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Effect Of Mental Workload And Moral Sensitivity On Nurse Performance In The Acute Inpatient Room Of The Prof. Dr. M. Ildrem Mental Hospital, Medan

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ABSTRACT. Objectives: High mental workload can decrease nurse performance. Nurses with higher moral sensitivity are ethically more practicing professionals and the quality of careis better. This study assesses effect of Mental Workload and Moral Sensitivity on Nurse Performance in the Acute Inpatient Room of the Prof. Dr. M. Idrelm Mental Hospital Medan in Indonesia . Methods: The study used a cross-sectional design, sampel number of 58 nurses in acutel inpatient room through total sampling. NASA-TLX Questionnaires for Mental Workload, Moral Sensitivity Questionnaires for Moral Sensitivity and Individual Work Performance Questionnaires for Nurse Performance. Analyzed data using the Statistical Package for social Science (SPSS) version 26 software. Descriptive statistics, Pearson test and multiple linear regression analysis to measure its effect. A p-vaule of < 0.05 was considered statistically significant at a 95% confidence level. Result: Majority of participant had a high level of mental workload (86.2%), high level of moral sensitivity (58.6%) and had good level of performance (53.4%). Further, there is no correlation mental workload with nurses performance ($p = 0.350$), but moral sensitivity significantly correlated with nurses performance ($p = 0.041$). Conclusion: Nurse has level mental workload high indicate prone to fatique and burnout, but they have good performance because they have adapted to the existing work situation. This is supported by high moral sensitivity so that nurses feel very responsible for their profession.

Keywords: Mental Workload, Moral Sensitivity, Performance, Nurses

INTRODUCTION

Nurses at work often experience issues internally (for example: lack of knowledge or skills of nurses in providing nursing services) and external (for example: the patient's health condition and relationship with other professions) that can cause physical and psychological responses to affect the nurse's ability to work. Nurses are also one of the professions with a high workload due to the high pressure of their job demands and are required to provide high quality of service to high-risk patients so that the workload will increase (Bakhshi et al., 2019). High workload is one of the risks of reducing the accuracy, concentration and safety of work and reducing the quality of nursing services (Pereira Lima Silva et al., 2020). Nurses who work in mental hospitals often experience several problems such as facing some patients who are raging or agitated, patients who refuse to respond to nurses when invited to communicate, unpredictable and dangerous patient behavior, the number of patients who vary causes nurses to be easily exhausted and feel depressed which results in a higher mental workload of nurses. This unconducive situation must be addressed immediately so as not to be fatal to patients and nurse (Permatasari et al., 2023).

Nurses with high mental workloads experience decreased performance (Pourteimour et al., 2021). Nurses working in inpatient rooms experienced mental workload and were significantly correlated with burnout (Werdani, 2016). About 27% of nurses have poor performance at work due to the high number of patients treated causing nurses to be exhausted in carrying out their duties, which can cause a high physical and mental workload on nurses (Ruga et al., 2022). Mental workload is statistically negatively related to moral sensitivity, this is assumed because although nurses work in difficult situations and increased mental workload does not decrease their moral sensitivity, because nurses have attached ethical principles to make decisions in difficult situations (Zahednezhad et al., 2021).

Moral sensitivity is also related to patient satisfaction with the quality of nursing services (Shahvali et al., 2018) and high moral sensitivity will improve the nurse's ability to provide care to dying patients (Jo & Kim, 2017). Increased moral sensitivity of nurses can improve the quality of nurses' working lives. Nurses who have high moral sensitivity will have better skills in delivering bad news to patients and families (Mohammadi et al., 2022). Communicate more effectively and professionally, empathy, accountability and nurse work results are better and patient satisfaction is higher due to the improved quality of nursing services provided by nurses. Nurses with higher moral sensitivity are ethically more professionally practicing and the quality of care is better. This study aims to describe and analysis level of mental workload and moral sensitivity on nurse performance in acute inpatient room.

MATERIALS AND METHODS

Before the study, the researchers secure ethical clearance from Ethics Committee of Health Research Universitas Sumatera Utara with number:308/KEPK/USU/2023.

Study Design and Participants

The study uses a cross-sectional study design. All nurse work at acute room included in this study as much as 58 respondents (total sampling). Inclusion criteria is willing to be a respondent by agreeing to Informed Consent, has a Diploma or Bachelor Nurse and minimum working period of 1 year. Period of data collection from April to May 2023.

Instruments

A four-part questionnaire was used to gather data. The first part a checklist to determine the participants' demographics information, included age, gender, educational level, marital status, length of work. The second part assessed mental workload participants using *National*

Aeronautics and Space Administration Task Load Index (NASA-TLX) Questionnaire was developed by Sandra G. Hart and translated into Indonesian. The NASA-TLX consists of six dimensions; mental demand, physical demand, temporal demand, performance, effort and frustration. The six scale are combined to create an overall mental workload scale (0 – 100). Mental workload classified into low (score 0 – 33), moderate (score 34 – 67) and high (score 68 – 100) to high. In this study the reliability questionnaire is high (0.710).

The third part assessed moral sensitivity participants using Moral Sensitivity Questionnaire (MSQ) has developed by Kim Lutzen and translated into Indonesian. Participants were asked to respond the statement with a five-point scale (Likert scale) from 0 (totally disagree) to 4 (strongly agree). Moral sensitivity classified into low (score 0 – 39), moderate (score 40 – 79) dan high (80 – 120). Reliability in this study is high (0.884).

The fourth part assessed performance participants using Individual Work Performance (IWP) Questionnaire was developed by Koopmans (Koopmans et al., 2014) and was translated to Indonesian by Widyastuti (Widyastuti & Hidayat, 2018). Participants were asked to respond the statement in the questionnaire with a five-point scale (Likert scale) from 0 (seldom) to 4 (always). Performance classified into low (score 0 – 23), moderate (score 24 – 47) dan good (48 – 72). Reliability in this study is high (0.802).

Data Collection Process

Researchers selected the participants in accordance with inclusion criteria and explained the purpose of the research and provided informed consent to signed by participants. The researcher gave a telephone number if there were things that were not understood by participants. The completed questionnaire will be checked whether all statements have been filled in by the participants and then achieved for analysis.

Data Analysis

The researchers used SPSS version 26 for statistical analysis. Descriptive statistic included frequency distribution, percentage, mean and standard deviation. Inferential statistics, including Pearson's r moment correlation coefficient and multiple linier regression analysis were applied in this research.

RESULTS

Table 1, show majority participants were women (82.8%), age with 26 – 35 years (55.2%±1.67; SD 0.886), educational level Bachelor Nurse (65.5), marital (69 %). At table 2, most of participants have high mental workload (86.2%), high moral sensitivity (58.6%) and good performance (53.4). At table 3, show result Pearson's r moment correlation that no correlation mental workload with nurses' performance ($p = 0.350$), but at table 4, show moral sensitivity have correlation significant with nurses' performance ($p = 0.041$). Table 5, show result multiple linier regression analysis that moral sensitivity has correlation with nurses' performance ($p = 0.043$) and mental workload no have correlation with nurses' performance ($p = 0.863$). Result t test, show moral sensitivity has an effect on nurses' performance and while mental workload has no effect on nurses' performance.

Table 1. Participants Characteristics (n=58)

Characteristics	N	%
Age (years)		
26 – 35	32	55.2
36 – 45	16	27.6
46 – 55	7	12.1
56 - 65	3	5.2
Gender		
Male	10	17.2
Female	48	82.8
Educational level		
Diploma-III	20	34.5
Bachelor Ners	38	65.5
Marital status		
Unmarried	14	24.1
Married	40	69
Widow	4	6.9
Length of work (years)		
< 6	29	50
6 – 10	5	8.6
> 10	24	41.4

Table 2. Descriptive statistics of Mental workload, Moral sensitivity and Performance (n=58)

Variable	Category	N	%	Mean	SD
Mental workload	Low	1	1.7		
	Moderate	7	12.1	2.84	0.41
	High	50	86.2		
Moral sensitivity	Low	0	0		
	Moderate	24	41.4	2.59	0.49
	High	34	58.6		
Performance	Low	0	0		
	Moderate	27	46.6	2.53	0.50
	Good	31	53.4		

Table 3. Correlation mental workload with performance (n=58)

Mental Workload	Performance		p value
	Moderate	Good	
	N	N	
Low	1	0	
Moderate	2	5	0.350
High	24	26	

Table 4. Correlation moral sensitivity with performance (n=58)

Moral Sensitivity	Performance		p value
	Moderate	Good	
	N	N	
Moderate	15	9	0.041
High	12	22	

Table 5 Multiple linier regression mental workload and moral sensitivity with performance

Coefficientsª

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1 (Constant)	1.908	.564		3.385	.001	.778	3.038		
Mental Workload	-.028	.159	-.022	-.173	.863	-.347	.292	.999	1.001
Moral Sensitivity	.273	.132	.269	2.072	.043	.009	.536	.999	1.001

a. Dependent Variable: Performance

DISCUSSION

We found high level moral sensitivity and good performance among nurse in this study, but they have to high level of mental workload.

Mental Workload

The results of this study stated that the majority of nurses experienced a high mental workload (86.2%). High mental workload is experienced due to the many nurse activities that must be carried out, including accompanying and supervising patient activities which sometimes patients can rage suddenly because the patient's character is still unstable, the number of patients is too many and not balanced with the number of nurses, the patient handover process, patient transfer, completing nursing service documents (nursing care), conducting assessments up to nursing evaluations, preparing daily performance reports, preparing mental and spiritual assistance for patients this is also a trigger for the high mental workload of nurses. The shift work system is also a trigger for the high mental workload of nurses, this is because the afternoon and night shifts are only guarded by one nurse.

The results of this study are as stated that mental workload is relatively related to physical workload (Moghadam et al., 2021). So that when an intervention is carried out to reduce the mental workload, the physical workload will also decrease and vice versa. High mental workload will cause difficulty concentrating, anxiety, anxiety, anxiety, forgetfulness, irritability, irritability and despair (Fikri, 2020), tend to experience fatigue due to the amount of work that must be completed in a fast and precise time (Yudi et al., 2019).

Moral Sensitivity

In this study, majority nurses have a high moral sensitivity (58.6%). The majority of high moral sensitivity in respondents was found due to the fact that nurses are always in contact with ethical concepts and issues and in the work environment. Nursing is a profession that is most often related to aspects of personal and human life. So, nurses are always expected to have the ability to make the right decisions when facing ethical issues.

Moral sensitivity is defined as awareness and attention to moral values that exist in a situation of contradiction and self-awareness of roles and duties in a given situation. When the value of the nurse's moral sensitivity is low, the decisions made are also not right (Bahrieni et al., 2017). The high moral sensitivity of nurses will be seen from the ability of a nurse's empathy for the patients she cares (Kaya & Özdelikara, 2022). Nurses who have high moral sensitivity will provide safer care, apply the Code of Conduct Better, have higher self-esteem (confidence), can create an atmosphere where patients not only feel their rights are respected but also feel safe and health care goals will be achieved (Jo & Kim, 2017; Mohammadi et al., 2022; Rahnama et al., 2017).

Moral sensitivity is an important element for making decisions in clinical settings that have a positive impact on the quality of nursing services. Nurses need ethical knowledge of their profession to make informed ethical decisions (Bayoumy et al., 2018). This is what is assumed to affect the moral sensitivity of a nurse.

Performance

The result in this study, majority nurses have good performance (53.4%). A good nurse's performance is caused because nurses have a high sense of responsibility for their work and have the ability to control their work and use the skills and talents, they have to complete their work. Performance is influenced by factors external the nurses so that psychologically it is also affected which causes a decrease in morale. Aspects from outside the nurse can be

interpersonal relationships with colleagues at work, internal conflicts, lack of motor aspects of the hospital in order to provide motivation (Febrina et al., 2020).

Competence with performance significantly showed an association. Good competence has the potential to provide good performance compared to those whose competence is lacking and has a partial effect on the performance of nurses in the inpatient room of a mental health hospital. This can be supported by intellectual knowledge in carrying out nursing care, availability of physical facilities, having good human relations. Competence is a reflection of knowledge, skills and attitudes in a profession that characterize professionalism. Motivation and work discipline also have a significant influence on nurses' performance (Budiawan et al., 2015; Manasikana & Djastuti, 2016).

One of the factors that affect nurses' performance is work stress. When nurses feel pressured while working their performance will be affected, the situation can interfere or make it difficult to make decisions or their behavior becomes erratic and uncontrollable. In addition, intrinsic motivation (sense of responsibility) also has an influence on performance. A nurse who has a higher sense of responsibility will be motivated to show better performance. Extrinsic motivation (recognition from the leadership) of the nurses' success in doing a job is very important. Recognition can be given through various means, such as awarding letters of appreciation, awarding prizes (cash), medals, promotion or promotion. Extricic motivation can improve the performance of nurses (Juliyanti et al., 2020)

Relation Mental Workload and Moral Sensitivity to Nurse Performance

The results of multiple linier regression analysis in this study stated that there was no correlation between mental workload and nurses' performance in the acute inpatient room (p=0.863>0.05). This is assumed because there are several things that can reduce the workload of nurses, even though the workload is heavy but does not affect performance and can still carry out performance well, such as working relationships between nurses are well established, work time that is not burdensome for nurses, scheduling nurse guard time can adjust to informal activities and nurses' daily lives, the process of exchanging schedules between nurses can be done and most patients who treated in calm and directable conditions and although nurses have a high workload, nurses still have the maximum ability to continue to carry out their duties and responsibilities (Budiawan et al., 2015; Umrana, 2017). The results of this study also stated that there was an influence between Moral Sensitivity and the Performance (Performance) of nurses in the acute inpatient room (p=0.043<0.05). Value t count is 2.072 greater than value t table is 1.672 (n= 58; α=0.05). So, it can be concluded that moral sensitivity can affect the

nurse performance with a unidirectional direction of influence (positive *t* test value), which means that if moral sensitivity increases then the nurse performance will also increase. The results of the same study are also reported that nurses working in the Emergency Department had a significant relationship between moral awareness, moral sensitivity and performance. Moral awareness and sensitivity are an inseparable part of the decision-making process and are part of nurse performance (Rahmani et al., 2023).

High moral sensitivity is also related to the nurse's professional experience (length of service) and age (Arslan & Calpbinici, 2018). Moral sensitivity is an important element for making decisions in clinical settings that have a positive impact on the quality of nursing services. Nurses need ethical knowledge of their profession to make informed ethical decisions. Moral sensitivity can be defined as the nurse's ability to recognize moral conflicts, understand situational and intuitive patient ranges and understand the impact of decisions made. The moral sensitivity used will show the ability and capacity of a nurse in the process of making ethical decisions about her patients. Having a capacity to resolve and find solutions to resolve moral conflicts is an important component of providing quality nursing services (Amiri et al., 2019; Bayoumy et al., 2018). The nurse's high moral sensitivity will help nurses make more informed decisions in clinical situations and help nurses be more concerned about moral issues with the profession and find solutions to any problems they face while working.

Limitation of Study

This study has several limitations, firstly the number of samples included is less large and should be compared with private hospitals, it is possible that different findings can be found. Second, at the time of data collection no interviews were conducted. We recommend that interview techniques be carried out to support the phenomena found.

CONCLUSION

Nurses who work in acute inpatient rooms mostly have high mental workloads, high moral sensitivity and good performance. The mental workload is not felt by nurses because of good personal relationships between colleagues and an open communication system. Sharing moral and ethical experiences among colleagues can increase moral sensitivity coupled with the nursing profession attaching moral behavior and having a race of great responsibility towards its patients. For this reason, interventions are expected to be carried out to reduce mental workload, such as counseling and increasing nurse competence which can significantly reduce mental and physical workload. So that the nursing services provided will be better.

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