Original Research Article

Relationship of Nurse's Knowledge with Measures Nosocomial Infection Prevention in the Room Internal Care of a Regional General Hospital, Majene Regency

Munadiah Wahyuddin[1], Suaib.B[2], Muhammad Nuraditya[3]

[1,2,3]Ilmu Keperawatan, STIKes Marendeng Majene, West Sulawesi, Indonesia

Corresponding Author: Munadiah Wahyuddin

ABSTRACT

Nosocomial infection is an infection that is acquired by the patient when the patient is in the nursing care process at the hospital that occurs at least after 3 x 24 hours since the patient started treatment in the hospital. The risk of nosocomial infection in addition to occurring in patients who are hospitalized, can also occur in hospital staff. This study aims to determine the relationship between nurses' knowledge and prevention of nosocomial infections in the internal care room of the Majene Regency General Hospital. This research is an analytical survey research with a cross sectional study approach. The sample in this study were all nurses in the internal treatment room of the Majene Regency General Hospital as many as 30 people. Collecting data by using a questionnaire. The results showed that the level of knowledge of the majority of respondents about nosocomial infections was good, namely 27 people (90%) and the level of knowledge of respondents about prevention of nosocomial infections was good, namely 18 people (60%). Based on the results of the *Fisher's exact test, the* value of $p = 0.054$ which means it is greater than the value of $= 0.05$, which means that there is no relationship between the level of knowledge and the behavior of nurses on prevention of nosocomial infections.

Keywords: Knowledge, Nosocomial Infections, Preventive Measures

INTRODUCTION

The hospital as a health service institution that provides medical services and nursing care for all types of diseases including infectious diseases [4]. Facing the globalization era, the quality of human resources and the quality of services in hospitals need to be improved so that they are advanced, independent and prosperous so that they can spur better prevention and control of nosocomial infections [3].

In Indonesia, the incidence of nosocomial infections is much higher. According to research conducted in two major cities in Indonesia in 2008, the incidence of nosocomial infections was around 39-60%. This means that the incidence of nosocomial infections in Indonesia is more concerning than in several other countries [5].

Currently, the incidence of nosocomial infections has become one of the benchmarks for the quality of hospital services. Based on KEPMENKES No. 129 of 2008, the standard incidence of nosocomial infections in hospitals is 1.5 %. The operating license of a hospital can be revoked due to the high incidence of nosocomial infections. Even the insurance company does not want to pay the costs caused by this infection [5].

Efforts to prevent nosocomial infections in hospitals involve various elements, ranging from the role of leaders to

health workers themselves, especially nursing personnel as direct implementers in infection prevention. The way to reduce the risk of nosocomial infection is to return to sepsis and antisepsis techniques and improve attitudes including the knowledge of hospital personnel, including nurses who are the staff who have the longest contact with patients.[11] In addition, one of the strategies that have been proven to be beneficial in the control of nosocomial infection is to increase the ability of health workers in the method of Universal Precautions*(Universal Precautions)* is a way of new treatments to minimize exposure to blood and body fluids of all patients, regardless of the status of infection (an infection. com. RSPI-SS, 2007). [9].

Nurses must have a sufficient level of education and knowledge, this is important in shaping the actions of nurses in providing services to patients, especially in terms of preventing nosocomial infections [2].

Majene District General Hospital is one of the hospitals that provide health services. Based on data obtained from the hospital the number of nosocomial infections contained in the internal treatment chamber as 192 for the period from January to December 2016.

Based on the information obtained by investigators during initial data collection, that during the period January-December 2016 the number of visits as inpatient interna 1,841 people, 32 beds. While the number of nurses on duty in the internal care room was 39 people. Observations of researchers during data collection in the internal care room by looking at the status of patients randomly found there were 5 documented phlebitis incident statuses, phlebitis is one of the incidences of nosocomial infection from the incidence of phlebitis, this number should be reduced if nurses make efforts in terms of preventing nosocomial infections.

Based on the above, the researchers are interested in conducting research on "the relationship between nurses' knowledge and prevention of nosocomial infections in the internal care room of the Majene Regency General Hospital."

METHOD

This type of research is quantitative research with an analytical survey approach. The research design used was a *cross sectional study* which emphasized the measurement/observation of the independent and dependent variables carried out at the same time [1]. This design looks at or reveals the relationship between knowledge and the prevention of nosocomial infections in the internal treatment room of the Majene Regency General Hospital.

RESULT

Table1: Distribution of Respondents based on the Characteristics of Nurses in the Internal Care Room at the Majene Regency General Hospital

Characteristics of Respondents	Frequency (n)	Percentage (%)
Age		
21-30 Years	18	60
31-40 Years	10	33.3
>40 Years	2	6.7
Gender		
Male	7	23.3
Female	23	76.7
Education		
D3 Nursing	25	83.3
S1 Nursing	2	6,7
Nurses	3	10
Length of Work		
5 Years	13	43.3
6-10 Years	7	23.3
11-15 Years	8	26.7
16 Years	2	6.7

Based on table 1 above, from 30 nurses the majority aged 21-30 years were 18 people (60%), aged 32-40 years as many as 10 people (33.3%) and over 40 years as many as 2 people (6.7%). For gender, most nurses are women, namely 23 people (76.7%) while men are 7 people (23.3%). Based on education, the majority of nurses with the latest D3 Nursing education are 25 people (83.3%), S1 Nursing 2 people (6.7%) and Nurses are 3 people (10%). For the length of work of nurses, as many as 13 people (43.3%) worked for 1-5 years, 8 people (26.7%) worked for 11-10 years, 7 people (23.3%) for 6-10 years and as many as 2 people (6.7%) worked 16 years.

Table 2: Cross Tabulation Based on Nurse's Knowledge of Nosocomial Infections and their Prevention Measures in the Internal Treatment Room of the Majene Regency General Hospital

Nurse's Knowledge of Nosocomial Infections Nosocomial Infection	Prevention Measures				Total	
	Good		Less			
	n	%	n	%	n	%
Good	18	60	9	30	27	90
Less	0	0	3	10	3	10
Total	18	60	12	40	30	100

Based on table 2, it was found that from 30 respondents, nurses 18 people (60%) had good knowledge with good preventive measures and 9 people (30%). Meanwhile, there are 3 nurses who have less knowledge and less preventive measures (10%). And based on the results of the *Fisher's exact test* that there is no relationship between the level of knowledge and the behavior of nurses on the prevention of nosocomial infections, this is indicated by the value of $p = 0.054$ which is greater than the value of $= 0.05$.

DISCUSSION

Based on the results of bivariate analysis using the *Fisher's test.* there is no relationship between the level of knowledge of nurses and the prevention of nosocomial infections, namely from 27 people (90%) respondents who have good knowledge there are 18 people (60%) respondents show good actions to prevent infection nosocomial.

In accordance with the researcher's observation that in general nurses who have good knowledge always show good behavior as well. Knowledge or cognitive is a very important domain for the formation of one's actions (overt behavior).

Because from experience and research it turns out that actions based on knowledge will be more lasting than actions that are not based on knowledge [9]. His research suggests that how important one's knowledge is to change behavior, the more one knows something, the more motivated a person will be to do positive things for himself.

The better the level of knowledge possessed by nurses, the greater their awareness and motivation to do positive things, especially in working both for themselves, patients, other health workers and everyone in the hospital, including in efforts to prevent nosocomial infections. Meanwhile, of the 27 people who have good knowledge, there are 12 people (40%) of respondents who lack action. This indicates that not always good knowledge can make someone have good actions. In accordance with the results of the observations of researchers at the research site that this is due to the lack of adequate facilities that support the implementation of nursing care for patients so that it requires readiness and awareness in nurses to behave well.

From the results of the interview they "said that in fact we know it can cause infection both to the patient and to ourselves, but because the situation is like this we are forced to sometimes not wash our hands, use gloves and masks". In addition, the hospital has not conducted training on the prevention and control of nosocomial infections for nurses in the treatment room and the lack of awareness in nurses to take self-protection measures and prevent and control nosocomial infections.

The results of the observation showed that there were still those who disposed of infectious waste into non-infectious waste bins even though labeled trash bins had been provided. This is in accordance with the theory put forward by Green that one of the factors that influence a person's behavior is attitudes and beliefs as well as the availability of facilities.

According to WHO, behavioral changes are grouped into three, namely:

1. Natural change *(natural change)* that human behavior is always changing where some changes are due to natural events. If in the surrounding community there is a change in the physical or socio-cultural and economic environment, the members of the community in it will also experience changes.

2. Planned change that this change occurs because it was planned by the subject himself.
3. Willingness to change (Readiness to change), this is because everyone has a different willingness to change (Readiness to change), even though the conditions are the same.

Then from there are 3 people (10%) of respondents who lack knowledge accompanied by less preventive measures. This indicates that someone who has less knowledge will tend to show less action.

In accordance with the results of the observations of researchers at the research location, that of the 3 respondents had an unfavorable work environment, including limited facilities or facilities that support providing nursing services and bad habits carried out by other nurses in taking action so that there is a tendency to adopt this behavior. This shows that the importance of the work environment and human resources around us to change one's behavior [12].

CONCLUSION

90% of nurses' level of knowledge about nosocomial infections is mostly in good category, but those accompanied by preventive measures for nosocomial infections in good categories are only around 60% while 30% are still categorized as lacking preventive measures. This is because there is still a lack of adequate advice in implementing the prevention of nosocomial infections while nurses are still not aware of consistently implementing nosocomial infection prevention measures. Training and strict supervision from the hospital in controlling nosocomial infections will greatly protect health human resources, patients, and the community. In addition, it creates attitudes and behaviors that are always conducive to efforts to prevent and control nosocomial infections

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