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A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING THE PREVENTION OF URINARY TRACT INFECTION AMONG STAFF NURSES IN SELECTED HOSPITAL ROHTAS

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ABSTRACT

Introduction: Hospital-acquired infections (HAIs) are the leading cause of morbidity and mortality in healthcare settings throughout the world, especially among the patients admitted in intensive care units (ICUs). Apart from increasing the stress, discomfort, pain, and activity restrictions among the patients, HAI also increase the economic burden in the form of prolonged hospital stay, lost work days, and laboratory and drug costs. **Research Methodology:** The present study was a pre-experimental research design was conducted at selected hospital Rohtas, which is recruit the 60 staff nurse by the purposive sampling technique. **Results:** Majority of staff nurse (80%) had average knowledge and 20% of had below average knowledge regarding prevention of UTI. In post-test, majority of staff nurse (95%) had good knowledge and 5% had average knowledge regarding regarding prevention of UTI. Thus, it shows that the structured teaching programme was effective in improving the knowledge level of postnatal staff nurse. **Discussion and Conclusion:** Structured teaching programme was effective in improving the knowledge level of postnatal staff nurse.

KEYWORDS: In post-test, majority of staff nurse (95%) had good knowledge and 5% had average knowledge regarding regarding prevention of UTI.

INTRODUCTION

Catheters are one of the most commonly used medical devices. However, these devices are notoriously prone to infection. As one of the more prevalent health care associated infections (HCAIs) in the world, catheter associated urinary tract infections (CAUTIs) represent a considerable burden of morbidity. The National Healthcare Safety Network (NHSN) has reported that Urinary Tract Infections (UTI) is the commonest type of Healthcare-Associated Infections (HAI) and majority of them (75%) is associated with an indwelling Urinary Catheter (UC). Prolonged use of Urinary Catheter is considered as the most important risk factor for developing CAUTI. According to the CDC in the USA approximately 1.7 million patients gained HAIs, and about 100,000 patients die annually due to CAUTIs. In India, CAUTI is the second, most commonly occurring infection.[1]

Hospital-acquired infections (HAIs) are the leading cause of morbidity and mortality in healthcare settings throughout the world, especially among the patients admitted in intensive care units (ICUs). Apart from increasing the stress, discomfort, pain, and activity

restrictions among the patients, HAI also increase the economic burden in the form of prolonged hospital stay, lost work days, and laboratory and drug costs.[2,3]

Urinary tract infections (UTIs) are a common health problem worldwide, affecting individuals of all ages and genders. They often result from the invasion and multiplication of pathogenic bacteria in the urinary system. UTIs can lead to significant morbidity and healthcare burden and, if left untreated, may progress to severe complications such as pyelonephritis and septicemia. In the United States, approximately 25% to 40% of women in the age group 20-40 have had a UTI. UTIs account for over six million patient visits to physicians annually in the United States.[4-7]

Nurses insert and manage catheter, yet studies have shown that most nurses have limited scientific knowledge in the area of catheter and their care. Centre for Disease Prevention and Control (CDC) recommended that educating health care workers regarding infection control measures is the highest priority to prevent and control HAI's like CLABSI, CAUTI, and VAP etc. Although catheterization is a common procedure, a high level of nursing knowledge and practice is required to achieve effective and safe management.[7]

Various strategies have been employed to decrease the incidence of CAUTIs with some success. These have included a written reminder on the charts of patients with an IUC in place, use of urinary catheter indication sheet before IUC insertion, a multifaceted intervention bundle daily nursing reminders to physicians and the use of computer-based catheterisation order entry.[9-11]

OBJECTIVES OF THE STUDY

1. To assess the knowledge regarding prevention of urinary tract infection among staff nurses in selected hospital Rohtas.
2. To evaluate the effectiveness of structured teaching program on knowledge regarding prevention of urinary tract infection among staff nurses in selected hospital Rohtas.
3. To find out the association between knowledge regarding urinary Tract infection with their selected demographic variables among staff nurses in selected hospital Rohtas.

METHODOLOGY

Research design and setting

The present research study is one group pre-test post-test design. Which conducted selected wards at selected hospitals, Rohtas.

Sample size and technique

The sample size was 60 population of the study included patients in selected wards at selected hospitals of Rohtas who met the inclusion criteria were selected using simple random sampling technique.

Criteria for Sample Selection

1. Inclusion Criteria

- Nursing staff present during the data collection time.
- Nursing staff willing to participant in this study.

2. Exclusion Criteria

- Nursing staff who are not willing to participant in this study
- Nursing staff who are have diploma and any other in-service program on UTI.

Data Collection Procedure

Section-I Socio-demographic variables question included 6 items such as age, gender, year of experience, qualification, area of working, previous knowledge on UTI.

Section II: Structured Knowledge questionnaire on prevention of UTI: It consisted of 30 closed ended multiple choice questions to assess the knowledge of samples regarding prevention of UTI.

A score of one was allotted to correct answers. The structured questionnaire had 4 alternative responses. The correct response was given a score of 'one' and incorrect was scored as 'zero'. An arbitrary classification of knowledge score was done, which was classified as.

Knowledge Score	Score
Inadequate knowledge	50% and below
Moderately adequate	51% to 74%
Adequate knowledge	75% to 100%

Data Collection Procedure

Period of data Collection: During this period, the investigator collects both pre- test, teaching with structured teaching programme then post test. The data was collected in following three steps: a) Pre - Test Pretest was conducted among staff nurse who are staying in selected hospitals Rohtas, by giving questionnaire to assess the knowledge on UTI, before implementation of UTI. b) Implementation of Prevention of UTI Immediately after pretest, was given to the same staff nurse regarding prevention of UTI. c) Post test Evaluation was done by conducting posttest after 3 days of implementation of STP on UTI. Post test was conducted by using the questionnaire which is used for the pretest.

Ethical Consideration

Ethics came from the word 'ethos' that means custom or character. It is the systematic study of values. It is important to protect the human rights and welfare of the individuals. In our study the ethics include voluntary participation, informed consent, confidentiality and anonymity, the potential for harm and other more specific ethical issues related to research study. This study was conducted meeting all the ethical needs. After the confirmation about the ethical need's fulfilment, the Ethical Committee from Narayan Nursing College,

GNSU, Sasaram has granted the permission to continue this research study.

Plan for statistical analysis

Data was collected and checked with post-natal mother's knowledge and practice in Government Hospital at Erode. The collected data was summarized and tabulated by utilizing descriptive statistics which includes mean percentage, standard deviation and inferential statistics include mother's 't' test. Chi – square test and Pearson coefficient correlation.

RESULTS

Table 1: Showing the frequency and percentage of socio demographic variables (N=60)

	SAMPLE CHARECTERSTICS	FREQUENCY	PERCENTAGE
1	**AGE (in year)**		
	21-30	31	51.66%
	31-40	22	36.66%
	41-50	07	11.66%
2	**GENDER**		
	Male	05	8.33%
	Female	55	91.66%
3	**EDUCATIONAL QUALIFICATION**		
	GNM	55	91.66%
	PBBsc Nursing	05	8.33%
4	**YEARS OF EXPERIENCE**		
	1-3	18	30%
	4-7	13	21.66%
	8-11	17	28.33%
	>12	12	20%
5	**ATTENDED IN-SERVICE EDUCATION REGARDING UTI**		
	Yes	08	13.33%
	No	52	86.67%
6	**AREA OF WORK**		
	Male Medicine	15	25%
	Female Medicine	05	8.33%
	ICU WARD	21	35%
	Other wards	19	31.66%

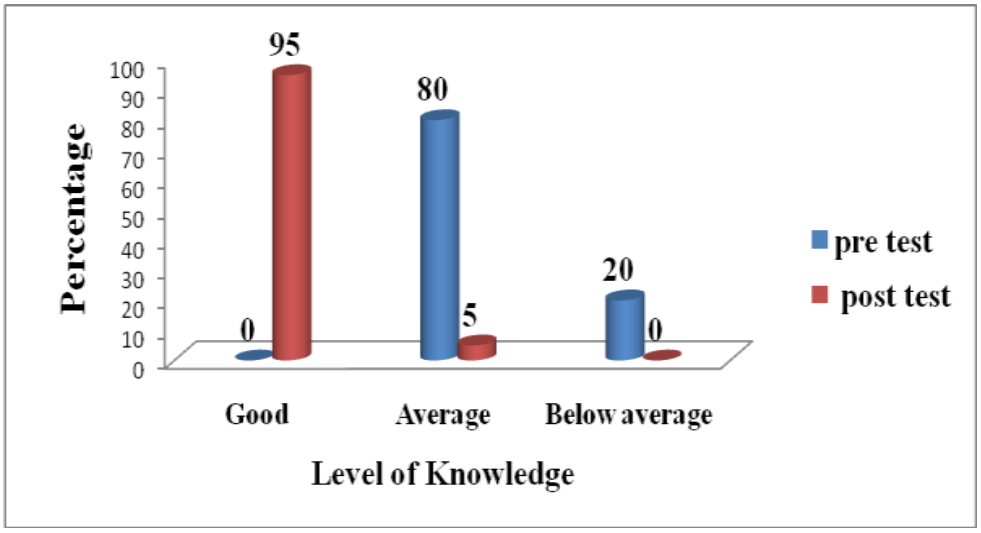

Fig. 1 showing the frequency and percentage of knowledge regarding the prevention of urinary tract infection among staff nurse.

Among fig shows that, in pretest, majority of staff nurse (80%) had average knowledge and 20% of had below average knowledge regarding prevention of UTI. In post-test, majority of staff nurse (95%) had good knowledge and 5% had average knowledge regarding prevention of UTI. Thus, it shows that the structured teaching programme was effective in improving the knowledge level of postnatal staff nurse.

Table 2: Showing the significant association between the level of knowledge regarding the prevention of urinary tract infection and selected socio-demographics variables.
(N=60)

	Sample Characteristics	Below median	Median and above Median	Chi-square value
1.	**Age in year**			
	21-30	15	16	
	31-40	10	12	
	41-50	2	5	$1.15^{\#}$
2.	**Gender**			
	Male	3	2	
	Female	21	24	$0.9^{\#}$
3.	**Educational qualification**			
	GNM	21	34	
	PBBSc	1	4	$0.9^{\#}$
4.	**Year of experience**			
	1-3 yr	6	12	
	4-7 yr	7	6	
	8-11 yr	8	9	8.5^{*}
	> 12 yr	2	10	
5.	**Attended in-service education regarding neonatal jaundice**			
	Yes	3	5	$2.42^{\#}$
	No	36	16	
6.	**Area of working**			
	Male Medicine	7	8	
	Female Medicine	4	1	
	ICU WARD	7	14	10.1^{*}
	Other wards	8	11	

Above table revealed that the, there was significant of association between the knowledge regarding neonatal jaundice with selected personal variables of staff nurses was found to be significant for year of experience and area of working and there is no significant association between age, gender educational qualification and in service education regarding UTI and its management among staff nurse.

DISCUSSION

Nursing professionals shall provide STP AS part of their routine care, which will be effective in enhancing the patients' knowledge on uti. Nurse educators shall emphasize the nursing students to teach the UTI FEMALE patients regarding the UTI and its prevention and management. In-service education can be planned and provided to the nursing professionals on uti updates. Study materials can be prepared and distributed to the nursing professionals and patients to have updates on UTI. Nurse educators can work with the hospital authorities to draw up a special policy based on current clinical practice guidelines. Nurse administrators should plan and organize a staff development programme on effects of prevention and management. Nurse researchers can develop appropriate health education tools for educating the UTI female patients regarding uti and its prevention and management according to their demographic, socioeconomic, cultural, and political characteristics. Nurses should come forward to take up unsolved questions in the field of UTI and its prevention.

A bundle of care is a structured method of improving patient care processes which includes a group of three to five evidence-based practices that when performed consistently and collectively can have a positive impact on patient outcomes. To roles of nurse in catheter care are comprehensive assessment, prevention of infections and management of catheter associated UTIs. To put an end to this debilitating complication of Indwelling Catheter, the investigator interested to assess and prevent the Catheter Associated Urinary Tract Infection(CAUTI). There was significant of association between the knowledge regarding neonatal jaundice with selected personal variables of staff nurses was found to be significant for year of experience and area of working and there is no significant association between age, gender educational qualification and in service education regarding UTI and its management among staff nurse.

CONCLUSION

Majority of staff nurse (80%) had average knowledge and 20% of had below average knowledge regarding prevention of UTI. In post-test, majority of staff nurse (95%) had good knowledge and 5% had average knowledge regarding prevention of UTI. Thus, it shows that the structured teaching programme was effective in improving the knowledge level of postnatal staff nurse.

RECOMMENDATIONS

- Periodic revision of the teacher's training program and recommend for the inclusion of more practical knowledge regarding problems in UTI.

- Periodic assessment of teacher's knowledge regarding health related problems of patient to be conducted.
- A study can be carried out to evaluate the efficiency of various teaching strategies like Self Instructional module, Pamphlets, Leaflets and Computer Assisted Instruction on UTI.
- A concentrated effort should be made to increase the awareness among the schoolteachers regarding their role.
- Arrange an orientation programme for teachers to various special schools.

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