

THE INFLUENCE OF WORK STRESS ON THE IMPLEMENTATION OF PATIENT SAFETY (SURVEY ON INPATIENT NURSES AT THE TNI AD HOSPITAL, CLASS IV GUNTUR, GARUT CITY)

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ABSTRACT

Stress has been one of the most commonly spoken about topics when it comes to medical care. Paying attention to patient safety is a basic right and in providing medical care. One of the factors affecting an individuals' performance in an organization is stress. The purpose of this study was to determine the effect of work stress on the implementation of patient safety in nurses. This research method is descriptive analysis and verification. Collecting data using questionnaires, interviews and observations. The research sample was 49 inpatient nurses at the TNI AD Tk IV Guntur Hospital with a total sampling technique.. The results of this study indicate that the level of work stress of nurses is categorized as medium, while the implementation of patient safety is considered good , but there are still some nurses who have not implemented patient safety, judging by the actual score presentation value has not yet reached the maximum value. In conclusion, there is an influence between work stress on the implementation of patient safety. Providing stress management training is an effort to reduce work stress as well as to improve the implementation of patient safety.

Keywords: *Work Stress, Patient Safety, Nurse, Garut.*

1 INTRODUCTION

Job stress is a physical and emotional response to work demands or pressures that are not in accordance with the knowledge and ability to cope with them (WHO, 2018). However, when the pressure becomes excessive or unresolved, it will cause stress (Saeed et al, 2017). According to a report from Attitude in American Workplace Safety and Health (NIOSH), 80% of workers experience stress in their jobs. The American National Institutes of Health (NIH) states that among 130 jobs that have stress, nursing is ranked 27th. The nursing profession provides services to care for individuals, families and even communities who are sick and healthy.

Nurses are also a job that has great potential to cause work stress (Haryanti and Purwaningsih, 2013). In a study of nursing-related stress in Ethiopia by Dagget (2016) showed that the highest level of stress was related to nurses who were faced with patient care with a score of 62.94%. The presence of work stress in nurses can affect their performance in all aspects including patient safety (Aryo, 2018).

According to Conway et al (2018) patient safety is preventing harm to patients during the care process and reducing the risk of unnecessary damage and minimizing the risks to patients. WHO (2018) created a guide entitled The Technical Series on Safer Primary Care to provide guidance for primary care in implementing patient safety programs. This is because primary care is increasingly becoming the heart of community-centered health care because it can be an entry point into the community health system and even families. WHO (2019) collects research data and obtains data every year, a number of patients get injured or even die due to unsafe and poor quality health services. It is reported that 1 to 10 inpatients experience incidents due to poor and unsafe health services, most of which 50% should have been preventable.

In a study of the frequency and prevention of adverse events in 26 countries, the rate of adverse events was preventable by about 83% and 30% resulted in death. It is estimated that of the 421 million hospitalized patients in the world each year, about 42.7 million adverse events occur in patients during their hospitalization. Two-thirds of all occur in developing countries. Medical errors that occur

related to all parts can be attributed to system and human factors. The incidence of adverse events related to surgical procedures is 27%, medication errors 18.3% and infections related to care 12.2%.

Data in Indonesia shows that the number of safety incidents is still high. This figure is obtained from data from the Indonesian Hospital Association (PERSI) in the field of reporting patient safety incidents in Indonesia. Safety incident reports based on Hospitals reporting from 2015 - 2019 increased from 1% to 12%. According to the Indonesian National Nurses Association (PPNI), health workers in hospitals who are directly involved in patient safety are nurses, doctors and professional workers and technicians such as therapists, radiologists, and others. Nurses are health workers who work as the front line in the field of health services and most workers in hospitals are nurses (60%).

A preliminary study of 5 inpatient nurses at the Guntur IV Army Hospital in Garut City found that they had experienced a decrease in work productivity or feelings such as anxiety, headaches and difficulty sleeping which interfered with the nurses' performance.

Based on the survey above, the researcher collected data using a questionnaire on the problem with 5 indicators/variables that are considered representative in forming Work Stress and 5 Indicators/Variables that form the Implementation of Patient Safety in nurses at the TNI AD Hospital, Class IV Guntur, Garut City.

Based on the background that has been described, the following problems can be identified:

1. How much work stress do inpatient nurses experience at the Guntur Army Hospital, Garut City?
2. How is the implementation of patient safety carried out by inpatient nurses at the TNI AD Hospital, Level IV Guntur, Garut City?
3. How does Job Stress affect the Implementation of Patient Safety carried out by inpatient nurses at the Guntur IV Army Hospital, Garut City?

Furthermore, the objectives of this research are described in the following main points.

1. Work stress experienced by inpatient nurses at the TNI AD Hospital, Class IV Guntur, Garut City.
2. Implementation of patient safety carried out by inpatient nurses at the TNI AD Hospital, Level IV Guntur, Garut City.
3. The Influence of Work Stress on the Implementation of Patient Safety carried out by inpatient nurses at the TNI AD Hospital, Class IV Guntur, Garut City.

2 THEORETICAL BASIS

According to (Tua N, Gaol, 2016) stress is a subjective psychological feeling of an individual related to how an individual interprets the relationship with the environment. Work stress is a stimulus, response, or transaction whose output includes changes in physical, emotional, behavioral, sleep disorders, habits and psychological conditions. According to (The Counseling Team International, 2015) and (Clark CS. Nursing and Care Stress, Psychoneuroimmunology and Self-care: What Every Nurse Needs to Know, 2014) provide five (5) dimensions of Work Stress measurement, namely:

1. Physique
2. Behavior
3. Sleep Behavior
4. Emotion
5. Habit

Patient safety is preventing harm to patients during the health care process and reducing the risk of patient damage. (Lawrence Green in Notoatmodjo, 2012). According to PMK 1691 of 2011 concerning Hospital Patient Safety. Hospital patient safety is a system where hospitals make patient care safer which includes risk assessment, identification and management of matters related to patient risk, incident reporting and analysis, the ability to learn from incidents and their follow-up and implementation of solutions to minimize the emergence of risks and prevent injuries caused by errors due to carrying out an action or not taking action that should be taken.

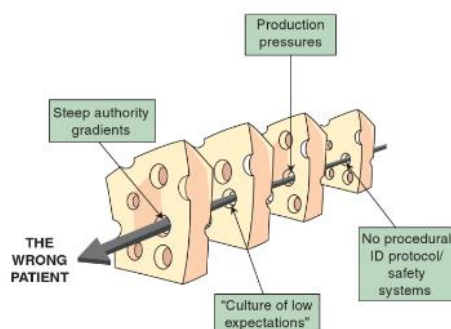


Figure 1. James Reason's Swiss Cheese Model Of Organizational Accidents

James Reason (2000) describes the concept of patient safety as a stack of Swiss cheese. Where there are many holes in each layer of cheese. Each layer of this cheese represents the protection formed by the system. In this scheme Reason explains that latent failure, which tends to be owned by individuals in the system, will only become active failure if this failure is not handled by the existing walls, in other words, this failure moves through the gaps in the system. The protective walls are physically policies and procedures, values of professionalism, good cooperation and communication, good equipment and facilities, and a work environment that supports patient safety. According to (JCI Edition 6, 2017) and (PERMENKES Number 11 of 2017) regarding Patient Safety, there are five (5) dimensions of measurement, namely:

1. Patient Identification
2. Effective Communication
3. Drug Safety
4. Risk of Infection
5. Risk of Injury/Patient

3 RESEARCH RESULTS AND DISCUSSION

This study was conducted in May 2021 at the TNI AD Hospital, Level IV Guntur, Garut City, with 49 people, with the research subjects being all inpatient nurses (having worked for at least 1 year, having employee status, not on leave) so this study is a census study.

3.1 Characteristics of research respondents based on gender, age, education, status and length of service of inpatient nurses at TNI AD Hospital, Class IV Guntur, Garut City.

Characteristics		N	%
Gender	Man	17	34.7
	Woman	32	65.3
Age	20 - 29 years	20	40.8
	30 - 39 years	22	44.9
	40 - 49 years	7	14.3
Education	D3	16	32.7
	S1	33	67.3
Status	Not married yet	6	12.2
	Marry	43	87.8
Length of working	< 3 years	19	38.7
	> 3 years	30	61.3
		49	100

Table 1 Characteristics of Research Respondents Based on gender, age, education, status and length of service of inpatient nurses at TNI AD Hospital Level IV Guntur, Garut City.

The table above shows that the majority of Inpatient Nurses at the Guntur IV Army Hospital, Garut City are female, as many as 32 (65.3%), based on their age range between 30 and 39 years old, as many as 22 (44.9%), based on their education, they are graduates of S-1 Nursing, as many as 33 (67.3%) and based on their length of service, they have worked for more than 3 years, as many as 30 (61.3%).

3.2 Recapitulation of respondents' responses based on dimensions of Work Stress

Based on the data obtained from the Work Stress measurement, the researcher categorized the participants' scores into 5 groups, namely Always, Often, Sometimes, Rarely and Never.

No	Dimension (Job Stress)	Question Items	Total Score	Ideal Score	%	Caption
1	Physique	21	2120	5145	41.2%	Medium
2	Behavior	10	1040	2450	42.4%	Medium
3	Sleep	5	517	1225	42.2%	Medium

4	Emotion	21	2135	5145	41.5%	Medium
5	Habit	9	937	2205	42.5%	Medium
Total		66	6749	16170	41.7%	Medium

Table 2 Recapitulation of respondents' responses based on the dimensions of Work Stress of inpatient nurses at TNI AD Hospital Level IV Guntur, Garut City.

The table above shows the dimensions of the Job Stress variable in inpatient nurses with the lowest percentage being the Physical Change Dimension (41.2%). While the Dimension with the highest percentage is Change in Habits (42.5%). Based on the score interpretation category, it can be seen that the statements submitted regarding Job Stress are included in the medium category.

3.3 Recapitulation of respondents' responses based on the dimensions of Patient Safety Implementation.

Based on the data obtained from the Patient Safety Implementation measurement, the researcher categorized the participants' scores into 5 groups, namely Always, Often, Sometimes, Occasionally and Never.

No	Dimensions	Total Score	Ideal Score	%	Note
1	Patient Identification	1135	1470	77.2%	Good
2	Effective Communication	733	980	74.8%	Good
3	Drug Safety	735	980	75.0%	Good
4	Managing the Risk of Infection	388	490	79.2%	Good
5	Addressing the Risk of Patient Injury	750	980	76.5%	Good
Total		3741	4900	76.3%	Good

Table 3 Recapitulation of respondents' responses based on the dimensions of Patient Safety Implementation of inpatient nurses at TNI AD Hospital Level IV Guntur, Garut City.

The table above shows the dimensions of the Patient Safety Implementation variable in inpatient nurses with the lowest percentage being the Effective Communication Dimension (74.8%). While the Dimension with the highest percentage is Overcoming the Risk of Infection (79.2%). Based on the score interpretation category, it can be seen that the statements submitted regarding the Implementation of Patient Safety are included in the good category.

3.4 Simple Linear Regression Model Analysis of Work Stress Variables on Patient Safety Implementation Variables.

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	108,609	4.113		26,403	.000
	Job Stress	-.295	.029	-.831	10,257	.000

a. Dependent Variable: Patient Safety

Table 4 Simple Linear Regression Model Analysis of Work Stress Variables on Patient Safety Implementation Variables at TNI AD Hospital Level IV Guntur City, Garut.

The table above shows the model obtained from the results of a simple linear regression analysis of the Job Stress variable on the Patient Safety Implementation Variable for Inpatient Nurses at the TNI AD Hospital, Class IV Guntur, Garut City is significant, namely the Sig. value <0.05, meaning that the Job Stress variable affects the Patient Safety Implementation Variable by obtaining a beta coefficient for each variable so that a simple linear regression equation can be formed as follows:

$$Y = 108.61 - 0.295 (X)$$

Where :

Y= Implementation of Patient Safety

A=Constant

X=Work Stress

B= Beta coefficient

The above equation can be explained as follows:

- a) The constant of 108.61 indicates the Patient Safety Implementation score if Job Stress is zero.
- b) The regression coefficient for the Job Stress variable (X) is -0.295. The negative sign indicates that every time there is a decrease in the job stress score by 1 unit and other variables are considered constant, the Implementation of Patient Safety is predicted to increase by 0.295 units.

3.5 Determination Coefficient of Simple Linear Regression Model of Work Stress Variable on Patient Safety Implementation Variable.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.831 ^a	.691	.685	6.80061

- a. Predictors: (Constant), Job Stress
- b. Dependent Variable: Patient Safety

Table 5. Determination Coefficient of Simple Linear Regression Model of Work Stress Variable on Patient Safety Implementation Variable at TNI AD Hospital Level IV Guntur City, Garut.

The table above shows that Job Stress contributes to the diversity of Patient Safety Implementation by 69.1% while the remaining 30.9% is influenced by other factors that were not studied.

4 CONCLUSION

- 1) The description of Job Stress obtained that the highest percentage of Job Stress dimension is Change in Habits 42.5% with a total score of 6749 with an actual score percentage of 41.7% so that it is included in the category of medium/moderate job stress levels. This shows that the perception given by inpatient nurses regarding job stress at the TNI AD Hospital Tk IV Guntur City of Garut is considered moderate so that there are most nurses who have not been able to manage job stress well enough seen from the category of medium/moderate job stress levels.
- 2) The description of the Implementation of Patient Safety obtained that the dimension with the highest percentage is Overcoming the Risk of Infection 79.2% with a total score of 3741 from a total ideal score of 4900 with an actual score percentage of 76.3%. This shows that the implementation of patient safety at the TNI AD Hospital, Level IV Guntur, Garut City by nurses is considered good, but there are still some nurses who have not implemented patient safety properly, seen from the actual score presentation value which has not reached the maximum value. This is supported by the statement of the nurse's ability to overcome the risk of infection in patients.
- 3) There is a significant influence between Work Stress on the Implementation of Patient Safety with a negative regression coefficient value indicating that the higher the work stress on Nurses at the TNI AD Hospital Level IV Guntur City of Garut, the lower the impact on patient safety, and vice versa if the stress level on nurses at the TNI AD Hospital Level IV Guntur City of Garut is lower, it will have an impact on increasing the implementation of patient safety. The determination coefficient of 0.691 indicates that Work Stress provides diversity to the Implementation of Patient Safety by 69.1% while the remaining 30.9% is influenced by other factors that were not studied.

SUGGESTION

Based on the conclusions above, the researcher tries to provide several suggestions related to the application of the influence of Work Stress on Patient Safety according to the perception of Inpatient Nurses, namely:

1. For nurses at the TNI AD Hospital, Level IV Guntur, Garut City, there is a need to improve understanding of work stress that occurs in work situations in hospitals. This can be done in the form of training on work stress management.
2. For nurses at the TNI AD Hospital, Level IV Guntur, Garut City, there is a need to improve understanding of patient safety implementation because it is closely related to patient services. For example, SOP guidelines can be provided in the form of posters for patient safety implementation so that nurses can see and remember what procedures must be carried out for patient safety.
3. For nurses at the TNI AD Hospital, Level IV Guntur, Garut City, there is a need to improve team building in order to create solidarity and effective communication between nurses so that they can maximize the implementation of patient safety, one of which is the responsibility of nurses.
4. For the TNI AD Hospital, Class IV Guntur, Garut City, the results of this study can be a consideration that the work stress found in non-covid room nurses is at a moderate level and it is possible that COVID room nurses have a higher level of stress so that the hospital must make efforts in managing and preventing work stress in nurses in the inpatient room.
5. For the TNI AD Hospital, Level IV Guntur, Garut City, the results of this study can be a consideration in efforts to improve

- human resources for nurses.
6. so that the ratio between nurses and the number of patients becomes proportional. It is also seen that the division of each shift of the nursing group contains senior nurses who have more experience and rotation for the nursing shift group can be done for more than 1 month.
 7. For subsequent researchers, it is expected to add independent variables and add research samples to re-prove the variables in this study because there are still other factors that can have an influence and it is expected to add other broader research objects to strengthen the research results.

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