

# ANALYSIS OF THE NATURE OF WORKS TO NEAR MISS EVENT AT CARING UNIT OF CIMACAN GENERAL HOSPITAL

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## Abstract

Patient safety is an injury prevention system for patients by reducing the risk of adverse events associated with exposure to the diagnostic environment or medical treatment conditions. One of the factors that contribute to the patient's safety incident is the nature of work. The aim of this study is to analyze the nature of works on near miss event (NME) at Cimacan General Hospital. This research was a descriptive quantitative research using secondary data from incident report and related document. There were 7 reports of NME in caring unit at Cimacan general hospital. Data analysis used descriptive analysis. Result of descriptive analysis, 5 respondents (71,83%) was non complex treatment, 2 respondents (28,73%) was complex treatment. Six respondents (85,7%) did not comply on procedures, 1 respondent (14,3%) adhered to procedures. Seven respondents (100%) were present at the time of near miss. Analysis of the nature of work on NME is an uncomplicated treatment, non-compliance with procedure, and present at the time of NME.

*Keywords: nature of work, near miss event, patient safety*

## INTRODUCTION

Patient safety is patient's injury prevention system to reduce risk of undesirable event which related to exposure of environmental diagnosis or medical nursing condition.<sup>1</sup> In patient safety, there is a term of patient's safety incident, i.e. any unintentional events and conditions that result of potentially result in a preventable injury to the patient, consists of Near Miss Event (NME), No Harm Event (NHE), and Adverse Event (AE). Nowadays, Patient safety become one of the important issues in health services, including Hospital.<sup>2</sup> Meanwhile, report from patient's safety incident in 2007 by province in Indonesia, in Jakarta (37,9 %), Central Java (15,9%), Yogyakarta (13,8%), East Java (11,7%), South Sumatera (6,9 %), West Java (2,8 %), Bali (1,4 %), Aceh (10,7 %), South Sulawesi (0,7 %).<sup>3</sup>

According to Henrisken et al., the factors that contributing to the patient safety incidents are human factors whom include ineligible resources, mistakes in clinical decision making, human knowledge, limitation in operating tools and machines.<sup>4</sup> Agency for Healthcare Research and Quality (AHRQ) shows that factors causing

patient safety incidents consists of miscommunications, inadequate flow of information, human factor, patient factor, knowledge transfer in organization, employment patterns and workload, technical failures and inadequate policies and procedures.<sup>5</sup>

Individual characteristic is primary factor which make direct impact to quality and health services point of view. Mulyana's research shows that individual characteristic has significant relation to patient safety incidence.<sup>6</sup> Another factor that contributes to patient safety incidents is the nature of the work. Although this empirical study of the impact of occupational factors are not as large as studies on human factors, these factors are still there.<sup>7</sup> The basic nature of work includes the complexity of treatment, cognitive ability, workflow, workload, attendance and staff absence, equipment function, individual and teamwork, interruption and task competition.<sup>6</sup>

Patient treatment is the main cause of injury in adverse event, therefore nurses need to be careful in its preparation and administration. The more complex the patient's treatment, the greater the likelihood of error occurs.<sup>7</sup> Workflow factors such as availability of standard procedure is in place, compliance in following procedure

also affect the occurrence of incidents. Attendance factors and absenteeism affect the nurse workload. The nurses who cannot attend his or her schedule make the other staffs have to work longer. This situation can increase the work negligence.<sup>8</sup>

Based on the recapitulation result of patient safety incidence team report in Cimacan General Hospital during 2016, there were 32 reports of incidents. 15 reports occurred in the inpatient unit. The incidence reports are drug-related, patient falls, patient's identification, supportive examination results, and work procedures. From the above phenomenon, researcher is interested to know the nature influence of the work to Near Miss Event (NME) because it has been known to many studies on the impact of work to performance-related situation.

## RESEARCH METHODS

This research was quantitative research with descriptive design. This

research used secondary data (incident report, document of official list, log book unit document, data document with incident report). The location of this research was in Cimacan General Hospital. By using purposive sampling, the sample in this study was 7 reports of NME in the care unit at Cimacan General Hospital. Univariate analysis was performed to describe the characteristics of each variable presented in the form of frequency distribution and analyzed to view the data.

## RESULTS

Table 1 showed that 1 respondent (14.3 %) was male, 6 respondents (85,7%) were female. 5 respondents (71,43%) where their ages were less than 30 years old, 2 respondents' (28,57%) age were more than 30 years old. Based on the recent education, 7 respondents (100%) were Diploma 3 Nursing.

**Table 1. Respondents Characteristic Based On Sex, Age, And Education.**

Characteristic	Total	Percentage (%)
Sex		
- Male	1	14,3
- Female	6	85,7
Age		
- < 30 years old	5	71,43
- > 30 years old	2	28,57
Education		
Diploma 3 Nursing	7	100,00
Bachelor Nursing	0	0,00

**Table 2. Respondents Distribution Based On Work Of Nature**

Work of Nature	Total	Percentage (%)
Complexity of treatment		
- Simple	5	71,43
- Complex	2	28,57
Workflow obedience		
- Obey	1	14,3
- Non adherent	6	85,7
Staff Attendance		
- Attend	7	0
- Not Present	0	100,00

Table 2 showed 5 respondents (71,83%) were simple treatment group, 2 respondents (28,73%) were the complex treatment. 6 respondents (85,7%) were obedient to work procedure, 1 respondent (14,3%) did not obey the work procedure. All of respondents (100%) attended their schedules.

## DISCUSSION

### a. Complexity of treatment

The results showed that patients who had simple treatment were more likely to have NME. The more complex the patient's treatment, the more precision and vigilance required in caring for the patient to avoid mistakes.<sup>7</sup> Other studies also suggested that polypharmacy might increase the risk of preventable drug interactions and unexpected events, medication non-adherence, emergency room visits and hospital admission, drug-related deaths, and mortality.<sup>8,9,10,11</sup> Nurses were more involved in the preparation and provision of therapy to the patient, so the nurses had to be careful in the process. Hamid argued that all nursing actions should ensure the safety and comfort of the patient and avoid injury.<sup>12</sup> Patients who had complex treatment in daily service should be able to handle the nurse with critical decision-making and immediately when it was also at risk of errors.<sup>13</sup> In the study of Saedder et al., it was

mentioned that patients treated with these 7 classes of drugs (methotrexate, warfarin, Non-Steroidal Anti-Inflammatory Drugs (OAINS), digoxin, opioids, salicylic acid, and beta-blockers should receive special attention because they could increase length of hospitalization, disability, life-threatening condition, and death of about 50%.<sup>14</sup>

### b. Workflow

Table 2 showed that 6 respondents (85.7%) did not obey the applicable job procedures. Workflow was an effort to maintain patients' safety that was applied in every nurse's actions to avoid injury.<sup>15</sup> Compliance behavior was temporary because this behavior would persist when there was supervision. If the supervision was lost or loosened, there would be non-compliance behavior. This compliance behavior would work optimally if the nurse considered this behavior as a positive value and would be implicated in the act of nursing care. This behavior would be achieved if the nursing manager was a credible and motivational person.<sup>16</sup> Factors that caused non-compliance of nurses to procedure were lack of information and perceptions about procedure.<sup>17</sup>

The end-sharp blunt theory explained that human interaction with the system could lead to NME. Blunt end (blunt side) described the appearance of the organization (working procedure) that served as a

deterrent error. Sharp end (the sharp side) described the health worker on duty (nurse) interaction both should be balanced so that NME could be avoided.<sup>18</sup>

#### c. Staff attendance

Nurses who were unable to attend during their schedules would exchange schedules with other nurses who did not have an official schedule on the same day, so that the number of nurses who served was adequate or in accordance with the scheduled amount. The nurse presence was the first step of patient safety.<sup>19</sup> The presence of nurses who were absent during the schedule led to a decrease in the number of personnel on duty, decreased quality of nurses on duty, and increased workload. There was a workload relations with the absence of an executing nurse.<sup>20</sup> In addition, the increased workload could have an impact on patient safety.<sup>21</sup> Based on Sochalski's study, higher-load nurses reported more often mistakes and experienced the incidence of falling patients in service.<sup>22</sup> To influencing the quantity of labor, the lack of nurses on duty could increase the risk of fatigue from working too long. The long working hours and work stress could decrease the vigilance. Heinen et al. studied that nurses intention to leave their profession in a cross-sectional observational study in 10 European countries, and found that burnout was consistently associated with nurses intention to leave their profession.<sup>23</sup> Overworked workloads were also associated with an increased risk of verbal abuse against patients and their families.<sup>24</sup> This situation could increase injury to the patients. Mark and Smith's research showed that the negative impact of work-related aspects affected the mental state of the nurse. Nurses were easily stressed and emotional because they worked in a stressful and heavy environment.<sup>25</sup> The study showed more nursing presence equaled better satisfaction scores for patients and more nursing presence equaled better job satisfaction scores for nurses. <sup>26</sup> Yet Van Bogaert et al.'s research results showed that the characteristics of nurse jobs such as heavy workloads, low decision-making, and low social relationships were less relevant to NME.<sup>24</sup>

## CONCLUSION

The results showed that the nurses who were caring simple treatment patients, the non-adherent nurses on the workflow, and the nurse attendance influenced to NME in the caring unit Cimacan General Hospital.

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