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A study to assess the knowledge regarding home

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Abstract
Aim of the Study: To assess the knowledge of patients about home care management of AV Fistula among Dialysis patients.
Objectives of the Study

- To assess the knowledge of patients regarding home care management of AV fistula.
- To find out association between the knowledge of home care management of AV fistula with socio-demographic variables.
- To develop information booklet on home care management of AV fistula.

Method: In this research Study, the research approach adopted for the study was quantitative research approach and the research design was one group pre-test design. Setting of the study was selected in Rama Hospital, Kanpur and the population was AV Fistula patients undergoing dialysis in Rama Hospital Kanpur. The sample size were 30 patients, selected by purposive sampling technique. Consent was taken from the sample before data collection. Demographic data were collected by structured questionnaire. The pre-test knowledge was assessed and information booklet was given to the participants after pre-test knowledge assessment.
Results: The study shows that among 30patients, level of knowledge on home care management of A.V Fistula, 60% were have moderate knowledge, 30% were have adequate knowledge and 10% were have inadequate knowledge.
Conclusion: The study concludes that information booklet is very effective in improving knowledge of the patients on home care management of AV fistula.

Keywords: home care management, AV fistula, dialysis patients, information booklet

Introduction

"*All genuine knowledge originate in direct experience*"
-HAO-SE-TUG

Kidney is a pair of bean shaped organ located in costovertebral region. The kidney regulate body's fluid, electrolyte by producing urine and acid base while removing toxic substances from the blood. The kidneys have remarkable functional reserve. Up to 80% of GFR may be lost with few overt changes in the functioning of the body. A person is born with about 2 millions of nephrons and can survive without dialysis until almost 90% of the nephrons are lost. Some individual passes through early stages of kidney disease without recognizing disease state, where as others may rapidly progress to End stage renal failure.

Need for the study

AV Fistula has proven to be the best kind of vascular access for people whose veins are large enough. A primary AV fistula should be the access for at least 50% of all new patients initiating dialysis. The most frequent complication in AV Fistula is related to the vascular access site where needle is inserted such as infection, clots may block fistula. Hence, the investigator interested to conduct the research on home care management of AV fistula to improve the knowledge of patiends who are under haemodialysis with AV fistula.

Hypothesis

H_1: There is a significantly association between pre-test knowledge score and selected demographic variables such as age, gender, education, type of community, occupation, physical activity, and number of dialysis.

Assumption

- All dialysis patients may not have knowledge on home care management of AV fistula.
- Knowledge of patient may vary according to demographic variables.
- Information booklet may improve the knowledge of patients on home care management of AV fistula.

Delimitation

This study is delimitated to

- Rama Hospital.
- Clients who had AV fistula.

- Who were available at the time of data collection.

Research Methodology
Research Approach: Quantitative research approach.
Research Design: Simple descriptive research design.
Setting of the Study: Rama hospital in research center in Kanpur.

Variables
Independent Variable
Information booklet regarding AV Fistula and it's management.

Dependent Variable
Knowledge of patients on home care management of AV Fistula and it's prevention.

Demographic Variable
Age, sex, education, occupation, type of community, physical activity, no. of haemo dialysis.

Population
Patients who are undergoing hemodialysis in Rama hospital.

Sample
30 hemodialysis patients who are admitted in the Rama Hospital.

Sample Size: 30 hemodialysis patients with AV Fistula.

Sampling Technique
Purposive sampling technique, 30 samples of AV Fistula patients.

Sampling Criteria
Inclusion criteria
1. CKD patients with AV Fistula who are admitted in Rama hospital.
2. Who could understand Hindi or English.

Exclusion criteria
1. Patients other than hemodialysis.
2. Who are not willing to participate.

Development and description of tools used in the study
The tool to assess the knowledge of patients on home care management of AV fistula was developed by the investigator by submitting to the review. validity and reliability of the tool was checked.

The tool consists of 2 sections
Section A:
Baseline Performa which includes the socio-demographic data like Age, Gender, Education, Type of community, Physical activity, No. of haemodialysis.

Section B
It consists of structured questionnaire to assess the home management of A.V. Fistula, which consist of
- Meaning of AV Fistula
- Purpose of AV Fistula
- Care of AV Fistula
- Complication with A.V. Fistula
- Management of complication related to AV Fistula

Scouring key

Table 1: To assess the level of knowledge of patient regarding home care management of A.V. Fistula.

S. No.	Level of knowledge	Scoring
1.	Adequate	21-30
2.	Moderate	11-20
3.	Inadequate	0-10

Data collection procedure
The data collection procedure was done for 2 weeks from 24/3/17 to 6/4/17, after obtaining the formal permission from the Medical superintendent, Rama hospital. 30 samples were selected by purposive sampling technique and who fulfill inclusion criteria were included for this study. After obtaining, informed consent from the samples, the structured questionnaire was administered to collect the data from the patient. It took 30 minutes from each sample to complete the questionnaire from the patient, and information booklet on Home care management of A.V. Fistula was given to the sample.

Plan for data analysis
The data obtained from 30 samples was analyzed by adopting the Descriptive statistics as frequency and percentage of samples, mean, standard deviation and inferential statistics as chi-square test was prepared in accordance with various characteristics under study and percentage analysis was found.

Section I
Frequency and percentage distribution of socio-demographic variables under study, i.e. age, gender, education, occupation, type of community, physical activity, no of haemodialysis.

Section II
Knowledge scores of patients on home care management of AV Fistula by Mean and Standard deviation.

Section – III
The mean association between the level of knowledge of home care management of AV Fistula with socio-demographic variables.

Data analysis and interpretation
The data were analyzed based on the objectives of the study.
The data collected from the 30 AV Fistula patients in Rama Hospital.

Section: I
Demographic data

Section: II

Table 2: Frequency and Percentage distribution of level of knowledge on home care management of AV Fistula among among haemodialysis patients. (N=30)

Patient	Frequency	Percentage (%)
Adequate	9	30%
Moderate	18	60%
Inadequate	3	10%
Total	30	100%

It shows that among 30 AV Fistula patients of level of knowledge on home care management of AV Fistula, 18 (%) were moderate, 9(%) were adequate and 3(%) were inadequate knowledge.

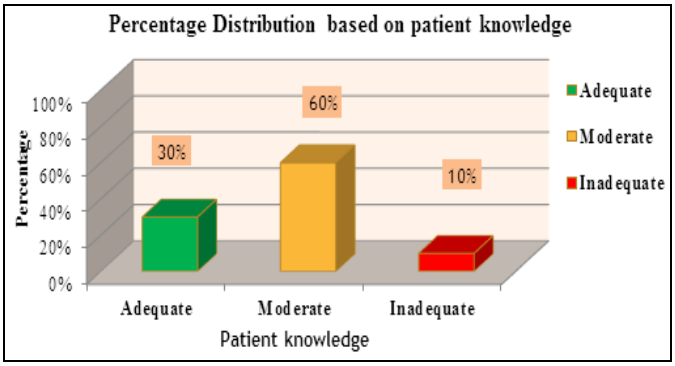

Fig 1: Percentage distribution of level of knowledge of patient.

Section: III

Table 3: Mean score and Standard Deviation of patient regarding home care management of AV Fistula (N=30)

Category	Mean	Standard Deviation
Knowledge	17.53	5.4

It shows that mean knowledge score is 17.53 and standard deviation is 5.4

Section IV

Association between the level of knowledge of patients on home care management of AV Fistula and with socio demographic variables.

There is no significant association between the demographic variables such as age, gender, education, occupation, type of community, physical activity except Number of Haemo Dialysis.

Discussion

Major findings of the study

1. Among the total SAMPLES, most of the samples (37%) belongs to the age group of 41-50years and (7%) in the age group of <20 years.
2. About the Sex, majority (63%)of the sample were male and only (37%) of the sample were female.
3. Distribution of the samples as per the Education, most of the samples (57%) have done graduation and only (67%) have done post-graduation.
4. Distribution of samples as per the OCCUPATION, showed most of the samples (23%) having are other worker, and only (10%) are labor.
5. Among the total SAMPLES, (53%) of the samples belonged to rural community, and only (3%) belong to slum community.
6. About the PHYSICAL ACTIVITY, (80%) of the samples having sedentary lifestyles and there is no moderate activity.
7. Among the total samples, (57%) have more than 4 dialysis in a month and (3%) have 1 dialysis in month.

To assess the knowledge of patient regarding home care management of AV fistula

The overall pre- test knowledge scores regarding the knowledge of patients on home care management of AV fistula, shows that majority (60%) of the samples had moderate knowledge score and only (10 %) of the sample had inadequate knowledge score regarding home care management of AV Fistula. The overall mean score and standard deviation of pretest knowledge score regarding home care management of AV Fistula in patient were 17.53 and standard deviation ±5.4 respectively.

The association between the knowledge of home care management of AV fistula with socio-demographic variables

Chi-square tests were computed to determine the association between the pre-test knowledge score with the selected demographic variables. It is proved that there was no association of knowledge score with selected variables like age, gender, education, occupation, type of community, physical activity, except no. of haemodialysis.

Conclusion

Based on the findings of the study, the following conclusions were drawn:

1. Patient have moderate knowledge regarding home care management of AV Fistula.
2. Information Booklet was very effective in improving the knowledge regarding home care management of AV Fistula
3. There was no significant association between knowledge about home care management AV Fistula and socio-demographic variables like age, gender, education, occupation, type of community, physical activity and except no. of haemodialysis.

Recommendations

Based on the findings of the study the following recommendations have been made for further study.

- A large scale study can be carried out to generalize the findings.
- A similar study can be conducted by quasi experimental approach.
- A similar study can be conducted by using the Information Booklet for educating the paramedical professionals.

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