

Effect of Workload on Job Stress of Inpatient Department Nurses in TNI-AU Dr. M. Salamun Hospital: The Role of Locus of Control as Moderator

Firda Ridhayanti¹, Sri Suwarsi², Handri³

^{1,2,3} Study Program of Magisters Hospital Management, Economy and Bussiness Faculty, Universitas Islam Bandung, Indonesia

Abstract

Work stress is a familiar problem for workers, such as nurses. All hospital health workers are at risk of experiencing work stress in hospitals, but nurses have a higher risk of experiencing work stress. The high level of work stress in nurses is related to the main actors in health services that provide care for patients 24 hours a day. Nurses' many functions and duties include long working hours, night shifts, stressful conditions, and a high workload on nurses. This increased workload level is one of the main factors contributing to work stress in nurses. Coping with work stress requires a Locus of Control (LoC). A locus of control is an essential element possessed by every individual to control himself. Each individual has different control in different jobs. The researcher is doing this study to know the effect of workload on work stress with the LoC as the moderating variable. The data of this research takes using a total sampling of 125 nurses on duty in each inpatient room at the TNI-AU Dr. M. Salamun Hospital. This research is cross-sectional research with a quantitative analysis method using a research instrument in a questionnaire. The questionnaire consists of 3 parts related to workload, work stress, and LoC, with 64 questions. The study results showed that workload affected work stress (p -value < 0.001). The LoC variable is a quasi-moderating variable on the workload on work stress (p -value < 0.001).

Keywords: *Workload, Work Stress, Locus of Control, Nurse, Hospital*



This is an open access article under the CC-BY-NC license.

INTRODUCTION

Every employee doing his job is often faced with a career full of pressure and challenges, contributing to work stress. Work stress is a problem that is very familiar to workers and complains about it. Data from the National Institute of Occupational Safety and Health (NIOSH) shows that about 40% of workers consider their work as a job with extreme stress levels. The emergence of stress in the workplace responds to job demands and pressures that exceed their knowledge and ability to cope (WHO, 2020). High work demands beyond workers' ability will cause work stress (Al-Homayan et al., 2013).

Job stress can occur in a variety of work environments with different sources. All professions have various sources of work stress depending on the type of work and each person's personality. WHO and several researchers state that several factors cause work stress, including poor work organization, inappropriate work design, poor management, poor organizational structure, and unsatisfactory working conditions. Besides that, unclear roles, low career development opportunities, and lack of support from colleagues and directors can contribute to work stress (Finney et al., 2013).

The hospital is a work environment full of pressure (Sarafis et al., 2016). All hospital health workers are at risk for experiencing work stress, but nurses have a higher risk of experiencing stress when compared to other health workers (Asamani et al., 2015; Weigl et al., 2017). The high level of work stress experienced by the nursing profession is in line with opinions regarding the vital role of nurses in a hospital, including providing nursing care, providing education for clients, managing nursing services, nursing researchers, and implementing tasks on delegation of authority, and

implementing lessons in certain limited circumstances. These demands and many other job responsibilities are a significant cause of job stress among nurses (Sarafis et al., 2016). Therefore, nurses are the main actors in providing patients 24 hours a day (Almasitoh, 2011). Doctors will have an increasingly difficult task dealing with their patients without nurses. Besides that, the patient's welfare will be neglected without a nurse. That matter can happen because nurses play an essential role in health care for patients, where nurses are the first and most prolonged contact with patients.

Based on data from the American National Association for Occupational Safety, work stress in nurses ranks in the top 40 of worker stress. According to a survey conducted at the General Hospital of Ratchaburi Province, Thailand, 26.2% of nurses at this hospital, including the high-risk group, for experiencing work-related stress (Aoki et al., 2011). Based on a study conducted at Jimma Zone General Hospital, Southwest Ethiopia, the highest level of work-related stress was on the sub-scale dealing with death with an average score of 62.94%, followed by uncertainty about patient care 57.72% and workload 57.6% (Dagget et al., 2016). Meanwhile, in Indonesia, according to the survey results of the Indonesian Mental Health Nurses Association (IPKJI) in collaboration with the Faculty of Nursing, University of Indonesia (UI) at the beginning of the pandemic around April 2020 involving 2,132 nurses, it was found that more than 55% of respondents experienced stress and depression. From this data, there are 12 symptoms of stress experienced: headaches, loss of appetite, poor sleep, ease of feeling afraid, anxious, tense, tired, and others (PPNI, 2020).

The many roles and duties of nurses cause a high workload on nurses (Bani-Hani & Hamdan-Mansour, 2021). The high workload level has a significant relationship to work stress in nurses. This high workload level plays a role as one of the main factors in the occurrence of work stress (Bani-Hani & Hamdan-Mansour, 2021; Elyani, 2016; Kokoroko & Sanda, 2019). The high workload level can be hazardous for the occurrence of work stress, which is characterized by fast breathing, digestive tract disorders, unmotivated, not understanding the task well, and low work performance (Wahyudi, 2017).

The emergence of work stress due to excessive workload is a problem for human resource management at the hospital, as can be seen in the division of patient care tasks that do not run smoothly and organizational arrangements that are not by the plan. As a primary health referral center, hospitals must provide quality services to every patient. The impact of extreme physical and mental workloads causes negligence in carrying out activities to provide excellent service. That matter affects the quality of services provided by medical personnel. Therefore, it takes workers who can control themselves in dealing with high workload situations and overcome the work stress situations they experience.

To overcome the work stress, it takes an LoC, which is seen as an essential element that each individual owns to control himself. Each individual has different control in different jobs (Chen & Silverthorne, 2008). Work stress is closely related to self-control. Each individual can increase his control by making good decisions and balancing work demands and his abilities at work to prevent work stress (Karimi, 2011). Internal LoC is considered to weaken the effect of workload on work stress, and external LoC strengthens the impact of workload on work stress. Thus, to reduce work stress on nurses and improve the quality of nursing care, it is imperative to maintain an internal LoC and an external LoC to be managed (Bani-Hani & Hamdan-Mansour, 2021).

Based on this background, research is needed further on the effect of workload on job stress of inpatient department nurses with the role of LoC as moderator. Therefore, work stress prevention

steps can be taken by maximizing the moderating role of the LoC owned by each individual so that health service goals are achieved as much as possible.

LITERATURE REVIEW

Workload

Workload, based on the previous theory, according to Hart & Staveland, can be defined as a perceived relationship between the number of abilities or resources possessed by employees and the amount needed to carry out the duties of the job (Hart & Staveland, 1998). Another description related to workload, according to Asamani et al. (2015), is the amount of work given and carried out by a worker in a specific period or the average number of jobs that must be completed within a particular period (Asamani et al., 2015). In their literature, Swiger et al. (2016) describe nursing workload as the amount of time and physical and cognitive effort required to complete direct or indirect patient care tasks and other non-patient care activities (Swiger et al., 2016).

The interpretation and quantification of the workload in the provision of health services by the nurse depend on several things, that is, the tasks performed, the total time required to complete the task, and other care delivery needs (Fishbein et al., 2020; Swiger et al., 2016). Koesomowidjojo (2017) suggests several indicators that can be used to determine the amount of workload that must be burdened by employees listed below (Koesomowidjojo, 2017):

- a. Working conditions
It is the way for an employee to understand the job as well as possible and the level of employee ability in doing his job.
- b. Use of working time
Use of working time is the working time adjusted to the applicable regulation. The workload can be minimized if the working time follows the existing regulation.
- c. Targets to be achieved
Targets to be achieved are the target set for each employee. It demands a balance between the time to complete the target and the volume of work so that the workload felt by employees can be minimized.

Job Stress

Misis et al. (2013) define job stress as a psychological tension that leads to difficulties, anxiety, frustration, and worries related to work that arise itself (Misis et al., 2013). According to Alipour and Monfared (2015), job stress is when a person gets a job that is not by his abilities, so it causes stress to the individual (Alipour & Monfared, 2015). Job stress occurs due to not being balanced between the job or workplace demands and the ability of people to meet these demands (Masood, 2013). This definition is almost similar to the opinion of Lambert et al. (2018), which describes job stress as an imbalance between job demands and the individual's ability to cope with these demands, which usually causes psychological tension, which afflicts a person from time to time, resulting in emotional exhaustion from work (Lambert et al., 2018).

Nurse job stress is described as an emotional and physical reaction resulting from the interaction between nurses and their work environment where job demands exceed their abilities and resources (Kokoroko & Sanda, 2019). Nurses are known to have high job demands, job stress, and fatigue levels (Kupcewicz & Jó'zwick, 2019; Wang et al., 2020), low job satisfaction (Khamisa et al., 2016), and may have mental health problems (Chin et al., 2019). Job stress results from the

cumulative effect of stress in nursing work and, as a result, can affect patient recovery (Ying & Aunguroch, 2018) and nurses' intention to leave their jobs (Liu et al., 2018).

Workers who experience work stress will usually show several symptoms that are generally not realized that these symptoms are work stress symptoms. According to Robbins et al. (2017), symptoms of work stress consist of 3 main aspects: physical, psychological, and behavioral. Based on this theory, the indicators of each aspect were examined as follows (Robbins et al., 2017):

- a. Physical symptoms
Physical symptoms that most often appear include changes in metabolic processes in the body, increased heart rate, breathing, blood pressure, headaches, fatigue, aches, muscle aches, and others.
- b. Psychological symptoms
Psychological symptoms often occur job dissatisfaction, depression, anxiety, boredom, decreased concentration, decreased productivity, and others.
- c. Behavioral Symptoms
Symptoms often encountered include irritability, tension, and other (Dessler, 2017).

Locus of Control (LoC)

Rotter first introduced Locus of Control in 1966. LoC, according to Rotter (1966) cited by Galvin et al. (2018), is an individual's tendency to feel achievement in life as a result of their actions and thus be in control of themselves (i.e., internal LoC), or as perceived achievement due to external factors, such as opportunity or an influential another person (i.e., external LoC). Then in 1975, Rotter divided the LoC into 2, namely internal LoC and external LoC (Galvin et al., 2018; Kalil et al., 2019; Reknes et al., 2019).

- a. Internal LoC
Internal LoC, according to Rotter (1966) and Keenan & McBain (1979), cited by Reknes et al. (2019), is a personality trait that refers to the tendency to feel achievement or results in life as a result of one's actions and being in one's control. Individuals with an internal LoC can control the outcome of their actions. Individuals with this personality type always feel responsible for the successes and failures in their lives. They believe in hard work and believe that all consequences and results are due to their actions and abilities. They blame themselves for the good and bad things that happen in their lives (Reknes et al., 2019).
- b. External LoC
According to Rotter (1966) and Keenan & McBain (1979), the external LoC is a personality type in contrast to the internal LoC. Individuals with an external LoC tend to feel achievement in life determined by external factors, such as opportunities or other strong people's support. Individuals with this personality type cannot control the outcome of their efforts. They often feel helpless because they feel that their results and achievements in life are beyond their control. They believe that everything that happens to them is not because of themselves but because of external forces such as society, co-workers, luck, and bad luck (Reknes et al., 2019).

RESEARCH METHOD

This research is a type of cross-sectional research with quantitative analysis methods to verify the truth of the research results. This research was conducted at the TNI-AU Dr. M. Salamun Hospital in Bandung City. The population used is nurses who work in inpatient rooms spread over seven

units of room and 1 ICU room. Total sampling was used in selection, so 125 nurses worked in the TNI-AU Dr.M. Salamun Hospital inpatient department, which will be the sample in this study. The research subjects taken in this study were nurses included in the sample calculation who had worked as nurses in the inpatient room of the TNI-AU Dr. M. Salamun Hospital for at least six months and were willing to participate in the study as the inclusion criteria. The exclusion criteria in this study were nurses who were not present in the hospital inpatient room when the study was in progress.

The researcher used a research instrument in a questionnaire consisting of 3 parts. The nurse's workload questionnaire was compiled from the theory proposed by Koesomowidjojo (Koesomowidjojo, 2017), which consists of 3 dimensions related to working conditions, use of working time, and targets to be achieved with a total of 13 questions. The nurse job stress questionnaire was compiled from the theory of job stress symptoms according to Robbins et al. (Robbins et al., 2017), consisting of 3 dimensions, including physical, psychological, and behavioral symptoms, with 35 questions. Then the LoC questionnaire used in this study was adopted from the Work Locus of Control Scale questionnaire (Kalil et al., 2019; Spector, 1988), consisting of internal and external LoC dimensions with 16 questions, 8 of which are reverse questions. There are a total of 64 questions. Each question uses an assessment with a Likert scale of 1-4. The Likert scale will be selected according to the circumstances experienced by the respondent when working as a nurse at the TNI-AU Dr. M. Salamun Hospital.

Based on the previous explanation, the following are the hypotheses and conceptual models depicted in **Figure.1**

1. There is a significant positive effect between Workload (X) on Work Stress (Y) on nurses in the inpatient room of the TNI-AU Dr. M. Salamun Hospital.
2. There is an effect of Workload (X) on Work Stress (Y) with Locus of Control (Z) as a moderating variable for nurses in the inpatient room of the TNI-AU Hospital Dr. M. Salamun Hospital.

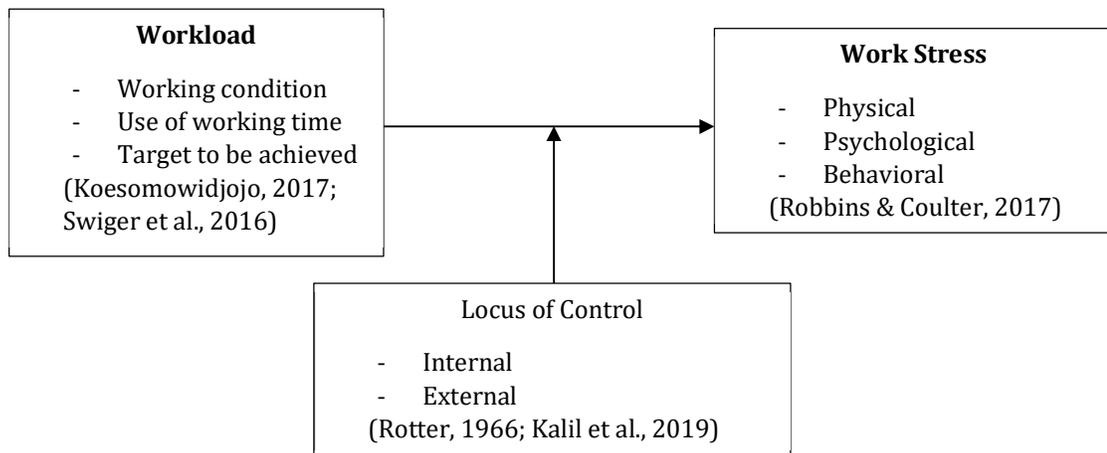


Figure 1. Research Model

FINDINGS AND DISCUSSION

Research related to the effect of workload on work stress with the LoC as a moderating variable has been conducted on 125 nurses in the inpatient department of the TNI-AU Dr. M. Salamun Hospital.

Table 1. Respondent Demographics Data

Characteristics	Frequency (n)	Percentage (%)
Gender		
Woman	92	73,60%
Man	33	26,40%
Age (years old)		
20 – 25	44	35,20%
26 – 30	35	28,00%
31 – 35	23	18,40%
36 – 40	15	12,00%
41 – 45	6	4,80%
46 – 50	2	1,60%
Marital Status		
Married	71	56,80%
Not married yet	54	43,20%
Academic education		
Diploma in Nursing	75	60,00%
Bachelor in Nursing	50	40,00%
Employment Status		
Internship	10	8,00%
Contract	80	64,00%
Permanent employee	35	28,00%
Length of work		
6 months – 1 year	33	26,40%
1 – 3 years	16	12,80%
>3 years	76	60,80%
Working Hours/Week		
<40	6	4,80%
40 – 50	101	80,80%
>50	18	14,40%
Working Unit (Room)		
Cendrawasih	13	10,40%
Firdaus	21	16,80%
Gelatik	16	12,80%
ICU	23	18,40%
Kutilang dan Perinatologi	18	14,40%
Nuri	17	13,60%
Rajawali	17	13,60%

Demographic data were obtained from all respondents who filled out the questionnaire, listed in **Table 1**. The majority of nurses in the inpatient department of the TNI-AU Dr. M. Salamun Hospital

are female, with as many as 92 respondents (73.60%). The age of the respondents varied considerably from 21 years to 50 years, and the majority of respondents aged 21-25 years were 44 people (35.20%). Most of the respondents were married from their marital status, amounting to 71 people (56.80%). From a total of 125 respondents, 75 respondents (60%) had a Diploma in Nursing education, and another 50 respondents (40%) had a Bachelor in Nursing with the majority being contract employees as many as 80 respondents (64.00%) and there were only 35 respondents (28.00%) who are permanent employees. The length of time the respondent worked as an inpatient nurse at the NI-AU Dr. M. Salamun Bandung the majority are > 3 years old owned by 76 respondents (60.80%) and for working hours/week are in the range of 40-50 hours/week as many as 101 respondents (80.80%). There are 8 inpatient rooms which are the respondent's work units. Respondents mostly worked in ICU, as many as 23 respondents (18.40%), and the others were almost evenly distributed in other rooms.

Table 2. Tabulation of Respondents' Responses regarding Workload Variables

Dimensions	Percentage	Classification
Working Condition	67,92%	Severe
Use of working time	78,45%	Severe
Target to be achieved	75,95%	Severe
Average	73,63%	Severe

Table 2 shows an overview of the respondents' workload levels regarding the dimensions of working conditions, use of working time, and targets to be achieved. The level of workload on nurses in the inpatient department of the TNI-AU Dr. M. Salamun Hospital is generally included in the severe category. The dimensions of working conditions, use of working time, and targets to be achieved are included in the severe workload category.

Table 3. Tabulation of Respondents' Responses regarding Work Stress Variables

Dimensions	Percentage	Classification
Physical	45,2%	Moderate
Psychological	37,45%	Mild
Behavioral	33,08%	Mild
Average	39,70%	Mild

Table 3 above shows the respondent's level of work stress in terms of the dimensions of work stress symptoms, including physical, psychological, and behavioral symptoms. The level of work stress on nurses in the inpatient department of the TNI-AU Dr. M. Salamun Bandung is generally included in the mild category. Dimensions of physical symptoms are included in the type of

moderate work stress. Meanwhile, the psychological and behavioral symptoms dimensions are included in mild work stress.

Table 4. Tabulation of Respondents' Responses regarding Work Stress Locus of Control Variables

Dimensions	Percentage	Classification
Internal Locus of Control	77,68%	Tend to be Internal
External Locus of Control	69,38%	Tend to be Internal
Average	73,52%	Tend to be Internal

Table 4 above describes the LoC owned by the respondents reviewed through the internal and external LoC dimensions. Locus of Control on nurses in the inpatient department of the TNI-AU Dr. M Salamun Hospital generally belongs to the category of LoC, which tends to be internal. Internal and external LoC dimensions are included in the LoC category, which tends to be internal.

Table 5. Moderated Regression Analysis (MRA) Test Results

Steps	Variable	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. error	Beta		
1	Constant	2,956	0,991		2,600	0,036
	Workload (X)	1,004	0,152	0,512	6,604	< 0,001
	Adjusted R Square	0,256				
	F	43,611				
	Sig. F	< 0,001				
2	Constant	9,777	1,224		7,988	< 0,001
	Workload (X)	0,659	0,126	0,336	5,219	< 0,001
	Locus of Control (Z)	-0,866	0,099	-0,560	-8,711	< 0,001
	Adjusted R Square	0,537				
	F	73,021				
3	Constant	-22,772	7,131		-3,193	0,002
	Workload (X)	5,5697	1,096	2,904	5,198	< 0,001
	Locus of Control (Z)	3,467	0,942	2,244	3,681	< 0,001
	Interaction (X*Z)	-0,672	0,145	-3,163	-4,623	< 0,001
	Adjusted R Square	0,604				
F	63,933					
Sig.F	< 0,001					

Table 5 shows the MRA test, which functions to test the role of Locus of Control in moderating the effect of Workload (X) on Work Stress (Y) by regressing three equations. In step 1, a regression test was conducted for the workload (X) effect on the work stress (Y). In step 1 from the table above, it can be seen that the workload (X) affects work stress (Y) which is based on the results of the

significant value in step 1, which is < 0.001 (Sig. 0.05). A positive beta coefficient value indicates a positive effect of workload on work stress. The magnitude of the influence of the workload variable (X) on work stress (Y) is indicated by the adjusted R square value of 0.256. From these results, it can be concluded that the workload variable affects work stress by 25.6%. In this study, the work stress variable was only explained by the workload variable of 25.6%, while other variables explained the rest.

Step 2, listed in **Table 5** above, shows the regression test for the effect of workload variable (X) and Locus of Control variable (Z) on work stress variable (Y). From the table above, it can be seen that Locus of Control (Z) has an effect on Work Stress (Y) which is based on the results of the significant value in step 2, which is < 0.001 (Sig. 0.05). The beta coefficient value of the Locus of Control (Z) variable shows a value of -0.866, which indicates that the LoC has a negative effect on work stress. When the respondent has a high LoC score (higher the LoC score will lead to an internal LoC), then the impact of the high workload can be buffered so that the work stress level will be lower. This step also shows the adjusted R square value of 0.537, which has changed compared to the adjusted R square value in step 1, 0.256. The adjusted R square value in step 2 of 0.537 indicates that 53.7% of the variation in the effect of workload on work stress is related to the moderating influence of the LoC variable. Differentiation between the adjusted R square value in steps 1 and 2 indicates that 28.1% of the variation in the effect of workload on work stress is influenced by the addition of the LoC variable.

Step 3, which is listed in **Table 5** above, shows the regression test for the effect of the workload variable (X), the LoC variable (Z), and the interaction variable (X*Z) on the work stress variable (Y). From the table above, it can be seen that the interaction variable (X*Z) affects work stress (Y) which is based on the results of the significant value in step 3, which is < 0.001 (Sig. 0.05). The beta coefficient value of the interaction variables presented in the table of step 3 above shows a value of -0.672, which indicates that the interaction variable (X*Y) has a negative effect on the work stress variable.

With the result, it can be concluded that the LoC variable is a quasi-moderating variable between the effect of workload on work stress, it can be concluded that the LoC variable is a quasi-moderating variable between the effect of workload on work stress. Quasi-moderation is the role of the moderating variable when the variable moderates the relationship between the independent variable and the dependent variable, where the moderating variable interacts with the independent variable (X*Z) and is the independent variable.

Based on the above analysis results, especially in steps 2 and 3, which is the determinant of the role of the moderating variable, it can be seen that the beta coefficient value of the LoC variable and the interaction variable shows a negative value. That can indicate that the LoC variable that acts as a quasi-moderator will negatively influence the effect of workload on work stress. LoC tends to be internally owned by nurses in the inpatient department will weaken the impact of workload on work stress. This study found that work stress on nurses was mild even though the nurses had a severe workload. That happens because the LoC variable's role weakens the influence of workload on work stress. The adjusted R square value in step 3 is 0.604, indicating that 60.4% of the variation in the effect of workload on work stress is related to the moderating effect of the LoC variable. These results suggest that the work stress variable in this study can be explained by the workload, LoC, and interaction variable by 60.4%. In comparison, other variables outside the research model explain the remaining 39.6%.

The results of this study in **Table 5** show a positive influence of workload on work stress from nurses in the inpatient department of the TNI-AU Dr. M. Salamun Hospital. Established on the results presented by Kokoroko & Sanda (2019), adverse working conditions with high workload levels can impact the high work stress experienced by nurses (Kokoroko & Sanda, 2019). A similar theory reinforces the results of this study by the findings of Almendra, who reported that increased psychological and physical demands of nurses led to an increase in work stress levels (Almendra, 2010). The high demands of work from physical and mental aspects, which are not proportional to the employee's ability, will contribute to a severe workload and affect work stress. The effect of workload on work stress can be seen in workers' physical, psychological, and behavioral aspects (Akkoç et al., 2021; Robbins et al., 2017). The high workload will increase the work stress in nurses, affecting the quality of life and health of nurses. Thus, the high level of workload will affect the high work stress on nurses, which can pose a risk of health problems to nurses and reduce the quality of care provided to patients.

The results of this study presented in **Table 5** show the influence of the LoC variable as a moderating variable which weakens the effect of workload variables on work stress on nurses in the inpatient department of the TNI-AU Dr. M. Salamun Hospital. LoC acts as a quasi-moderating variable, which is a variable that moderates the influence between the independent variable and the dependent variable and at the same time becomes the independent variable itself. This shows that nurses with an exemplary LoC, an internal LoC, will weaken the influence of workload on work stress. The presence of an internal LoC on nurses with a high workload can minimize work stress. This is by research conducted by Haybatollah & Geyke (2012), which states that nurses with an internal LoC can make a more excellent balance between personal and work resources effectively to deal with or reduce the effects of excessive workload (Haybatollah & Gyekye, 2012). Even though there is an excessive workload, interacting with the LoC will minimize the effects of the workload. Other studies have also stated that individuals with an internal LoC show a healthier mental state and have greater control over stress at work than those with an external LoC (Bollini et al., 2004; Kalil et al., 2019). Thus, individuals with an internal LoC have successfully adapted to stressful work controls, reduced high workload conditions, and coped with stressful situations, so their perception of stress is lower when compared to individuals who have an external LoC.

CONCLUSION

From this study, it can be concluded that there is an influence between workload on work stress, with the locus of control as a quasi-moderating variable. The locus of control tends to be internal, which is owned by the majority of respondents so that the high workload can be buffered, and in the end, work stress can be minimized.

LIMITATION & FURTHER RESEARCH

The results obtained in this study can be used as a reference for further research. Further research can be done by using other variables that affect work stress that this study has not studied. Different instruments can be used for more in-depth analysis to be compared with the results of this study. This research can also be carried out with a broader scope to obtain better results.

ACKNOWLEDGEMENTS

Thanks to the director, head of the inpatient department, and all inpatient nurses of the TNI-AU Dr. M. Salamun Hospital, who have contributed to assisting the implementation of this research to perform smoothly.

REFERENCES

- Akkoç, İ., Okun, O., & Türe, A. (2021). The effect of role-related stressors on nurses' burnout syndrome: The mediating role of work-related stress. *Perspectives in Psychiatric Care*, 57(2), 583–596. <https://doi.org/10.1111/ppc.12581>
- Al-Homayan, A. M., Shamsudin, F. M., Subramaniam, C., & Islam, R. (2013). Impacts of job demands on nurses' performance working in public hospitals. *American Journal of Applied Sciences*, 10(9), 1050–1060. <https://doi.org/10.3844/ajassp.2013.1050.1060>
- Alipour, F., & Monfared, M. (2015). Examining the relationship between job stress and organizational commitment among nurses of Hospitals. *Journal of Patient Safety & Quality Improvement*, 3(4), 277–280.
- Almasitoh, U. H. (2011). Stres Kerja Ditinjau dari Dukungan Sosial pada Perawat. *Jurnal Psikologi Islam (JPI)*, 8(168), 63–82. <http://ejournal.uin-malang.ac.id/index.php/psiko/article/view/1546/2723>
- Almendra, C. (2010). *Relationships among job demand, job control, social support, and job stress in registered nurses working in skilled nursing facilities*. Rutgers University-Graduate School-Newark.
- Aoki, M., Keiwkarnka B, & Chompikul, J. (2011). Job stress among nurses in public hospitals in Ratchaburi province, Thailand. *Journal of Public Health and Development*, 9(1), 19–27. <http://repository.li.mahidol.ac.th/dspace/bitstream/123456789/1643/1/ad-ar-boonyong-2011-1.pdf>
- Asamani, J. A., Amertil, N. P., & Chebere, M. (2015). The influence of workload levels on performance in a rural hospital. *British Journal of Health Care Management*, 21(12), 577–586. <https://doi.org/10.12968/bjhc.2015.21.12.577>
- Bani-Hani, M. A., & Hamdan-Mansour, A. M. (2021). The moderation effect of locus of control on the relationship between job demand and job satisfaction among nurses. *International Journal of Nursing Practice*, 27(1), 1–10. <https://doi.org/10.1111/ijn.12876>
- Bollini, A. M., Walker, E. F., Hamann, S., & Kestler, L. (2004). The influence of perceived control and locus of control on the cortisol and subjective responses to stress. *Biological Psychology*, 67(3), 245–260. <https://doi.org/10.1016/j.biopsycho.2003.11.002>
- Chen, J. C., & Silverthorne, C. (2008). The impact of locus of control on job stress, job performance and job satisfaction in Taiwan. *Leadership & Organization Development Journal*, 29(7), 572–582. <https://doi.org/10.1108/01437730810906326>
- Chin, W. S., Chen, Y. C., Ho, J. J., Cheng, N. Y., Wu, H. C., & Shiao, J. S. C. (2019). Psychological work environment and suicidal ideation among nurses in Taiwan. *J. Nurs. Scholarsh*, 51, 106–113.
- Dagget, T., Molla, A., & Belachew, T. (2016). Job related stress among nurses working in Jimma Zone public hospitals, South West Ethiopia: A cross sectional study. *BMC Nursing*, 15(1), 1–10. <https://doi.org/10.1186/s12912-016-0158-2>
- Dessler, G. (2017). Human Resources Management. In *Pearson* (15th ed.). Pearson.
- Elyani, N. (2016). Analisis Tingkat Beban Kerja Terhadap Stres Kerja Perawat Di Instalasi

- Diagnostik Intervensi Kardiovaskular Rsud Dr. Soetomo. *Jurnal Manajemen Kesehatan Yayasan RS.Dr. Soetomo*, 2(2), 133. <https://doi.org/10.29241/jmk.v2i2.59>
- Finney, C., Stergiopoulos, E., Hensel, J., Bonato, S., & Dewa, C. (2013). Organizational stressors associated with job stress and burnout in correctional officers: a systematic review. *BMC Public Health*, 13, 82. <http://ovidsp.ovid.com/ovidweb.cgi?T=JS&PAGE=reference&D=emed11&NEWS=N&AN=23356379>
- Fishbein, D., Nambiar, S., McKenzie, K., Mayorga, M., Miller, K., Tran, K., Schubel, L., Agor, J., Kim, T., & Capan, M. (2020). Objective measures of workload in healthcare: a narrative review. *International Journal of Health Care Quality Assurance*, 33(1), 1–17. <https://doi.org/10.1108/IJHCQA-12-2018-0288>
- Galvin, B. M., Randel, A. E., Collins, B. J., & Johnson, R. E. (2018). Changing the focus of locus (of control): A targeted review of the locus of control literature and agenda for future research. *Journal of Organizational Behavior*, 39(7), 820–833. <https://doi.org/10.1002/job.2275>
- Hart, S., & Staveland, L. (1998). Development of NASA-TLX (Task Load Index): Results of empirical and theoretical research. In P. Hancock & N. Meshkati (Eds.), *Human Mental Workload* (pp. 139–183). Elsevier Science Publishers B.V.
- Haybatollah, M., & Gyekye, S. A. (2012). The moderating effects of locus of control and job level on the relationship between workload and coping behaviour among Finnish nurses. *Journal of Nursing Management*, 22(6), 811–821. <https://doi.org/10.1111/j.1365-2834.2012.01474.x>
- Kalil, S. I. M., Abd-Elrhaman, E. S. A., & Sliman, W. M. M. (2019). Relationship among Nurses' Locus of Control, Work Motivation Factors, and Their Organizational Commitment. *American Journal of Nursing*, 7(2), 167–178. <https://doi.org/10.12691/ajnr-7-2-8>
- Karimi, R. (2011). *Reduce Job stress in Organizations : Role of Locus of Control*. 2(18), 232–236.
- Khamisa, N., Peltzer, K., Ilic, D., & Oldenburg, B. (2016). Work-related stress, burnout, job satisfaction and general health of nurses: A follow-up study. *Int. J. Nurs. Pract*, 22, 538–545.
- Koesomowidjojo, S. R. M. (2017). *Panduan Praktis Menyusun Analisis Beban Kerja* (Ardiansyah (ed.); 1st ed.). Raih Asa Sukses.
- Kokoroko, E., & Sanda, M. A. (2019). Effect of Workload on Job Stress of Ghanaian OPD Nurses: The Role of Coworker Support. *Safety and Health at Work*, 10(3), 341–346. <https://doi.org/10.1016/j.shaw.2019.04.002>
- Kupcewicz, E., & Jóźwik, M. (2019). Positive orientation and strategies for coping with stress as predictors of professional burnout among Polish nurses. *Int. J. Environ. Res. Public Health*, 16(4264).
- Lambert, E. G., Qureshi, H., Frank, J., Klahm, C., & Smith, B. (2018). Job Stress, Job Involvement, Job Satisfaction, and Organizational Commitment and Their Associations with Job Burnout Among Indian Police Officers: a Research Note. *Journal of Police and Criminal Psychology*, 33(2), 85–99. <https://doi.org/10.1007/s11896-017-9236-y>
- Liu, W., Zhao, S., Shi, L., Zhang, Z., Liu, X., Li, L., Duan, X., Li, G., Lou, F., Jia, X., & Al., E. (2018). Workplace violence, job satisfaction, burnout, perceived organizational support and their

- effects on turnover intention among Chinese nurses in tertiary hospitals: A cross-sectional study. *BMJ Open*, 8(e019525).
- Masood, A. (2013). Effects of job stress on employee retention: A study on banking sector of Pakistan. *International Journal of Scientific and Research Publications*, 3(9), 1–8.
- Misis, M., Kim, B., Cheeseman, K., Hogan, N. L., & Lambert, E. G. (2013). The impact of correctional officer perceptions of inmates on job stress. *SAGE Open*, 3(2), 1–13. <https://doi.org/10.1177/2158244013489695>
- PPNI. (2020). *Upaya PPNI Ajak Perawat Menjadi Tangguh Dalam Penanganan Pandemi Covid-19*. PPNI. <https://ppni-inna.org/>
- Reknes, I., Visockaite, G., Liefoghe, A., Lovakov, A., & Einarsen, S. V. (2019). Locus of control moderates the relationship between exposure to bullying behaviors and psychological strain. *Frontiers in Psychology*, 10(JUN), 1–12. <https://doi.org/10.3389/fpsyg.2019.01323>
- Robbins, S. P., Coulter, M., & DeCenzo, D. A. (2017). *Fundamentals of Management: Management Myths Debunked!* In *Pearson* (10th ed.). Pearson.
- Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychol. Monogr*, 80, 1–28. <https://doi.org/10.1037/h0092976>
- Sarafis, P., Rousaki, E., Tsounis, A., Malliarou, M., Lahana, L., Bamidis, P., & Al., E. (2016). The impact of occupational stress on nurses' caring behaviors and their health-related quality of life. *BMC Nurs*, 15(1).
- Spector, P. E. (1988). Development of the Work Locus of Control. *Journal of Occupational Psychology*, 61(4), 335–340. <https://psycnet.apa.org/record/1989-17638-001>
- Swiger, P. A., Vance, D. E., & Patrician, P. A. (2016). Nursing workload in the acute-care setting: A concept analysis of nursing workload. *Nursing Outlook*, 64(3), 244–254. <https://doi.org/10.1016/j.outlook.2016.01.003>
- Wahyudi, D. (2017). *Manajemen konflik & stres dalam organisasi* (3rd ed.). Alfabeta.
- Wang, J., Okoli, C. T. C., He, H., Feng, F., Li, J., Zhuang, L., & Lin, M. (2020). Factors associated with compassion satisfaction, burnout, and secondary traumatic stress among Chinese nurses in tertiary hospitals: A cross-sectional study. *Int. J. Nurs. Stud*, 102. (103472).
- Weigl, M., Beck, J., Wehler, M., & Schneider, A. (2017). Workflow interruptions and stress at work: A mixed-methods study among physicians and nurses of a multidisciplinary emergency department. *BMJ Open*, 7(12), 1–8. <https://doi.org/10.1136/bmjopen-2017-019074>
- Ying, L., & Aunguroch, Y. (2018). Factors influencing nurse-assessed quality nursing care: A cross-sectional study in hospitals. *J. Adv. Nurs*, 74, 935–945.