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**Original Research Article Outline:****Relationship Characteristics Of Individual Nurses With Patient Safety Incidents In Clinical Administration Types At Nahdlatul Ulama Hospital Tuban**Miftahul Munir<sup>1)\*</sup>, Didik Suharsoyo<sup>1)</sup>, Eva Silviana Rahmawati<sup>1)</sup><sup>1)</sup>Health Administration Study Program, Institute of Health Nahdlatul Ulama, Tuban

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**ABSTRACT**

**Introduction.** Patient safety incidents type of clinic administration are incidents that occur in the process of patient identification, handover, agreement, informed consent, queuing, referral, admission, discharge of patients from inpatient, transfer of care, division of tasks, response of emergency. **Method.** Based on patient safety incidents reports of RSNU Tuban, there were 12 patient safety incidents type of clinic administration (standard 0% or zero accident) during January 2021-June 2016 in inpatient unit. This research and to analyze the correlation between nurse's individual characteristics with patient safety incidents type of clinic administration. This research was an observational descriptive study with cross sectional design. Questionnaires were distributed to 48 nurses that divided into 6 inpatient units. **Result & Analysis.** The results of this research showed that the lower the nurse's knowledge about patient safety and patient safety incidents type of clinic administration, the higher the nurse's work fatigue, the lower the nurse's motivation toward the application of patient safety program, the higher the tendency of patient safety incidents type of clinic administration occurred in inpatient unit of RSNU Tuban. **Discussion.** The conclusion of this research are knowledge, work fatigue, motivation of nurse have a correlation with patient safety incidents type of clinic administration in inpatient unit of RSNU Tuban.

**Keywords: Clinic Administration, Hospital, Nurse, Patient Safety Incidents****INTRODUCTION**

Health services in hospitals are complex services because they involve various health professions in providing services to patients. In addition, hospitals are also loaded with technology, standard procedures, risks, and so on. If this is not accompanied by multi-system collaboration, it will easily lead to errors that can endanger patient (Mgobozi & Mahomed, 2021).

Based on the Patient Safety Incident Report of the Tuban Hospital, it is known that there have been several patient safety

incidents from January 2021 to June 2016. This shows that the implementation of patient safety programs is still an important issue for the Tuban Hospital. If analyzed based on the type of incident, it can be seen that during the five-semester period, starting from January 2021 to June 2016, most types of patient safety incidents that have the highest number of each semester are patient safety incidents of clinical administration type, which is as many as 22 incidents in semester 1 of 2021, as many as 7 incidents in semester 2 of 2015, and 9 incidents in semester 1 of 2016.

The incidence of patient safety incidents of clinical administration type at RSNU Tuban mostly occurred in the Inpatient Installation, which was as many as 12 incidents. Every health worker can contribute to errors in the clinical administration process. However, based on the chronology of events, most of the clinical administration-type patient safety incidents that occurred at the Tuban Hospital Inpatient Unit were carried out by nurses. This is not in accordance with the Decree of the Minister of Health of the Republic of Indonesia Number 129/Menkes/SK/II/2008 concerning Minimum Hospital Service Standards which states that the number of safety incidents in hospitals should be 0% or can be said to be zero accident (Ministry of Health of the Republic of Indonesia, 2008). A patient safety incident is any event that results in or has the potential to result in injury to a patient (Ministry of Health of the Republic of Indonesia, 2011).

Patient safety incidents of clinical administration type are incidents that occur in the process of patient identification, handover, agreement, informed consent, waiting lists or queues, referrals, admissions, patients returning from inpatient care, transfer of care, division of tasks, and responses to emergencies (Committee). Hospital Patient Safety, 2015) Various components or factors that can contribute to patient safety incidents in health services include individual characteristics of health care providers, nature of work, physical environment,

interaction between systems and humans, organization and social environment, management, and the external environment.

The individual characteristics of health care providers are the first factors that have a direct impact on the performance of health care providers and will determine whether the performance of these health services has met the standard or is still below the standard. The individual characteristics of health care providers include knowledge, work fatigue, and motivation (Kepner & Jones, 2021).

Based on the data above, the problem raised in this study is the high incidence of clinical administration-type patient safety incidents during January to June 2021 at the Tuban Hospital Inpatient Installation, namely 12 incidents (0% standard or zero accident). This study aims to analyze the relationship between individual characteristics of nurses with patient safety incidents of clinical administration type.

## **METHOD AND ANALYSIS**

This type of research is a descriptive study with an observational approach because the researcher collects data without giving treatment or intervention to the subjects studied. The design of this research is cross sectional, because the researcher collects data within a certain period of time to describe the situation at that time. This research was carried out at the Inpatient Installation of the Tuban Hospital. The time of primary and secondary data collection in this study was May 3 to June 2, 2021. This

study aimed to analyze the relationship between individual characteristics of nurses and clinical administration-type patient safety incidents.

The unit of analysis in this study was 6 inpatient rooms at the Inpatient Installation of Tuban Hospital, therefore the results of this study will be analyzed and concluded based on each inpatient room. Research respondents were nurses who served in 6 inpatient rooms at the Inpatient Installation of the Tuban Hospital. Sampling was done using probability sampling with simple random sampling technique. Based on calculations using the minimum sample size formula in one population, it can be seen that from a total population of 94 nurses, the minimum sample size is 48 nurses. After that, the researcher divides the sample using a proportional technique, which is proportioning the sample based on the work unit so that an entire sample will be obtained that can represent each work unit.

The independent variables in this study were nurses' knowledge, nurses' work fatigue, and nurses' motivation, while the dependent variable in this study was the incidence of patient safety incidents of clinical administration type. Researchers collected primary data using an instrument in the form of a questionnaire that had been tested for validity and reliability. The validity and reliability test of this research instrument was carried out on 8-10 May 2021 to 20 nurses at the Tuban Hospital Inpatient Installation. Based on the results of the validity test, it was found that each

question had a correlation coefficient of  $r = 0.50$ , not negative, and significant at  $p$  value  $0.05$  ( $\alpha = 5\%$ ), so it was declared valid. In the reliability test, the results of each question have a Cronbach's Alpha coefficient  $> 0.60$ , so the questionnaire can be declared reliable for use. In addition, researchers also collected secondary data, namely patient safety incident reports at the Tuban Hospital in 2021, 2015, 2016, January-May 2021, which were obtained from the Hospital Patient Safety Team (TKPRS) of the Tuban Hospital. Furthermore, the data obtained will be processed and presented in the form of cross tabulation, and then analyzed descriptively to describe the relationship between the dependent variable and each independent variable.

## **RESULT**

The individual characteristics of nurses are all the qualities possessed by individuals and brought into their work. Individual characteristics in this study consisted of nurses' knowledge, nurses' work fatigue, and nurses' motivation. The following is the distribution of the individual characteristics of nurses in the Inpatient Installation of the Tuban Hospital in 2021.

Table 1. Distribution of Individual Characteristics of Nurses in Inpatient Installations at the Tuban Hospital in 2021

Variable	Category	Frequency (n)	Percentage (%)
Nurse Knowledge	Low	3	50.0
	Tall	3	50.0
	Total	6	100.0
Nurse Work Fatigue	Low	2	33.3
	Tall	4	66.7
	Total	6	100.0
Nurse Motivation	Low	2	33.3
	Tall	4	66.7
	Total	6	100.0

### Nurse Knowledge

The knowledge referred to in this study is the knowledge of nurses about patient safety and patient safety incidents of clinical administration type. The questions contained in the questionnaire include: components of the hospital patient safety system, the objectives of the hospital patient safety system, the number of types of patient safety incidents, definitions of patient safety incidents, types of clinical administration, patient identification procedures, handover procedures, examples of types of patient safety incidents. Clinical administration, classification of the impact of patient safety incidents on clinical administration types.

Based on Table 1, it can be learned that some of the inpatient rooms (50.0%) in the Inpatient Installation of the Tuban Hospital have a low level of nurse knowledge about patient safety and patient safety incidents of clinical administration

type, while some other inpatient rooms (50.0% ) have a high level of nurse knowledge about patient safety and clinical administration-type patient safety incidents

### Work Fatigue

Nurses Identification of nurses' work fatigue was carried out using an instrument in the form of a questionnaire compiled by researchers referring to Grandjean (1993) in Tarwaka et al. (2004). This questionnaire is used to measure feelings of work fatigue as a subjective symptom experienced by nurses, namely: symptoms that indicate a weakening of activities such as a feeling of heaviness in the head, tiredness of the whole body, easily drowsy, burden on the eyes, unstable standing; then the symptoms that indicate a weakening of motivation are difficulty thinking, tired of talking, difficulty concentrating, tending to forget something, not being diligent in doing one job at a time; as well as symptoms that show signs of physical exhaustion such as headache, stiffness in the shoulders, back pain, hoarseness, and tremors in the limbs.

### Nurse Motivation

The motivation referred to in this study is the motivation of nurses towards the implementation of patient safety programs. The results of the study on the motivation of nurses towards the implementation of patient safety programs shown in Table 1 show that most of the inpatient rooms (66.7%) in the Inpatient Installation of the Tuban Hospital have high nurse motivation

towards the implementation of the patient safety program.

### **Clinical Administration Type Patient Safety Incident**

Based on the patient safety incident report at the Tuban Hospital, it is known that the number of clinical administration-type patient safety incidents during January 2021 to May 2021 was 14 incidents at the Tuban Hospital Inpatient Installation.

The patient safety incidents of the clinical administration type include the wrong patient in the act of taking the specimen, wrong labeling of the patient's identity on the blood sample, wrong patient identity on the patient's identity bracelet, the patient being delayed home because the injection has not been entered, not handing over the X-ray examination. , wrong medication entry due to non-optimal handover of injection drug administration between nurses, delay or delay in operating time, wrong marker on photo results, patient surgery failure or cancellation, surgery delay.

Table 2. Distribution of Incidents of Patient Safety Types of Clinical Administration during January 2021-May 2021 at the Tuban Hospital Inpatient Installation.

<b>Clinical Administration Type Patient Safety Incident</b>	<b>Frequency (n)</b>	<b>Percentage (%)</b>
Not occur	2	33.3
Occur	4	66.7
Total	6	100.0

Table 2 shows that the incidence of patient safety incidents of clinical administration type occurred in most of the

inpatient rooms (66.7%) at the Inpatient Installation of the Tuban Hospital.

## **DISCUSSION**

### **1. The Relationship between Nurse Knowledge and Incidents of Patient Safety Types of Clinical Administration**

The results of the study in Table 3 show that the lower the knowledge of nurses about patient safety and clinical administration-type patient safety incidents in an inpatient room, the higher the tendency for clinical administration-type patient safety incidents to occur in the inpatient room. The results of cross tabulation in this study indicate that nurses' knowledge about patient safety and clinical administration type patient safety incidents tend to have a relationship with clinical administration type patient safety incidents.

Knowledge is the result of "knowing" that occurs after someone senses a certain object. Knowledge is a very important domain in shaping one's actions. The results of this study are in accordance with the theory of Tarkiainen et al., (2022) which explains that the contribution of knowledge of health care providers to patient safety incidents can be assumed as an active error because in the health care system in hospitals, health care providers are on the front lines and have a longer time dealing with and serving patients directly.

The results of this study are in line with research conducted which states that there is a relationship between the level of knowledge of nurses and the number of

patient safety incidents. The researcher explained that the low level of knowledge of nurses tends to cause a higher number of patient safety incidents when compared to nurses who have high knowledge (Lombardi et al., 2022)

(Härkänen et al., 2021) in his research explains that knowledge about patient safety is very important. The more knowledge that nurses have regarding patient safety, the higher the nurse's understanding of the importance of implementing patient safety programs, which in turn will make the nurses implement patient safety programs in hospitals (Lombardi et al., 2022). Educational programs carried out to increase the knowledge of health care providers about patient safety and errors that occur in health services will increase the ability of health care providers to identify errors and prevent these errors from occurring (Serou et al., 2021).

Thus it can be said that when a nurse has high knowledge of patient safety, it is hoped that the nurse will understand and understand how important the implementation of patient safety programs in hospitals is. Thus the nurse will always implement a patient safety program in every job she does. Similarly, nurses' knowledge about patient safety incidents of clinical administration type. A nurse who has a high level of knowledge about clinical administration type patient safety incidents, the nurse will find it easier to identify errors in the clinical administration process and prevent errors in the clinical administration process itself. Therefore,

## **2. Relationship between Nurse Work Fatigue and Patient Safety Incidents with Clinical Administration Type**

Work fatigue is a condition that causes a decrease in body resistance at work (Palojoki et al., 2021). Based on Table 3, it can be learned that the higher the work fatigue of nurses in an inpatient room, the higher the tendency for patient safety incidents to occur in the clinical administration type in that room. The results of the cross tabulation in this study indicate that nurse work fatigue tends to have a relationship with patient safety incidents of clinical administration type.

The results of this study are in accordance with the theory of Henriksen et al., (2008) which states that work fatigue experienced by health care providers due to working for too long and the influence of work stress can reduce alertness and affect the ability of health care providers to apply knowledge and skills. that they have optimally. This decrease in alertness can lead to patient safety incidents in health services (Henriksen et al., 2008). Tarwaka et al. (2004) also explained that work fatigue can lead to a decrease in work motivation, work performance, work quality, and cause many mistakes in work (Tarwaka et al., 2004).

The results of this study are in line with research conducted by Kurniawati & Solikhah (2013) which states that there is a relationship between fatigue and the performance of nurses in the inpatient room. Nurses who work continuously will experience fatigue and will subsequently result in a decrease in performance levels

(Kurniawati & Solikhah, 2013). In addition, Arfan et al., (2013) also stated that a number of health workers with a high level of work fatigue had made mistakes that led to patient safety incidents in hospitals (Arfan et al., 2013).

Thus it can be explained that the level of work fatigue experienced by nurses can have an impact on the care provided is not optimal. A nurse who has a high level of work fatigue tends to produce less than optimal performance in the implementation of patient safety programs in every job in the hospital, including work related to clinical administration, so that it is possible for errors to occur that cause patient safety incidents of clinical administration type. . Work fatigue experienced by nurses can be caused by various factors, for example due to the severity of physical and mental activities carried out, intensity and duration of work, environmental factors, lack of nutrition, monotonous work,

### **3. The Relationship of Nurse's Motivation with Incidents of Patient Safety Types of Clinical Administration**

Motivation is everything that encourages individuals to do something (Purwanto, 2000). The results presented in Table 3 show that the lower the motivation of nurses towards the implementation of patient safety programs in an inpatient room, the higher the tendency for patient safety incidents of clinical administration type to occur in the inpatient room. The results of the cross tabulation in this study indicate that the motivation of nurses tends

to have a relationship with patient safety incidents of clinical administration type.

Motivation is formed from three components, namely direction, intensity, and persistence. Direction relates to what the individual will choose when he is faced with a number of possible choices. Intensity refers to the strength of the response when the direction of motivation has been chosen. Persistence is an important component of motivation which refers to how long individuals continue to do their work (Kim et al., 2022).

The results of this study are in accordance with what was conveyed by Sugiharto et al., (2009) that motivation is the key to the success of the nursing unit to maintain optimal continuity of nursing services. Nurses with high motivation are the main prerequisite in running a health care system for patients. Nurses with high motivation tend to be productive, work beyond standards, and have a strong desire to realize the goals of the nursing service unit and hospital goals (Sugiharto et al., 2009). Thus, the high motivation of nurses towards the implementation of patient safety programs will make the nurses have a strong desire to always implement patient safety programs when carrying out their duties and responsibilities.

The motivation of nurses in implementing patient safety programs can arise both within themselves (internally) and from outside or from the environment (external). Every nurse basically has the same internal motivation or self-motivation, but the levels are different from one another,

because the motivation of nurses is also influenced by external factors such as the ability of the head of the work unit as a motivator. Nurses' motivation for implementing patient safety programs obtained from outside or from the environment can be in the form of awards or rewards in the form of financial or non-financial given by the head of the work unit or head of the room to nurses who have implemented patient safety programs in their work well. In addition, the results of this study are also supported by research conducted by Ariyani (2009).

## CONCLUSION

Based on the results and discussion, it can be concluded that the individual characteristics of nurses which include knowledge of nurses about patient safety and patient safety incidents of clinical administration type, nurse work fatigue, and nurses' motivation towards the implementation of patient safety programs in inpatient rooms tend to have a relationship with patient safety incidents of type clinical administration at the Tuban Hospital Inpatient Installation.

Suggestions for the management of the Tuban Hospital to hold outreach or seminars regarding patient safety programs and types of patient safety incidents that can occur in health services, so that nurses' knowledge about patient safety and patient safety incidents, especially regarding patient safety incidents of clinical

administration type will increase and evenly.

Suggestions for the head of the room to implement a reward system and give appreciation to nurses who have implemented patient safety programs well so that it will increase the motivation of other nurses in implementing patient safety programs. In connection with the high work fatigue of nurses which causes a higher incidence of patient safety incidents of clinical administration type in an inpatient room, it is necessary to have a more optimal working time and rest time for nurses, for example by holding a break every 2 hours of work.

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