

Factors Related To Nurse Compliance In Applying The Cateter Installation Standard

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Abstract

Background: Urethral catheter placement is a form of nursing care performed by nurses, a standard for catheter placement is required. Urinary tract infections often occur around 40% of all hospital infections each year. In addition, from some researchers 80% of urinary tract infections occur due to the use of catheterization instruments, because almost 10% of all hospitalized patients, at Bantul Hospital in 2017 There are 21% of patients are infected with urinary tract. Nurse compliance uses standards based on various factors. **Objective:** To determine the factors associated with the participation of nurses in the implementation of the standard installation of urethral catheters in the inpatient room of Bantul Hospital. **Methods:** Descriptive analytic research by discussing cross sectional study. The sample used was total sampling with a sample of 43 nurses according to inclusion criteria. Data collection tools using questionnaires and observation sheets. Chi Square data analysis with $\alpha < 0.05$. **Results:** The gender of female respondents was 76.7%. Age of respondents received 18-40 years 76.7%. The level of knowledge of respondents in the good category is 65.1%. The attitude of respondents in the positive category was 83.7%. The working period of respondents <5 years 51.2%. There is a significant relationship to age with the implementation of the standard implementation of urethral catheters, ($P = 0.003$ with an OR value of 2.54). There is a significant relationship between knowledge and the implementation of standart urethral catheter placement ($P = 0,000$ with an OR value of 19.50). There is a significant relationship between attitude with the agreement on the implementation of the standard urethral catheter installation ($P = 0.007$ with an OR value of 0.361). There is a significant relationship between work period and the implementation of the standard implementation of urethral catheters ($P = 0,000$ with an OR value of 20.40). **Conclusion:** There is a significant relationship between age, knowledge, attitudes, and years of service to the approval of nurses in the implementation of the standard installation of urethral catheters in care in Bantul Hospital

Keywords: bonding; sex; age; knowledge; attitude; years of service;and catheter installation standards

INTRODUCTION

Urinary tract infections are nasocomial infections that often occur around 40% of all hospital infections each year (Burke and Zavasky, 1999). Additionally, from some researchers 80% of nosocomial UTI (urinary tract infections) occur after the use of instruments, especially catheterization (Asher, Oliver and Fry, 1986), because almost 10% of all hospitalized patients use a catheter, prevention of UTI infections is a major factor in reducing nasocomial infections, (Tietjen, 2005).

In developing countries the occurrence of nosocomial infections is high due to lack of supervision, lack of compliance with standards, poor prevention practices, inappropriate use of limited resources and overcrowded hospitals by patients (Sumaryono, 2005). Survey data conducted by AMRIN (Anti Microbal Resistance In Indonesia) research group, in Dr.

Kariadi Semarang in 2002, the highest incidence was 11% Sugiono, (1999) in Kasmad, (2007).

Installation actions that are not good or not in accordance with the standards must be removed by providing quality services and good care. Based on the results of research in October 2016 to March 2017 conducted in DKI Jakarta, North Sumatra, North Sulawesi and East Kalimantan in 20017 by WHO and the Directorate of Nursing at the Ministry of Health, one of the results was that optimal standards for the implementation of tasks had not been developed yet.

The results of previous studies that showed that catheter placement and dressing were not good or were not in accordance with fixed procedures, among others, there was still a long urethral catheter installation for more than 15 days Riyantinah (1999). In the research Ribek (2000) showed the compliance of nurses in the implementation of standards, one of which is the standard installation of urethral catheters not yet implemented 100% of nurses

Catheterization is the act of inserting a rubber or plastic tube through the urethra and entering the bladder (Alimul, 2004). Catheterization must be carried out according to standards, to prevent urinary tract infections (UTIs). UTIs that occur because the catheterization is not good or not according to the standard, there are several factors that affect compliance. include gender, length of work, age, attitude and knowledge.

Based on preliminary studies conducted by researchers, the results of the number of patients with catheters on the ward totaled 64, with 22 nurses reporting Nasocomial Infection in Bantul Hospital, the incidence of infection, especially in cases of urinary tract infections in 2016, there were 21% of people experiencing UTI , the reporting section states there are still many who have not reported the incidence of infection from each ward in 2016, so that the data has not yet fully received a report from each ward. The results of a preliminary study at the time of observation on the ward found gaps in urethral catheter placement, among others: at the stage of orientation was not perfectly done, did not replace sterile gloves, did not put sterile duk and did not use perlak, at the evaluation stage was not perfectly done.

Based on this problem, this is the researcher's starting point why it is necessary to examine factors related to nurses' compliance in the implementation of the standard installation of urethral catheters in inpatients in Bantul hospital.

The general objective of the study was to determine the factors associated with nurse compliance in implementing standard urethral catheter installation in Bantul Hospital, the specific purpose of this study was to determine the distribution of gender, age, knowledge, attitude and length of service to nurse compliance in implementing standard installation urethral catheter at Bantul Hospital

METHODS

This research is a descriptive analytic study with cross sectional approach, with quantitative research type. The research was conducted data collection conducted December 2016 to March 2017, in the inpatient ward. Sampling technique using a total sample technique of all nurses implementing the ward is 43 samples, with inclusion criteria and which have been set by researchers, namely: 1) Implementing nurses in the inpatient ward, 2) Willing to be a respondent is proven by signing an informed consent, 3) Nurse graduates from D III.

This research variable uses a nominal measurement scale. The variables in this study consisted of:

1. Independent variables include (age, sex, knowledge, attitude and years of service), age is categorized as Young if the age is 18-40 and Old if age is 41-57, gender is categorized as female and male, knowledge is categorized as good and unfavorable, attitudes are categorized as positive and negative, and years of service are categorized as long working periods if ≥ 5 years and new tenure if < 5 years.
2. The dependent variable is nurses' compliance in implementing catheter installation standards. In this study the dependent variable is nurse compliance categorized as compliant if $\geq 75\%$ of the total number of standard implementation of the installation of the Urethral Catheter is performed. Not compliant if $< 75\%$ of the total number of standard implementation of the installation of the Urethral Catheter.

Data collected in this study are primary data, using questionnaires in the form of questionnaires and observations. Data collection by questionnaire containing questions and data collection by observation technique check list. Then proceed with univariate and bivariate analysis using the chi square formula.

RESULT

Description

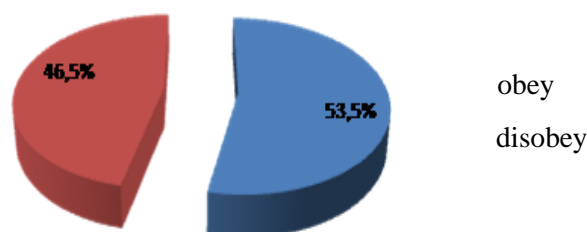


Diagram 1. Nurse compliance in implementing standard urethral catheter installation in Bantul Hospital inpatient

From the diagram above, it is known that most nurses adhere to catheter installation standards as many as 23 people (53.5%), while nurses who do not comply implement catheter installation standards as many as 20 people (46.5%).

Table 1. Distribution of Respondent Frequencies by Age, Gender, Working Period, Knowledge and Attitude in the Inpatient Room of Panembahan Senopati Hospital, Bantul.

Variabel	kategori	Frekuensi	Percentage
Age	Old	10	23,3%
	Young	33	76,7%
Total		43	100%
Sex	Women	33	76,7%
	Men	10	23,3%
Total		43	100%
Experiance inwork	Old	21	48,8%
	New	22	51,2%
Total		43	100%
Knowledge	good	28	65,1%
	Poorly	15	34,9%
Total		43	100%
Sikap	Positif	36	83,7%
	Negatif	7	16,3%
Total		43	100%

Age

Age data is categorized into young and old. Frequency distribution of categorization of respondent's age data can be seen in the table. Based on the analysis results it is known that most respondents in the old category were 10 people (76.7%), while respondents in the young category were 33 people (23.3%).

Gender

The sex of the respondents consisted of men and women. The frequency distribution of respondents' gender data can be seen in the following table. Based on the table above, it is known that the majority of respondents were female as many as 33 people (76.7%), while those who were male were 10 people (23.3%).

Years of service

The working period is grouped into <5 years (new) and > 5 years (old). The results of data analysis of the respondent's tenure are as follows. Based on the results of the analysis, it is known that most of the respondents work only as many as 22 people (51.2%), while the rest have worked long time as many as 21 people (48.8%).

Knowledge

Knowledge level data is categorized into good and bad knowledge. The results of the analysis of respondents' knowledge level can be seen in table 4.1. It is known that most respondents have good knowledge of 28 people (65.1%). Respondents who have poor knowledge are 15 people (34.9%).

Attitude

Attitudes are categorized into positive and negative attitudes. The results of descriptive analysis of attitude data can be seen in table 4.1. The results of the analysis revealed that most respondents had a positive attitude of 36 people (83.7%). A total of 7 people (16.3%) have a negative attitude.

Bivariate Analysis

Table 2. Cross Tabulation of Nurse Compliance Factors with Compliance with the Implementation of Catheter Installation Standards in Bantul Hospital Inpatient

variabel		Compliance		P	OR	95% CI			
		Obey	Disobey			95% CI	lower	upper	
		f	%	f	%				
sex	Female	17	39,5	16	37,2	0,91	0,71	0,17	2,98
	Male	6	14,0	4	9,3				
Age	Old	10	23,3	0	0,0	0,00	2,54	1,66	3,88
	Young	13	30,2	20	46,5				
Knowled ge	Good	21	48,8	7	16,3	0,00	19,50	3,50	108,6
	Poorly	2	4,7	13	30,2				
attitude	Positif	23	53,5	13	30,2	0,01	0,36	0,23	0,56
	Negatif	0	0,0	7	16,3				
Working period	Long	18	41,9	3	7,0	0,00	20,40	4,21	98,78
	New	5	11,6	7	39,5				

DISCUSSION

Relationship between Gender and Nurse Compliance in implementing the standard catheter installation. Chi Square analysis results obtained $p = 0.913$ ($p > 0.05$), meaning that the sexes of men and women who have different characters were not proven to be associated with nurses' compliance in implementing catheter installation standards in Bantul Hospital. Based on the analysis results obtained an odd ratio value of 0.708. Odd ratio values of less than 1 indicate that gender is a protective factor for the formation of nurses' adherence to the implementation of the standard catheter installation in Bantul Hospital. This is supported by the opinion of Robbins (2007) which states there are no consistent differences in men and women in terms of problem

solving, analytical skills, motivation, sociability and learning ability. This is also supported by Judha (2015) " There is no difference between men and women but the difference is experience in solving problems".

Relationship between Age and Nurse Compliance in the implementation of the standard catheter installation. Age is the age range that is calculated since the individual was born until now. The results of the cross tabulation are known to the majority of nurses in the old category obedient in carrying out catheter installation according to the standard of 23.3%. While nurses in the young category were mostly not compliant in carrying out catheter fitting according to the standard of 46.5%. Chi Square analysis results obtained $p = 0.003$ ($p < 0.05$), meaning that there is a significant correlation of age with nurses' compliance in the implementation of the standard urethral catheter installation in Bantul Hospital, so that the hypothesis of this study is accepted. , 54 at 95% CI between 1,663-3,876, it can be interpreted that nurses who are elderly have the opportunity to comply with the urethral catheter installation standard by 2.54 times compared to younger nurses. This result is supported by Hurlock in Wawan and Dewi (2010) which states that the more age, the level of maturity and strength of a person will be more mature in thinking and working.

Relationship between Knowledge and Compliance of Nurses in the implementation of catheter installation standards. Knowledge is the result obtained by a person after doing damage to certain objects. The results of the analysis revealed that most nurses had good knowledge in the category of 65.1%. The results of cross-tabulation of most nurses who have good category knowledge, obedient in carrying out the installation of catheters according to the standard of 48.8%. While nurses who have poor knowledge are mostly not compliant in carrying out the catheter installation according to the standard of 30.2%, Chi Square analysis results obtained $p = 0,000$ ($p < 0.05$), meaning that there is a significant relationship of knowledge with nurse compliance in implementation urethral catheter installation standards in Bantul Hospital, so that the hypothesis of this study is accepted Based on the results of the analysis obtained an odd ratio value of 19.50 at 95% CI between 3.502-108.57 can be interpreted that nurses who have good knowledge have the opportunity to obey implement the standard urethral catheter installation of 19, 50 times compared to the poor knowledge, this is in accordance with the theory put forward by Notoatmodjo (2007) which states that knowledge is a very important domain in the formation of a person's behavior.

Relationship between Attitude and Compliance with the implementation of the catheter installation standards. Attitude is a closed response from the stimulus. The results of the analysis revealed that most nurses had a positive attitude of 83.7%. Positive results indicate the nurse's support for the implementation of catheter installation in accordance with standards.

A positive attitude is the basis for taking the right action in accordance with a concept that has been believed to be true. a positive attitude will then have a tendency to take the right and obedient actions in the standard implementation of urethral catheters. The analysis showed that the majority of nurses who had a positive attitude were 53.3%. While nurses who had a negative attitude were 16.3%. Chi Square analysis results obtained $p = 0.007$ ($p < 0.05$), meaning that there is a significant relationship between attitude and nurse compliance in the implementation of the standard urethral catheter installation in Bantul Hospital. Based on the analysis results obtained an odd ratio value of 0.361. Odd ratio value of less than 1 indicates that attitude is a protective factor in the formation of adherence to the implementation of the standard urethral catheter installation in Bantul Hospital. According to the theory of Thomas and Znaniec in Azwar (2006) which states that attitude is a predisposition to perform certain actions or behaviors.

Relationship of Work Period with Nurse Compliance in the Implementation of Standard Catheter Installation. The work period is the amount of time someone has

traveled in carrying out a particular profession. The results of the analysis revealed that most nurses had a new working period (<5 years) of 51.2%. These results indicate that the length of service of nurses is still relatively short, the results of the study showed that most nurses who had a long service life (> 5 years) amounted to 41.9%. While nurses who have a new working period (<5 years) 39.5%. Chi Square analysis results obtained $p = 0,000$ ($p < 0.05$), meaning that there is a significant relationship of work period with nurse compliance in the implementation of the standard installation of urethral catheters in Bantul Hospital. Based on the analysis results obtained an odd ratio value of 20.40 at 95% CI between 4,213-98.79 can be interpreted that nurses who have a long service life (> 5 years) have the opportunity to obey the standard installation of urethral catheters of 20.40 times compared to nurses with tenure new (<5 years). In accordance with Robbins (2007) which states that there is a positive relationship between seniority and work productivity. According to the theory put forward by Hartono et al in Sugiartono (2007) which states that the longer the service period of an officer the more his skills will be in obeying regulations.

CONCLUSION

Conclusion

There is a significant relationship between age, knowledge, attitude, and length of service of nurses' compliance in implementing the standard urethral catheter installation in Bantul Hospital.

Suggestion.

It is expected that efforts are needed to improve nurses' compliance in the implementation of urethral catheter installation standards through the provision of education and training with knowledge about the standards for urethral catheter installation and the importance of complying with procedures in accordance with those established in hospitals for the safety of patients and officers as well as conducting improvements to the surveillance system with pay attention to the procedure for implementing urethral catheters.

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