

Nurse Compliance in Implementing Standard Precaution Based on Theory of Planned Behavior

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Abstract

Background: Standard Precaution is an activity applied by health care facility staff to reduce the risk of infection due to blood or body fluids that can potentially transmit disease. Survey conducted by RSUD Dr. R. Sosodoro Djatikoesoemo Bojonegoro in January - September 2018 found that the number of nosocomial infections in the inpatient room was 2.82% and from eleven aspects of standard precautions established to prevent it, it turned out that only two aspects were in accordance with the target.

Objective: The purpose of this study was to analyse factors related to nurse compliance in applying the standard precaution by nurses at the inpatient installation.

Method: This research was carried out by analytic observational approaches. Based on the time, this study included a cross-sectional research design. The independent variable of this study are attitude toward behavior, subjective norms, perceived behavior control and behavioral intention obtained from questionnaires filled out by nurses. While the dependent variable is the compliance of nurses in implementing standard precaution obtained from checklist of observation filled out by researcher.

Result: The result of this research are attitude toward behavior has a significance value of 0.001, subjective norm has a significance value of 0.001, perceived behavior control has a significance value of 0.129 and behavioral intention has a significance value of 0.000.

Conclusion: The conclusion of this study is factors related to nurse compliance in implementing the standard precaution are attitude toward behavior, subjective norm and behavioral intention. While factor that do not related with nurse compliance in implementing the standard precaution are perceived behavior intention.

Keywords: *Compliance, Nurse, Standard Precaution.*

Introduction

Hospitals are one of the health facilities that have an important role in providing health services and improving the health of the community through the implementation of curative and rehabilitative efforts. In carrying out various types of services, hospitals are required to provide safe, good quality, non-discriminative and effective health services in accordance with hospital service standards. In addition, it is also stipulated that the hospital is obliged to provide health services that prioritize patient safety¹.

In a ministerial regulation, it is said that there are

six indicators of patient safety that must be carried out by hospital. One of the indicator is a reduction in the risk of infection related to health services². Nosocomial infection is an infection that occurs in patients during hospital care and other health care facilities. It also can be an infection due to work in hospital staff and health workers related to the process of health services in health care facilities³.

One of ten patients who are hospitalized will get a nosocomial infection even though most forms of nosocomial infection are preventable⁴. One of the prevention of nosocomial infections in hospitals that must be applied by health workers called standard

precaution. The standard precaution is designed to reduce the risk of patients and health workers being infected with infectious diseases both from known and unknown sources of infection³.

Developing countries have a risk of infection from poor health services as much as 2-6 times than a high income country⁵. Research conducted at 10 educational hospitals in Indonesia stated that in 2010 nosocomial infections occurred were quite high at 6-16%. From the various studies, it was found that nosocomial infections happened because of health workers did not implement standard precaution optimally⁶.

RSUD Dr. R. Sosodoro Djatikoesoemo Bojonegoro is a non-educational type B hospital that was established in 1928. The incidence of nosocomial infection is one of the important problems for RSUD Dr. R. Sosodoro Djatikoesoemo Bojonegoro. Occurrence of nosocomial infections in 2018 is 2.82%, which means exceeding the target <0.50%. Meanwhile through infection report it is also known that the application of the standard precaution is not optimal. From the eleven aspects determined, only two aspects have been carried out optimally⁷.

Behavior to do a compliance is influenced by behavioral intention. Several studies on nurse compliance in carrying out nursing care are analyzed through the theory of planned behavior⁸⁻⁹. In the theory of planned behavior, it is explored that the determinant of a behavior is behavioral intention. While the intention itself arises because of three aspects, namely attitudes toward a behavior, subjective norms and behavioral control¹⁰.

Based on the description above, it becomes the consideration for researchers to conduct an analysis of factors related to nurse compliance in applying the standard Precaution by nurses at the Inpatient Installation. This study aims to identify attitudes toward behavior, subjective norms, perceived behavior control, behavioral intention and compliance of standard precaution for nurses in Inpatient Installation.

Material and Method

This research was conducted with a quantitative analytic approach based on the objectives and types. The researcher did not provide intervention in the form of treatment to the research subjects so that this study was classified into observational research. Based on the time, this study included a cross-sectional research design. The independent variable in this study is divided into

four, namely attitude toward behavior, subjective norms, perceived behavior control and behavioral intention. While the dependent variable is nurse compliance in applying the standard precaution.

This research was conducted in June 2019 in the inpatient installation of RSUD Dr. R. Sosodoro Djatikoesoemo Bojonegoro. The population in this study were all nurses in the inpatient installation RSUD Dr. R. Sosodoro Djatikoesoemo Bojonegoro which is equal to 121 nurses. Sample calculation was done using simple random sampling technique and a research sample obtained are 54 nurses. Data retrieval is done by using a questionnaire filled out by respondents and observation checklist filled in by researchers. The results of questionnaire and observation will be processed using Chi Square test to analyze the relationship between the independent variables with the dependent variable.

Result

Nurse Compliance in Implementing Standard Precaution: Nurse compliance in implementing standard precaution obtained by using checklist of observations on some aspect such as hand hygiene, use of personal protective equipment, decontamination, environmental control, waste management, linen management, officer health protection and safe injection practices. From the results of these observations, they are assessed and categorized as follows:

Table 1: Distribution of Nurse Compliance in Implementing Standard Precaution

| Variable | Category | N | % |
|-------------------|--------------|----|--------|
| Nurse Compli-ance | Complied | 32 | 59,30 |
| | Not Complied | 22 | 40,70 |
| | Total | 54 | 100,00 |

Table 1 shows that 32 respondents (59.30%) or most of the nurses in inpatient installation RSUD Dr. R. Sosodoro Djatikoesoemo has complied the application of standard precaution.

Theory of Planned Behavior Component: Assessment carried out on attitude toward behavior, subjective norms, perceived behavior control and behavioral intention was carried out through questionnaires filled by nurses in the inpatient room. The results of the questionnaire are assessed and categorized as follows:

Table 2: Distribution of Theory of Planned Behavior Component in nurses

| Variable | Category | n | % |
|----------------------------|----------|----|--------|
| Attitude Toward Behavior | Good | 35 | 64,80 |
| | Less | 15 | 35,20 |
| | Total | 54 | 100,00 |
| Subjective Norm | Good | 31 | 61,10 |
| | Less | 21 | 38,90 |
| | Total | 54 | 100,00 |
| Perceived Behavior Control | Good | 20 | 37,00 |
| | Less | 34 | 63,00 |
| | Total | 54 | 100,00 |
| Behavioral Intention | Good | 23 | 42,60 |
| | Less | 31 | 57,40 |
| | Total | 54 | 100,00 |

Table 2 explains that most of respondents as many as 35 people (64.80%) have a good attitude toward

behavior in the implementation of standard precaution. In addition, most of the respondents, namely 33 people (61.10%) considered that Subjective Norm related to the application of the standard precaution was good.

On the factors of perceived behavior control it is known that the majority of respondents, 34 people (63.00) have less perceived behavior control in implementing the standard precaution. Besides that, it can also be seen that the majority of respondents, namely 31 people (57.40%) have less behavioral intention to do a standard precaution.

Factor Related to Nurse Compliance in Implementing Standard Precaution: Factors related to nurse compliance in implementing standard precautions were obtained through a 2x² table Chi Square test and read the Continuity Correction value in table with the following results:

Table 3: Factor Related to Nurse Compliance in Implementing Standard Precaution

| Variable | Category | Compliance | | | | Total | | p value |
|----------------------------|----------|------------|-------|------------|-------|-------|--------|---------|
| | | Comply | | Not Comply | | N | % | |
| | | n | % | N | % | | | |
| Attitude toward behavior | Good | 27 | 77,10 | 8 | 22,90 | 35 | 100,00 | 0,001 |
| | Less | 5 | 26,30 | 14 | 73,70 | 19 | 100,00 | |
| Subjective Norm | Good | 26 | 78,80 | 7 | 21,20 | 33 | 100,00 | 0,001 |
| | Less | 6 | 28,60 | 15 | 71,40 | 21 | 100,00 | |
| Perceived Behavior Control | Good | 15 | 75,00 | 5 | 25,00 | 20 | 100,00 | 0,129 |
| | Less | 17 | 50,00 | 17 | 50,00 | 34 | 100,00 | |
| Behavioral Intention | Good | 21 | 91,30 | 2 | 8,70 | 23 | 100,00 | 0,000 |
| | Less | 11 | 35,30 | 20 | 64,50 | 31 | 100,00 | |

Through the results of the tests conducted, it can be seen that attitude toward behavior has a significance value of 0.001. Then it can be said that attitude toward behavior related with nurse compliance in applying the standar precaution. Table 3 also explains that the subjective norm test shows a significance value of 0.001. This value indicates that there is a relationship between subjective norms and nurse compliance in applying standard precaution.

Besides the results of the tests conducted, it can be seen that the perceived behavior control has a significance value of 0.129. Then it can be said that there is no relationship between perceived behavior control and nurse compliance in implementing the standard

precaution. Table 3 also explains that the behavioral intention statistical test shows a significance value of 0,000. This value shows that behavaioral intention related with nurse compliance in implementing standard precaution.

Discussion

Attitude Toward Behavior with Nurse Compliance in Implementing Standard Precaution: Attitude toward behavior interpreted as a level of negative or positive feeling or opinion about certain behavior by individual. When an individual feel that a certain behavior have a positive impact on them self, they will do the behavior. And when an individual feel

that a certain behavior have a negative impact, he will not do the behavior¹⁰.

The results in this study showed that there is a relationship between attitude toward behavior with nurse compliance in applying standard precaution. From this study, nurse who see each other or their chief in inpatient installation implementing standard precaution assuming that they are a good role model. If they also did it, it has a good impact on their image and their safety too.

The other study that accordance with this study stated that nurses who have a good attitude toward behavior will be more motivated to implement standard precaution indicates by supporting or approving a certain kind of behavior. It is because the behavior will give a protection especially on patient and also the nurses¹¹.

Subjective Norm with Nurse Compliance in Implementing Standard Precaution: Subjective norms are individual views of beliefs and expectations that come from other people around them and can influence the desire to behave or not¹⁰. The results of this study showed the same thing, there was a relationship between subjective norms and nurse compliance to applying the standard precaution.

The results of this study indicate that the more subjective norms felt by nurses so that they conduct standard precaution, will encourage nurses to produce high compliance. The subjective norm can be the head of the room which is the role model and the other nurses that carry out prevention of infection. The existence of hospital policies that make nurses conduct standard precaution is also an example of subjective norm.

The results of this study are in accordance with the other study which stated that subjective norms can influence to comply to a certain nurse caring procedure. Due to the existence of role models that apply standard precaution, the expectations of surrounding people to carry out standard precaution as well as a specific policies governing standard precaution, will make the nurse encourage to display high compliance¹².

Perceived Behavior Control with Nurse Compliance in Implementing Standard Precaution: Perceived behavioral control or perception of behavior control consists of two aspects, namely how much an individual has control to behave and how strong the individual's beliefs are not to behave. People who have confidence that they do not have the opportunity factors

to carry out a behavior, allow the intentions formed are not strong even though the attitude they have is positive for a behavior¹⁰.

The results of statistical tests in this study shows that there is no relationship between perceived behavior control and the application of the standard precaution. From this study, obstacles related to the implementation of standard precaution did not prevent nurses from continuing to implement standard precaution. This is because if there are obstacles, but the nurse feels that they can handle it easily, then the implementation of standard precaution still continues. Meanwhile, if nurses have obtained the convenience and benefits of implementing standard precaution but they did not used it properly, the implementation will be low.

There is a study that show different results which states that perceived behavior control can influence nurses to comply with standard precaution procedures. This is because nurses feel facilitated, only have a few obstacles and have obstacles that can be anticipated when they want to implementing standard precaution. So that their control in carrying out the standard precaution procedure is high¹¹.

Behavioral Intention with Nurse Compliance in Implementing Standard Precaution; Behavioral intention is a cognitive and conative representation of an individual's readiness to display a behavior. Intention is the determinant and disposition of behavior, so that individuals have the right opportunity and time to display the behavior in real terms. In general, if the individual has the intention to do a behavior, the individual tends to do the behavior. Conversely, if individuals do not have the intention to do a behavior then individuals tend not to do the behavior¹⁰.

The results of statistical tests show that there is a relationship between behavioral intention and nurses' compliance to applying the standard precaution. This is because the harder the intention of the individual to be involved in a behavior, the stronger the tendency of the individual to actually do the behavior.

This research is also same with the study which shows the relationship between intention and safety behavior. This is because intention to do a behavior is a large individual control contribution that that will convert a willingness to do a certain behavior to become a real behavior¹³.

Conclusion

The conclusion of this study is that most nurses have complied to the implementation of the standard precaution. The majority of nurses have a good attitudes toward behaviors, good subjective norms, less perceived behavioral control and less behavioral intention. Suggestions that can be given to nurses at RSUD Dr. R. Sosodoro Djatikoesoemo is by encouraged each other to implement standard precaution and grow their awareness that standard precaution is a good thing to implement and the responsibility must be carried out by all health workers in the hospital. Hospital management can make a detail standard operating procedures as guidelines for nurses in implementing standard precautions. In addition, hospital management can also monitor and evaluate the obstacles that occur during the process of applying standard precautions such as availability of facilities and lack of training. So that the application of the standard precaution can run optimally and can reduce the incidence of nosocomial infections in hospitals.

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