



Factors that Contribute to the Fatigue of Midwives and Nurses in the Patient Installation of Solok Selatan Hospital

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Article Information

Received: March 22, 2024

Revised: April 01, 2024

Online: April 03, 2024

Keywords

Fatigue, Burden, Climate, Stress

ABSTRACT

According to the World Health Organization (WHO), severe fatigue will become the second killer disease after heart disease. In 2021, there were 31,801 cases of work accidents, an increase of 16.96% from the previous year, according to the BPJS Employment of West Sumatra Region. The purpose of this study was to determine the factors that contribute to nurse and midwife fatigue in the Inpatient Installation of South Solok Hospital. This study used an analytic cross-sectional survey approach with a sample of 84 people. Data were obtained through questionnaire sheets and direct observation. Data were processed using a computer, and the results were displayed in the form of frequency distribution tables. The results showed that the p value of workload ($0.05 = \alpha$ with OR = 2.625), work climate ($0.003 < \alpha$ with OR = 4.278), work stress ($0.001 < \alpha$ with OR = 5.600), and fatigue work tired 59.5%, heavy workload 60.7%, and long service 53.6%. Thus, it can be concluded that there is a significant relationship between workload and work climate. It is hoped that maintaining a balance between personal life and work is the key to overcoming work fatigue. To stay healthy in the long run, try to lead a regular and healthy lifestyle.

Keywords: Fatigue, Burden, Climate, Stress



INTRODUCTION

The World Health Organization (WHO) ranks heart disease as the leading cause of death, with extreme weariness coming in second. Furthermore, a study carried out by the Japanese Ministry of Manpower on 12,000 companies and approximately 16,000 employees revealed that 65% of workers reported physical exhaustion from their daily work, 28% reported mental exhaustion, and 7% reported stress and a sense of exclusion. (Gaol MJL, 2018).

According to data from the Indonesian Ministry of Manpower, there were 96 work accident instances in West Sumatra in 2017, accounting for 410 working days. Furthermore, according to the BPJS Employment annual report for 2018, there were 23,313 work accident cases in the West Sumatra region; in 2019, there were 114,000 more instances. In addition, there was a rise in work accident cases to 177,000 in 2020. Hospitals have large workforces, large budgets, and large amounts of technology, which leads to large numbers of work-related accidents (BPJS Employment, 2020).

Data from the South Solok Regional General Hospital (RSUD) in South Solok reveals that human error was the cause of five work accident cases in 2021 and twelve work accident cases in 2022 (South Solok Hospital, 2022).

Ten nurses and midwives who participated in an initial poll in August 2023 reported feeling worn out. One of the reasons for the burnout of nurses and midwives at Regional General Hospitals (RSUD) is the drastic decrease in the workforce brought about by regional head laws that forbid contracts, BLUDs, and the termination of volunteer workers because of inadequate regional funding. Interviewees who work as nurses and midwives reported feeling completely worn out, sleepy, losing their concentration, and occasionally having trouble thinking clearly and being unenthusiastic.

This research is still possible because of the quantity of samples utilized and the research variables—workload, work atmosphere, work stress, and work experience.

Based on the facts provided above, the author intends to carry out direct research on "Factors that Influence the Fatigue of Nurses and Midwives in the Inpatient Installation of South Solok Regional Hospital.

METHODS

This study is an example of an analytical survey that employs a cross-sectional method to research design. Through the use of techniques, observations, or simultaneous data collection, approach cross-sectional research enables the investigation of the dynamics of the link between risk factors and effects. 84 nurses and midwives who worked at the South Solok Regional General Hospital Inpatient Installation (RSUD) participated in this study. Samples are some of the traits and population sizes that are mentioned. The sample size in this study, which was 84 individuals, matched the population size (Made et al., 2021).

The purpose of univariate analysis is to characterize or explain each variable that was seen in the study. The present study aims to examine the frequency distribution of weariness, the dependent variable, and the independent variable among healthcare workers employed in South Solok Regional Hospital's inpatient installation.

The independent variable and dependent variable are evaluated through this bivariate analysis. The chi-square test with a confidence level of 95% and $\alpha = 0.05$ was used. There is a significant relationship between the independent variable and the dependent variable if $p \leq \alpha$, and there is no relationship if $p \geq \alpha$.

RESULTS

1. Univariate Analysis

a. Work Fatigue

Table 1. Frequency Distribution of Work Fatigue in the Inpatient Installation of the South Solok Regional General Hospital (RSUD) in 2023

Work Fatigue	F	%
Tired	50	59.5
Not Tired	34	40.5
Total	84	100

b. Work Load

Table 2. Frequency Distribution of Work Loads in the Inpatient Installation of the South Solok Regional General Hospital (RSUD) in 2023

Work Load	F	%
Heavy	51	60.7
Light	33	39.3
Total	84	100

c. Work Climate

Table 3. Frequency Distribution of Work Loads in the Inpatient Installation of the South Solok Regional General Hospital (RSUD) in 2023

Work Climate	F	%
Not Safe	47	56
Safe	37	44
Total	84	100

d. Work Stress

Tabel 4. Frequency Distribution of Work Stress in the Inpatient Installation of the South Solok Regional General Hospital (RSUD) in 2023

Work Stress	F	%
Heavy	45	53.6
Light	39	46.4
Total	84	100



2. Bivariate Analysis

Bivariate analysis is now being done to ascertain how the independent and dependent variables relate to one another. The chi-square test was employed, with a significance level of $\alpha = 0.05$ (5%).

a. The Relationship between Workload and Work Fatigue in the Inpatient Installation of the South Solok Regional General Hospital (RSUD) in 2023

Table 5. The Relationship between Workload and Work Fatigue in the South Solok Regional General Hospital (RSUD) Inpatient Installation in 2023

Work Load	Work Fatigue						p	OR
	Tired		Not Tired		Total			
	n	%	n	%	N	%		
Heavy	35	68,6	16	31,4	51	100	0,05	2.625 (1.062-6.490)
Light	15	45,5	18	54,5	33	100		
Amount	50	59,5	34	40,5	84	100		

b. The relationship between work climate and work fatigue in the South Solok Regional General Hospital (RSUD) Inpatient Installation in 2023

Tabel 6. The Relationship between Work Climate and Work Fatigue in the South Solok Regional General Hospital (RSUD) Inpatient Installation in 2023

Work	Work Fatigue						P <i>Value</i>	OR CI 95%
	Tired		Not Tired		Total			
	n	%	n	%	N	%		
Not Safe	35	74.5	12	25.5	47	100	0.003 (1.692-10.817)	4.278
Safe	15	40.5	22	59.5	37	100		
Amount	50	59.5	34	40.5	84	100		

c. The relationship between work stress and work fatigue in the South Solok Regional General Hospital (RSUD) Inpatient Installation in 2023

Tabel 7. Relationship between Work Stress and Work Fatigue in the Inpatient Installation of the South Solok Regional General Hospital (RSUD) in 2023

Work	Work Fatigue						p	OR
	Tired		Not Tired		Total			
	N	%	n	%	N	%		
							Value	CI 95%
Heavy	35	77,8	10	22,2	45	100	0.001	5,600 (2,157-14,538)
Light	15	38,5	24	61,5	39	100		
Amount	50	59,5	34	40,5	84	100		

DISCUSSION

1. Work Fatigue

The findings of the univariate analysis showed that 50 (59.5%) of the 84 patients at South Solok Regional Hospital fell into the work tiredness category.

Theoretically, fatigue is described as a state marked by a reduction in productivity and stamina during labor. Physical, visual, and nervous tiredness, as well as fatigue from fixed and monotonous situations, are the main causes of fatigue. Reduced productivity, missed work, higher material and medical expenses, and lower-quality work are all consequences of fatigue (Yelvita, 2022).

Researchers found that of the 50 nurses and midwives who responded, half reported feeling fatigued. This is because they frequently get headaches, feel sleepy or heavy in their shoulders, yawn, have trouble focusing, lack confidence, and have stiff or heavy shoulders. All of this depletes energy and impairs productivity. Every RSUD employee, especially those who work in inpatient rooms, is recommended to always maintain their job intensity in order to maintain body immunity and work productivity. Lightly stretch your muscles while working to keep them flexible rather than rigid. Since there is no stretching done while working, this can help avoid work tiredness.

2. Work Load

The findings of univariate analysis showed that 51 (60.7%) of the 84 patients at South Solok Regional Hospital had a high workload.

Menpan (2020) defines workload as an assortment of duties that an employee or firm has to finish in a specific amount of time. Additionally, work measurement is a technique used to gather information regarding the effectiveness and efficiency with which a job holder carries out their work in a systematic manner. Excessive or intense work can accelerate the weariness process.



51 nurses and midwives (60.7%) reported having high workloads due to a mismatch between work capacity and job aptitude, such as patient administration responsibilities and family safety. One instance of disinformation between professions interfering with medical procedures is one type of work-related weariness brought on by workload. Make a consistent schedule for your time throughout the day and steer clear of last-minute jobs if you want to get more organized. Assign duties to coworkers or team members whenever feasible; use technology, such as task management calendars, to promote productivity; engage in physical activity and get adequate sleep to boost energy; educate yourself on stress management to become more competent and self-assured; and maintain equilibrium.

3. Work Climate

The univariate analysis's findings indicated that 47 (56%) of the 84 employees at South Solok Regional Hospital fell into the category of having an unsafe work environment. The work climate theory holds that an employee's environment affects the tasks they are given. Generally speaking, though, the setting in which workers perform their duties is referred to as the work climate. When people can work as efficiently, safely, healthily, and comfortably as possible, they are in good or adequate working conditions. Longer term effects of a suitable work environment can be observed since inefficient work environments can necessitate more effort and take longer to construct, making it more challenging to create an effective work system (Riansah and Sari 2019).

The researcher's hypothesis states that nurses who work in rural hospitals are employed in a special setting where illness can spread quickly. Of those who responded, 47 (or 56%) felt that working as a nurse or midwife was dangerous. The questionnaire's results indicate that more respondents than usual answered, which indicates that coworkers are not harmonious, that they struggle to communicate with one another, and that the dynamic between superiors and subordinates makes them anxious for one another. It is imperative to promote collaboration among nurses and midwives within their respective teams in the meantime. A cordial working relationship will arise from this. A healthy work environment includes the leader's attention to and handling of issues pertaining to appropriate task division, employee participation, and understanding of responsibility.

4. Work Stress

The findings of the univariate analysis showed that 45 (53.6%) of the 84 patients at South Solok Regional Hospital had significant work stress.

The findings of the univariate analysis showed that 45 (53.6%) of the 84 patients at South Solok Regional Hospital had significant work stress. Theoretically, a state in which an individual is under constant physical, emotional, and mental strain is known as work stress. Ineffective stress management can harm a person's capacity to interact positively with their surroundings, both at work and in the community. Long-term stress can have a detrimental effect on an employee's capacity to do their duties and operate in the workplace (Farisi & Pane, 2020). According to

researchers, stress causes the body to react by activating a response and using more energy, which affects how tired people feel at work.

According to researchers, stress causes the body to react by activating a response and using more energy, which affects how tired people feel at work. Severe stress was reported by 45 responders (53.6%) in total. It's crucial to recognize that work stress might result in burnout. This is due to a number of factors, including the fact that nurses and midwives are expected to perform more work than they are used to, that they lack the expertise and training needed to perform their professions effectively, and that they are given numerous virtually unmanageable responsibilities.

5. The Relationship between Workload and Work Fatigue of Nurses and Midwives in the Inpatient Institution of South Solok Regional Hospital

It is possible to conclude that there is a relationship between the workload and work tiredness of nurses and midwives in the inpatient ward of South Solok Regional Hospital based on statistical tests that were conducted. The p value is $0.05 = 0.05$. Further analysis yielded an OR value of 2.625, indicating that respondents in the heavy category had three times more work tiredness than those in the fatigued category.

Workload is defined as the total amount of physical and mental labor assigned to employees, according to workload theory. Every employee is accountable for the work they do, and they are all capable of finishing extra jobs on top of their assigned duties. The majority of the time, people who work are subjected to conditions and environments that cause them bodily and mental stress. environmental, chemical, biological, ergonomic, and psychological factors Workload is the amount of time an individual can work without becoming fatigued or impaired. You will quickly tire out if you work too hard and too long. The work pulse illustrates the low workload. et al., Firdani (2023).

According to the study's findings, 35 respondents, or 68.6%, reported feeling both overworked and exhausted at work. This is because nurses are accountable for carrying out their duties. Every job has a cost to the person performing it. In question is a physical, mental, or social hardship. Every workforce is capable of handling different workloads in a different way. While some are more suitable for social tasks, others are better suited for physical workloads. Fifteen responders (45.5%) with light workloads can be influenced by age and energy consumption considerations.

Age affects a person's physical endurance in doing work. As a person gets older, their physical abilities will decrease and their energy intake will decrease, which increases the risk of work fatigue. On the other hand, younger age groups with adequate calorie intake and robust physical endurance may have an impact on respondents who report a high workload but only minor work tiredness.

6. The Relationship between Work Climate and Work Fatigue of Nurses and Midwives in the Inpatient Institution of South Solok Regional Hospital

The relationship between work climate and work fatigue of nurses and midwives can be inferred from statistical tests conducted on the inpatient ward of South Solok Regional Hospital. The p value = 0.003 is less than 0.05, indicating that the two variables are related. Further investigation



yielded an OR value of 4.278, indicating that the respondent's work environment is riskier than job tiredness falling under the Tired group.

According to the belief, nurses genuinely desire a cheerful workplace. Organizational climate is directly tied to the process of establishing a positive work environment that permits harmonious interactions and cooperation between each member of the human resources department in a business (Hubert et al., 2022). The term "work environment" refers to everything that can directly or indirectly impact an employee's performance while they are at work.

Additionally, according to researchers, a pleasant workplace is one in which employees are cooperative, respectful of one another, and at ease. Ideal working environments, on the other hand, promote cooperation and trust, which are critical elements of motivation and information sharing and can lessen burnout among nurses and midwives. The majority of nurses and midwives might believe that their workplace provides all the necessary tools for them to perform better and in accordance with standards, such as having a quiet workspace. Researchers believe that as a result, nurses and midwives perceive a higher degree of safety in their workplace than do other professions. The work of nurses and midwives is facilitated by the availability of health amenities in the workplace. Nonetheless, several midwives and nurses worry about their connections of superiority and subordination as well as the lack of collaboration between them. Conflicts like schedule adjustments or irregular shift changes consequently persist in causing discordant relationships amongst coworkers.

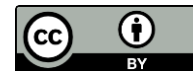
Businesses that value their employees' well-being and make an effort to foster a supportive work environment will offer social support, rewards and recognition, autonomy over tasks, transparent communication, a manageable workload, strong leadership, and a happy, healthy work environment that can lessen fatigue and enhance employee well-being.

7. The Association Between Work Stress and Work Fatigue Among Nurses and Midwives at South Solok Regional Hospital's Inpatient Institution

The inpatient ward of South Solok Regional Hospital had tests conducted to determine the relationship between work stress and work fatigue of nurses and midwives. The results showed that the two variables were related, with a p value of $0.001 < 0.05$. Further research reveals that the OR = 5.600 value means that respondents in the severe category have six times more work stress than respondents in the fatigued category have work tiredness.

According to theory, nurses' experiences of work-related stress are directly correlated with their levels of work-related weariness. Work tiredness can be the cause of some conditions, such as lower productivity. Work tiredness is a contributing factor in almost 60% of workplace accidents (Oksandi & Karbito, 2020).

According to researchers, stress is the body's general response to particular duties or tasks. A stressful task or heavy weight can be experienced by someone who is unable to finish it. Stress at work may emerge from the body's incapacity to perform the task. Work stress occurs when nurses and midwives are faced with a workload that is too much for them to handle or finish.



Researchers further assume that patient characterization, patient assessment, and upsetting aspects of the work environment can lead to job stress for nurses and midwives. They think that this can assist nurses in addressing concerns related to patient rescue, task execution efficiency, and crowded rooms. Physical elements like the quantity of patients and the type of sickness, as well as mental factors like managerial responsibilities, patient families, and personal issues, all have an impact on work stress. Given that weariness serves as the body's defense against additional harm, it follows that work fatigue may contribute to stress at work for nurses. Stress is a physical and mental response to demands that causes tension and upsets the regular order of life. Stress can be brought on by fatigue.

CONCLUSIONS

Based on the description above, the researcher concluded that the level of work fatigue in the fatigue category at the inpatient facility of the South Solok Regional Hospital reached 59.5% of 50 people. The workload in the heavy category at the facility was 60.7%, with a total of 51 people. The unsafe work climate reached 56%, with 47 people. Work stress in the heavy category was recorded at 53.6%, with 45 people. In addition, there was a significant relationship between workload and work fatigue with a p value = α (0.05) and an odds ratio (OR) of 2.625. A significant relationship was also found between work climate and work fatigue with a p value $< \alpha$ (0.003) and an OR of 4.278. Likewise, a significant relationship between work stress and work fatigue with a p value $< \alpha$ (0.001) and an OR of 5.600.

REFERENCES

- Alfiah, R., Rasyid, Z., Harnani, Y., Rienarti Abidin, A., & Syukaisih, S. (2022). Determinants Of Occupational Fatigue On Nurses In The Intensive Department of Pekanbaru Medical Center Hospital In 2022. *Journal of Sports and Health (ORKES)*, 1(2), 341–353. <https://doi.org/10.56466/orkes/vol1.iss2.28>
- Badri, I. A. (2020). The Relationship between Workload and Work Environment with Job Stress of ICU and IGD Room Nurses. *Human Care Journal*, 5(1), 379. <https://doi.org/10.32883/hcj.v5i1.730>
- Basalamah, F. F., Ahri, R. A., & Arman, A. (2021). The Influence of Work Fatigue, Work Stress, Work Motivation and Work Load. *Idea Health Journal*, 1(02), 67–80.
- Dahlia, M. (2019). The Influence of the Work Environment and Work Fatigue on the Work Productivity of Production Department Employees (case study of PT. Sumber Graha Sejahtera (SGS)). *STIE Muhammadiyah Palopo Management Journal*, 5(1), 11–16. <https://doi.org/10.35906/jm001.v5i1.342>
- Eunice, M., Sumual, M., Sumampouw, O. J., & Tucunan, A. (2023). *Manado During the Corona Virus Disease-19 Pandemic*. 7(44).
- Firdani, F., Meilisa, M., & Rahman, A. (2023). Factors Associated with Job Burnout in Nurses. *Journal of Safety, Occupational Health and Environment*, 4(1), 40–46. <https://doi.org/10.25077/jk31.4.1.40-46.2023>



- Hakman, Suhadi, & Nani, Y. (2021). The Effect of Workload, Work Stress, Work Motivation on Performance. *Nursing Care and Health Technology Journal*, 1(2), 47–54.
- Hikmawati, A. N., & Maulana, N. (2020). Workload Associated with Nurse Job Stress. *Mental Health Scientific Journal*, 2(3), 95–102.
- Kusumaningtyas, R., Budiono, Z., & Utomo, B. (2017). The relationship between work climate and fatigue in production workers at Pt Harapan Jaya Globalindo Purwokerto in 2016. *Public Health Bulletin*, 36(3), 174–178. <https://doi.org/10.31983/keslingmas.v36i3.2971>
- Lintau, K., Utara, B. U. O., & Barat, S. (2019). 1, 2, 3, 7, 358–364.
- Mulfiyanti, D., Muis, M., & Rivai, F. (2020). The Relationship between Job Stress and Workload and Work Fatigue in Nurses at Tenriawaru Hospital Class B Bone Regency in 2018. *Journal of Maritime Public Health*, 2(1). <https://doi.org/10.30597/jkmm.v2i1.9420>
- Rilam, W. (2019). Factors Associated with Work Fatigue in Rubber Tapping Workers at PT. Riau Archipelago Plantation. *Journal of Chemical Information and Modeling*, 53(9), 1689–1699.
- Rudyarti, E. (2020). Analysis of the relationship between work stress, age, length of service and work climate with feelings of work fatigue in nurses. *2020 National Public Health Seminar*, 240–249. <file:///C:/Users/User/AppData/Local/Temp/1065-3109-1-PB.pdf>
- Rudyarti, E. (2021). The Effect of Job Stress on Work Fatigue in Nurses at Hospital X. *Journal of Industrial Hygiene and Occupational Health*, 5(2), 13. <https://doi.org/10.21111/jihoh.v5i2.4654>
- Saptanty, D., Anwari, A. Z., Norfai, N., & Irianty, H. (2022). The Relationship between Age and Work Period with the Completeness of Filling Out Medical Records for Inpatients at Ulin Hospital, Banjarmasin. *An-Nadaa Public Health Journal*, 9(1), 73. <https://doi.org/10.31602/ann.v9i1.7128>
- Saverus. (2019). No. Relationship between workload and nurse performance in inpatient rooms (Muzdalifah, Multazam and Arofah) at Siti Aisyah Islamic Hospital, Madiun City. *Journal of Economic Education and Economics Studies*, 2(1), 1–19.
- Wahyu Kusgiyanto, Suroto, E. (2017). Analysis of the Relationship between Physical Workload, Working Period, Age and Gender on the Level of Work Fatigue in Workers in the Lumpia Skin Making Department in Kranggan Village, Central Semarang District. *Public Health Journal (e- Journal)*, 5(5), 413–423.
- Wicaksana, A., & Rachman, T. (2018). Organizational Climate Experienced by Nurses While in the Hospital. *Applied Chemistry International Edition*, 6(11), 951–952., 3(1), 10–27.
- Yelvita, F. S. (2022). Factors Associated with Work Fatigue in Workshop Workers at PT. Bosowa Maros Cement. (Issue 8.5.2017).
- Yuniraya, & Hendarwan, H. (2022). The Influence of Work Stress, Work Environment, Motivation, Loyalty and Leadership on Nurse Performance in the Covid19 Era at RSAL Dr. Minthohardjho Jakarta 2020. *Journal of Health Sciences*, 10(2), 215–228.
- Zuhria, & Rista. (2018). *The Relationship Between the Level of Work Fatigue With the Level of Work Stress Nurses in Panembahan Senopati Bantul Hospital the Relationship Between the Level of Work Fatigue With the Level of Work Stress Nurses in Panembahan Senopati Bantul Hospital*. 5(September), 188–194.