# Relationship between knowledge of patient safety and its implementation in the hospital

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## ARTICLE INFO

## ABSTRACT

The patient safety in hospitals is often not optimally implemented due to the imperfect roles of nurses to implement the patient safety. Errors that result in injured patients can be due to inaccurate identification of patients. As a result, it triggers to delays in diagnosis, failure in action, medication errors and dosage errors when administering drugs. In 2016, it was found 11 nurses experiencing needle stick injury. This occurs due to wrong method of re-inserting the needle into the syringe that is used by using two hands. It also occurred in 2018, based on K3 RS report, there were 9 nurses experiencing needle stick injury.This research aims to find out if there is a relationship between nurses' knowledge about patent safety and its implementation the inpatient room of Purwokerto Hospital.This is a qualitative research method with a cross-sectional approach. The samples of this study are nurses 35 nurses as respondents in the inpatient room of RSI Purwokerto. Chi-square test is used as data analysis.It is found that 25 respondents (71.4%) have good knowledge of patient safety, while 10 respondents (28.6%) are in moderate category (good enough). 16 respondents (45.7%) have implemented the patient safety well, and 19 respondents (54.3%) have carried out it quiet well. Based on the statistical test, the p value is 0.408. Which is <of 0.05.so there is no relationship between patient safety knowledge and the implementation of patient safety.There is no relationship between the knowledge about patient safety and the implementation of of patient safety in the inpatient room of hospital in Purwokerto Hospital.

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## 1. INTRODUCTION

Patient safety is a vital and important component in nursing care and one of the steps to improve the service quality [1]. Patient safety has become a priority for health services around the world [2], therefore, it is very much needed as hospital quality assessment for an accreditation system. Thus, patient safety in the hospital should be implemented as an effort to improve service quality. Patient Safety is more important than the efficiency of service. Nurse behavior along with their ability play significant roles in implementing patient safety. Some Risky behavior like being forgetful, lack of attention / motivation, negligence, carelessness and ignoring and letting the patients at risk for errors result in injury to patients, such as Near Miss (Nearly Injury Event / KNC) or Adverse Event ( Unexpected events / KTD). Then, such errors can be anticipated by modifying behavior. Nurses must involve their cognitive and affective actions that prioritize patient safety [3]

The patient safety in the hospital is often not optimally implemented because of the imperfect roles of nurses. Gunes' study [4] discovers that many nurses in Turkey still have negative perceptions of the patient safety culture in their institutions. It is also revealed that only 16% of nurses are dedicated full-time to patient safety programs. Efforts to apply patient safety really depend on the knowledge of the nurse. If the nurse applies patient safety based on adequate knowledge, then the patient safety behavior will be long lasting. The higher the level of knowledge of nurses about patient safety means the better the patient safety practices in nursing

care. This means that nurses with knowledge about patient safety can reduce the risk of patient safety incidents or incidents that endanger or harm patients [5]

In the assessment obtained from the Hospital K3 Team, the number of nurses with needle stick injury always increased. In 2015, there were 10 nurses experiencing needle stick injury. In 2016, there were 11 nurses experiencing needle stick injury. This occurs as a result of inserting the needle and syringe incorrectly, for example by using hand to re-insert the needle. It was also found that 15% of them did errors namely administering unsafe drugs (Drug Safety High Alert.) Based on these problems it is necessary to make efforts so that the obstacles and hindrance in the introduction of patient safety can be overcome. These efforts primarily emphasize the importance of the roles of nurses in improving patient safety so that the ultimate goal of patient safety which consists the safety of patients, nurses as workers or health workers, nursing students, visitors and others in the hospital environment can be achieved and the risk associated with patient safety can be reduced [6]

## 2. RESEARCH METHOD

This type of research is quantitative with a cross-sectional approach. The independent variable in the research is knowledge of nurses and the dependent variable is the application of patient safety. Research time on December 2019 until January 2020 at the Islamic Hospital Purwokerto. The research sample of nurses is a nurse in charge of 35 respondents. Samples were taken using a simple random sampling technique. Data processing techniques: editing, coding, processing,cleaning. Univariate data analysis using frequency distribution tables and bivariate analysis by using the Chi square statistical test, where the p value $< 0.05$.

## 3. RESULT AND DISCUSSION
### 3.1. Results

Table 1. Characteristics of respondents in the study n=35

| Characteristics | Frequency | Percentage |
|---|---|---|
| **Age** | | |
| < 35 Years Old | 17 | 49% |
| ≥ 35 Years Old | 18 | 51% |
| **Sex** | | |
| Male | 10 | 29% |
| Female | 25 | 71% |
| **Education** | | |
| S1 + Ners | 7 | 20% |
| D3 | 28 | 80% |
| **Length of Work** | | |
| < 5 years | 8 | 23% |
| ≥ 5 years | 27 | 77% |
| **Training** | | |
| Yes | 7 | 20% |
| Not yet | 28 | 80% |
| **Knowledge of Patient safety** | | |
| Good | 25 | 71,4% |
| Moderate | 10 | 28,6% |
| **The Implementation of Patient safety** | | |
| Good | 16 | 45,7% |
| Moderate | 19 | 54,3% |

Based on the table above, it can be seen the characteristic of 35 nurse respondents in the inpatient room of RSI Purwokerto. It shows that most of the nurses were female and over 35 years old. Most of them were graduated from Diploma III of Nursing with work experience of more than 5 years. They mostly had not got patient safety training yet. Their knowledge about patient safety is in the good category, however, the implementation of patient safety is mostly in the moderate category (good enough).

Table 2. The Relationship between Nurse Knowledge about Patient Safety & Its Implementation

| Knowledge Level | The Implementation of Patient Safety | | Total | p-value |
|---|---|---|---|---|
| | Good | Moderate | | |
| Good | 11 | 14 | 25 | |
| | 44 % | 56 % | 100 % | 0,408 |

| Moderate | 5 | 5 | 10 |
| --- | --- | --- | --- |
| | 50 % | 50 % | 100 % |

Based on the above statistical table about the relationship between nurse knowledge and the implementation of patient safety, the p value is = 0.408. Therefore, it can be concluded that there is no relationship between patient safety knowledge and the implementation of patient safety.

## 3.2 Discussion
### 3.2.1 Respondent Characteristics

The results of the research conducted in the inpatient room of RSI Purwokerto with 35 respondents found that 18 respondents (51%) are more than 35 years old and 17 respondents (49%) are less than 35. Thus, it can be seen that the nurses are in productive age meaning that they are supposed to have good performance. In addition, it is also known when one is in his mature age, he/she will have better ability and ways of thinking and working. Based on the results of research on gender, it shows that the majority of nurses are female, as many as 25 people (71.3%), while the rest of 103 people (28.7%) are male. This result is in line with the theory that nurses is mostly dominated by women, because in its history, nursing emerged as a traditional care taking role in the family and society [7] Based on the education of respondents, it shows that most of them, 28 respondents (80%) are graduated from D3 Nursing and 7 respondents (20%) are graduated from S1 and Ners. It indicates that most of the employees at RSI Purwokerto are only D3 Nursing graduates. This is supported by Soeroso's research [8] which states that more than 60% of nurses in Indonesia are only D3 graduates. Nursing education plays a very important role in fostering the attitudes, views and professional abilities of its graduates. Based on the length of work, it was found that 27 respondents (80%) have been working for more than 5 years and 8 respondents (20%) have been working for less than 5 years. Notoadmojo [9] states that when a person works longer, he/ she will be more skillful and will understand the task more easily. Thus, they have more chances to improve achievement and to adapt to the environment as well as to have more experiences. From the table of the training, it was found that there are only 7 respondents (20%) who experience PPI training, and 28 respondents (80%) have not got PPI training.

### 3.2.2  The Nurse Knowledge about Patient Safety

Based on the results of this study, it was found that 25 respondents (71.4%) are in good category and 10 respondents (28.6%) are in moderate category or good enough. Fortunately, there is no poor category found from the respondents. According to Budiman [9], there are some factors affecting the level of knowledge such as age, education, information and experience / years of work. In this research, the knowledge of respondents about patient safety is categorized as good because the average respondent, 18 nurses (51%), is more than 35 years old. This age range includes in productive age so that it is still acceptable to provide knowledge about patient safety. By having working experience of more than 5 years, the respondents certainly experience and understand what they do. This condition is somewhat different to the fact that the average of respondent education is only diploma 3 since it is known that education is closely related to knowledge.

It is said that when a person has higher knowledge, it means that he has better knowledge. However, it should be emphasized that someone with low education does not necessarily mean that they have low knowledge because learning abilities can also affect knowledge. Someone with good learning abilities will tend to get more information, both from other people and from the other media. The more information obtained, the more knowledge will be obtained. Based on the results of the analysis, the increase in knowledge is influenced by the level of education, but it is not absolutely obtained from formal education. Knowledge can also be obtained from non-formal education such as from seminars or training as well as from various media. However, in this research, there are 10 respondents in moderate category for their knowledge on patient safety.

### 3.2.3  The Implementation of Patient Safety.

Based on research results, it was found that 16 respondents (45.7%) have implemented the patient safety well and 19 respondents (54%) have done it quite well.
There are 25 people (71.6%) who have implemented the patient safety measured from their good knowledge. It requires a commitment along with the nurse knowledge in order to build patient safety. Nurses with good knowledge of patient safety certainly have a good attitude in improving the quality of health services, this is in accordance with the opinion of Majid [10] who argues that knowledge is the base of attitude, while attitude will lead to one's actions. Knowledge is the result of getting cognition and this occurs after someone senses a certain object. The knowledge is the dominant thing that is very important for the formation of one's actions. Based on the experience of several studies, it turns out that actions that are not based on good knowledge will not produce good results [11]. Based on the results of the analysis of knowledge, nurses play an important role to do patient safety, so that further education is needed in an effort to increase knowledge. Furthermore, safe

nursing services are very influential in improving the quality of service. From results of the study, it was found that there were still 19 nurses who did not carry out patient safety. Based on the observation results done to the nurses, they said that they did not explain the types of drugs and side effects to the patients. It was found that the nurses did not implement the stages of administering drugs in accordance with the existing SOP at the hospital. Beside that, they were also less careful in verifying data. Not getting the training for patient safety is also supposed to be another factor.

**3.2.4 The Relationship between the Nurse Knowledge on Patient Safety and its Implementation**

Based on the results of the relationship between nurse's knowledge and its implementation, it can be seen that 11 respondents (44%) have good knowledge and have carried out patient safety well. While the 5% (50%) respondents have quite good knowledge and have carried out the patient safety incompletely. The statistical test results obtained p value = 0.408. This, it can be concluded that there is no relationship between knowledge and the application of patient safety. Knowledge about the patient safety program in the hospital is very important because the nurses is very much related to the knowledge they have. If they have more knowledge, they will have more complete perception of patient safety compared to someone with less knowledge. Based on the result of this study, it is found that there are 25 nurses who have good knowledge about patient safety definition, while the rest 10 nurses have less knowledge about it. In the results of this study there was no significant relationship among these variables. this could be due to some facts such as the average education of the nurses which is still D3 graduates, some nurses without patient safety training, and    working experience for less than 5 years. Training here is very important because someone's knowledge is obtained not only from education at university but also from training.

The results of this study are not in line with previous research conducted by Ginting [12] on the relationship between nurse knowledge and the implementation of JCI standards regarding patient safety. He mentions that     there is a significant relationship between knowledge variable and implementation of patient safety. Patient Safety is a procedure or process in a hospital that provides safer patient care. This procedure is influenced by the nurse's knowledge to be able to prioritize the patients' betterment and safety. This patient safety procedure really guarantees the improvement quality of the hospital because a hospital can be said to be good if the service for patient safety is also good [13] Hughes stated that the first step to improve quality service is safety, while the key to quality and safe service is to build a culture of patient safety. According to Mitchell in Hughes [14], nurses are key in developing quality through patient safety. In an effort to build patient safety, it requires a commitment that is influenced by the nurse's knowledge. To summarize, based on many opinions, nurses with a good knowledge of patient safety certainly have a good attitude in improving the quality of health services.

**4.  CONCLUSION**

There are 11 respondents (44%) who have good knowledge and complete implementation of patient safety and 15 respondents (50%) who have quite good knowledge and incomplete implementation of patient safety. The result of statistic test is p value> 0.1, so there is no difference between the knowledge of nurses and the application of patient safety .

**Acknowlegments**

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