

بسم الله الرحمن الرحيم





شبكة المعلومات الجامعية التوثيق الالكتروني والميكرو فيلم



جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

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Nurses' Performance Regarding Urinary Catheter Care among Critically Ill Patients: Suggested Educational Guidelines

Thesis

Submitted for Partial Fulfillment of the Requirements of Master Degree Medical - Surgical Nursing (Critical Care Nursing)

By

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2020

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2020



Acknowledgement

*First of all, all gratitude is due to **GOD** almighty for blessing this work, until it has reached its end, as a part of his generous help, throughout my life.*

*Really I can hardly find the words to express my gratitude to **Assistant Prof. Dr. Howyda Ahmed Mohamed**, Assistant Professor of Medical Surgical Nursing, Faculty of Nursing - Ain Shams University, for her supervision, continuous help, encouragement throughout this work and tremendous effort she has done in the meticulous revision of the whole work. It is a great honor to work under her guidance and supervision.*

*I would like also to express my sincere appreciation and gratitude to **Dr. Rasha Mohamed Elmetwaly**, Lecturer of Medical Surgical Nursing, Faculty of Nursing - Ain shams university, for her continuous directions and support throughout the whole work.*

Words fail to express my love, respect and appreciation to my husband for his unlimited help and support.

*Last but not least, I dedicate this work to **my family**, whom without their sincere emotional support, pushing me forward this work would not have ever been completed.*

Fatma Saeed Soliman

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List of Abbreviations

Abb.	Full Term
CAUTIS	Catheter-associated urinary tract infections
CNS	Central nervous system
CRBD	Catheter-related bladder discomfort
GU	Genito-urinary
ICU	Intensive Care Unit
PVC	Polyvinylchloride
ml/d	Milliliter per day
ml/min	Milliliter per minute
F	French unit
Mm	Millimeter
UTI	Urinary tract infection
MI	Milliliter
AMI	Acute myocardial infarction
HAIS	Health-associated infections
IHI	Institute for healthcare improvement
HICPA C	Healthcare Infection Control-Practices Advisory Committee

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Nurses' Performance Regarding Urinary Catheter Care among Critically Ill Patients: Suggested Educational Guidelines

Abstract

Background: Urinary catheterization is the insertion of a catheter into a patient's bladder. The catheter is used as a conduit to drain urine from the bladder into an attached bag or container. Urinary catheterization is employed in hospital and nursing home settings to maintain urine output in patients who are undergoing surgery, or who are confined to the bed and physically unable to use a bedpan. Critically ill patients who require strict monitoring of urinary output are also, frequently catheterized. **Aim:** This study aimed to assess nurses' performance regarding urinary catheter care among critically ill patients. **Design:** A descriptive design was utilized for the conduction of this study. **Setting:** this study was conducted in critical care unit, which is affiliated to Shabin Alqanatir hospital. **Subjects:** A Convenience sample of all the available nurses (forty-five) were included in the study. **Tools:** Three tools; namely nurses' knowledge questionnaire, nurses' practice observational checklists and nurses' attitude questionnaire. **Results:** the main results of this study showed that, most of the studied nurses were having satisfactory total level of knowledge, practice regarding care of patients with urinary catheter, and most of them had positive attitude. **Conclusion:** There were satisfactory level of performance among nurses under the study **Recommendations:** the study should be replicated on large sample and in different hospitals setting in order to generalize the results.

Keywords: Performance, Urinary catheter, Critical ill patients.

Introduction

Urinary catheters are defined as standard medical devices utilized in both hospital and nursing home settings in cases such as urinary retention and urinary incontinence. The most common catheters used are foley catheter which collects urine by a small tube inserted to the bladder through the urethra or through a small hole in lower abdomen and attaching to a drainage bag. The bag has a valve that can be opened to allow urine to flow out. Some of these bags can be secured to patient' leg which give the patient the ability to wear the bag under clothes (**Lam & Omar, 2017**).

Urinary catheters should be used according to medical indications such as, urinary retention, urinary incontinence, with comatozed patient or for continuous urine collection. There are many complications associated with catheterization such as urethral or bladder neck injury, leakage, blockage or catheter-associated urinary tract infection. Catheter-associated urinary tract infections (CAUTIs) are the most common nosocomial infection worldwide. Of healthcare-associated urinary infections, 80% occur in catheterized patients resulting in increased morbidity, mortality and hospital stay (**Poul & Song, 2018**).

Catheter-associated urinary tract infection (CAUTI) incidence is reduced by appropriate placement and proper care of catheters and early removal of it. This includes

ensuring insertion is indicated, using aseptic technique, implementing good hand hygiene when handling catheters, maintaining a closed drainage system and proper catheter removal (**Roach, 2016**).

Patients with long-term catheterization, bacterial colonization of the urinary tract is progressive and 95% of catheterized patients will have bacterial colonization at four weeks. Catheter-associated urinary tract infection (CAUTI) is defined as the presence of bacteriuria and simultaneous symptoms which include generalized malaise, urine color change and systemic signs of illness. Antibiotic therapy should be reserved for patients with symptomatic infections and guided by culture sensitivity to prevent antibiotic resistance. If catheter-associated urinary tract infection (CAUTI) is suspected, the catheter should be changed or removed and looking for another alternative for patient's problem if possible (**Tay et al., 2017**).

Critical illness plan is a policy that pays the insured a lump sum following the diagnosis of an illness. Critical illness plans often cover diseases like cancer, organ transplant, heart attack, stroke, renal failure, and paralysis. Intensive care units (ICUs) are environments for hospitalization of critically ill patients as these cases require specialized and continuous care. Critically ill patients in ICU require quick and accurate identification of individual health conditions by nurses because of patient's severity, instability

and complexity of the required care (**Moorhead & Delaney, 2017**).

Critical nurse should provide patient and family education, which starts before catheterization and continues during and after procedure, the patient and family should be able to describe the state of disease and purpose from catheterization at a level consistent with patient' education. Participate in the decision making process related to care plan and life activities. Identify appropriate community resources that provide information and services that patient may need next time. Describe appropriate actions for side effects of urinary catheter and when it is important to call doctor. Describe the schedule when ongoing catheterization is predicted and ensure patient in a level consistent with patient' education and emotional status (**Hagen, 2018**).

Significance of study:

In Egypt, there are increase in the use of urinary catheter with incontinent patients to reduce their cost. However, long term catheterization carries a significant risk of urinary tract infection. Catheter - associated urinary tract infection (CAUTI) represents 40% of all health-care associated infection and the risk of catheter-associated urinary tract infection increases from 5 % every day in the first week to 100% in the fourth week and 1-4% of patients have bacteriuria will develop bladder infection, septicemia or bladder cancer, so nurse should use urinary catheter when