

Workload on Nurses Psychological Well-Being

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Keywords

Workload, Psychological well-being, nurse

Abstract

Based on the results of a pre-research, several nurses in Banyumas Regency experienced a workload that surpassed their abilities, which made the nurses experience mental and physical fatigue. Most impacts nurses feel are emotional instability when working, fatigue easily, back pain, and headaches when working, most of which are caused by a large number of shifts and are not balanced with the existing nursing staff. This study aimed to investigate the effect of workload on the psychological well-being of nurses in the Banyumas regency. Respondents were selected using a quota sampling technique, and data were analyzed through simple regression analysis. The results showed a positive significant effect between workload and psychological well-being, with workload contributing 8% to the variance in psychological well-being, while 92% was influenced by other factors not examined in this study.

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INTRODUCTION

Human resources for health workers in Indonesia are included in a crisis where health workers in Indonesia have not met the target per 100 over 100,000 population, and it is estimated that by 2025, Indonesia will experience a shortage of health workers of 40-50% (Lette, 2020). This results in an uneven distribution of nurses in several regions of Indonesia, especially in Banyumas Regency. Based on the results of a preliminary study (online interview) that was carried out in May-June last year to three health workers, namely AYD (37), GL (31), T (47). The three stated that their work environment faced a shortage of nurses with an excessive workload. This included a mismatch between the number of patients requiring care and the available personnel during certain shift hours. This makes nurses feel physically exhausted and emotionally unstable, more sensitive at work, and even feel that they are worthless.

The impact felt refers to the disturbed psychological well-being condition. Ryff (1989), in the theory he developed, stated that psychological well-being is a condition in which an individual perceives numerous life experiences and their success in overcoming potential difficulties and challenges. Furthermore, Ryff (2013) argued that psychological well-being comprises several dimensions: 1) Autonomy, which refers to an individual's ability to determine their own life, characterized by independence, self-determination, self-control, and behavior aligned with personal value standards; 2) Environmental Mastery, the ability to choose and create an environment that aligns with one's psychological condition; 3) Personal Growth, which involves the continuous development of potential and self-actualization as a core aspect of personal development; 4) Positive Relations with Others, characterized by warm interpersonal relationships, trust, empathy, affection, and the ability to form deep friendships and experience greater love and identification with others; 5) Purpose in Life, which is having a sense of meaning, intention, and direction, making life feel significant; and 6) Self-Acceptance, emphasizing a positive attitude towards oneself, including acceptance of past experiences as a hallmark of mental health, maturity, and optimal psychological functioning.

The psychological well-being of nurses is influenced by various factors, one of which is workload (Ilies et al., 2020). Workload includes working hours (shifts), the number of nurses, services provided to patients, and academic tasks of the institution, which directly impact nurses mental and physical well-being. This effect underscores the importance of managing workload effectively in the health sector, as it can significantly affect nurses psychological well-being (Putekova et al., 2023). According to Riski et al. (2021), nurses face an excessive workload that impacts their physical and cognitive abilities, preventing them from performing at their best. This issue arises from an imbalance between the number of patients and the available nursing staff. Workload, as defined by Mahawati et al. (2021), refers to the volume of work assigned to the workforce, both physical and mental, and its responsibility.

Additionally, Suryadi et al. (2018) emphasize that workload is a critical aspect to consider within any organization, as it significantly improves employee performance. Several factors contribute to workload, including 1) Physical needs, which refer to the amount of physical activity required by a task; 2) Mental needs, referring to the cognitive and perceptual demands of the task; 3) Time requirements, which involve the time pressure associated with a task; 4) Performance, which reflects the success rate of the work; and 5) Effort, which denotes the physical and mental effort required to achieve the desired performance (Suryadi et al., 2018).

Muhadi and Izzati (2020), Babamohamadi et al. (2023), Sulistiawanti and Fitriyana (2022), Mardijanto et al. (2022), and Hakman et al. (2021) reached the same conclusion a high workload is a significant stressor for nurses. An increased workload can lead to heightened stress levels and decreased productivity, ultimately affecting nurses' quality of life. Sulistiawanti and Fitriyana (2022) stated that high workloads caused nurses fatigue and other negative impacts of psychological conditions due to the large number of patients. Research showed that Mardijanto et al. (2022) excessive workload can decrease nurses performance during work and trigger problems with individual health. In addition,

research by Hakman et al. (2021) revealed that the light workload nurses have would also affect nurses' good performance and will not cause stress.

Several previous studies have discussed nurse workload levels and the direct impact on the workload experienced. The impacts that have been mentioned do not directly lead to the psychological well-being condition of each nurse, so it raises several questions asked in this study whether there is an effect of workload on the psychological well-being of nurses, what is the picture of the effect between the two, and how much effect occurs between the two. These questions are also used to find out the purpose of this study, which is to find out the effect of workload and psychological well-being and to get an overview and understanding of the effect of workload and psychological well-being on nurses in Banyumas Regency.

METHOD

This study uses a quantitative research method, which is an approach that collects and analyzes numerical data to understand the phenomenon being studied. Quantitative research typically employs instruments such as questionnaires or surveys to gather data that can be analyzed statistically. The design aims to examine the effect between two or more variables (Creswell, 2019).

Hadi (2019) quota sampling is a sampling technique for a population based on predetermined categories or characteristics, including the desired number or quota of samples (Hadi, 2019). The sample characteristics in this study were nurses or midwives in Banyumas Regency who had an employee rank, had at least one year of work experience, and worked at hospitals in Banyumas Regency. Participants were selected based on this sampling method, and 201 nurses were selected as respondents.

In this study, two instruments were used to measure the variables. The first instrument that measures workload is the NASA Task Load Index (NASA-TLX) scale developed by Sandra G. from NASA-Ames Research Center and Lowell E. Staveland from San Jose State University in 1981. This scale was later cited by Simanjuntak in 2010 and adapted into an Indonesian version by Suryadi et al. (2018), consisting of 6 items. For the second variable, psychological well-being (PWB), the scale used is Ryff's Psychological Well-Being Scale, which was initially developed by Ryff and later redeveloped by Manchiraju (2020). This version of the scale contains 42 items.

The validity of the Psychological Well-Being (PWB) instrument was assessed through several stages, including internal consistency analysis, exploratory factor analysis (EFA), and confirmatory factor analysis (CFA). Manchiraju (2020) found that the six factors tested in the EFA contributed to item loadings, with Factor 1 contributing the highest at 30.1%, followed by Factors 2-6 contributing 5.90%, 5.20%, 4.68%, 3.45%, and 2.48%, respectively. The results revealed cross-loadings for some items, but two subscales, Positive Relations with Others and Purpose in Life, showed unidimensionality. For the NASA-TLX, content validity was evaluated by experienced psychometricians through expert judgment. Reliability analysis by Suryadi et al. (2018) produced a Cronbach's alpha of 0.821, indicating strong internal consistency for the 42 items grouped into six subscales. The reliability analysis also revealed strong effects between subscales, with the highest effects between Environmental Mastery and Self-Acceptance (Manchiraju, 2020).

The research was conducted in Banyumas Regency, Central Java Province, by distributing online questionnaires via Google Forms to nurses working in selected sub-districts using a quota sampling technique through WhatsApp groups. A total of 201 respondents participated in the study. The collected questionnaire data was tabulated in Excel and then processed using SPSS software version 24. Simple regression analysis was employed to examine the effect between the independent variable (workload) and the dependent variable (psychological well-being) in nurses. This analysis assessed the contribution of workload to the changes in psychological well-being, ensuring the validity of the research results.

RESULT AND DISCUSSION

201 nurses from selected sub-districts in Banyumas Regency have participated in this study. Then, the 201 nurse respondents were divided by demographic type such as 96 nurses aged 36-45 years, 65 nurses between 25-35 years old, 36 nurses aged 46-55 years, and 4 nurses 56-65 years old; 117 nurses are female, and 84 nurses are male; 185 nurses have married/household/family head status and 16 nurses have single status; 83 nurses have worked for 11-20 years, 42 nurses have worked for 5-10 years, 38 nurses have worked for <5 years, 32 nurses have worked for 20-30 years, 6 nurses have worked for >30 years.

Table 1. Workload Categorization

Conditions	Interval	Category	F	Presented
$X < (\mu - 1 \sigma)$	$X < 14$	Low	18	9
$(\mu - 1 \sigma) \leq X < (\mu + 1 \sigma)$	$14 \leq X < 22$	Moderate	179	89.1
$(\mu + 1 \sigma) \leq X$	$22 \leq X$	High	4	2
Total			201	100

Table 2. Categorization Psychological Well-Being

Conditions	Interval	Category	F	Presented
$X < (\mu - 1 \sigma)$	$X < 98$	Low	85	42.3
$(\mu - 1 \sigma) \leq X < (\mu + 1 \sigma)$	$98 \leq X < 154$	Moderate	116	57.7
$(\mu + 1 \sigma) \leq X$	$154 \leq X$	High	-	-
Total			201	100

According to Tutupary et al. (2021), the workload of nurses in Banyumas Regency predominantly falls into the moderate category, with 179 nurses (89.1%), while 18 nurses (9%) experience a low workload, and only 4 nurses (2%) are in the high workload category. Similarly, the psychological well-being of nurses is largely in the moderate category, with 116 nurses (57.7%), while 85 nurses (42.3%) are in the low category. These findings suggest that nurses in Banyumas Regency generally face a workload level sufficient to exceed the workload of nurses in general and maintain a moderate level of psychological well-being, indicating a fairly good state of well-being.

Table 3. Result of Analysing Effect Between Variables

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1	(Constant)	67.911	7.865	8.634	.000
	WL	1.930	.465	.282	4.153

Then, the results of the analysis test produced a calculated t-score of 4.153 with a significance score (p) of 0.000 (table 1), which means that $p < 0.005$ and the calculated t-score has a positive value so that the regression equation is obtained as follows :

$$Y = a + bX$$

$$Y = 67,911 + 1,930 X$$

This means that workload can affect psychological well-being in a positive direction where every addition of one unit number to the X variable (workload) will increase by 1,930. Then, the number of the effect that occurs between workload on psychological well-being in nurses in Banyumas Regency can be seen in Table 4, which shows that the RSquare number is 0.08, which means that the effect of workload on psychological well-being is 0.08 or 8% while the remaining 92% is effect by other variables that are not under the control of this study.

Table 4. The results of the Determination Coefficient Analysis

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.282 ^a	.080	.075	16.265

a. Predictors: (Constant), WL

The analysis results indicate a positive effect between workload and psychological well-being in nurses in the Banyumas Regency, with an 8% contribution. This means that as the workload increases, the psychological well-being of nurses also improves. Tutupary et al. (2021) and Venintia et al. (2024) psychological well-being of individuals who are in the moderate category is considered quite capable of accepting themselves, being able to form warm effects with others, being independent of social pressure, controlling external environment, having a meaning in life, being able to realize the potential that exists in themselves, being able to realize the potential that exists in themselves, being adaptable and making it easier for nurses to do their work so that nurses feel unburdened, and making them feel that there is potential in themselves as a whole and have positive emotions in their work so that they find meaning from their work. Research by Venetia et al. (2024) states that workloads that are more complex and difficult make workers feel more satisfied in doing their jobs than monotonous and too-easy workloads, which make them more bored in doing their jobs.

A high workload felt by a person does not hinder his well-being because when a high workload happens, workers can still think positively and consider the work done to benefit them in the present and future (Muzhakki & Arum, 2022; Al-Hakim et al., 2022). They were confident in the given workload, even though it did not follow their competence and field, and they realized that it could positively impact and develop them. Besides that, the workload is considered quite difficult at the beginning, but the workers are confident that if pursued, it will be easy and can become a competency and new knowledge that is positive for them.

The workload demands can also be solved properly, and they can still control their interests or affairs outside of work so that teachers can minimize and tolerate the stress felt. It also mentions that a high Al-Hakim et al., (2022) workload can not only make the nurse's emotional condition worsen but can also make the nurse feel satisfied with her work and can form a sense of meaning in her psychological state. Al-Hakim et al. emphasized that the psychological meaning nurses feel can increase the perception of job satisfaction even in a state of high workload. The results of the previous two studies align with the results of this study, which resulted in increased workload and improved psychological well-being, which means that when workers accept a high workload, it can also improve their psychological condition.

Therefore, this study found that the high level of workload felt by nurses in Banyumas Regency can be considered to have become accustomed to this situation because the work they do is an activity that has been done every day and is believed to provide benefits, positive impacts, and can also make themselves develop so that it does not become something that can interfere with the condition of psychological well-being-his.

CONCLUSION

In the previous study, it was known that the level of workload and the level of psychological well-being in nurses in Banyumas Regency are each in the moderate category, and there is a significant positive correlation of workload on psychological well-being with the amount of effect of 8% and the remaining 92% is effect by other variables that are not listed in this study. It also means that the higher the workload nurses receive, the better psychological well-being is felt. The workload does not hinder

their well-being because workers can still think positively and consider the work done to benefit them in the present and future, as well as their psychological well-being. A good individual is considered capable enough to be able to realize the potential that exists in him, easily adaptable, and makes it easier for nurses to do their work so that nurses feel unburdened, and makes them feel that there is potential in them as a whole and has positive emotions in their work so that they find meaning in their work.

The results of the study show that there is a positive significant effect of workload on psychological well-being in nurses, it is hoped that the management where nurses work can better consider the condition of human resources in the workplace, and the results of this research are also expected to become new knowledge in society and other applied sciences and can be a reference for further research. In addition, with the results of this study, which are far from perfect, it is hoped that it can be a guideline for future research to conduct research related to workload and psychological well-being with better-supporting literature sources, instruments, factors, and other variables.

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