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A STUDY TO ASSESS THE EFFECTIVENESS OF PLANNED TEACHING PROGRAMME ON KNOWLEDGE REGARDING PREVENTION OF RENAL CALCULI AMONG PATIENTS ADMITTED IN MEDICAL WARD AT SELECTED HOSPITAL RAJASTHAN

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INTRODUCTION

Renal calculi are commonly known as kidney stones which affects excretory and secretary function of the urinary system. The urinary system is a group of organs that consist of two kidneys and two ureters with single bladder and urethra. The main function of this system is filtering the blood stream and excrete out the unwanted fluids and other chemical substance through the urine. Urine is liquid it contains excess mineral and vitamins with waste product of metabolism. It also maintains homeostasis with acid base balance and electrolyte balance of blood. Any occlusion in the pathway of obstructs the urine output and rather affects the entire system. The formation of kidney stone is termed as renal calculi more commonly known as kidney stones. In medical condition the terminology of having urinary calculi is termed as nephrolithiasis or urolithiasis where the root word "Lith" meaning "a stone". People who live in hot climates and become dehydrated more faster are risk for renal calculi due to the loss of more fluids from the body. Renal calculi lodge within the urinary system produce common symptoms like blood in the urine and pain in the abdomen, flank, renal colic that radiates from the lumbar region to the pubic region, sweating, nausea and vomiting. It occurs 1 in 20 people at some time in their life. Stones are formed in the urinary tract when urinary concentration of substances such as calcium oxalate, calcium phosphate and uric acid are increased. This is referred to as super saturation and is

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depends on the amount of substance, certain factors favour the formation of stone including infection, urinary stasis and period of immobility. Among the urologic disorder, kidney stones are one of the most painful, which are not a product of modern life and also unfortunately, among disorder of urinary tract, kidney stones are one of the most common disorder. Globally a large number of people are suffering from urinary stone problem. Kidney stones which are solid crystals that form from dissolved minerals in urine, can be caused by both environmental and metabolic problems. In economically developed countries almost 70% of all renal stones are observed to be calcium oxalate and phosphate stones. People between 30 to 60 years of age most commonly affect with kidney stone in which it affects more commonly in men than women. It is estimated that renal colic, severe pain caused by a renal calculi affects 10-20% of men, and 3-5% of women. 12% of the population in India is expected to have urinary stones, out of which 50% may end up with loss of kidneys or renal damage. Among all types of stones recurrent stone formation is a common problem which acts as an important part of medical care of patients with stone disease..

OBJECTIVE

- To assess the pre-test level of knowledge regarding the prevention of renal calculi among patient's admitted in medical ward.
- To assess the effectiveness of planned teaching programme (post-test) on level of knowledge regarding prevention of renal calculi among patients admitted medical ward.
- To compare the pre-test and post-test level of knowledge regarding prevention of renal calculi.
- To find out the association between the post-test knowledge score of patients with their selected demographic variables.

HYPOTHESIS:

All at 0.05 level of significant H1 There will be significant difference between the pretest and post- test level of knowledge regarding prevention of renal calculi among patients admitted in medical ward. H2 There will be significant association between the

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post test level of knowledge regarding prevention of renal calculi with their selected demographic variables.

RESEARCH METHODOLOGY

A Quantitative research approach was used for the present study. In this is study, the researcher used Pre experimental design in one group pretest and post test design. The study was conducted at Eternal Heart Care Centre, Jaipur, Rajasthan. The sample size consists of 300 patients. Who fulfills the inclusion criteria of sample. The convenient sampling technique was used.

RESULT

In pre-test: They are having maximum knowledge score in introduction 58% and causes 39.03% and overall percentage of knowledge score is 42.48%. 80% of the patients having inadequate level of knowledge score 20.0% of the patients are having moderate knowledge score and none of the patients are having adequate knowledge score. In post test: They are having maximum score in introduction, causes 86% and minimum score in the management 73%. overall percentage of knowledge score is 75.85%. none of the patients are having inadequate level of knowledge score, 28.3% of the patients are having moderate knowledge score and 71.7% of the patients are having adequate level of knowledge score. The association between demographic variables and post test level of knowledge gain score. Age 30 to 40 years (16.7), Gender male (14.3), Monthly income of the family below 5000(6.45), joint family (8.98). statistical significance was calculated using chi square test.

DISCUSSION

During post-test score of knowledge regarding prevention of the renal calculi among patients admitted in medical ward . They are having maximum score in the domain Knowledge on Marriage (80.83%) They are having minimum score in the domain Preventive measures (70.67%) Overall percentage of knowledge score is 75.85%. The study findings were showed that there is significant association between age, gender, monthly family income, joint family. Ayush lohiy A. et al. (2019) carried out a cross sectional study on population-based estimate of urinary stones from ballabgarh,

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northern India. The study concluded that majority of the patients were in the age group of 20 to 40 years. Thus, the study concludes that high burden of urinary stones is common in working age population in northern India at the community level. The analysis revealed that there was significant association between the knowledge regarding prevention of renal calculi among patients with demographic variables. Hence H2 was accepted. The present study results highlighted the effectiveness of planned teaching programme on prevention of renal calculi among medical ward patients. It is also evident that planned teaching programme is effective in empowering patients with adequate knowledge and helping them in prevention of renal calculi.

CONCLUSION

Nurses must have holistic knowledge regarding prevention of renal calculi. Nurses play a vital role of prevention aspects. The present study had been supported by a series of other studies which confirmed that the knowledge on prevention of renal calculi. Data analysis and result was found that planned teaching programme on prevention of renal calculi was an effective method for providing adequate knowledge to the patient.

REFERENCES

- 1. Maalouf NM, Sakhaee K, Parks JH, Coe FL, Adams-Huet B, Pak CY. Association of urinary pH with body weight in nephrolithiasis. Kidney international. 2004 Apr 1;65(4):1422 -5.
- 2. Parmar MS. Kidney stones. Bmj. 2004 Jun 10;328(7453):1420-4.
- 3. Saigal CS, Joyce G, Timilsina AR, Urologic Diseases in America Project. Direct and indirect costs of nephrolithiasis in an employed population: opportunity for disease management?. Kidney international. 2005 Oct 1;68(4):1808-14.
- 4. Worcester EM, Coe FL. Calcium kidney stones. New England Journal of Medicine. 2010 Sep 2;363(10):954-63.
- 5. Scales CD, Curtis LH, Norris RD, Springhart WP, Sur RL, Schulman KA, Preminger GM. Changing gender prevalence of stone disease. The Journal of urology. 2007 Mar;177(3):979-82.
- 6. Evan AP. Physiopathology and etiology of stone formation in the kidney and the urinary tract. Pediatric Nephrology. 2010 May 1;25(5):831-41.

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- 7. Worcester EM, Coe FL. Nephrolithiasis. Primary Care: Clinics in Office Practice. 2008 Jun 1;35(2):369-91.
- 8. Goldfarb DS, Fischer ME, Keich Y, Goldberg J. A twin study of genetic and dietary influences on nephrolithiasis: a report from the Vietnam Era Twin (VET) Registry. Kidney international. 2005 Mar 1;67(3):1053-61.
- 9. Boll DT, Patil NA, Paulson EK, Merkle EM, Simmons WN, Pierre SA, Preminger GM. Renal stone assessment with dual-energy multidetector CT and postprocessing techniques: improved characterization of composition—pilot study. Radiology. 2009 Mar;250(3):813-20.