



TO ASSESS THE EFFECTIVENESS OF PLANNED TEACHING ON KNOWLEDGE REGARDING THE PREVENTION OF RENAL CALCULI AMONG THE GENERAL POPULATIONS

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ABSTRACT

Introduction :- Kidney stones affects 240,000 to 720,000 people in us. Each year account for 7 to 10 of every 1000 hospital admissions. Objectives :To assess the existence knowledge regarding the prevention of renal calculi among the general population. To evaluate the effectiveness of plan teaching on the knowledge regarding the prevention of renal calculi among the general population. To associate the post test knowledge score with selected demographic variables. Methodology:Research design Pre-experimental One Group Pre-Post Test was used in wardha city and sample size 60 general population. Result: the mean percentage of pretest is 35.31% and mean percentage of post test is 65.62% Discussion : A study was conducted to determine the epidemiological profile of nephrolithiasis in Kuwaiti patients and the associated metabolic abnormalities favouring stone formation in this patient population. The result of the study show that new stone formation was higher among males than female.

KEYWORDS : knowledge, prevention, renal calculi, general population

INTRODUCTION

kidney stone, also known as a **renal calculus** derived from the Latin ren, "kidney" and calculus, "pebble" is a solid concretion or crystal aggregation formed in the kidneys from dietary minerals in the urine.¹

Renal calculi more commonly known as kidney stones which affects excretory and secretory function of the urinary system. Stones are formed in the urinary tract when urinary concentration of substance such as calcium oxalate, calcium phosphate and uric acid increased. This is referred to as super saturation and is dependent on the amount of substance, Certain factors favour the formation of stone including infection, urinary stasis and period of immobility.²

OBJECTIVE OF STUDY:

1. To assess the existence knowledge regarding the prevention of renal calculi among the general population.
2. To evaluate the effectiveness of plan teaching on the knowledge regarding the prevention of renal calculi among the general population.
3. To associate the post test knowledge score with demographic variables.

ASSUMPTION:

1. General population may have some knowledge regarding the prevention of renal calculi.
2. General population knowledge may vary from one another.

HYPOTHESIS

H0:- There will be no significant increase in pre test knowledge score regarding the prevention of renal calculi among the general population .

H1:- There will be significant increase in post test knowledge score regarding the prevention of renal calculi among the general population .

CRITERIA FOR SELECTION

Inclusion criteria:

- General population male and female those who are 18 years and above.
- Available at the time of data collection.
- Who are willing to participate in the study.
- They are able to read and write the English, Marathi and Hindi language.

Exclusion criteria:

- Those who attend the similar type of study.

METHODOLOGY

Research approach:- Descriptive evaluatory Approach

Research design :- Pre-experimental One Group Pre Test Post Test Design

Sampling technique :- Non probability convenient sampling technique

Population:- General population around the age group of 18 yrs and above.

Variables :- Dependant variable :- knowledge of general population regarding prevention of renal calculi.

Independent variable :- planned teaching n knowledge regarding prevention of renal calculi **Sample size :-** 60

Setting of the study :- selected area of the Wardha city

MATERIAL

Section I consists of demographic variables of the general population to be participated in the study (age, gender ,occupation ,water supply)

Section II consists of 16 questions on knowledge regarding prevention of renal calculi. **Scoring**

- Score 1 was given for correct answer
- Score 0 was given for wrong answer
- Knowledge was graded from poor knowledge to excellent knowledge based on scores.

METHODS OF DATA COLLECTION

The data is collected by using structured questionnaire .

Result

Major finding in the study

- Majority of the, 23.33% samples were from age group of 26-35, 21.66% were from the age group of 19-25, 18.33 % were from the age group of 36-45 and 20 % were from the above age group of 45 years .

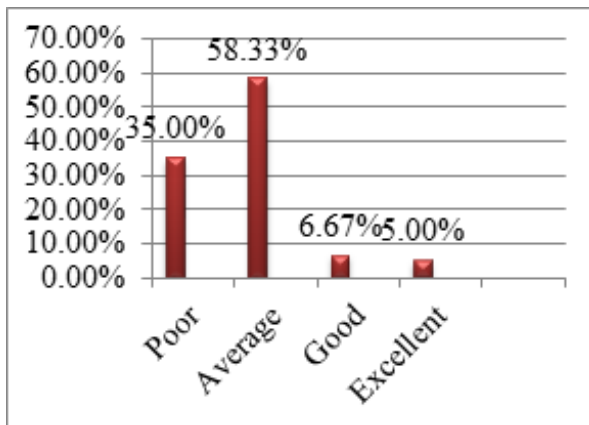
- Majority of the 55.33 samples were males and remaining 41.66% were females.
- Majority 45% of samples were had labor, 30% were had private employee, 11.66% were had government job, 13.33% were had student.
- Majority of the 56.77% samples are drinking the unpurified water and 44.66% sample were drinking the purified water.

Section-II

Table No.1 Assessment of existing knowledge regarding prevention of renal calculi among the general population.

The findings show that in pretest 21 (35%) of study participants are having poor knowledge, 35(58.33%) of study participants are having poor knowledge

Level of knowledge score	Score	Percentage score	Knowledge score	
			Frequency	Percentage
Poor	0-4	0-25%	21	35%
Average	5-8	26-50%	35	58.33%
Good	9-12	51-75%	4	6.67%
Excellent	13-16	75-100%	0	0
Minimum score	2			
Maximum score	11			
Mean score	5.65 ± 2.049			
Mean percentage	35.31 %			

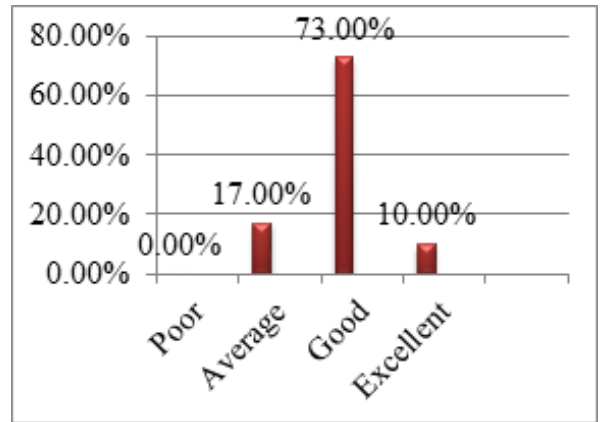


Section-III

Table No.2 Analysis of effectiveness of planned teaching on knowledge regarding prevention of renal calculi among general population.

The findings of the study shows that posttest 6(10%) were having average knowledge, 44 (73.%) had good knowledge and 10(10%) having excellent knowledge

Level of knowledge score	Score	Percentage score	Knowledge score	
			Frequency	Percentage
Poor	0-4	0-25%	0	0%
Average	5-8	26-50%	6	17%
Good	9-12	51-75%	44	73. %
Excellent	13-16	75-100%	10	10 %
Minimum score	7			
Maximum score	15			
Mean score	10.50 ± 1.7990			
Mean percentage	65.62 %			



The overall mean knowledge scores of pre test and post test of general population which reveals that post test mean knowledge score was higher 10.50 with SD of ± 1.799 when compared with pre test mean knowledge score value which was 5.65 with SD of ± 2.049 . The statistical Student's paired t test implies that the difference in the pre test and post test knowledge score found to be 14.507 which is statistically significant at 5% level of significance ($p < 0.05$). Hence it is statistically interpreted that planned teaching on knowledge regarding prevention of upper respiratory tract infection was effective. Thus H1 is accepted and H01 is rejected.

DISCUSSION

The findings of the study were discussed with reference to the objectives stated in chapter I and with the findings of the other studies in this section. The present study undertaken was "To assess the effectiveness of planned teaching on knowledge regarding prevention of renal calculi among general population."

A study was conducted to determine the epidemiological profile of urolithiasis in Kuwaiti patients and the associated metabolic abnormalities favouring stone formation in this patient population. Between 1986 and 1994, a total of 421 Kuwait patients were studied in Al-Amiri renal stone laboratory. The average annual incidence of new stone formation in Kuwaiti patients was 23.9 per 100,000 population. The incidence was only 6.9 per 100,000 population in those from pediatric age group, 33.4 in adults and 73.6 in the elderly. The frequency of new stone formation was higher among males as compared to females at different age groups. It concludes the incidence rate of new stone former in Kuwait is significantly lower from that reported in Europe and USA³. The study included two large cohorts: the Nurses' Health Study (NHS; $n = 89,376$ women) and the Health Professionals Follow-up Study (HPFS; $n = 51,529$ men). Information on body size, kidney stone formation, and other exposures of interest was obtained by mailed questionnaires. Additional studies are necessary to determine whether a reduction in body weight decreases the risk of stone formation, particularly in women.³

IMPLICATION

NURSING IMPLICATIONS OF THE STUDY

The findings of the study have implication in nursing service, nursing education, nursing administration, nursing research.

Implication for nursing service

The content of the planned teaching module will help the Nursing personnel in all areas like hospital as well as community area and clinics for teaching the individuals for prevention of renal calculi. The findings will help the nursing personnel to estimate the effectiveness of planned teaching module. The content of planned teaching module will help the nursing personnel to know much more about different causes, clinical manifestation, diagnostic evaluation, and prevention of renal calculia and home made management. which will help to explain the individuals while giving health education.

Implication for Nursing Education

The nurse educator can use the planned teaching module to teach the student as well as peripheral level health workers and individuals to improve their knowledge, attitude towards the prevention of renal calculi. The institutes of nursing education should play an active role in conducting education programmes, workshop and continuing education programmers to educate nursing personnel of the hospital regarding the prevention of renal calculi. The nurse educators can target the nurses and multipurpose health workers in the community areas to continuing nursing education programs along with training of trainers programs can be organized to help them in imparting education of prevention of renal calculi.

Implication for Nursing Research

Based on the present study further research can be conducted related to assess knowledge regarding the prevention of renal calculi. Nursing research will help to know the nurses role in developing knowledge of the people and developing the attitude related to the prevention of renal calculi.

Implication for Nursing Administration

Nursing Administration should take active part in policy making, developing, validating, approving protocols, procedures and standing orders concerning planned teaching for general population. They should concentrate on proper selection, placement and effective utilization of the nurses in all areas, giving room for creativity, interest and ability in providing planned teaching for the needed areas must provide opportunity for innovations, trial of emerging trends in the planned teaching in fostering care. Nursing administration should encourage and conduct various types of health educational camps in the community as well as in the hospital, which will encourage people to acceptance of practice regarding prevention aspects.

Personal Experience

The entire study gave an enriching experience to the investigator. It helped her to develop her skill in critical thinking and analysis and realize the importance of effective communication with the respondent.

The entire study was varied and had rich learning experience, which enabled the investigator to develop her skill in dealing with different personalities. The concept clarity about research as a whole was increased. At every stage the investigator received guidance and support from her guide. The co-operation from study samples was remarkable. The research was a great learning opportunity for the investigator.

CONCLUSION

The researcher as a part of her post graduate programmed, conducted an intervention research on the topic to assess the effectiveness of planned teaching on knowledge regarding prevention of renal calculi among the general population. The researcher aimed to improve the level of knowledge of general population. He predetermined certain objectives, to precede the study. And finally the researcher reached into her findings. The result of this study shows that 6(10%) were having average knowledge, 44(73.33%) having good knowledge and 10(10%) having the excellent knowledge in post test. To find the effectiveness of planned teaching 't' test was applied and t value was calculated, post test score was significantly higher at 0.05 level than that of pre test score. Thus it was concluded that planned teaching on the prevention of renal calculi was found effective as a teaching strategy.

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