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RESEARCH ARTICLE

A QUASI EXPERIMENTAL STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING ON THE LEVEL OF KNOWLEDGE REGARDING CATHETER ASSOCIATED URINARY TRACT INFECTION AMONG STAFF NURSES

Babita Lohani

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Abstract

Background: Urinary tract infection (UTI) is defined as an infection that involves any part of the urinary system, including the urethra, bladder, ureters and kidneys. Urinary tract infections (UTI) are among the most common bacterial infections, and affect about 150 million individuals annually worldwide. UTIs in men are considered complicated regardless of clinical scenario. In the United States, up to 80% of complicated urinary tract infection are attributable to indwelling urinary catheters. The aim of the study was to assess the effectiveness of structured teaching program on the level of knowledge regarding Catheter associated urinary tract infection.

Objectives: To evaluate the effectiveness of structured teaching program on the level of knowledge regarding catheter associated urinary tract infection among staff nurses.

Material and methods: A quantitative research approach with a Quasi experimental one group Pre-test and Post- test design was used for the study to accomplish the objectives. The sample consisted of 60 staff nurses. They were chosen by purposive sampling technique. The study was conducted at Metro hospital Haridwar. A structured knowledge questionnaire was used to assess the knowledge regarding catheter associated urinary tract infection. Reliability of the tool was tested by using split half method.

Results: The results showed the enhancement of knowledge with a mean score of 8.86 and the combined 't' test value was significant i.e. 50.719 at P<0.05 level.

Conclusion: The study concluded that structured teaching program was effective and improving knowledge of staff nurse regarding catheter associated urinary tract infection. It is cost effective and can be done at any time.

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Introduction:-

Today, healthcare-associated infections are considered a major public health problem by the World Health Organization (WHO) as they increase morbidity and mortality, length of stay in hospital, and healthcare-associated costs, causing additional suffering for affected patients and their families. Urinary tract infection (UTI) is defined as

an infection that involves any part of the urinary system, including the urethra, bladder, ureters and kidneys. Urinary tract infections (UTI) are among the most common bacterial infections, and affect about 150 million individuals annually worldwide. Catheter-associated UTI (CAUTI) is one of the most common types of HAIs reported by the National Healthcare Safety Network (NHSN). CAUTIs are also probably the most preventable HAIs; however, despite advances in diagnosis and treatment, CAUTIs continue to be a serious healthcare problem. CAUTIs are the most common nosocomial infections, and account for 1 million cases per year in the United States. They are the most common cause of secondary bloodstream infections. 3–10% of residents in long-term care facilities are managed with chronic indwelling catheters.

Material and Methods:-

Conducted in the Metro Hospital Haridwar, Uttarakhand from Quasi experimental, Pre Experimental one group pre-test,post-test design was adopted and 60 subjects were included in the study by purposive sampling technique. Self-structured questionnaire was used to assess demographic variables and the level of knowledge regarding Catheter associated urinary tract infection.

Instrument/Tool: The tool was prepared according to objectives of the study. The researcher used a Self-structured questionnaire to assess demographic variables and the level of knowledge regarding Catheter associated urinary tract infection among staff nurses.

Tool 1 Socio demographic variables:-

It contains 8 items, Age, Gender, educational status, Duration of clinical experience, Religion, Monthly family income, Place of residence, Previous knowledge on supra pubic catheterisation

Tool 2 Structured knowledge questionnaire:-

Structured knowledge questionnaire was used to assess the level of knowledge regarding Catheter associated urinary tract infection among staff nurses. It consists of 25 items each item had 4 alternatives varying from the response “inadequate to moderate” knowledge. Each response carries a score of 1,2,3,4 respectively.

Statistical Analysis:-

The data was presented as Mean \pm Standard deviation (SD). Frequency and percentage distribution was used to evaluate socio demographic variables of staff nurses at Metro hospital Haridwar, Uttarakhand. Self-structured questionnaire was used to assess the level of knowledge regarding Catheter associated urinary tract infection.

Table No.1:- Frequency and percentage distribution of the demographic variables among staff nurses N=60

S.No.	Variables	Frequency	Percentage %
1.	Age (in years)		
	21-25 years	23	38.3 %
	26-30 years	07	11.7%
	Above 31 years	30	50%
2.	Gender		
	Male	12	20%
	Female	48	80%
3.	Educational status		
	GNM	49	81.7%
	B.Sc. Nursing	11	18.3%
4.	Duration of clinical experience		
	0-1 year	07	11.7%
	2-5 years	23	38.3%
	More than 5 years	30	50%
5.	Religion		
	Christian	21	35%
	Hindu	35	58.3%
	Muslim	04	6.7%
6.	Monthly family income		
	Below Rs 20,000	11	18.3%

	Rs 20,000-30,000	34	56.7%
	Rs 30,000-40,000	12	20%
	Rs 40,000 and above	03	5%
7.	Place of residence		
	Urban	58	96.7%
	Rural	02	3.3%
8.	Previous source of knowledge on catheter associated UTI		
	Health Professionals	19	31.7%
	Books	34	56.7%
	Media	03	5%
	Other	01	1.6%

Table 1- Shows that, in gender the majority of 80% staff nurses were female and 20% staff nurses were male in study. Majority of 81.7% staff nurses were GNM followed by 18.3% had completed B.Sc. nursing. Majority 50% staff nurses had clinical experience of more than 5 years. Around 58.3% staff nurses belongs to Hindu religion. Depicts that 56.7% staff nurses family monthly income was Rs 20,000- 30,000. Around majority of 96.7% staff nurses lives in urban area. Most of the staff nurses 56.7% had their source of previous knowledge through books.

Table No.2:-Findings related to effectiveness of structured teaching program N=60

S.no.	Knowledge	Mean	Mean%	SD	t value	Df	Inference
1	Pre test	12.35	49.42	1.23	50.719	59	S
2	Post test	21.21	84.85	1.39			

Table 2- Depicts the effectiveness of the structured teaching program. It shows that the t value were 50.719 at degree of freedom 59. Inference was significant which shows that structured teaching program was effective. Hence Hypothesis H1 stated that the mean post-test knowledge score regarding catheter associated UTI will be significantly higher than the pretest knowledge score among staff nurses who received structured teaching program is accepted and null hypothesis is rejected.

Table 3- Comparison of Pre test and Post Test knowledge scores regarding catheter associated Urinary Tract Infection among staff nurses. N=60

S.No.	Knowledge	Mean	Mean %	SD	Enhancement
1	Pre Test	12.35	49.42	1.23	35.43
2	Post test	21.21	84.85	1.39	

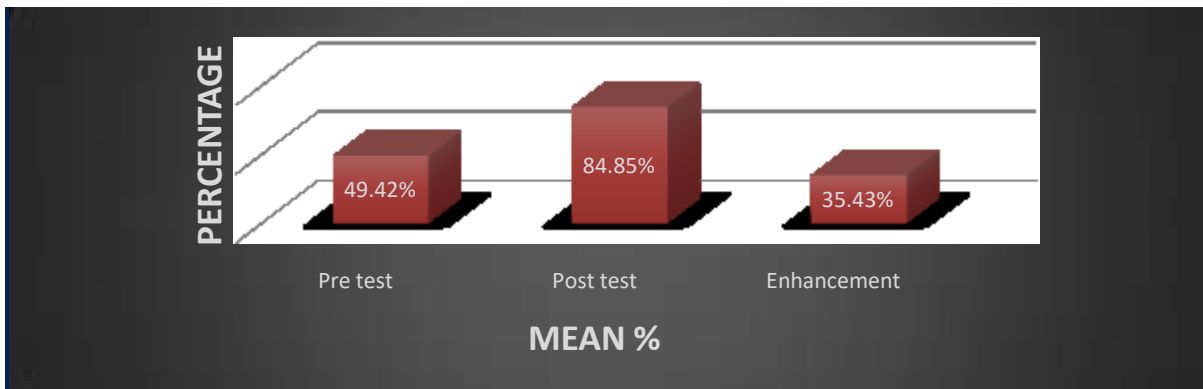


Fig.-Showing enhancement in knowledge level of staff nurses regarding Catheter associated UTI among staff nurses.

Table 3 :-Depicts comparison of pretest and post-test knowledge scores. The knowledge score of Staff nurses regarding catheter associated urinary tract infection during pretest. The mean pretest score was 12.35 with a standard deviation of 1.23 and mean Percentage was 49.42%. after intervention with Structured teaching program knowledge score of Staff nurses regarding catheter associated urinary tract infection during post-test was enhanced. The mean posttest score was 21.21 with a standard deviation of 1.39 and mean Percentage was 84.85%.The overall enhancement was 35.43%.

Limitations:-

- 1.The study was confined to a small number of samples which limit the generalization of the findings.
2. While collecting the data some staff nurses were not interested to participate in the study due to busy schedule.
3. Intervention was given for a very short period.

Conclusion:-

The present investigation concludes that structured teaching program was effectual in increasing the knowledge regarding Catheter associated urinary tract infection among staff nurses. This chapter has dealt with the discussion of the findings and provides the implications for nursing practice, nursing education, nursing administration and nursing research. It clarifies the limitations of the study and gives recommendations for further research.

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