

# The Effect of Work Stress and Workload on the Performance of Inpatient Nurses in Surgical Wards and Obstetrics Wards at PKU Muhammadiyah Hospital Karanganyar

Fadel Firdaus Bakri<sup>1</sup>, Sri Sundari<sup>2</sup>, Qurratul Aini<sup>3</sup>

<sup>1</sup> Postgraduate Student of Hospital Administration Program of Universitas Muhammadiyah Yogyakarta

<sup>2</sup> Lecturer Postgraduate of Hospital Administration Program of Universitas Muhammadiyah Yogyakarta

<sup>3</sup> Lecturer Postgraduate of Hospital Administration Program of Universitas Muhammadiyah Yogyakarta

Corresponding Author: Fadel firdaus bakri, Universitas Muhammadiyah Yogyakarta, Yogyakarta Indonesia

## Abstract

*This study aims to determine the effect of work stress and workload on the performance of inpatient nurses in the Surgical Ward and Obstetrics Ward at PKU Muhammadiyah Hospital, Karanganyar. The research approach used a quantitative approach with a cross sectional survey method. In this study, the population consisted of all inpatient nurses who worked in the Surgical Ward and Obstetrics Ward PKU Muhammadiyah Karanganyar Hospital, with a total sample size of 50 people. The normality test, multicollinearity test, and hypothesis testing were used in the data analysis. According to the findings of the study, work stress has a significant impact on the performance of inpatient nurses in the Surgical Ward and B at PKU Muhammadiyah Karanganyar Hospital ( $p < 5\%$ ). The higher the stress, the worse the performance of inpatient nurses in PKU Muhammadiyah Karanganyar Hospital's Surgical Ward and Obstetrics Ward. The workload of nurses has a significant effect on the performance of inpatient nurses in the Surgical Ward and B at PKU Muhammadiyah Hospital Karanganyar ( $p < 5\%$ ). The higher the workload, the worse the performance of inpatient nurses in PKU Muhammadiyah Karanganyar Hospital's Surgical Ward and Obstetrics Ward. Work stress and workload have a significant impact on employee performance at PKU Muhammadiyah Hospital Karanganyar, accounting for 71.7 percent of the total.*

**Keywords:** Work Stress, Workload, Nurse

## 1. INTRODUCTION

According to the Ministry of Health of the Republic of Indonesia, the hospital is a health service center that offers basic medical and specialist medical services, medical support services, installation services, and care services both inpatient and outpatient. According to Minister of Health Decree 983/1992, the hospital's task is to carry out health efforts in an efficient and effective manner by prioritizing healing and recovery efforts that are carried out in a harmonious and integrated manner with efforts to improve, prevent, and carry out referral efforts.

Nurses, as "The Caring Profession," play a critical role in achieving successful health-care outcomes in hospitals, given that nursing services are available 24 hours a day, seven days a week. The amount of work or working time expected of nurses, as well as the total amount of work that must be completed by nurses in a given period, is referred to as their workload. Lifting patients, bathing patients, assisting patients to the bathroom, pushing medical equipment, tidying patient beds, and pushing patient stretchers are all part of the nurse's physical workload. Meanwhile, nurses' mental workload consists of working shifts or taking turns, mentally and spiritually preparing patients and their families, particularly those who will undergo surgery or are in critical condition, working with special skills in caring for patients, and establishing communication with patients. An excessive workload on nurses can result in stress. (Desima, n.d.2013)



Stress can have a psychological impact on nurses, causing them to become irritable, frustrated, anxious, aggressive (attacked), nervous, and panicked. The situation can also lead to boredom, apathy, depression, a lack of enthusiasm, and a loss of self-confidence. Physical stress causes hormonal changes, high blood pressure, increased heart rate, breathing difficulties, and nervous digestive disorders. Another effect of work stress on nurses is declining nursing performance, such as poor decision making, lack of concentration, apathy, fatigue, and work accidents, resulting in suboptimal nursing care provision and low organizational productivity. (Sheppard,2015)

"Performance is something that is achieved, an achievement is shown, the ability to work," according to the Great Dictionary of the Indonesian Language, which is quoted and translated. A working target is said to be high if it can be completed on time or does not exceed the time limit provided, whereas it is said to be low if it is completed after the time limit or is not completed at all. Nurse performance is a type of professional service provided as part of health care. Nurse performance in nursing care can be defined as nurse compliance in providing nursing care, which includes assessment, diagnosis, planning, implementation, and evaluation. (AbuAlRub, 2004)

The purpose of this study was to see how work stress and workload affected the performance of inpatient nurses at PKU Muhammadiyah Hospital in Karanganyar's Surgical Ward and Obstetrics Ward.

## 2. METHOD

This type of research is quantitative research with survey method with the type of survey used is cross sectional. The sample in this study were all inpatient nurses who served in the Surgical Ward and B Hospital of PKU Muhammadiyah Karanganyar, amounting to 45 people. The sampling technique is total sampling. Data collection techniques using a questionnaire. Quantitative data analysis technique using multiple regression analysis.

## 3. RESULT OF THE RESEARCH

### 3.1 Data Analysis Results

#### 3.1.1 Data Normality Test

Table 1. Summary of Normality Test

Variable	KSZ	Sig.	Description
<i>Untandardiz ed residual</i>	1,271	0,079	Normal

According to the table above, the Kolmogorov-Smirnov value obtained a significance value greater than 0.05, indicating that it is normally distributed.

#### 3.1.2 Multicollinearity Test

Table 2. Summary of Multicollinearity Test

	Collinearity Statistics	
	tolerance	VIF
<i>X1</i>	0,282	3,544
<i>X2</i>	0,282	3,544

According to the results of the Multicollinearity test in table 2 above, the stress variable tolerance value (*X1*) is 0.282, which is greater than 0.10. Meanwhile, the VIF value of the Stress variable (*X1*), 3.544, is less than 10.00, implying that there is no multicollinearity.

The tolerance value of the workload variable (*X2*) is 0.282, which is greater than 0.10. Meanwhile, the VIF value of the work work variable (*X2*), 3.544, is less than 10.00, indicating that there is no multicollinearity.



### 3.1.3 Hypothesis Test

The results of multiple linear regression analysis can be seen in table 3 below:

**Table 3. Linear Regression Analysis Result**

Variable	Coefficient	t-count	Sig.	Conclusion
X1	-2,602	-2,875	0,006	Significant
X2	-2,370	-3,011	0,004	Significant
Constant=	129,417			
Adjusted R <sup>2</sup>	= 0,717			
F hitung	= 56,703			
Sig.	= 0,000			

Source: processed data, 2021

The statistical results of the t test for the Stress variable (X1) with a performance (Y) of -2.875 and a significance level of 0.006, because the significance is less than 0.05 (p0.05), indicate that Stress (X1) has an effect on performance (Y).

The workload is -3,011 with a significance level of 0.004, and because the significance is less than 0.05 (p0.05), these results indicate that workload (X2) has an effect on performance (Y).

To determine the significance of the regression model, the F test was used. This F test is used to demonstrate statistically that the overall regression coefficient of the independent variable indicators used in this analysis is significant. The test results yielded a F value of 56.703 with a significance of 0.000. There is a joint effect of stress (X1) and workload (X2) on performance with a significance value of less than 5% (p0.05) (Y).

The adjusted R2 value of 0.717 indicates that the variables Stress (X1) and Workload (X2) account for 71.7 percent of the variance in performance (Y), with the remaining 28.3 percent explained by other factors not examined in this study.

## 4. DISCUSSIONS

### 4.1 The Effect of Work Stress on the Performance of Inpatient Nurses in the Surgical Ward and Obstetrics Ward in PKU Muhammadiyah Hospital Karanganyar

The findings revealed that work stress had an effect on the performance of inpatient nurses in Surgical Ward and B at PKU Muhammadiyah Hospital Karanganyar. The findings of this study are consistent with previous research (Tedi et al., 2021), which found a strong correlation between the effect of work stress on nurse performance with a value of 0.788 in the PMN Inpatient Installation of Cicendo Eye Hospital. According to research (Basalamah et al., 2021), work stress had an effect ( $p = 0.013$ ) on the performance of nurses at Makassar City Hospital.

The frequency distribution of respondents' questionnaire responses revealed that the highest rating, with a trend value of 0.44, is in question number three, "I eat/drink/smoke in response to stress." Inpatient nurses are constantly stressed at work, and in order to cope, they eat, drink, or smoke. Employees' work-related stress is caused by factors such as demanding work schedules, coworker relationships, and others (Rohmanniyah, 2019). Another psychological symptom of stress is workplace tension, which manifests itself as anxiety, boredom, tension, upset, and a procrastinating attitude (Nasution, 2017).

Meanwhile, the results of the frequency distribution of respondents' answers to the questionnaire with the lowest rating at a trend value of 0.02 are found in question number 10, namely "I have a lot of deadlines to work on." This is consistent with the researchers' preliminary findings, which revealed that some respondents admitted to having too many reports due on short deadlines. Aside from that, inpatient nurses in the Surgical and Obstetrics Wards are already swamped with patients every day. The greater the demands of a job, the greater the possibility of job stress (Sudaryanti, 2021). Efforts that can be made to overcome this include work management, which involves regulating the performance of nurses according to their respective duties so that they can complete the task within the allotted time.

According to (Mahdavi et al., 2016), job stress is a feeling of pressure that employees feel when dealing with their jobs. This work stress can be seen in one's appearance, such as unstable emotions, feeling uneasy, being alone, having trouble sleeping, excessive smoking, being unable to relax, being anxious, tense, nervous, experiencing increased blood pressure, and experiencing digestive disorders. (Pane, 2019). With stress, performance tends to improve because stress helps employees mobilize all resource capabilities to meet work needs, which will eventually reach a stable level based on the employee's abilities; however, if the stress becomes too great, it will affect performance because it can interfere with work implementation, resulting in poor work results (Nurmalasari, 2015).

Job stress has a negative impact on performance because stress, as an adjustment response, is channeled by individual differences or psychological processes that are a result of any action from outside the situation, or events that set a person's excessive psychological or physical demands (Jundy, 2018). Good communication from superiors such as support from their direct supervisor who is understanding, friendly, expresses praise for good work, and listens to their opinions can improve employee performance in research (Aini 2004). Employee performance, according to (Marbawi et al., 2016), is the result of work completed by an employee or a group of people in accordance with the responsibilities and authorities delegated to him. Work performance is influenced by employee performance, which includes quantity, quality, duration, attendance at work, and a cooperative attitude. Employee performance is critical because it demonstrates how capable they are in carrying out the tasks that have been assigned to them (Irawan & Suryani, 2018).

#### **4.2. The Effect of Nurses' Workload on the Performance of Inpatient Nurses in Surgical Ward and Obstetrics Ward in PKU Muhammadiyah Hospital Karanganyar**

The findings revealed that nurses' workload had an effect on the performance of inpatient nurses in the Surgical Ward and B at PKU Muhammadiyah Hospital Karanganyar. The findings of this study are consistent with previous research (Basalamah et al., 2021), which shows that workload has an effect ( $p = 0.000$ ) on the performance of nurses at Makassar City Hospital. According to research (Maharani, 2019), there is also an indirect effect, namely from workload to performance (as an intervening variable) and then to work stress.

Workload is one of the factors that influence the risk of poor performance. An increase in workload is possible if the number of nurses does not correspond to the level of care required for patients (Simamora, 2015). Workload is a work condition characterized by job descriptions that must be completed within a specific time frame (Munandar, 2016).

Excessive workload can cause tension and stress in a person. This can be caused by the level of expertise required being too high, the work speed being too fast, the work volume being too large, and so on (Sunyoto, 2012). Patient conditions that are constantly changing affect nurses' workload, and the average number of hours of care required to provide direct care to patients exceeds one's ability. Similarly, the workload must be balanced in terms of quantity (too many/too few tasks) and quality (too many/too few tasks require expertise).

If the number of tasks assigned is not proportional to one's physical abilities, skills, and available time, it will cause stress. The negative impact of increased workload is the possibility of nurses' emotions manifesting in ways that are inconsistent with patient expectations. This excessive workload has a significant impact on the productivity of health workers, including nurses. Nurses believe that the number of available nurses is not proportional to the amount of work that needs to be done. This condition can lead to the emergence of work stress because all inpatients require effective and efficient services in order for patients' problems to be resolved as soon as possible. The professionalism of nurses in providing nursing services can have an impact on their performance.

The quality of health services will improve if nurses perform optimally in basic services (Kasmir, 2016). Nurse performance in nursing care can be defined as nurse compliance in providing nursing care, which includes assessment, diagnosis, action plan, implementation, and evaluation (Erlina, 2018). Ariyani et al., employee performance factors that have not demonstrated work conduciveness. The phenomenon of employee performance; employees' inability to understand the leader's instructions and the minimum individual responsibilities of employees that impede performance (Ariyani et al., 2016).

Workload shows the highest score on the question item "how much mental effort is required to complete your work" based on trend analysis. This demonstrates that the main factor contributing to the nurse's workload is mental. According to previous research, the majority have a heavy workload. If the mental workload is not monitored, it can lead to death, as in the case of workplace accidents caused by a lack of supervision. As a result of its responsibility to ensure health, safety, and the environment, it is critical to describe the mental workload (Fajrin, 2020).

An analysis of the lowest trend in health workers' workload, namely "how much success is required to complete your job." This demonstrates that working as a nurse has a high success rate. As a nurse, this is an example of potential professionalism. This is consistent with previous research indicating that most nurses have a light workload. This is due to a balance between the number of nurses and patients (Erlina, 2020).

#### **4.3 The Effects of Work Stress and Workload on Employee Performance at PKU Muhammadiyah Hospital Karanganyar**

In this study, the variables of work stress and workload have a significant effect on employee performance at PKU Muhammadiyah Hospital Karanganyar, accounting for 71.7 percent of the total. This demonstrates that the less work stress and workload nurses face, the better their performance. According to previous research, the results of the statistical test (Test F) of 6.168 0.311 and a significance value of 0.004 0.05 indicate that stress and workload have a significant effect on the performance of maintenance employees at PT IndomincoMandiriBontang at the same time (Utari et al., 2021).

The workload is the most important variable influencing performance. Previous research revealed that if a large job is handled by a small number of human resources, it will only result in a large workload and increased work stress (Yosiana et al., 2020). The higher the workload of the work performed by the nurse, the greater the level of work stress felt by the nurse, which can affect performance. In contrast, the lower the workload assigned to nurses, the lower the level of work stress felt by employees. (Susiarty et al., 2019).

According to the results of trend analysis on performance variables, the question items "Nurses are creative in carrying out tasks and work" and "Nurses carry out tasks and work seriously and thoroughly" have the highest trend analysis. This is consistent with previous research, which indicates that nurses can complete their work quite well. Nurses can also complete their duties well, as evidenced by the tasks completed and their work results, which are in the fairly good category (Zakib et al., 2021).

According to trend analysis, the performance of health workers is poor because "nurses do not require strict supervision at work from superiors." This implies that nurses require supervision to carry out their duties and obligations. Previous research has shown that good supervision can improve nursing performance (Saputera&Suhermin, 2020). Frontline nurses have low stress and workload but high job involvement, particularly in self-dedication. Infection control, PPE discomfort, and frustration, on the other hand, were negatively related to nursing job involvement, while mental demands and good performance were positively related. (Zhang et al., 2021).

Nurses as the spearhead of health service providers are important things to study in order to maintain and improve the quality of health services. Good performance is a bridge in responding to the quality of health services provided to patients both sick and healthy (Tria H, 2018). The nurse's role as a professional patient safety practitioner and the hospital's largest health worker is critical to achieving patient safety (Adinda, 2019). The presence of work stress and a heavy workload must be taken into account by hospital administration in order to reduce obstacles for health workers. This is to help health workers perform better and more professionally, so that patient safety and the health workers themselves are not compromised by stress and excessive workload.

## **5. CONCLUSIONS**

Based on the results of research and discussion, the following conclusions can be drawn:

1. Work stress has an effect on the performance of inpatient nurses in PKU Muhammadiyah Hospital Karanganyar's Surgical Ward and Obstetrics Ward (with a significant value of  $p < 5\%$ ). Higher stress may

- impair the performance of inpatient nurses at PKU Muhammadiyah Hospital Karanganyar's Surgical Ward and Obstetrics Ward.
- The workload of nurses has a significant effect on the performance of inpatient nurses in the Surgical Ward and Obstetrics Ward at PKU Muhammadiyah Hospital Karanganyar ( $p < 5\%$ ). The higher the workload, the lower the performance of inpatient nurses in PKU Muhammadiyah Karanganyar Hospital's Surgical Ward and Obstetrics Ward.
  - Work stress and workload have a significant impact on employee performance at PKU Muhammadiyah Hospital Karanganyar, accounting for 71.7 percent of the total.

Moreover several suggestions are offered. First is suggested for the Hospital Director Improving the performance of hospital nurses is impossible without the support of fair compensation. This has a negative impact on their performance because the resulting performance is only represented by these variables. As a result, it is hoped that the director of the PKU Muhammadiyah Karanganyar Hospital will take seriously the improvement of nurses' work behavior by improving management to improve nurses' performance, such as frequently giving directions/suggestions and appreciating performance by rewarding performance. Second for the Hospital Stakeholders To improve the performance of nurses at PKU Muhammadiyah Karanganyar Hospital, changes in the division of labor can be made to reduce workload. Third for the Next Researcher Hopefully, this research will be continued and will provide input for future studies, allowing them to develop and become a reference for hospital research, particularly for improving nurse performance.

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