



## RESEARCH ARTICLE

## Factors Affecting Nurse Performance at Ibnu Sina Hospital Makassar

Rijalul Fikri<sup>1\*</sup>, Atjo Wahyu<sup>2</sup>, Furqaan Naiem<sup>2</sup>, Masyitha Muis<sup>2</sup>, Syria<sup>3</sup> and Stang<sup>4</sup>



<sup>1</sup>Student of Master Programme in Public Health/Safety and Health, Hasanuddin University, Makassar, Indonesia

<sup>2</sup>Department of Occupational Safety and Health, Faculty of Public Health, Hasanuddin University, Makassar, Indonesia

<sup>3</sup>Department of Health Promotion and Behavioural Sciences, Faculty of Public Health, Hasanuddin University, Makassar, Indonesia

<sup>4</sup>Department of Population Biostatistics/Family Planning, Faculty of Public Health, Hasanuddin University, Makassar, Indonesia

\*Corresponding author: Rijalul Fikri, Student of Master Programme in Public Health/Safety and Health, Faculty of Public Health, Hasanuddin University, Makassar, Indonesia

### Abstract

**Introduction:** Nurses are one of the health workers to get responses, information and answers that are always present in every hospital and are the spear head of hospital health services. Based on data from The National Institute Occupational Safety and Health (NIOSH) that jobs related to hospitals or health have a high tendency to be exposed to work stress or depression, as well as burnout.

**Methods:** This study was conducted in November-December 2023. The type of research used is observational analytic with a cross-sectional design that explains the relationship between variables through hypothesis testing. This research is a quantitative approach using (path analysis).

**Results:** Based on the results of the Path Analysis test using Smart PLS, it was found that there was an effect of workload on burnout with a value of  $p = 0.000$ , then there was also an effect of individual characteristics on burnout with a value of  $p = 0.000$ , there was an effect of workload on performance with a value of  $p = 0.014$ , there was also an effect of individual characteristics on performance with a value of  $p = 0.019$ , burnout also had an influence on performance with a value of  $p = 0.000$ , there was also an indirect effect of workload on performance through burnout with a value of  $p = 0.003$ , as well as an indirect effect of individual characteristics on performance through burnout with a value of  $p = 0.000$ .

**Conclusion:** There is a direct effect of workload on burnout in nurses, There is a direct effect of individual characteristics

on burnout in nurses, There is a direct effect of workload on performance in nurses, There is a direct effect of individual characteristics on performance in nurses, There is a direct effect of burnout on performance in nurses, There is an indirect effect of workload on performance through burnout in nurses, There is an indirect effect of individual characteristics on performance through burnout in nurses.

### Keywords

Workload, Individual Characteristics, Nurse Performance, Burnout

### Introduction

Hospital is an agency engaged in health services. Health services provided by hospitals include promotive, preventive, curative, and rehabilitative services, which provide inpatient, outpatient, and emergency services. Health services that are currently developing in hospitals are not only about hospital buildings (such as size, complexity, number of units), the number of qualifications of medical and non-medical staff, financial systems and information systems, but about the quality of service quality of health workers in providing services. The implementation of health services in accordance with these objectives of various types with diverse scientific tools must integrate with each other, one of

the most important in the circle of service providers is nurses [1]. Performance is the result of a specific work process in a planned time and place of the employee and the organisation concerned. Better employee performance is expected to have a positive impact on improving organisational performance. Performance or performance is a target or result that must be achieved [2]. In a professional company, performance is defined from the point of view of value creation related to the input, process, and output chain. Employee performance will be greatly influenced by the way the individual responds to conditions that affect the work process. Employee performance generally includes the following elements (1) Quantity and results; (2) Quality and results; (3) Timeliness of results; (4) Attendance; (5) Ability to work together [3].

Based on data from The National Institute Occupational Safety and Health (NIOSH) that jobs related to hospitals or health have a high tendency to be exposed to occupational stress or depression, as well as burnout. While the American National Association for Occupational Health (ANAHO) places the incidence of occupational stress in nurses at the top of the first forty cases of occupational stress in workers [4]. This can be due to the demands of the task to be able to act quickly and precisely in dealing with their patients.

Workload is the ability of a worker to work differently from one another and depends on the level of skill, physical fitness, nutritional condition, gender, age and bodysize of the worker concerned [5]. Each individual has different characteristics to make it easier to achieve goals, of course, an agency must be able to choose nurses who have good characteristics and must also be in accordance with what the agency wants [6]. This is because the accuracy in choosing an agency also affects the results of its performance. Because the ability of nurses is reflected in good and optimal performance [7].

## Methods

### Research type and design

The type of research used is observational analytic with a cross-sectional design that explains the relationship between variables through hypothesis testing. This research is a quantitative approach using (path analysis).

### Time and location

This research was conducted from November to December 2023. The research location is Ibnu Sina Hospital Makassar.

### Research informants

The informants of this study were all nurses with permanent and contract employee status who worked at Ibnu Sina Hospital Makassar.

## Data collection sources and techniques

The data sources of this research are primary data and secondary data. Primary data was obtained through in-depth interviews. Secondary data is obtained through literature study techniques, which are all efforts made by researchers to collect information that is relevant to the topic or problem under study. Literature studies are carried out by studying scientific books, research reports, research journals, and through electronic media. In addition, secondary data can be obtained from data belonging to the research location.

## Data analysis

The data analysis technique in this study is the Miles and Huberman model data analysis technique. Descriptive Analysis data analysis technique is an analysis that describes the respondents' responses regarding the effect of workload, individual characteristics on nurse performance through burnout by distributing questionnaires to nurses who work in the inpatient installation section of Ibnu Sina Makassar Hospital which is the sample in this study.

Path Analysis (PA) or path analysis is used to describe and test the relationship model between variables in the form of cause and effect (not a form of interactive/reciprocal relationship).

## Results

### Normality test

Based on Table 1, it can be seen that in the workload variable, individual characteristics consisting of (age, gender, education, tenure and employment status), Burnout consisting of (emotional exhaustion, depersonalisation and self-achievement), and nurse performance all show a sig value of  $0.000 < 0.05$ , these results indicate that the data is not normally distributed because it is less than the significant level of 0.05.

### Univariate test

#### a. Frequency distribution of individual characteristics

To see the distribution of individual characteristic variables consisting of age, gender, education, length of service and employment status can be seen as follows:

#### 1. Age

Based on Table 2 above, respondents aged 29-39 years were 96 people (74.4%), then those aged more than 40 years were 33 people (25.6%), with 12 male respondents (9.3%), then 117 female respondents (90.7%). The category of educational background of respondents who have the latest DIII education is 71 people (55.0%), then those who have the latest S1 education are 22 people (17.1%), and those who have the latest Ners education are 36 people (27.9%), with a tenure of 3-5 years as many as 1 person (0.8%), then

**Table 1:** Normality test results.

Data	Sig	Conclusion
Age	0.000	Data Not Normally Distributed
Gender	0.000	Data Not Normally Distributed
Education	0.000	Data Not Normally Distributed
Period of Service	0.000	Data Not Normally Distributed
Employment Status	0.000	Data Not Normally Distributed
Workload	0.000	Data Not Normally Distributed
Emotional Fatigue	0.000	Data Not Normally Distributed
Depersonalisation	0.000	Data Not Normally Distributed
Self-Achievement	0.000	Data Not Normally Distributed
Nurse Performance	0.000	Data Not Normally Distributed

Source: Primary Data, 2023

**Table 2:** Frequency distribution of age variables.

Age (Years)	(n)	Percent (%)
29-39 Years	96	74.4
> 40 Years	33	25.6
<b>Total</b>	<b>129</b>	<b>100</b>
<b>Gender</b>		
Male	12	9.3
Women	117	90.7
<b>Total</b>	<b>129</b>	<b>100</b>
<b>Education</b>		
DIII	71	55.0
S1	22	17.1
Ners	36	27.9
<b>Total</b>	<b>129</b>	<b>100</b>
<b>Period of Service</b>		
3-5 Years	1	0.8
> 5 Years	128	99.2
<b>Total</b>	<b>129</b>	<b>100</b>
<b>Employment Status</b>		
Contract	41	31.8
Stay	88	68.2
<b>Total</b>	<b>129</b>	<b>100</b>
<b>Workload</b>		
Medium	125	96.9
Lightweight	4	3.1
<b>Total</b>	<b>129</b>	<b>100</b>
<b>Burnout</b>		
No Burnout	129	100.0
Experiencing Burnout	0	0
<b>Total</b>	<b>129</b>	<b>100</b>

Source: Primary Data, 2023

those who have a tenure of > 5 years are 128 people (99.2%). A total of 41 people (31.8%) were contract

**Table 3:** Frequency distribution of emotional fatigue variables.

Emotional Fatigue	(n)	Percent (%)
Low	78	60.5
Medium	51	39.5
<b>Total</b>	<b>129</b>	<b>100</b>
<b>Depersonalisation</b>		
Low	129	100.0
Medium	0	0
<b>Total</b>	<b>129</b>	<b>100</b>
<b>Self-Achievement</b>		
Low	129	100.0
Medium	0	0
<b>Total</b>	<b>129</b>	<b>100</b>
<b>Performance</b>		
Less	48	37.2
Simply	75	58.1
Good	6	4.7
<b>Total</b>	<b>129</b>	<b>100</b>

Source: Primary Data, 2023

employees, then those with permanent employment status were 88 people (68.2%), with a moderate workload of 125 people (96.9%), then respondents with a light workload category were 4 people (3.1%). All respondents did not experience burnout, namely 129 people (100%).

The burnout variables consisting of emotional exhaustion, depersonalisation, and self-achievement, their frequency distribution can be seen as follows:

## 2. Emotional fatigue

Based on Table 3 above, 78 respondents (60.5%) experienced low category emotional exhaustion, then 51 respondents (39.5%) experienced moderate category emotional exhaustion. While all respondents experienced low category depersonalisation as many as 129 people (100.0%). In the category of self-achievement, all respondents experienced low self-achievement as

many as 129 people (100.0%). For the performance of respondents who had poor performance as many as 48 people (37.2%), then those who had sufficient performance were 75 people (58.1%), and those who had good performance were 6 people (4.7%).

### Path analysis test

Based on the conceptual framework proposed in this study, hypothesis testing is carried out through pathway analysis testing on structural equations. Testing using path analysis is carried out because the purpose of this study is to determine the direct and indirect effects of independent variables on the dependent variable through intervening variables (Figure 1).

The statistical test results obtained from the p value (0.000) < 0.05 which means that the p value is less than the significance level of 0.05 so that there is an indirect effect of individual characteristics on performance through burnout.

### Discussion

Based on the results of the Path Analysis test using Smart PLS, it was found that there was an effect of work load on burnout with a value of  $p = 0.000$ , then there was also an effect of individual characteristics on burnout with a value of  $p = 0.000$ , there was an effect of workload on performance with a value of  $p = 0.014$ , there was also an effect of individual characteristics on performance with a value of  $p = 0.019$ , burnout also had an influence on performance with a value of  $p = 0.000$ , there was also an indirect effect of workload on performance through burnout with a value of  $p = 0.003$ , as well as the indirect effect of individual characteristics on performance through burnout with a value of  $p = 0.000$ .

### The effect of workload on burnout

Burnout is a psychological condition in someone who does not manage to cope with work stress, causing prolonged stress caused by personal factors and work environment factors. This situation will have

an impact on the quality of relationships with patients and a decrease in the quality of relationships with colleagues which will have an impact on providing low quality services and decreasing work engagement and individual relationships with the organisation.

The work load that occurs in nurses while caring for patients is due to the disproportionate number of nurses and patients they have to handle. Moreover, patient safety is a big responsibility for nurses in terms of caring and serving patients. However, if the workload is high, nurses will feel both physical and mental fatigue.

In research that has been conducted on nurses at Ibnu Sina Hospital Makassar, the results show that there is a significant influence between workload and burnout where the statistical test results obtained a P value (0.000) > 0.05. In addition, the magnitude of the influence of workload variables on burnout is 6.950 and the rest is influenced by other variables outside the workload indicator.

This is in line with research conducted by which shows that there is an influence between work load and burnout. The results of this study are also supported by research conducted by Henri (2017) which has results  $P < 0.05$  which means that workload has an influence on burnout [8].

Perceived work load is measured based on a description of the actions performed by nurses in the room. Every job is a burden for those who do it including physical, mental, or social burdens. Work that is heavy in nature requires frequent breaks and short working hours, while if the work time is increased beyond the ability of the workforce then it will cause burnout.

### The effect of individual characteristics on burnout

Individual characteristics in this case are age, gender, education, length of service, and employment status. The average age of nurses ranges from 29-39 years, then nurses who are predominantly female and on average their last education is DIII, almost all of them

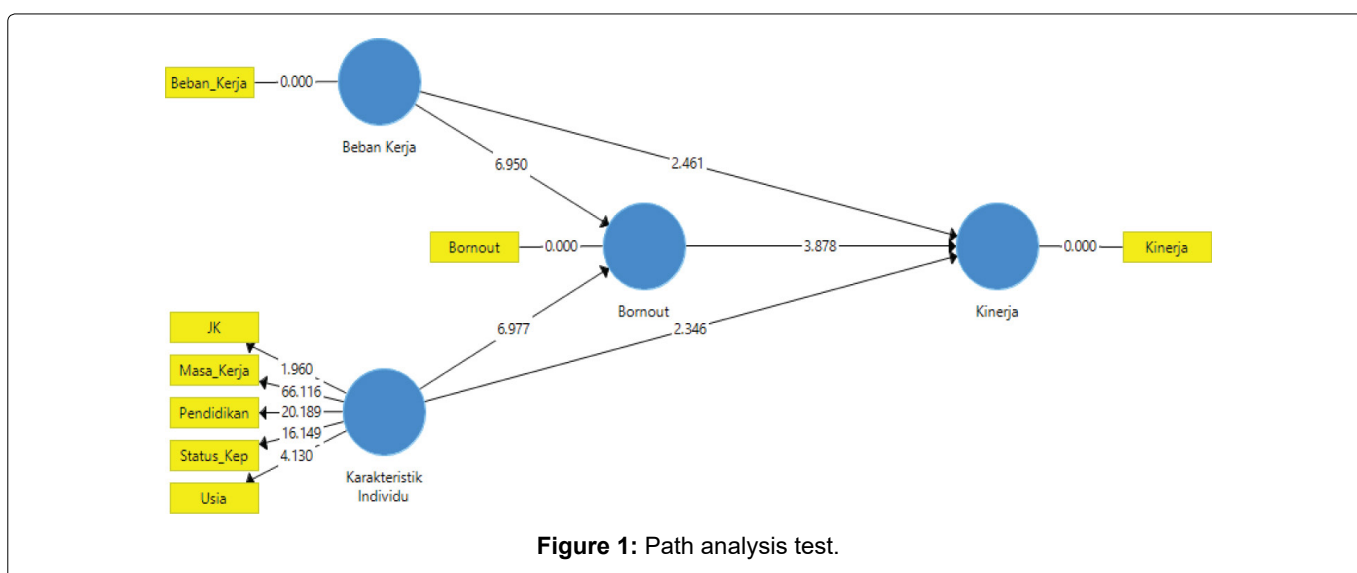


Figure 1: Path analysis test.



have worked for more than 5 years and most of them have permanent employee status for nurses at Ibnu Sina Hospital Makassar who were sampled.

Burnout syndrome is a condition when someone feels severe stress with their work. Burnout syndrome is classified into two, namely there are internal factors where there are age, gender, and tenure and external factors where heavy work loads, conflicts with fellow colleagues in the work place, lack of resources and monotonous work can affect burnout syndrome in nurses.

In research that has been conducted on nurses at the Ibnu Sina Hospital Makassar, the results show that there is a significant influence between individual characteristics and burnout where the statistical test results obtained a P value (0.000) > 0.05. In addition, the magnitude of the influence of individual characteristics variables on burnout is 6.977 and the rest is influenced by other variables outside the individual characteristics indicator.

This is in line with research conducted previously which states that there is a significant influence between individual characteristics and burnout [9]. This is also in line with other studies which say that the characteristics of nurses, namely age, gender and length of service, greatly affect the occurrence of work stress to cause burnout in nurses [10].

### **The effect of workload on performance**

Workload is the ability of the employee's body to accept work. Workload is also something that arises from the interaction between the demands of tasks, the work environment where used as a workplace, skills, behaviour and perceptions of workers. So it can be concluded that workload is an employee's ability to accept tasks from the Company within a predetermined period of time.

Performance is the quality and quantity of work achieved by an employee in carrying out his duties in accordance with the responsibilities given to him. Performance is strongly influenced by the workload and also the work environment where we work.

In research that has been conducted on nurses at the Ibnu Sina Hospital Makassar, the results show that there is a significant influence between workload and performance where from the results of the statistical test obtained a P value (0.014) > 0.05. In addition, the magnitude of the influence of workload variables on performance is 2.461 and the rest is influenced by other variables outside the workload indicator.

The workload experienced by nurses at Ibnu Sina Hospital Makassar is classified as moderate workload. This is partly because the patients who come are not balanced with the number of nurses in the hospital. In addition, most nurses carryout work that was not originally their job, making their workload increase.

### **The effect of individual characteristics on performance**

Age, gender, education, tenure and employment status of nurses are included in the individual characteristics examined in this study. Individual characteristics are psychological processes that affect a person and are interpersonal factors that drive a person.

Nurse performance is part of health services. Nurse performance in nursing services is a form of nurse compliance in carrying out nursing care as a whole from the assessment, diagnosis, plan, implementation, and evaluation stages. The quality of nursing care provided to patients can describe the performance of nurses.

In research that has been conducted on nurses at the Ibnu Sina Hospital Makassar, the results show that there is a significant influence between individual characteristics and performance where from the results of the statistical test obtained a P value (0.019) > 0.05. In addition, the magnitude of the influence of the individual characteristics variable on performance is 2.346 and the rest is influenced by other variables outside the individual characteristics indicator.

Previous research says that gender, age and length of service affect performance, but other individual characteristics such as level of education and training also affect performance [11]. This is also in line with other studies which say that gender and tenure have an influence on nurse performance [12].

### **The effect of burnout on performance**

Burnout syndrome consists of emotional exhaustion, depersonalisation, and decreased self-esteem. Emotional exhaustion is the side that expresses the physical and emotional fatigue experienced as the basis and start of burnout syndrome. Depersonalisation is an attitude that shows hard/rough behaviour, negative behaviour, and in difference to others, then decreased self-achievement is the achievement of employees who have decreased so that they show negative feelings, unhappy and dissatisfied with their work.

Nurse performance is a measure of success in achieving nursing service goals. Service performance in providing nursing care is the application of skills or learning that has been received during the completion of the nursing education programme.

In research that has been conducted on nurses at the Ibnu Sina Hospital Makassar, the results show that there is a significant influence between burnout and performance where from the Results of the statistical test obtained a P value (0.000) > 0.05. In addition, the magnitude of the influence of the burnout variable on performance is 3.878 and the rest is influenced by other variables outside the burnout indicator.

This is in line with research conducted by Andini (2016) which says that prolonged stress and resulting

burnout can affect the performance of an employee [13]. Likewise with other studies that say nurses who experience burnout can cause a decrease in performance [14].

### **The effect of workload on performance through burnout**

Workload is the demands of daily work and is considered a source of burden. Excessive workload and low workload can create boredom in doing work. The high workload obtained by nurses while working will cause physical and emotional fatigue, decreased concentration and boredom felt by nurses.

Workload has an influence on burnout as well as having an influence on performance. Because if nurses have a high enough workload and result in burnout, the implementation and achievement of performance will also decrease.

The performance of health workers is one of the demands of the community towards the need for excellent or quality service. The performance of health workers is expected to be able to contribute effectively in improving the quality of health services, which will have an impact on general services in the organisation where they work which will lead to the welfare and quality of life of the community.

In research that has been conducted on nurses at the Ibnu Sina Hospital Makassar, the results show that there is a significant influence between workload and performance through burnout where from the results of the statistical test obtained a p value (0.003) > 0.05. In addition, the magnitude of the influence of workload variables on performance through burnout is 2.982 and the rest is influenced by other variables outside the workload indicator.

This is in line with research conducted by Meri (2023)<sup>39</sup> which says there is a significant effect of workload on performance through burnout on inpatient nurses at Pekanbaru Hospital. This is also in line with research conducted by Kurniawan (2023)<sup>30</sup> who also said that workload has an indirect effect on nurse performance through burn out as an intervening variable at Condong Catur Hospital.

### **The effect of individual characteristics on performance through burnout**

Individual characteristics are a psychological process that influences individuals in obtaining, consuming and receiving goods and services and experiences. Good individual characteristics and must also be in accordance with what the Hospital wants.

According to nurses, even though they work according to their abilities, are carried out happily, show work enthusiasm and are balanced with improvements in individual characteristics such as increasing skills

and patience in their work but are not supported by a conducive situation regarding great responsibility for health and safety and appropriate rewards such as the salary provided can reduce the level of satisfaction with the hospital which can affect the onset of burnout in the form of fatigue. The existence of high ability individual characteristics in the company's operations will affect employee performance at work.

Burnout or fatigue experienced due to physical and psychological unhealthiness experienced by nurses due to many dependents can lead to decreased work results in service to patients. Burnout is a problem for organisations that results in decreased performance, in addition to decreased productivity performance. This means that nurses who experience physical, emotional, mental fatigue and feelings of helplessness indicated by muscle stiffness, easily feel angry, are prejudiced against others and their work, and feel depressed if they cannot take good care of patients will have an impact on the service so that it reduces nurse performance.

In research that has been conducted on nurses at Ibnu Sina Hospital Makassar, the results show that there is a significant influence between individual characteristics and performance through burnout Where from the results of statistical tests obtained a p value (0.000) > 0.05. In addition, the magnitude of the influence of individual characteristics variables on performance through burnout is 4.169 and the rest is influenced by other variables outside the individual characteristics indicator.

This is in line with other studies which say that there is a significant influence between individual characteristics on performance through burnout as an intervening variable at PT Nusantara Medika Utama Hospital [2,8,15]. Likewise, research also says there is a positive influence of individual characteristics on performance through burnout at Bumi Massenrempulu Regional General Hospital.

### **Conclusion**

Based on the results of the research and analysis of the variables studied, the following conclusions can be drawn: There is a direct effect of workload on burnout in nurses, There is a direct effect of individual characteristics on burnout in nurses, There is a direct effect of workload on performance in nurses, There is a direct effect of individual characteristics on performance in nurses, There is a direct effect of burnout on performance in nurses, There is an indirect effect of workload on performance through burnout in nurses, There is an indirect effect of individual characteristics on performance through burnout in nurses.

### **Ethics Statement**

Prior to the research, this study was approved by the Health Research Ethics Committee (HREC) of

Hasanuddin University, with recommendation number 001/UN4.14.1/TP.01.02/2024 dated 01 January 2024. Written informed consent was obtained from all research respondents with confidentiality maintained by the researcher.

### Conflict of Interest Statement

The authors declare that there is no potential conflict of interest.

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### Data Availability Statement

All data generated or analysed during this research is included in this article.

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