test knowledge means group scored in mean value of 10.4 (69.3%). Thus the patients in dialysis unit among the experimental group have scored high in post-test. Hence the research study was preferred to be highly significant. Discussion: The findings of this study revealed that knowledge of the patients having more knowledge regarding kidney transplantation on ESRD after giving the structured teaching programme. Thus we concluded that the selected sample need on-going classes periodically regarding kidney transplantation on ESRD.

Keywords:- *Effectiveness, ESRD, Knowledge, Kidney Transplantation.*

I. OBJECTIVES OF THE STUDY

1. Assess the pre-test knowledge regarding patient on ESRD.
2. To develop and implement a structured teaching programme on knowledge regarding kidney transplantation.
3. Assess the post-test knowledge regarding patient on ESRD.

II. METHODOLOGY

Methodology of research organizes all the components of study in a way that is most likely to lead to valid answers to the problems to have been posed

Research approach:

The selection of the research is a basic procedure for the conduction of research study. In view of the nature of the problem selected for the study and objectives to be accomplished, evaluative research approach was adopted.

Research design:

The form research design refers to a plan of a scientific investigation. Research design incorporates the most important methodology decisions that researches makes in conducting a research study. It depicts the overall plan for organization of scientific investigation. It helps the researches in selection of subjects, manipulation of the independent variable, observation of a type of statistical analysis to be used to interpret the data.

The research design selected for the present study was pre-test and pre-test with single group design.

GROUP	PRETEST	INTERVENTION	POST TEST
ESRD patients	Knowledge regarding kidney transplantation	Structured Teaching Program	Knowledge regarding Kidney transplantation
	O_1	X	O_2

Key:
O1 = Assessment of pre-test scores
X = Structured Teaching Program
O2 = Assessment of post-test scores

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Variables under study:

A concept which can take on different qualitative values is called a variable

Independent Variable

An independent variable is that stands alive and is not dependent on any other In the study independent variable refers to the Structured Teaching Program on Kidney transplantation.

Dependent Variable

A dependent variable is the variable the researcher interested in understanding, explaining or predicting
Knowledge of ESRD patients about kidney transplantation is the dependent variable in this study.

Population:

The entire set of individuals or objects having the some common characteristics
In the present study the population comprised of ESRD patients.

Sample and sample size:

Sample- Sample is a subset of a population selected to participate in a research study. It is a position of the population which represents the entire population.

In this study samples were caregivers of stroke patients in the selected hospitals.
Sample size- 30 ESRD patients were selected.

Sampling technique:

Sampling refers to the process of selecting the portion of population to represent the entire population. Non-probability convenient sampling technique was adopted for the present study.

Selection and development of tool:

The instrument selected in a research must be the vehicle that obtains the best data for drawing conclusions to the study. The tool act as an instrument to assess and collect the data from the respondents of the study.

Keeping in mind a self-administered questionnaire was selected and developed. The main purpose behind developing this tool was need of the hour to educate the ESRD patients. The tool was developed based on,

- Past clinical experience of the student investigator.
- Related review of literature (Books, Journals, Periodicals, and articles published and unpublished research studies) were reviewed and used to develop the tool.
- Based on the concept of the study.
- Based on the opinions of the subject experts.
- Based on the objectives of the study, the blue print was prepared under 3 main areas namely knowledge, comprehension and application. The prepared items were subjected to content validation, pre-testing and estimation of reliability.

III. RESULTS

Presentation of Data

The analyzed data has been organized and presented in the following sections: Section 1: Description of socio demographic variables of the caregivers in the experimental and control group.

The analyzed data has been organized and presented in the following sections.
Section A: Description of socio-demographic variable of the patient admitted in selected hospitals at Mandya Dist.
Section B: Analyses and interpretation of pre-test and post-test level of knowledge of experimental group.

SECTION-1

Distribution of patients according to socio-demographic variables by frequency and percentage.

Table No: 1 – Distribution of patient according to socio demographic variables by frequency and percentage

Socio demographic variables	Experimental Group(N=30)	
1. Age in years	Frequency	Percentage
a) <35	3	10
b) 35-55	15	50
c) 55-75	11	36.7
d) >75	1	3.3
Total	30	100

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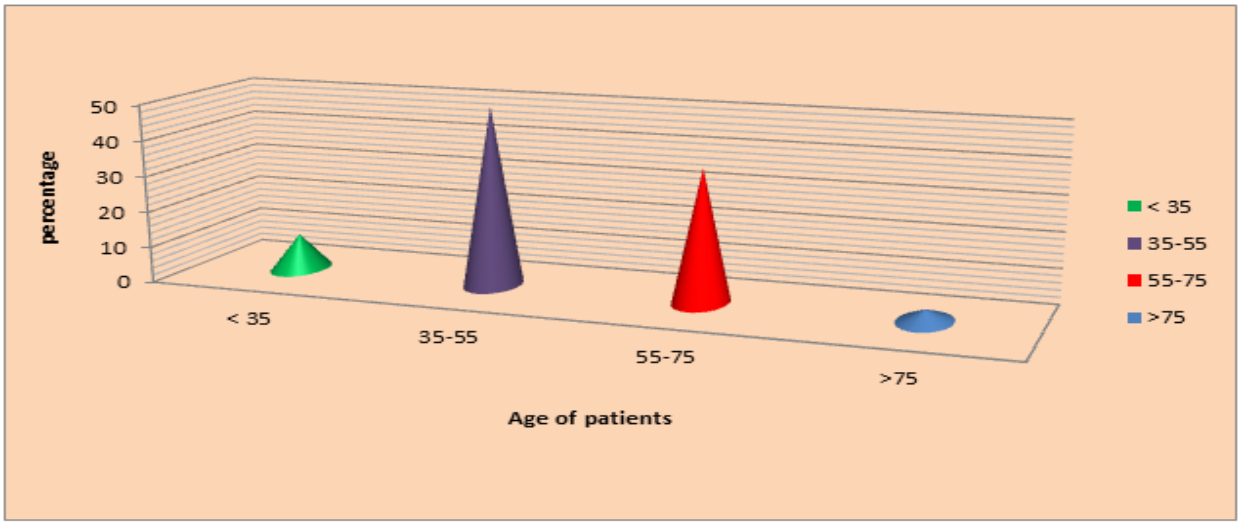

Figure 1: Cone diagramme showing the distribution of the age in experimental group

The above table and diagramme indicates the distribution of patients by the age group. The findings shows the majority of the patients belongs to the age group 35-55 years 50% in experimental group 36 .7% belongs to the age group 55-75 years , 10% belongs to the age group of <35 and 3.3 % belongs to the age group > 75.

Table No 2: Distribution of patients by gender

Socio-demographic variables	Experimental group (N=30)	
1. Gender	Frequency	Percentage
a) Male	17	56.7
b) Female	13	43.3
Total	30	100

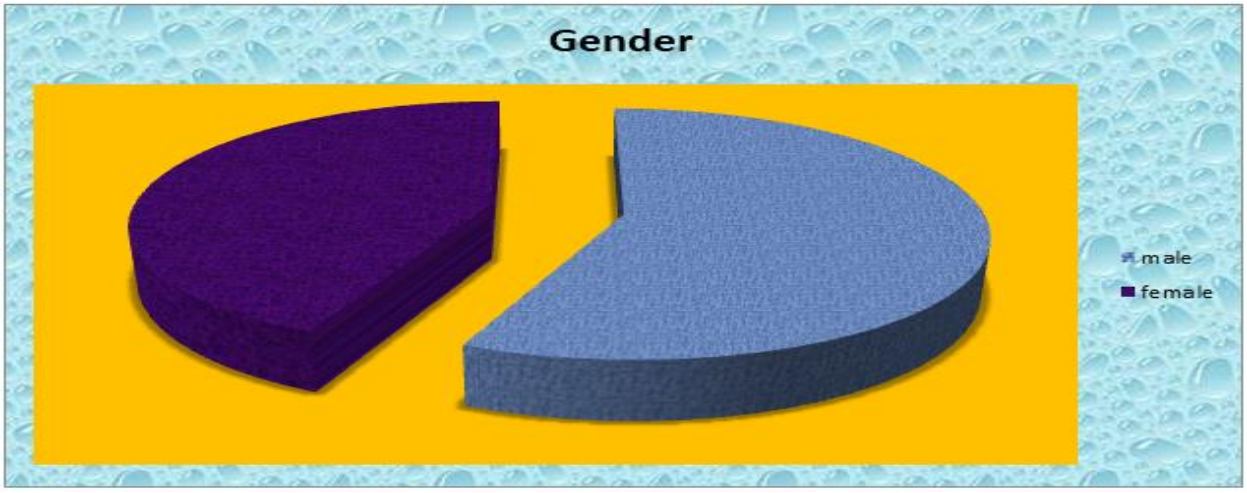

Figure2: Pie diagram showing the distribution of sex in experimental group

The above table and diagram shows the distributions of gender, 56.7% are males and 43.3% are of female in the experimental group.

Table No 3: Distribution of patients by their educational qualification

Socio- demographic variables	Experimental Group (N=30)	
2. Education	Frequency	Percentage
a) SSLC	26	86.6
b) Diploma	2	6.7
c) Degree	2	6.7
d) Double degree	0	0
Total	30	100

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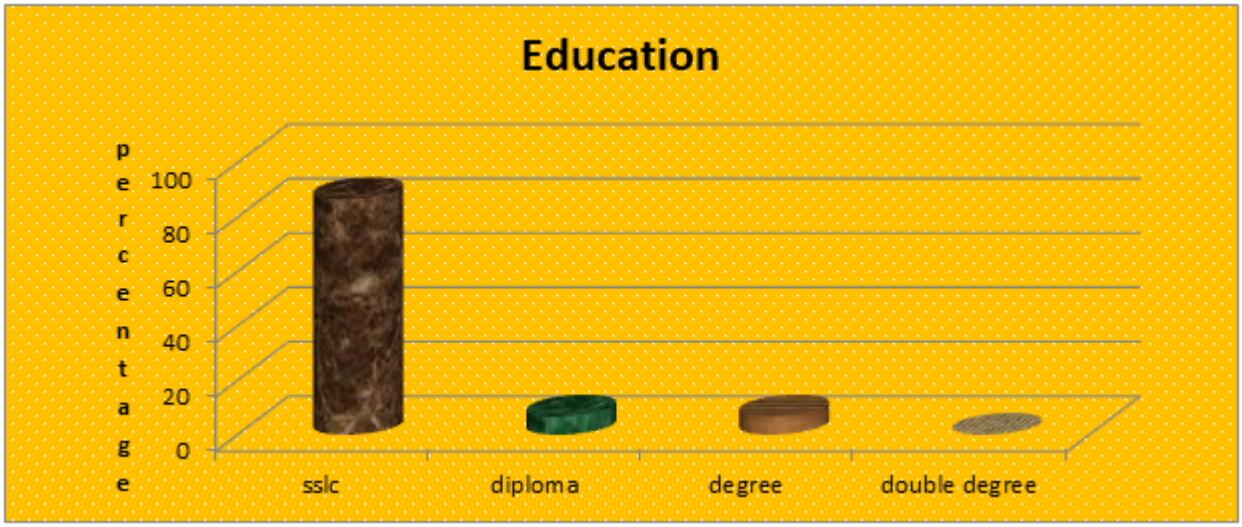

Figure 3: The cylindrical graph showing the distribution of educational qualification of the experimental group

The above diagram shows the distribution of education qualification of the patients. Most of the educational qualifications of the patients are SSLC.

Table No 4: Distribution of patient by their previous knowledge

Socio-Demographic variables	**Experimental Group(N-30)**	
4) Previous knowledge	Frequency	Percentage
a) Yes	3	10
b) No	27	90
Total	30	100

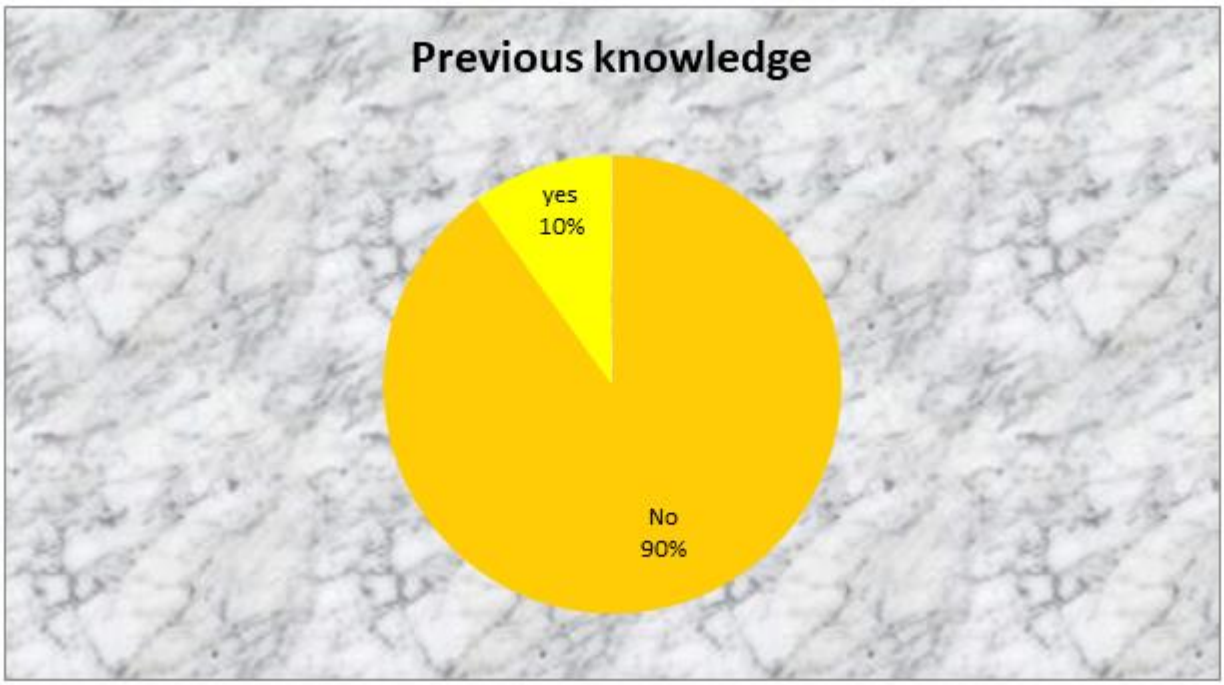

Figure 4: Pie diagram showing the distribution previous knowledge of experimental group

The above table and diagram depicts the previous knowledge of patients. 90% of patients have no previous knowledge and 10% of the patients have previous knowledge.

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Table No 5: Distribution of patient by their income

Socio-demographic variables	Experimental Group (N=30)	
3. Income	**Frequency**	**Percentage**
a) < 10000	21	70
b) 10000-20000	8	26.7
c) 20000-30000	1	33.3
d) >30000	0	0
Total	30	100

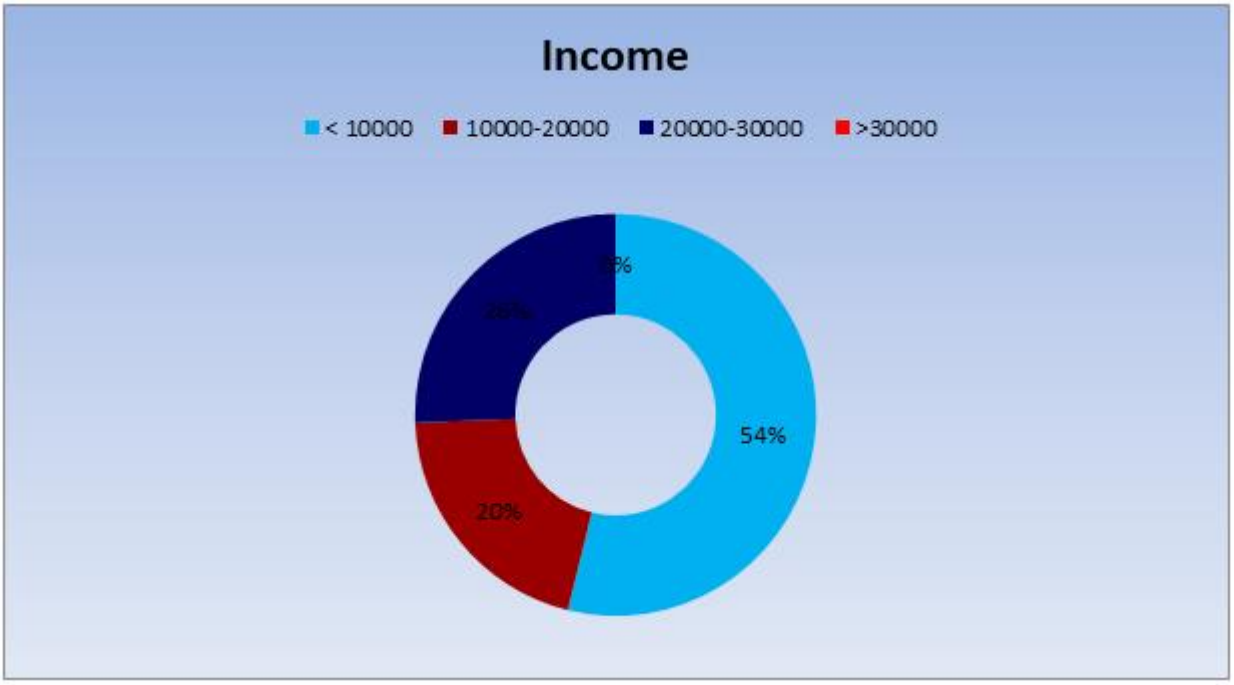

Figure 5: Doughnut diagram showing the distribution of income of experimental group

The above table and diagram depicts the distribution of patients by their income. 70% have the income of below 10000, 33.3% have the income between 20000-30000, 26.7% have the income between 10000-20000 and no one is having an income of above 30000.

SECTION – 2

Objectives 1: Assess the pre-test knowledge regarding kidney transplantation on ESRD.

Table No: 6 – Shows the overall pre-test knowledge of experimental group of patients. Overall pre-test knowledge score

Pre-test knowledge	No. of questions	Experimental group knowledge	
		Mean score	Percentage
Overall mean score	15	4.5	30

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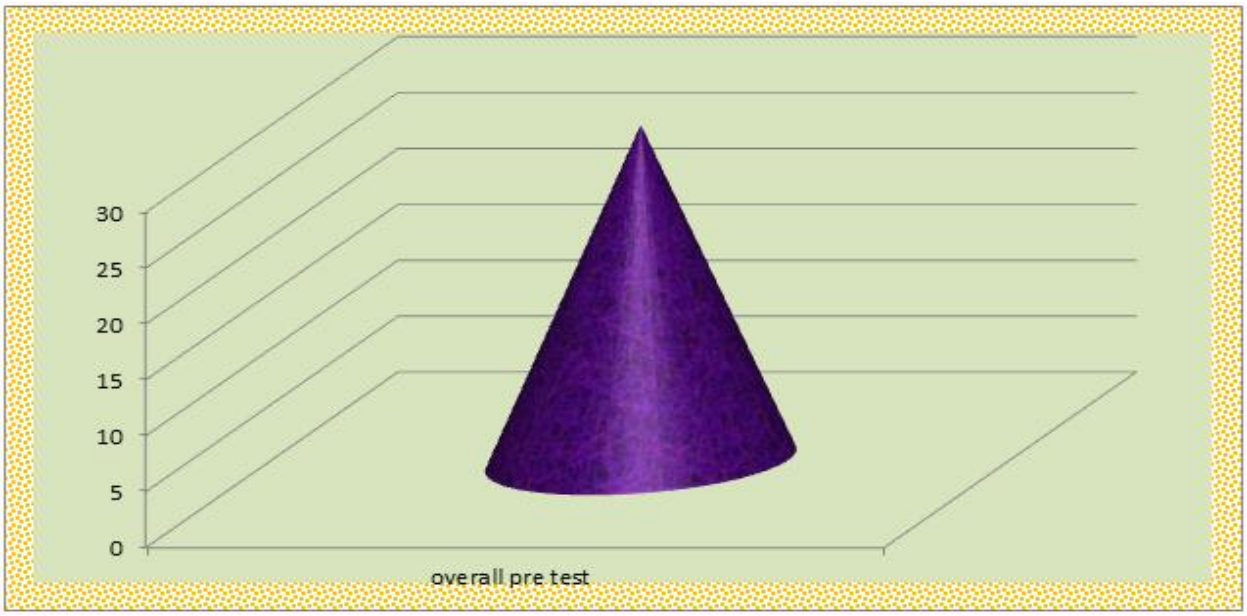

Figure 6: Cone diagram showing overall pre-test knowledge of experimental group.

The above table and figure shows the overall pre-test knowledge of experimental group. The mean value is 4.5 and percentage is 30%.

Level of pre-test knowledge

Table No: 7 – Shows the pre-test knowledge of the experimental group of patients.

Level of knowledge	Experimental group
Inadequate	80%
Moderately adequate	20%
Adequate	0%

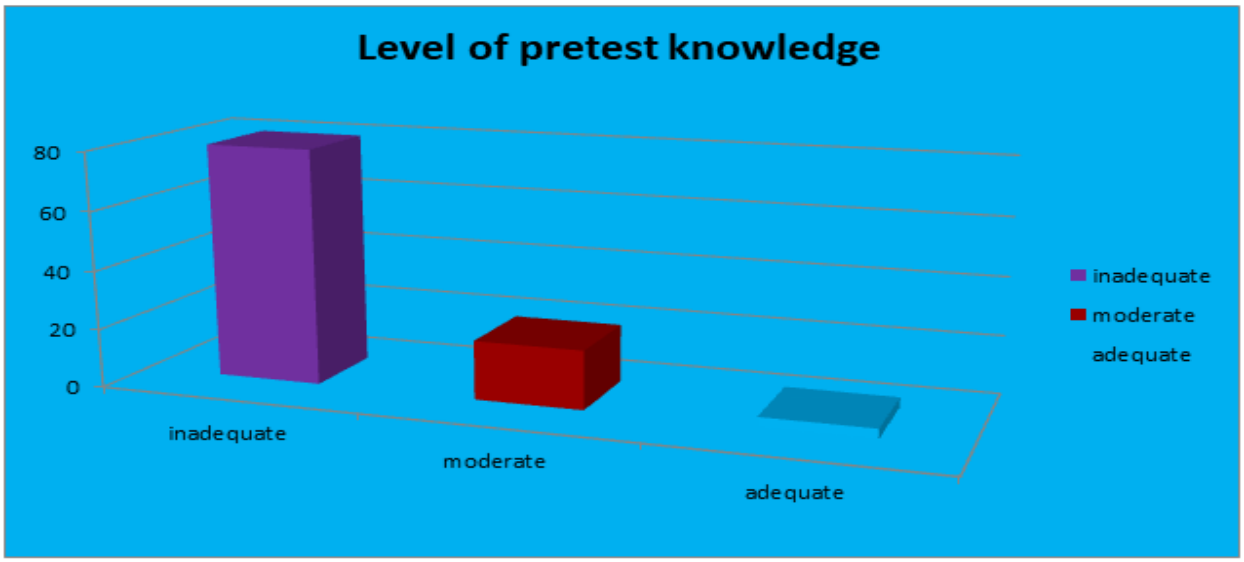

Figure 7: Column diagram showing the pre-test level of knowledge

The above table and figure shows the pre-test knowledge of 80% of experimental group of patients having inadequate knowledge and 20% having moderate knowledge and no one have adequate knowledge.

Objective 2: To develop and implement a structured teaching programme on knowledge regarding kidney transplantation.

Overall post-test knowledge

Table No: 8 – Mean score and mean percentage of experimental group knowledge.

Post-test knowledge	No: of questions	Experimental group knowledge	
		Mean score	Percentage
Overall mean score	25	10.4	69.3

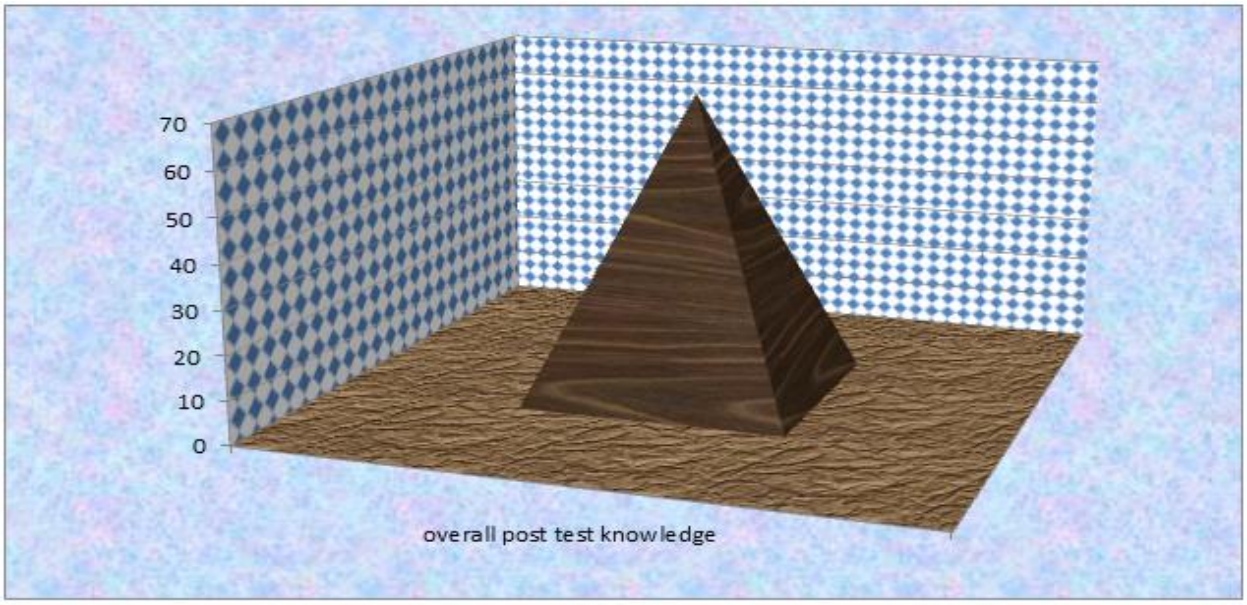

Figure 8: Triangle diagram showing the post-test knowledge

The above table and figure shows the overall post-test knowledge of experimental group. The mean value is 10.4 and percentage is 69.3%.

Level of post-test knowledge

Table No 9: Shows the post-test knowledge of the experimental group of patient.

Level of knowledge	Experimental group
Inadequate	O
Moderately adequate	33.3
Adequate	66.7

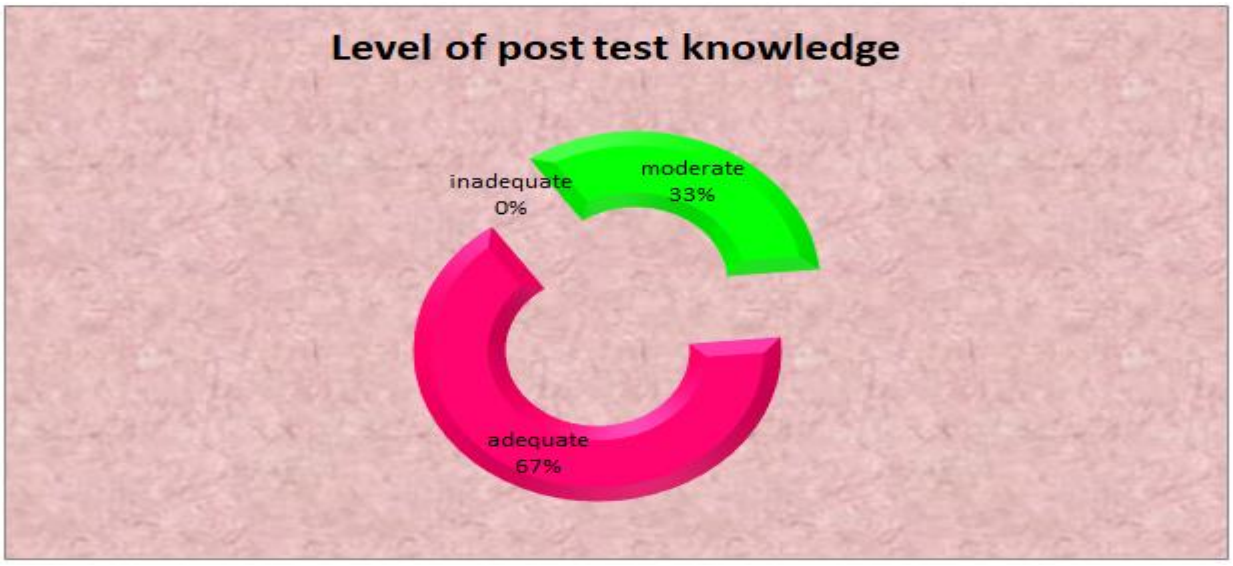

Figure 7: Doughnut showing the post-test level of knowledge

The above table and figure shows the post-test knowledge of 66.7% of experimental group of patients having adequate knowledge and 33.3% having moderate knowledge and none of them having inadequate knowledge.

Objective 3: To assess the post-test knowledge regarding kidney transplantation on ESRD.

Comparison of pre-test and post-test scores.

Table No 10:- Comparison of pre-test and post-test knowledge score.

Knowledge score	Mean	Percentage	SD	Difference of score
Pre-test	4.5	30	1.25	39.3
Post-test	10.4	69.3	2.35	

Comparison of knowledge score

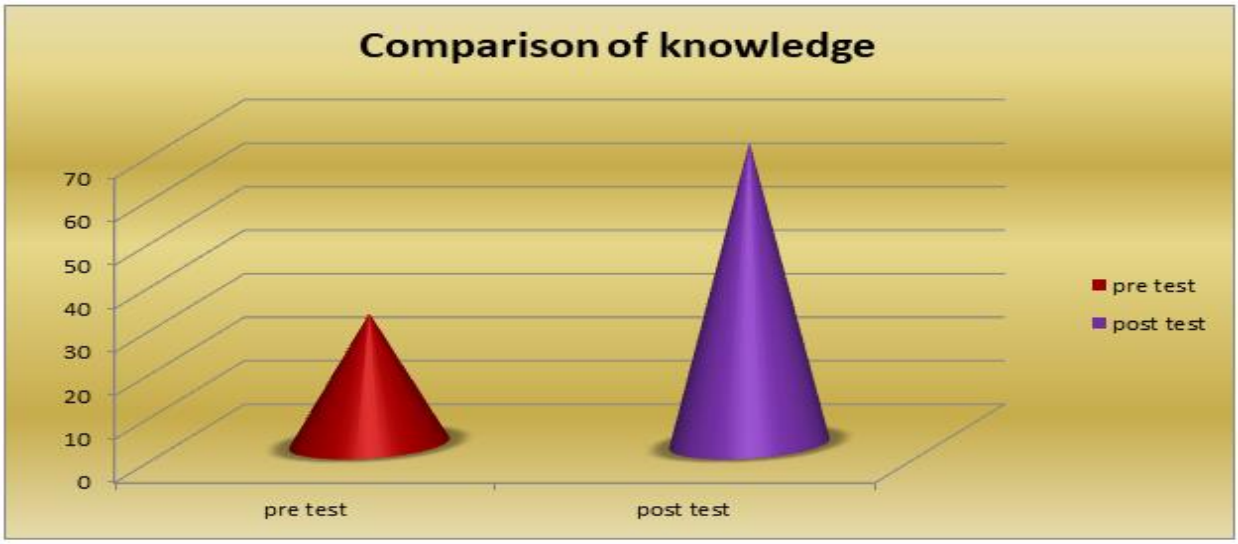

Figure 10: Cone diagram showing the comparison of knowledge score

The above table and figure indicates that comparison of pre-test and post-test knowledge score of patients , who have scored a mean value of 4.5 during pre-test and mean score of 10.4 during pre-test and mean score of 10.4 during post –test and the difference between pre-test & post-test knowledge score is 39.3%.

IV. CONCLUSION

Kidney transplantation or renal transplantation is the organ transplant of a kidney into a patient with end – stage of renal disease. The patients must have a thorough knowledge about the disease condition, kidney transplantation and its complications and management.

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