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Knowledge regarding Catheter care among Staff Nurses

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Abstract

Background of the study

A urinary tract infection (UTI) is an infection involving any part of the urinary system, including urethra, bladder, ureters, and kidney.

As per National Healthcare Safety Network (NHSN) report UTIs are the most common type of healthcare-associated infections. Among UTIs acquired in the hospital, approximately 75% are associated with a urinary catheter, which is a tube inserted into the bladder through the urethra to drain urine. Between 15-25% of hospitalized patients receive urinary catheters during their hospital stay. The most important risk factor for developing a catheter-associated UTI (CAUTI) is prolonged use of the urinary catheter. Nurses are the primary managers of all the routine care and problem solving associated with patients who have indwelling urinary catheters.

Objectives

- To assess the knowledge regarding catheter care among staff nurses
- To associate the level of knowledge regarding catheter care with their selected socio demographic variables.

Methodology: Descriptive cross sectional design was adopted to assess the knowledge regarding catheter care among staff nurses in selected hospitals at Nellore. A sample size of 30 staff nurses were selected through non-probability convenience sampling. The data was collected by using structured knowledge questionnaire. The data was analyzed by using descriptive and inferential statistics.

Results: The majority of the staff nurses 14(46.7%) had adequate knowledge, 10(33.3%) had moderately adequate knowledge and 6(20%) had inadequate knowledge regarding catheter care.

Conclusion: the study reveals that only 46.7% had adequate knowledge and there is a lack of knowledge among nurses.

Keywords: Catheter care, Staff nurses, Urinary tract infection (UTI), Catheter-associated Infections.

1. Introduction

A urinary tract infection (UTI) is an infection involving any part of the urinary system, including urethra, bladder, ureters, and kidney.

As Per National Healthcare Safety Network (NHSN) report UTIs are the most common type of healthcare-associated infections. Among UTIs acquired in the hospital, approximately 75% are associated with a urinary catheter, which is a tube inserted into the bladder through the urethra to drain urine. Between 15-25% of hospitalized patients receive urinary catheters during their hospital stay. The single most important predisposing factor for CAUTI is the insertion of urinary catheter. Urinary (Foley) catheters are used very frequently in hospitalized patients, and almost 25% of them undergo urinary catheterization during their stay in the hospital. The frequency of urinary catheterization in Intensive Care Unit (ICU) can range as high as 100%.

At globally, 70-80% of these infections are attributable to use of an indwelling urethral catheter. About 17.5% of patients in European hospitals and 23.6% in US hospitals having a catheter. 45-79% of patients in adults critical care units had an indwelling catheter, 17% of those on medical ward, 23% on surgical ward and 9% on rehabilitation units.

As per All India Institute of Medical Science, in India all most 78% of total population was affected, and among these 68-78% used indwelling catheter as a part of treatment.

Urinary catheters should be used only when absolutely necessary. If a catheter must be used,

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it should be discontinued as soon as medically feasible, since the longer the catheter is in place, the greater the risk of developing an infection.

Catheter-associated urinary tract infection produces substantial morbidity in hospitalized patients including discomfort, fever, malaise and unnecessary antibiotic use, which may become an important source of antibiotic resistant organisms. Further, the catheterized urinary tract acts as a reservoir for the dissemination of these drug resistant organisms to other patients.

There are increased chances of catheter blockage, urinary tract stones and even increased risk of malignancy of the urinary tract following CAUTI. If it gets complicated by bacteremia, it increases the cost of care tremendously besides increasing the mortality in these hospitalized patients.

Bacterial colonization (bacteremia) will occur within 2 weeks in half of catheterized patients, and in almost all patients within 4 to 5 weeks following insertion of catheter, Catheters impede the natural defenses of the urinary tract by obstructing the per urethral ducts, by irritating the bladder mucosa, and by providing an artificial route of entry for the organisms to enter the bladder.

Nurses are very often responsible for the initiation of catheterization procedures for patients within the hospital or community setting the nursing role requires contemporary information on urinary catheter selection and problem solving in the maintenance of urinary catheters.

The care of indwelling urinary catheter is a common procedure or practice for nurses who are working in the hospitals therefore it is the duty of the nurses to know about catheterization and its complications and management of patients with catheterization. Nurses are the primary managers of all the routine care and problem solving associated with patients who have indwelling urinary catheters.

There was a general lack of knowledge of current catheter costs that would have major implications for unit budgets.

The apparent gaps in nursing knowledge of catheter care suggest the need for urgent educational programs on catheter care practices for nurses within this service and the initiation of an area-wide standardized policy in catheter selection and management.

Statement of the Problem

“A Study To Assess The Knowledge Regarding Catheter Care Among Staff Nurses Working In Selected Hospitals, At Nellore”.

Objectives

1. To assess the level of knowledge regarding catheter care among staff nurses.
2. To associate the level of knowledge regarding catheter care with their selected socio demographic variables.

Methodology

Descriptive cross sectional design was adopted to assess the knowledge regarding catheter care among staff nurses in selected hospitals at Nellore. A sample size of 30 staff nurses were selected through non probability- convenience sampling. The data were collected by using structured e questionnaire .The data was analyzed by using descriptive and inferential statistics.

Results

Description of socio demographic variables of staff nurses

With regard to age of staff nurses, majority of them, 16(53.3%) were between20-21years and majority of them,18(60%) were females. Regarding education majority of them 14(46.7%) studied BSc (N).With regard to professional experience, majority of them 16 (53.3%) had less than 1 year of experience. With regard to attended CNE programme, majority of them 16(53.3%) have not attended CNE/In service education regarding catheter care.

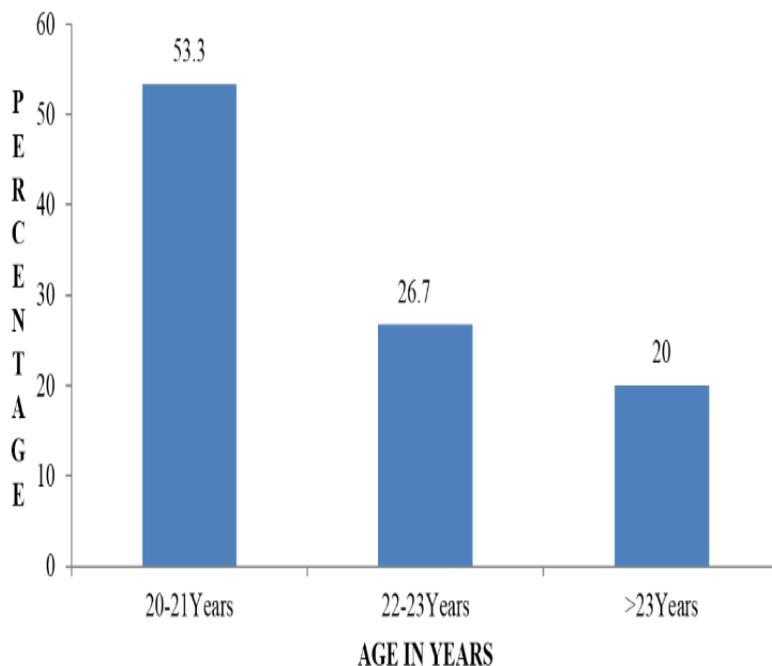


Fig 1: Percentage distribution of staff nurses based on Age

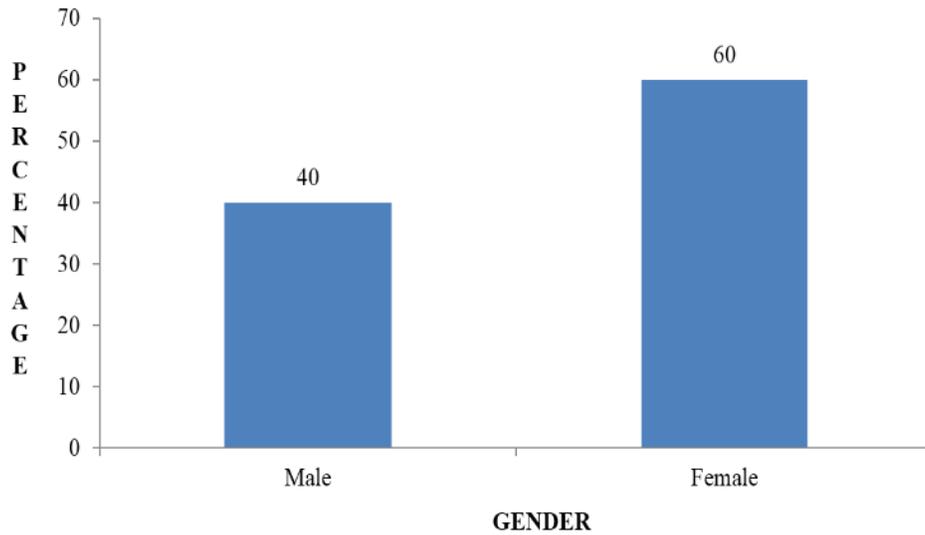


Fig 2: Percentage distribution of staff nurses based on Gender

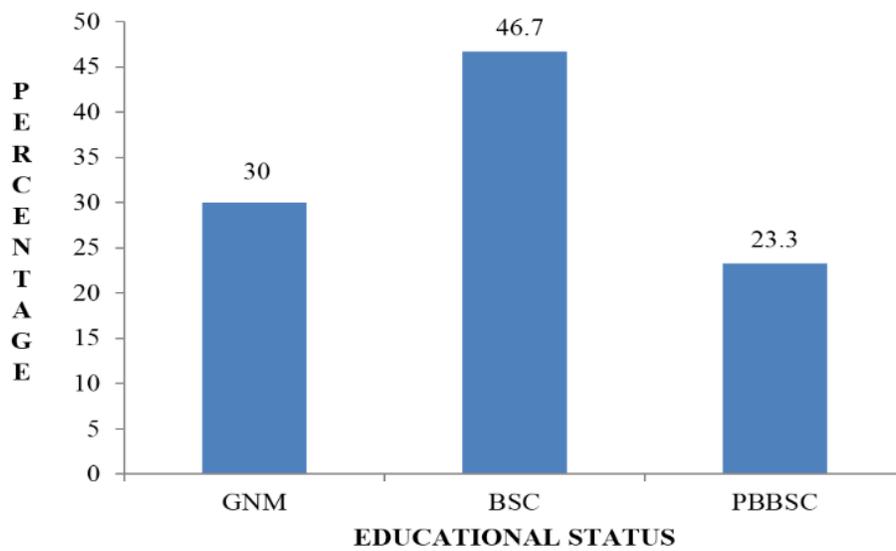


Fig 3: Percentage distribution of staff nurses based on educational status.

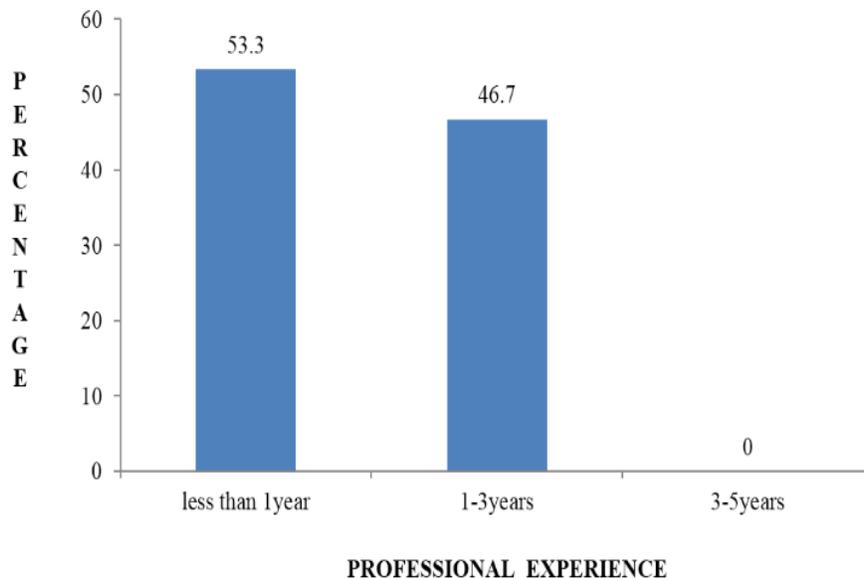
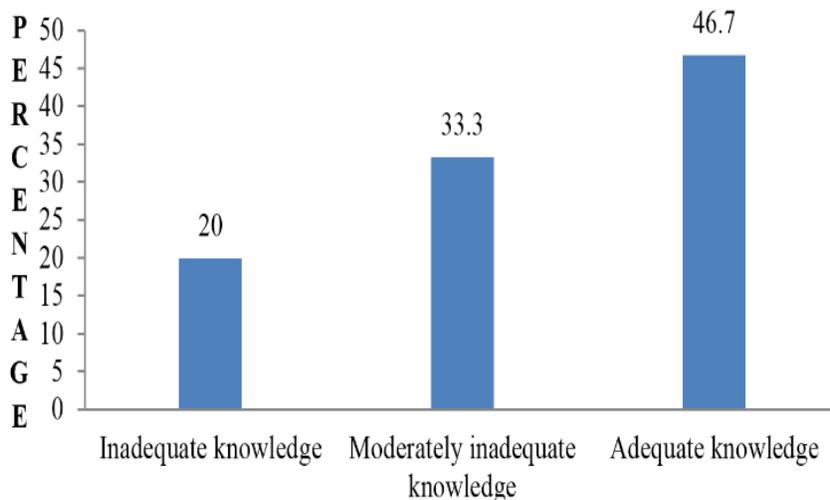


Fig 4: Percentage distribution of staff nurses based on professional experience.

Findings related to Level of knowledge regarding catheter care among staff nurses

With regard to level of knowledge of staff nurses regarding catheter care majority of the staff nurses 14(46.7%) had

adequate knowledge, 10(33.3%) had moderately adequate knowledge and 6(20%) had inadequate knowledge.



LEVEL OF KNOWLEDGE OF STAFF NURSES

Fig 5: Percentage distribution of level of knowledge of staff nurses regarding catheter care

Table 1: Association between the level of knowledge of staff nurses and their selected socio demographic variables (N=30)

Demographic Variables	Inadequate knowledge		Moderately adequate knowledge		Adequate knowledge		ChiSquare χ^2
	f	%	f	%	f	%	
Age in years							C=3.08 T=9.49 NS at df=4
a)20-21 years	4	13.3	5	16.7	7	23.3	
b)22-23years	1	3.3	2	6.7	5	16.7	
c)> 23years	1	3.3	3	10	2	6.7	
Gender:-							C=3.08 T=5.99 NS at df=2
a)Male	2	6.7	4	13.3	6	20	
b)Female	4	13.3	6	20	8	26.7	
Educational qualification							C=10.97 T=9.49 S* at df=4
a)GNM	1	3.3	2	6.7	6	20	
b)B.SC(N)	3	10	5	16.6	6	20	
c)P.B.SC(N)	2	6.7	3	33.3	2	6.7	
Professional experience							C=2.83 T=5.99 NS at df=4
a)Below 1 years	4	13.3	5	16.7	7	23.3	
b)1-3years	3	10	5	16.7	6	20	
Source of information							C=14.39 T= 15.5 S* at df=8
a) Internet	1	3.3	1	3.3	2	6.7	
b) Journals	1	3.3	2	6.7	3	10	
c) Curriculum	1	3.3	2	6.7	5	16.6	
d) Text books	1	3.3	2	6.7	2	6.7	
e) All the above	2	6.7	3	10	2	6.7	
Attended any CNE programme							C=14.29 T =5.99 S* at df=2
a) Attended	3	10	5	16.7	6	20	
b) Not attended	4	13.3	5	16.7	7	23.3	

Discussion

The findings of the study have been discussed under the following sections with reference to the objectives and hypotheses in light of other studies.

Level of knowledge regarding catheter care among staff nurses

With regard to level of knowledge of staff nurses regarding catheter care majority of the staff nurses 14(46.7%) had adequate knowledge, 10(33.3%) had moderately inadequate knowledge and 6(20%) had inadequate knowledge.

Findings of this study was consistent with a study conducted by **Mody L, Galecki A, Krein SL** (2010) on knowledge of evidence-based urinary catheter care practice recommendations among healthcare workers in nursing homes in southeast Michigan.. Results of the study shown that 356 of 440 HCWs (81%) responded. More than 90% of HCWs were aware of measures such as cleaning around the catheter daily, glove use, and hand hygiene with catheter manipulation. They were less aware of research-proven recommendations of not disconnecting the catheter from its bag (59% nurses, 30% aides, $P < .001$), not routinely irrigating the catheter (48% nurses, 8% aides, $P < .001$), and hand hygiene after casual contact (60% nurses, 69% aides, $P = .07$). HCWs were also unaware of recommendations regarding alcohol-based hand rub (27% nurses and 32% aides with correct responses, $P = .38$). HCWs reported informal (e.g., nurse supervisors) and formal (in-services) sources of knowledge about catheter care. This study concluded that there was significant discrepancies remain between research-proven recommendations pertaining to urinary catheter care and HCWs' knowledge.

Association between the level of knowledge of staff nurses regarding catheter care with their selected demographic variables

There is significant association between the level of knowledge of staff nurses regarding catheter care with their selected socio demographic variables like Educational qualification, Source of information and Attended CNE programme.

Findings of this study was consistent with a study conducted by DuBeau CE, Ouslander JG(2009) on Knowledge and attitudes of nursing home staff and surveyors about the catheter care. The present study, consists of 154 health care personnel (doctors = 49 and nurses = 105) out of the 180 participants completed a questionnaire and were included in the study. The response rate in the present study was thus 85.5% and significant association with the mean age of the study group was 31.9 years (range: 23–59) and the mean years of experience was 7.94 years (range: 1–36).

There is no significant association between the level of knowledge of staff nurses regarding catheter care with their selected socio demographic variables like age, gender and professional experience.

Recommendations for Further Research

1. A Study can be conducted to assess the knowledge and practice regarding catheter care among staff nurses.
2. A study can be conducted on effectiveness of evidenced based interventions on catheter related infections
3. A Study can be conducted on prevalence of catheter related infections among pts admitted in hospital.

Conclusion

The study concluded that staff nurses have adequate knowledge regarding catheter care. Therefore, there was a lack of knowledge regarding practicing of measures such as cleaning around the catheter daily, glove use, and hand hygiene with catheter manipulation, not disconnecting the catheter from its bag, not routinely irrigating the catheter .There was necessity to give instructional module on catheter care for staff nurses to improve their knowledge, attitude and practices related to catheter care.

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References

1. BagshawSM. Epidemiology of intensive care unit-acquired urinary tract infections, Current opinion on infectious diseases, Feb;2006; 19(1):67-71.
2. SrinivasanA. A prospective trial of a novel- silicone based,silver coated foley catheter for the prevention of nosocomial urinary tract infections, Infection Control Hospital Epidemiology, Jan 2006;27(1):38-43.
3. YoonHJ.Outbreaks of Serratia marcescens bacteriuria in a neuro-intensive care unit of a tertiary care teaching hospital: A clinical, epidemiologic and laboratory prospective.American journal of Infection control, Dec; 33(10):595-601.
4. Yoshida T. Risk factors for hospital-acquired bacteremia, International medicine, Nov 2005; 44(11):1157-1162.
5. Neelam Taneja. Nosocomial urinary tract infection due to Leuconostoc mesentroides at a tertiary care center at north India, Indian journal of medicine,Aug 2005; 178-179.
6. Neil-Weise BS. Antibiotic policies for term bladder drainage in adults, Cochrane data base systemic Review, July 2005; 20(3):CD005428.
7. Cetin BD. Epidemilogy and etiology of catheter-related nosocomial infections in a Turkish hospital, Infez Medicine, 2005, 13(3):152-159.
8. Deep A. Clinical and microbiological profile of nosocomial infections in the paediatric intensive care unit' Indian peditrics, Dec2004; 41(12):1236-1246.



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