



A Study to assess the effectiveness of structured Teaching Programme on Knowledge of staff nurses regarding Hemodialysis at Dist. Head Quarter Hospital, Balangir, Odisha.

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Abstract: This study has been undertaken to investigate the effectiveness of structured teaching programme on knowledge of staff nurses regarding hemodialysis in a selected hospital at Odisha with the objectives to assess the Knowledge of Staff Nurses regarding Hemodialysis, evaluate the effectiveness of structure teaching programme and determine the association between the pre test knowledge score with selected demographic variable. J.W Kenny's system model has been utilized for conceptual frame work. A quai experimental research design with pre test and post test with control group was used. 60 no of sample were included using Non – probability purposive sampling technique where 30 each in control and experimental group. Data collection done using self-structured questionnaires suggest that 39.8% mean knowledge score of experimental group, 40.9% of control group whereas during the post test mean score was 82.7% for experimental group and 43.9% for control group. Data reveling that STP was highly effective in raising knowledge of nurses regarding hemodialysis.

IndexTerms – Assess, STP, Staff Nurses, Hemodialysis

1.

INTRODUCTION

A patient at the last stage of kidney disease depends on dialysis to mechanically remove fluid, waste products, and electrolytes from the blood. End-stage renal disease is a chronic illness which reduces the lifespan of patients. In worldwide, 30 million peoples were suffering from kidney diseases. In India, around 8% of the population have renal problem. In that, >5% were undergoing hemodialysis. The available treatments are not able to cure disease; instead, they offer extend life expectancy, symptom relief and improve the quality of life. When the kidney is not able to filter blood, another method for filtration is must. Lifetime dialysis becomes unavoidable unless transplantation of kidney is done and is successful.

In spite of technical improvements, patients are faced with numerous problems that will be alleviated by the new advances of ESRD has been increased by almost 80% per year for the past 5 years, with more than 3,00,000 patients being treated in the United State. Currently three treatment modalities are available that is Hemodialysis, Continuous Ambulatory Peritoneal Dialysis and renal Transplantation. However, none of these three treatments are curative, they offer symptomatic relief, extend life expectancy and are intended to improve the quality of life.

Nurses need to understand the impact of health status on quality of life of hemodialysis patients in order to intervene in a manner that maintains their quality of life. The investigators was working as a staff nurse at the Christian Medical College Hospital, Vellore in the Nephrology ward and had seen the pathetic stage of patients with end stage renal failure and how their quality of life is affected.

2. NEED OF THE STUDY.

At the national level an average annually increase of 11.1% is the number of chronic dialysis patients has been reported. The number of patients undergoing hemodialysis in a particular hospital, where the present study is conducted has been increasing every year. Thus the increasing concern of patients undergoing dialysis prompted the investigator to examine the problem. Nurses need to understand the impact of health status on quality of life of hemodialysis patients in order to intervene in a manner that maintains their quality of life. The incidence of ESRD has increased by almost 8% per year for the past 5 yrs. In the **United States**, more than 280,000 patients with chronic renal failure (65%) receiving hemodialysis. A total of 678 incidents in center hemodialysis patients treated at 76 clinics in UK. As of March 2024, India has the highest number of patients receiving chronic dialysis globally, with Nephro Plus providing care to about 22,000 patients in 300 centers across 28 states and union territories

3. Population and Sample

The populations for the study were the staff nurses working in selected Dist. Head Quarter Hospital, Balangir, Orissa. Non – probability purposive sampling technique used to select 60 number of sample for this study which was divided in to experimental and control group consisting up 30 each.

4. Data and Sources of Data

For this study Primary data has been collected using the self-structured questionnaires consisting in two part. After obtaining the permission and consent from the competent authority and sample data collection done in between 01.7.2012 to 20.7.2012 at Dist. Headquarter Hospital, Balangir, Odisha.

5. Theoretical framework

Theoretical frameworks are inter-related concepts or obstructions that assembled together in some rational scheme by virtue of their relevance to a common theme. J.W Kenny's open system model was used in this study. The concept of Kenny's open system model is input, throughput, output and feedback. Input refers to matters and information, which are continuously processed through the system and released as output. After processing the input, the system returns output (matter and information) to the environment in as altered state, affecting the environment for information to guide its operation. This feedback information of environment responses to the system output is used by system in adjustment correlation with the environment. Feedback may be possible, negative or neutral. In this study the concepts have been modified as follows.

6. RESEARCH METHODOLOGY

The methodology section outline the plan and method that how the study is conducted. The methodology of this study includes the choice of the research approach and the research design. The design of the study describes about the setting of the study population, the sample and sampling technique. the data collection procedure content validity and reliability tools, Pilot study and method of analysis based of the statement and objectives of the study.

6.1 Research design

A quasi –experimental research design with pre and post test with control group approach was used to evaluate the effectiveness of the structured teaching programme for the present study.

6.2 Setting of the study

This study was conducted at Dist. Head Quarter Hospital, Balangir, Odisha.

6.3 Development of Tool

Tool was developed with close ended questionnaire to assess the knowledge of the staff nurses about Hemodialysis and structured teaching program for raising knowledge. For validity and reliability of the tool necessary guidance and consultation from experts and statisticians were obtained.

7. Data Analysis

Analysis is described as categorizing, ordering, manipulating and summarizing the data to obtain answer to research question. The purpose of analysis is to reduce the data to an intelligible and interpretable form so that the relation of research can be studied.

7.1 Descriptive Statics

Descriptive Statics has been used to Frequency and percentage distribution of the demographic variables along with finding the level of knowledge of staff nurses regarding hemodialysis. The data revealed that 13 no (43.3%) whereas 16 no (53.4%) were from age group of 31-40 years, 13 no (13.3%) compare to 22 no (73.0%) were Hindu, 10 no (33.3%) in both having GNM Qualification, 11 no (36.7%) in both group having >11 years of experience, 20 no (66.6%) comparing 17 no (55.6%) were working in dialysis unit, 13 no (43.3%) having knowledge under gone special training , 13 no (43.3%) getting information through reading books in control and experimental group respectively.

The Overall Pre Test Knowledge Score found to be 39.8% in experiment group where as 40.09% in control group. The pretest level of knowledge found that 13 (48.14%) having inadequate, 17 (51.52%) having moderately adequate whereas none of participant having adequate knowledge in experiment group. In the control group 14 (51.86%) having inadequate whereas 16 having moderately adequate and none of the participant found to be having adequate knowledge.

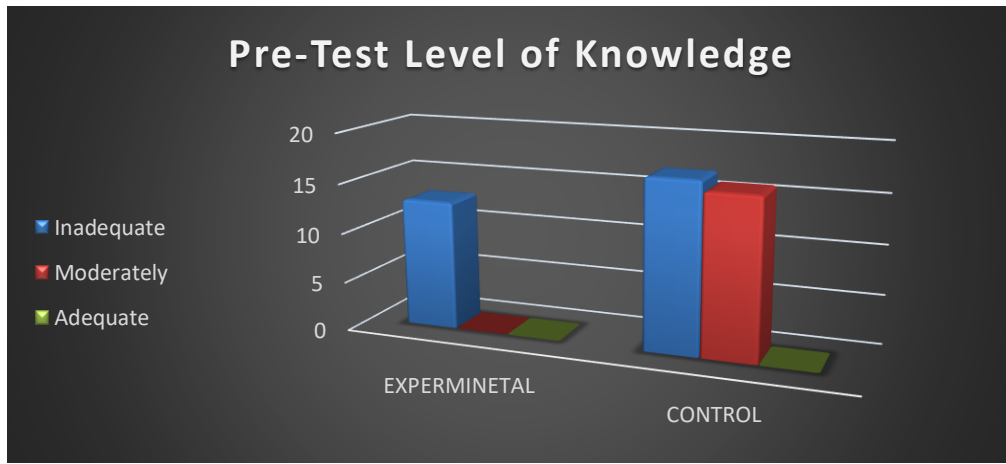


Chart- 1 showing the pretest level of knowledge among the nurses.

7.2 Inferential statistics

Inferential statistics is a branch of statistics that makes the use of various analytical tools to draw inferences about the population data from sample data. In this study it is used for Comparison of pre test & post test scores to determine the effective of structure teaching program.

| | Group | | | | unpaired t-test* |
|----------|------------|------|---------|------|--|
| | Experiment | | Control | | |
| | Mean | SD | Mean | SD | |
| Pretest | 11.93 | 2.69 | 12.27 | 4.17 | t=0.36 P=0.71 DF=58 not significant |
| Posttest | 24.80 | 2.41 | 13.17 | 4.22 | t=13.1 P=0.001*** DF=58 significant |

Table-1 showing the Comparison of knowledge score between Experiment and Control Group

| | Group | | | | Paired t-test* |
|------------|---------|------|----------|------|---|
| | pretest | | posttest | | |
| | Mean | SD | Mean | SD | |
| Experiment | 11.93 | 2.69 | 24.80 | 2.41 | t=25.50 P=0.001*** DF=29 significant |
| Control | 12.27 | 4.17 | 13.17 | 4.22 | t=1.82 P=0.09 DF=29 not significant |

Table-2 showing Comparison of knowledge score between Pretest and Posttest

(* Significant at P≤0.05 ** highly significant at P≤0.01 *** very high significant at P≤0.001)

Determination of the Effectiveness Of Structure Teaching Program

for determination of t the effective of structure teaching program among nurses paired t Test was done. The data revealed that In experiment group, staff nurses scored 11.93 in pretest and 24.80 in posttest Difference is 12.87. The difference between pre and post- test knowledge score is large and it is statistically significant. In control group, staff nurses scored 12.27 in pretest and 13.17 in posttest Difference is 0.90. The difference between pre and post- test knowledge score is small and it is not statistically significant. Statistical significance difference between experiment and control group was analyzed using paired t-test

| | Pretest% of knowledge | Posttest % of knowledge | %of Knowledge gain |
|--------------------|-----------------------|-------------------------|--------------------|
| Experimental group | 39.8% | 82.7% | 42.9% |
| Control group | 40.9% | 43.9% | 3.0% |

Table -3 11 showing the % of gain before and after the STP.

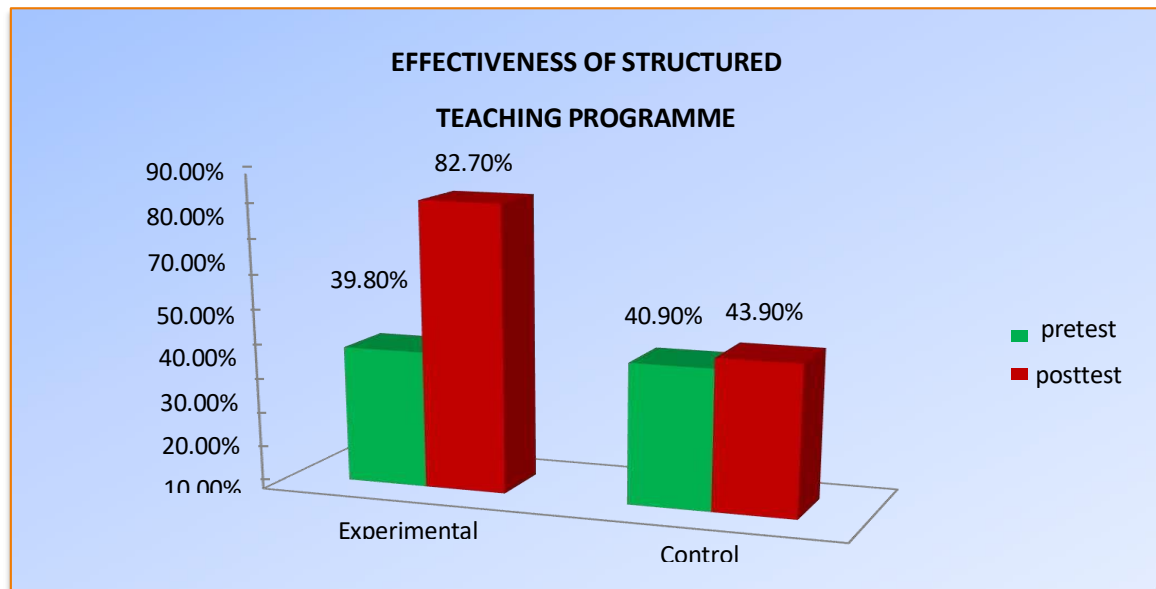


Fig-1 shows the % of gain before and after the STP

Among Experimental group, staff nurses gained the 42.9% after administration of structured teaching programme. Among Control group, staff nurses gained the 3.0% without structured teaching programmed in posttest. 42.9% of the gain in posttest shows the net benefit of **structured teaching programme**.

7.3 To find out Association between the knowledge of staff nurses with the selected demographic variable

Chi-square test done to determine the association between knowledge of staff nurses with selected socio-demographic variables. None of the socio-demographic variable found to be significant in current study.

8. Conclusion

Structured teaching programme was planned, implemented and the effectiveness was evaluated by post test. The study findings were supported on assessing the effectiveness of a consistent instruction on hemodialysis reported that the use of structured teaching programme increased the knowledge of nurses in all age group. This findings in similar to the findings of the present study.

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