

A Study to Assess the Knowledge regarding Prevention of Urinary Tract Infection in Clients with Indwelling Catheter with a View to Prepare a Health Education Module in KH & MRC, Karad

Akshay S.Dudhe¹, Dr.Tukaram Zagade², Dr. Vaishali Mohite³

Abstract: ***Background:** Urinary tract infection is the most common nosocomial infection creating potential bacteria. UTI incidence can be a possible indicator of the quality of catheter care in the hospital. **Aim:** This study aims to assess the knowledge regarding prevention of urinary tract infection in clients with indwelling catheter with a view to prepare a Health education module. **Methodology:** One group pre-test post-test design with evaluative approach was adopted for this study. The study was conducted at Krishna Hospital, Karad. Purposive sampling technique was used for selecting the 30 samples from the selected wards of Krishna hospital, Karad. On the first day a structured knowledge questionnaire (MCQs) was used to assess the knowledge on prevention of urinary tract infection and health education was given followed by pre- test. Post-test was conducted after 7 days of pre-test. **Results:** This study shows that subsequent increase in knowledge, in pre-test majority 15(50%) had average knowledge, 8(27%) had good knowledge and 7(23.3%) had poor knowledge where as in the post- test 17(57%) had average knowledge, 9(30%) had good knowledge, 4(13.3%) had poor knowledge regarding prevention of UTI before and after intervention of health education. Before intervention mean was 8.9, standard deviation 2.13 and in after intervention the mean was 12.86 and standard deviation 2.46.the computed t test value was 16.076. Since the 'p' value for the test is less than 0.0001. **Conclusion:** The study concluded that the Health education on prevention of urinary tract infection was effective in improving the knowledge of clients and thus helps them to understand how to prevent urinary tract infection. There is significant association found between occupation and the knowledge of prevention of urinary tract infection.*

1. Introduction

Urinary tract infection is the most common nosocomial infection creating potential bacteria. UTI incidence can be a possible indicator of the quality of catheter care in the hospital. UTI are one of the common nosocomial infections accounting for approximately 20% to 40% of all hospital acquired infections and 80% of these are associated with the use of urinary catheter. Most of the studies advise that between 10% to 30% of patients with short term catheter will develop bacteriurea. ⁽¹⁾

Indwelling urethral catheters are part of disposable system consisting of catheter, tubing and drainage bag, are common tools used in the management of patient. They are used in 15% to 25% of all hospital patients, to monitor urine output or to provide bladder drainage. ⁽¹⁾

Statement of the Problem

“A study to assess the knowledge regarding prevention of urinary tract infection in clients with indwelling catheter admitted in Krishna hospital and medical research centre, karad.”

Objectives of the study

- 1) To assess the knowledge regarding prevention of urinary tract infection before intervention among the patients.
- 2) To assess the knowledge regarding prevention of urinary tract infection after intervention among the patients.
- 3) To determine the association between prevention of urinary tract infection and selected Socio demographic variable.

Hypothesis

H₁- There is significant difference in knowledge regarding prevention of urinary tract infection among clients with indwelling catheter before and after intervention.

H₀- No significant difference in knowledge regarding prevention of urinary tract infection among clients with indwelling catheter before and after intervention.

Setting of Study

The setting for study was, selected wards (male surgical ward, female surgical ward, male medical ward, female medical ward and orthopedics wards) in KH & MRC, Karad.

Population

The population for present study comprised of clients with indwelling catheter. 30 clients admitted in the selected wards of KH & MRC, Karad.

Sampling Techniques

Non – probability purposive sampling technique.

Description of the Tool: The instrument used in the study were :

Multiple-choice questions (MCQs).The knowledge of clients was assessed by 20 MCQs items.

MCQs are having 4 options for each questions and correct options carry 1 mark.

Thus for total 20 items maximum score is 20x1=20 and minimum score is 20x0=0.

Procedure of data collection:

One group pre-test post-test design with evaluative approach was adopted for this study. The study was conducted at Krishna Hospital, Karad. Purposive sampling technique was used for selecting the 30 samples from the selected wards of

Krishna hospital, Karad. Self-administered questionnaires used to assess knowledge of clients for prevention of UTI in clients with indwelling catheter.

On the first day a structured knowledge questionnaire (MCQs) was used to assess the knowledge on prevention of urinary tract infection and health education was given followed by pre-test. Post-test was conducted after 7 days of pre-test. Formal permission was obtained from the authorities concerned. The consent was also taken from the selected patients with indwelling catheter.

Data was collected in selected wards of KH & MRC, Karad. Data collection period was from 20-4-15 to 30-4-15. In each selected wards starting from 20-4-15 to 30-4-15 data was collected to assess regarding knowledge among clients.

The data was collected and analyzed by descriptive and inferential statistical method. The descriptive statistics was used to describe sample characteristics in terms of frequency and percentage.

Distribution of frequency and percentage of clients according to socio-demographic variables,

S.no	Demographic variables	Frequency	Percentage (%)
1	Age		
	20 – 40	7	23%
	40-60	7	23%
	60-80	16	53%
2	Sex		
	Male	11	37%
	Female	19	63%
3	Religion		
	Hindu	29	97%
	Muslim	1	3%
	Christian	-	-
	Other	-	-
4	Education		
	Illiterate	9	30%
	Primary	8	27%
	Secondary	12	40%
	Graduate	1	3%
	Postgraduate	-	-
5	Occupation		
	Farmer	19	63%
	Job	5	17%
	Self employed	1	3%
	Others	5	17%
6	Monthly income		
	<3000	13	43%
	3000-6000	13	43%
	6000-9000	2	6%
	>9000	2	6%
7	Family exposure to mass media		
	TV	21	70%
	Newspaper	1	3%
	Both TV & Newspaper	2	6%

Table 3: Mean, Standard Deviation and paired ‘t’ value of clients knowledge regarding prevention of urinary tract infection.

Tests	Mean	SD	‘t’ Value	Df	‘P’ Value
Pre test	8.9	2.13	16.076	29	< 0.0001
Post test	12.86	2.46			

2. Discussion

The primary aim of the study was to determine the effectiveness of Health education on knowledge of clients regarding prevention of urinary tract infection in selected wards of Krishna hospital Karad.

Area wise frequency and distribution of knowledge scores of clients regarding prevention of urinary tract infection shows that in pre-test majority 15(50%) had average knowledge, 8(27%) had good knowledge and 7(23.3%) had poor knowledge where as in the post- test 17(57%) had average knowledge, 9(30%) had good knowledge, 4(13.3%) had poor knowledge regarding prevention of UTI before and after intervention.

Before intervention mean was 8.9, standard deviation 2.13 and in after intervention the mean was 12.86 and standard deviation 2.46. the computed t test value was 16.076. Since the p value for the test is less than 0.0001 area wise mean and standard deviation of knowledge scores of the subjects regarding prevention of UTI revealed that in the pre-test mean standard deviation of clients was 8.9 + 2.13 or 8.9 – 2.13 which was increased in post-test to 12.86 + 2.46 or 12.86 – 2.46. there was association between occupation and knowledge of clients regarding prevention of UTI in clients with indwelling catheter.

3. Conclusion

- Majority of clients 16(53%) belongs to the age group of 60-80 years.
- Majority of clients 19(63%) were females and remaining 11(37%) were males.
- While assessing the effectiveness of the Health education, area wise mean and standard deviation of knowledge scores of the subjects regarding prevention of UTI was in the pre-test mean standard deviation of clients was 8.9 + 2.13 or 8.9 – 2.13 which was increased in post-test to 12.86 + 2.46 or 12.86 – 2.46.
- Obtained ‘t’ value was 16.076 and ‘p’ value was <0.0001 which is considered extremely significant and paired t test showed a significant gain in knowledge.

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