EUROPEAN JOURNAL OF BIOMEDICAL AND PHARMACEUTICAL SCIENCES
http://www.ejbps.com

ISSN 2349-8870
Volume: 5
Issue: 9
416-418
Year: 2018

A STUDY TO ASSESS THE KNOWLEDGE ON PRACTICE REGARDING URINARY CATHETER MANAGEMENT AMONG STAFF NURSES IN SELECTED HOSPITAL AT MANGALURU

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Article Received on 12/07/2018 **Article Revised on 01/08/2018** **Article Accepted on 21/08/2018**

ABSTRACT

Introduction: The excretory system is a passive biological system that removes excess, unnecessary materials from the body fluids of an organism, so as to help maintain internal chemical homeostasis and prevent damage to the body. Urinary catheters are used to to drain the urine from the urinary bladder. Urinary catheterization are mainly done in case of urinary retention, urinary incontinence, surgery in the genital area, surgery of prostate gland, spinal cord injury, spinabifida etc. **Objectives:** The study was carried out to determine the knowledge on practice regarding urinary catheter management among staff nurses and to find the association between the knowledge scores and selected demographic variables. **Materials and method:** A quantitative research approach with non experimental descriptive design was adopted to assess knowledge of staff nurses regarding catheter management at selected hospitals of Mangaluru. Content validity of the tool was established in consultation with 6 experts. The reliability of the tool was found to be r(10)= 0.738 which was statistically significant. The tool was found to be reliable. Non probability convenient sampling was conducted to find out the feasibility of the study. Data collected from the subjects were analyzed by descriptive and inferential statistics. The sample size was 100. **Results:** The study result that the majority of the staff nurses (82%) had very good knowledge, 10% had good knowledge and 8% had excellent knowledge about catheter management. There was significant association between Knowledge and source of information (p value= 0.001 <0.05). There was no significant association between knowledge scores and other demographic variables. **Conclusion:** The study is conducted in staff nurses in selected hospital in Mangaluru to assess the knowledge on practice regarding urinary catheter management. There for the nursing staff should gain the knowledge regarding catheter management in hospitals and prevent CAUTI.

KEYWORDS: Catheter management, Staff nurses.

INTRODUCTION

The excretory system is a passive biological system that removes excess, unnecessary materials from the body fluids of an organism, so as to help maintain internal chemical homeostasis and prevent damage to the body. The dual function of excretory systems is the elimination of the waste products of metabolism and to drain the body of used up and broken down components in a liquid and gaseous state. In humans and other amniotes (mammals, birds and reptiles) most of these substances leave the body as urine and to some degree exhalation, mammals also expel them through sweating.[1]

Urinary catheterization, a sterile procedure, is the introduction of a tube (catheter) through the urethra, into the urinary bladder to drain the bladder.[1] Urinary catheterization is mainly done in case of urinary retention, urinary incontinence, surgery in the genital area, surgery of prostate gland, spinal cord injury, spinabifida etc. There are different ways of catheterization which includes intermittent urinary catheterization, indwelling urinary catheterization, suprapubic urinary catheterization. In most cases, intermittent urinary catheters are recommended. These catheters are inserted several times a day, for just long enough to drain your bladder, and then removed.[2]

An indwelling urinary catheter is inserted in the same way as an intermittent catheter, but the catheter is left in place. The catheter is held in the bladder by a water-filled balloon, which prevents it falling out. These types of catheters are often known as Foley catheters. A suprapubic catheter is a type of catheter that is left in place. Rather than being inserted through the urethra, the

catheter is inserted through a hole in the abdomen and then directly into the bladder. This procedure can be carried out under general anaesthetic, epidural anaesthetic.[3]

Catheter associated urinary tract infection is one of the main complication of urinary catheterization. A multisectional prospective observational study was conducted in Korea, to analyse the current status of indwelling urinary catheter utilization and catheter-associated urinary tract infection throughout hospital wards in Korea: A total of 285 urine cultures were set up, and the median number of urine cultures per 1,000 catheter days was 32.3 (1Q 17.0, 3Q 38.5). A total of 25 pathogens were identified by urine culture from 23 patients with CA-UTI. Male gender was more common in the CA-UTI group (62.5% vs. 42.4%, $P = 0.049$).[4]

Proper catheter management can prevent the complications to a great extent. Catheter care helps to identify the status of catheter that is placed in the bladder Catheter care reduce a number of bacteria entering into the bladder also Trauma or introduction of bacteria into the urinary system resulting in infection and consequently possible septicemia or death.[5] Assessment of a catheterized person by a staff nurse is an essential part of catheter care, because the incidence of infection raises longer the catheter remains in the place without proper care. To minimize the potential introduction of micro organisms into the bladder can be effectively avoided by proper catheter management.

Urinary catheter management is a very important skill that many certified nursing assistants (CNAs) must know. Competence at providing urinary catheter care requires the CNA to understand and apply: (1) basic information about the anatomy and physiology of the urinary tract and urinary system; (2) concepts of prevention of infection and sterility, and; (3) specific techniques that are used to care for the patient who has a urinary catheter.[6]

MATERIALS AND METHODS

A quantitative research approach adopted for the study. The study was conducted selected hospitals in Mangaluru. The variables under the study are, Demographic variables**:** Age, gender, education qualification, area of working, professional experience, source of information. The population under study where staff nurses in selected hospital in Mangaluru. Among those we selected 100 study samples. The sampling method used for the study is non-probability purposive sampling. A Structured questionnaire was developed as a tool for data collection. It consist of Demographic variables and knowledge questions on catheter management which include 30 multiple choice questions with one correct answer and three distracters. The tool was validated and reliability calculated. After obtaining the ethical clearance, and informed consent was taken from the study participants.and the data was collected and analysed.

RESULT

The study revealed that majority (49%) were between the age group of 21-25, 23% were male and 77% were female, Regarding their education. Majority (59%) are BSc Nursing, regarding their area of work 10% of them are in postoperative and recovery, 12% were in urology, 20% were in orthopedics, 25% were in oncology, 33% were in others. 10% of them are in postoperative and recovery, 12% were in urology, 20% were in orthopedics, 25% were in oncology, 33% were in others. Majority (48%) had 1-5 years. Among the sample who received the information regarding catheter management, 8% source of information obtained from CNE, 13% from textbook, 38% from educational institution, 43% from internet.

It was seen that the majority of the staff nurses (82%) had very good knowledge, 10% had good knowledge and 8% had excellent knowledge about catheter management. The mean knowledge score of nurses was 21.62. When area wise knowledge was assessedit was seen that the mean% for the knowledge score regarding catheter management was 72.06%. There was significant association between Knowledge and source of information (p value= 0.001 <0.05). There was no significant association between knowledge scores and other demographic variables.

DISCUSSION

The current study result are also supported by A descriptive cross sectional study was conducted among nurses in private tertiary care hospital Peshawar. To identify knowledge and practices of nurses regarding infection control in the use of urethral catheter and associated urinary tract infection. 70 Participants were selected through convenient sampling technique The mean knowledge of participants was 66% with standard deviation 25.3%. The Mean practice was 56.43% with Standard deviation 14.94%. The current study findings are also consist with a study which was conducted to assess the knowledge regarding catheter management among 100 staff nurses in Mangluru, which showed that majority (82%) had very good knowledge.

Table 1: Mean and standard deviation of knowledge score.
N=100

Max possible score	Range	Mean	Median	Mean%	Standard Deviation
30	11-28	21.62	16	72.06	2.45

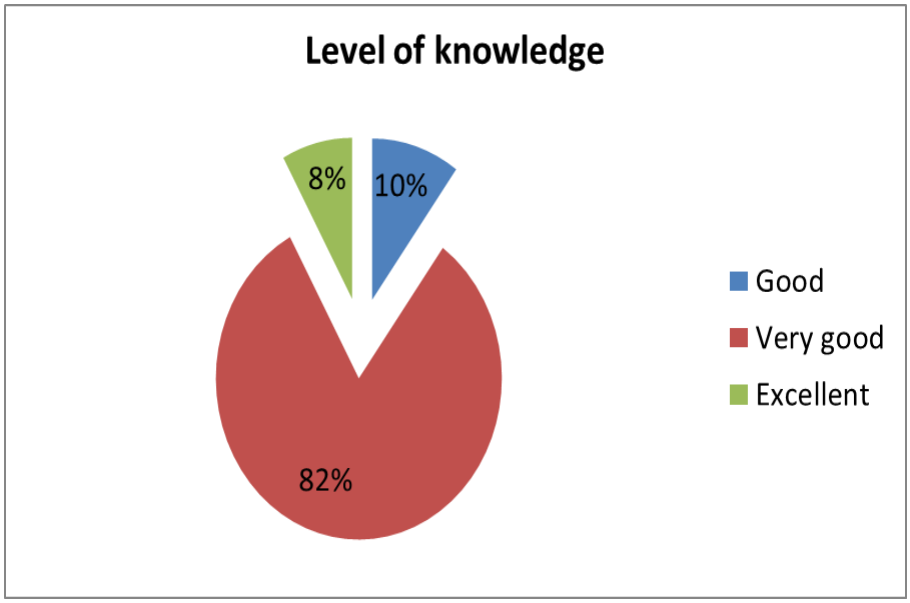

Figure 1: Pie diagram showing the level of knowledge of staff nurses about catheter management.

CONCLUSION

This study concluded that majority (82%) of study sample had very good knowledgeon catheter management. Nursing education plays an important role in preparing the nurses for providing care to the people. To provide effective nursing care in present day practices nurses required broad knowledge and it can be developed through education. The nursing curriculum must emphasize on the importance of catheter management. This study also emphasizes the need for knowledge on catheter management for clinical nurses, so that they can impart knowledge to the staff nurses in clinical as well as community area.

ACKNOWLEDGEMENT

The authors express sincere thanks to the faculty of Yenepoya nursing college Mangaluru and the study participants for their whole hearted support.

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