The Effect of Nurse Mental Workload of Patient Compliance Risk Prevention Falling in Aisyiyah Islamic Hospital of Malang

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Abstract: Workload felt by a worker is not only a physical workload, but a collection of physical workload, mental workload and social workload. Patient safety is one of the principles of nursing practice. in providing services where nurses are required to have high professionalism, professionalism is impacting workload. A mental workload is one burden that a nurse must responsibility and can have an effect on his actions. The study objective was to analyze the influence of mental workload of nurses on patient compliance risk prevention fall. There were significant influence between mental workload of nurses on patient compliance risk prevention fall P = 0.000. The burden of mental work of nurses under moderate conditions this proves the nurse is able to control the amount of pressure that is not only physically but also mentally so it can still provide quality nursing care to patients, as evidenced by compliance risk prevention patient falls that are in most categories are enough.

1 INTRODUCTION

Workload felt by a worker is not only a physical workload but a collection of physical workload, mental workload, and social workload (Lisbeth Fagerström & Saarela, 2017). The physical workload has been measured by the WISN (Workload Indicators of Staffing Need) method and has been met according to calculations, while the workload has not been mentally measured (WHO, 2015). SPO (standard operating procedure) prevention of the risk of falling patients has been around since 2015 but until 2018 compliance with the risk of falling patients has not gone according to the standard as evidenced by the high incidence of falling patients.

Excessive mental workload will lead to forgetfulness, difficulty concentrating, anxiety, anxiety, irritability, irritability, anxiety, and despair (Afriansyah, 2017). Along with the existence of a health insurance provider body in Indonesia, the number of patients from each year has increased in the inpatient services of Islamic Hospital Aisyiyah Malang. In 2013 - 2014 there was an increase in inpatients by 21.2%, in 2014-2015 it was 13.1% and in 2015-2016 there was an increase in inpatients by

11%. Psychological or mental effects that occur due to nurses must serve patients who are excessively irritable, easily offended to patients and nurses in a hurry in serving patients so that patient safety tends to be neglected as well as preventing the risk of falling patients that should be done properly and correctly.

About 0.1% of cases of patients falling in the USA are 30% - 50% of which have injuries (Peter Van Bogaert, Danny Van heusden, Stijn Slootmans, Ingrid Roosen, Paul Van Aken, 2018). While reports of patient safety incidents or Unwanted Events of Hospitals in Indonesia amounted to 96.67% for general hospitals and 33.2% for specialty hospitals with incidents of patients falling therein (Nurihsan, 2018). Hospital Patient Safety Committee Report, in several provinces in Indonesia from January 2010 to April 2011, reported as many as 137 incidents. East Java Province ranks highest at 27% among eleven other provinces (Nurjanah, Sakka, & Paridah, 2017).

Along with the development of increasingly advanced technology causes more critical society to choose and assess the health services received. The expected service is excellent, exceeding the expectations of the community itself. The increase in patient complaints as a result of suboptimal service

which results in a high number of patient safety incidents will reduce the quality and credibility of the hospital in the eyes of the public. So that the workload of nurses should not only be calculated based on physical workload alone, the mental workload must also be calculated to improve the quality of nursing practice. One of these nursing practices is based on patient health and safety (UU, 2014).

Mental workload affects patient satisfaction. If nurses have a high mental workload, it can affect nurses' compliance in taking action according to established standard procedures, this will certainly affect the quality of nursing services, reducing the quality of hospitals and reducing public trust in hospital credibility (Werdani, 2016).

2 METHODS

The design in this study is cross-sectional. The population in this study were all employees of Islamic Hospital Aisyiyah Malang, the total sample of 30 nurses obtained using purposive sampling techniques that met the inclusion criteria as follows: nurses who received new patients from the emergency room, nurses who received patients transferred from other rooms, all nurses who work in one shift work, and nurses who have worked at least 1 year at the Islamic Hospital Aisyiyah Malang (Nursalam, 2016).

The study was conducted at the Islamic Hospital of Aisyiyah Malang in the range of June - July 2018. After giving informed consent percent, the nurses' mental workload questionnaire was distributed to nurse respondents in the general care room, while the observation checklist was filled out by researchers when the respondent received new patients. After the questionnaire has been collected, editing, scoring, and coding are performed, then the spearman rank test is performed to determine the effect of the independent variable on the dependent variable with a confidence level of 95%.

The independent variable in this study is the mental workload of nurses. The research instrument used to measure the independent variable was a mental workload questionnaire from NASA-TLX with 6 dimensions, namely the mental dimension, physical dimension, time dimension, level of effort, stress level and performance. This questionnaire was tested for validity with the results of correlation using the Pearson Product Moment of 1-0.746 and reliability testing with Cronbach's alpha 0.963. While the dependent variable is compliance with the prevention of falling patient risk, the instrument used to measure is the observation checklist which is adjusted to the SPO of falling patient risk prevention which has been used at the Islamic Hospital of Aisyiyah Malang (SG, 1986).

This research uses bivariate analysis which is an analysis of two variables, this analysis is conducted to determine the effect and prove the research hypothesis (Notoatmojo, 2010). Bivariate analysis in this study was conducted to determine the effect of nurses' mental workloads on adherence to the prevention of the risk of patients falling in the Islamic hospital in Aisyiyah Malang by using the Spearman Rank (Sugiyono, 2012). So as to produce a p value <0.05 to answer the hypothesis.

3 RESULTS AND DISCUSSION

Table 1: Characteristics of respondents based on a workspace in the Islamic Hospital of Aisyiyah Malang in 2018.

Workspace	Frequency	Percentage (%)
Umar	2	7
Abu bakar	1	3
Husein	3	10
Hasan	3	10
Ustman	6	20
Ali	6	20
Salman	5	17
Khadijah	4	13
Total	30	100

Based on Table 1, most respondents were from Ustman and Ali's rooms by 20% (6 respondents) and the fewest respondents were in the Abu Bakar room, namely 3% (1 respondent).

Table 2: Characteristics of respondents by age at Malang Aisyiyah Islamic Hospital in 2018.

Age (years)	Mean± SD	Min	Max
22–40	25.30±3.752	22	40

Based on table 2, the average age of respondents is 25 years old, this age is included in the category of early adulthood.

Based on table 3, it can be seen that most of the career paths of respondents were Clinical Nurse 1 by 60% (18 respondents) and the lowest was Clinical Nurse 3 by 3% (respondents).

Based on table 4, it can be seen that the sex of the most respondents is female, namely 80% (24 respondents).

Table 3: Characteristics of respondents based on a career path at the Islamic Hospital of Aisyiyah Malang in 2018.

Category	Frequency (f)	Percentage (%)
Clinical Nursing 1	18	60
Clinical Nursing 2	11	37
Clinical Nursing 3	1	1
Total	30	100

Table 4: Characteristics by sex in Malang Aisyiyah Islamic Hospital in 2018.

Sex	Frequency (f)	Percentage (%)
Female	24	80
Male	6	20
Total	30	100

Table 5: Characteristics of respondents based on respondent education level at Aisyiyah Islamic Hospital Malang in 2018

Category	Frequency (f)	Percentage (%)
Diploma	29	97
Bachelor	1	3
Total	30	100

Based on table 5, it can be seen that the education level of most respondents is D3 nursing, namely 90% (29 respondents).

Table 6: Characteristics of respondents based on the length of work of respondents in Malang Islamic Hospital Aisyiyah in 2018.

Category	Frequency (f)	Percentage (%)
1-3 years of work	20	67
Working period> 3-7 years	6	20
Working time is 7-13 years	3	10
Working time> 13 years	1	3
Total	30	100

Based on table 6, it can be seen that the most of respondents' work time is> 1-3 years (20 respondents) and the least length of work> 13 years is 3% (1 respondent).

Table 7: Characteristics of respondents based on marital status in the Islamic Hospital of Aisyiyah Malang in 2018.

Category	Frequency (f)	Percentage (%)
Married	11	37
Single	19	63
Total	30	100

Based on table 7, it can be seen that many respondents are still unmarried, namely 63% (19 respondents)

Table 8: Characteristics of respondents based on the amount of income at the Islamic Hospital of Aisyiyah Malang in 2018.

Category	Frequency (f)	Percentage (%)
>2,5 million	6	20
1-2,5 million	24	80
Total	30	100

Based on table 8 most respondents' income is 1-2.5 million, 80% (24 respondents).

Table 9: characteristics of respondents based on the physical work environment at the Islamic Hospital of Aisyiyah Malang in 2018.

Category	Frequency (f)	Percentage (%)
Well	15	50
Enough	12	40
Less	3	10
Total	30	100

Based on table 9 it can be seen that the physical work environment is considered sufficient by 50% of respondents (15 respondents) and 10% of respondents (3 respondents) consider it less.

Table 10: Characteristics of respondents based on the non-physical work environment in the Islamic Hospital of Aisyiyah Malang in 2018.

Category	Frequency (f)	Percentage (%)
Good	20	67
Enough	10	33
Less	0	0
Total	30	100

Based on table 10 it can be seen that the non-physical work environment is considered good by 67% of respondents (20 respondents).

Table 11: Characteristics of respondents based on work distance in Malang Islamic Hospital Aisyiyah in 2018.

Category	Frequency (f)	Percentage (%)
<1 KM	12	40
1-5 KM	9	30
>5 KM	9	30
Total	30	100

Based on table 11, it can be seen the distance from the house to the place where most respondents work is <1 KM, which is 40% (12 respondents).

Table 12: Nurse mental workload in Malang Aisyiyah Islamic Hospital in 2018.

Category	Frequency (f)	Percentage (%)
Severe	8	26.7
Moderate	19	63.3
Mild	3	10
Total	30	100

Based on table 12 it can be seen that the mental workload felt by most respondents is in the medium category, amounting to 63.3% (19 respondents).

Table 13: Compliance with the prevention of the risk of patients falling at the Islamic Hospital of Aisyiyah Malang in 2018.

Category	Frequency	Percentage
Good	4	13.3
Enough	19	63.3
Less	7	23.3
Not good	0	0
Total	30	100

Based on table 13 it can be seen that compliance with falling risk prevention by respondents is sufficient, amounting to 63.3% (19 respondents).

Table 14: Hypothesis test results of nurses' mental workload variables on compliance with the prevention of the risk of falling patients at the Islamic Hospital of Aisyiyah Malang in 2018.

Variable	Significance	Coefficient
Mental workload		
Compliance prevents the risk of falling patients	0.000	-0.768

Based on table 14 it can be seen that there is a very significant influence between the mental workload of nurses with adherence to the prevention of the risk of falling patients with a significance value of 0,000 and a coefficient of 0.768 and with a negative direction.

Based on the results of research on the mental workload of nurses at Aisyiyah Islamic Hospital in Malang, it was found that the majority of respondents were in the moderate category of 63.3% (19 respondents). This can be caused by the average age of nurses less than 26 years, where the age is included in early adulthood, age-related to maturity, maturity, and ability to work. Increasing age more able to show the maturity of the soul and the more appropriate to think rationally, able to make decisions, the wiser and able to control emotions. the younger the nurses the more vulnerable they become a burden in dealing with the stressors in the service. Mental workload experienced by nurses can also be caused by gender, wherefrom the results of research the most respondents' gender is female, 80% (24 respondents) gender is a developing issue in the world of work, gender differences can affect mentality nurses when the demands of work or work pressure are high especially for women causing mental workload, this is supported by Ayu's research, 2017 which contains gender indicators which include behavior, roles, emotional characteristics and mentality which all affect employee performance.

From the results of the study obtained data that 90% (29 respondents) educated D3 nursing, education provides knowledge that is not only directly with the implementation of the task, but also the foundation to develop themselves and the ability to carry out work, the higher the level of education is expected nurses more capable in managing problems that are the source of workload, in addition to the length of service of nurses also affect the mental workload of nurses themselves, from the research results obtained data 72% (21 respondents) are nurses with a working period of 1-3 years, nurses who are still new of course not fully experienced in overcoming problems or conflicts in the service, nurses with long working periods are expected to be more experienced and senior, where seniority and work productivity is positively related (Arikunto, 2016).

In addition, the environment of the nurses themselves also influences the mental workload, the environment not only physically but also non-physical environment from the study obtained data that 50% of respondents (15 respondents) consider the physical work environment to be in the sufficient category and 67% of respondents (20 respondents) considers the non-physical work environment is good, the work environment can affect employee emotions, nurses will feel comfortable and calm in carrying out their duties if the work environment is supportive, a conducive environment allows employees to work optimally so that work time will be more effective, this is according to research Sholehah, 2014 which states that there is a significant

influence between the work environment on employee morale (Fithri & Anisa, 2017).

Based on data in compliance with the prevention of the risk of falling patients in Islamic Hospital Aisyiyah Malang, it was found that most nurses' compliance was in the sufficient category of 63.3% (19 respondents. This was due to the level of education of nurses, most of whom were D3 Nursing, the higher the education of a nurse, is expected to have better knowledge, skills, and abilities in carrying out the work, it is expected that after the education level of the most respondents is S1 Kep then compliance with falling patient risk prevention will be better with the emergence of ideas to improve and simplify the process or procedure for patient risk prevention In addition, adherence is also influenced by gender, wherein the results of the study of the majority of respondents' gender are women namely 80% (24 respondents), women are more focused on carrying out their duties properly and harmonious work relationships, so that the women tend to be more obedient to the rules and tasks assigned to them.

From the study there were 37% (11 respondents) who were married and married people were more obedient compared to single people, married people tended to be more attached to groups or communities so that they would avoid actions that could lead to social sanctions, marital status is also closely related to the use of income which affects the performance of a nurse, from research data it is found that employee income is 1-2.5 million as much as 80% (24 respondents). Income is related to motivation, where motivation is the motivation of a nurse to do or act according to the procedure, which in turn nurses will get rewarded for what they have tried to meet their needs.

The results of the study mentioned 12 respondents (40%) had the most distance from home to the workplace is <1 KM. Distance of residence that causes nurses to be more obedient in carrying out a procedure because they come with conditions that are fit and strong motivation in carrying out their role as caregiver of patients, including in terms of patient safety, especially prevention of the risk of falling, mentions the distance domicile influential on employee performance (Kurniadi, 2013).

In this study, the data obtained that there is a very significant influence between mental workload of nurses on compliance with prevention of falling patient risk, this is indicated by the significance value of p-value 0,000, which can be interpreted as H1 accepted, namely there is an influence of nurses' mental workload on risk prevention compliance the patient fell in Malang Aisyiyah Islamic Hospital. The

correlation coefficient value of -768 indicates the degree of a strong relationship and with this negative direction, causing if the mental workload increases, compliance with the prevention of falling patient risk will decrease, as well as vice versa if the mental workload decreases, the compliance to prevent the risk of falling patients will increase. However, the results of the study found 2 nurses with heavy mental workloads were still able to implement compliance risk prevention patients fell in the sufficient category and there were 1 nurse with mental workloads were showing compliance prevention risk of patients falling in the good category, this was due to nurses able to control the amount of mental pressure so as to still be able to provide quality nursing care to patients, do not show the real impact of the mental workload they feel, be able to hold and maintain emotions, try to stay concentrated, continue to provide quality nursing services including preventative procedures the risk of falling patients, through the process of assessment, planning, management and evaluation, nurses implement the risk of falling risks to prevent patient safety incidents ie patients falling, so that the patient safety quality indicators are in accordance with the expected standards. Hospital quality that is maintained will cause patients to be satisfied with what is received, the public believes in the credibility of the hospital.

This is in line with research conducted by Werdani (2016). Which explains the results of his research that the mental workload of nurses affects patient satisfaction. Patient satisfaction is an outcome. Compliance with the prevention of falling patient risk is the output produced by nurses who carry out a process that if done well, the output will be good too.

4 CONCLUSIONS

There is a very significant influence between the mental workload of nurses on compliance with the prevention of the risk of falling patients in Aisyiyah Islamic Hospital. The degree of a strong relationship and with this negative direction, cause if the mental workload increases, compliance with the prevention of the risk of falling patients will decrease.

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