The Correlation Between Workload and Work Stress with Sleep Quality of Nurses at Husada Mulia Clinic, Lumajang

Amalia Firdaus Prasetyo[1], Alwin Widhiyanto[2], Nurul Laili[2]

[1] Bachelor of Nursing Student, Faculty of Health Sciences, Hafshawaty Zainul Hasan University, Probolinggo, Indonesia
2 Bachelor of Nursing Program, Faculty of Health Sciences, Hafshawaty Zainul Hasan University, Probolinggo, Indonesia

Correspondence should be addressed to:
Bagus Eka Windarta
ewbagus01@gmail.com

Abstract:

The demands of work that want to be completed quickly result in a workload that has an impact on the physical and psychological. Excessive workload can cause work stress that has an impact on the provision of health services. Stress in nurses is generally caused by physical causes experienced during work and emotional fatigue, the emergence of work stress is also caused by excessive workload, so it can affect the quality of nurses' sleep. The purpose of this study was to analyze the relationship between workload and job stress with nurses' sleep quality at Husada Mulia Clinic, Lumajang. This study used a cross-sectional approach. The population and sample size were 40 respondents with a total sampling technique. Data processing includes editing, coding, scoring, tabulating, then analyzed with SPSS software using the chi-square test with α 0.05. The results of the chi-square test showed a relationship between workload and work stress with the sleep quality of nurses at the Husada Mulia Lumajang Clinic, with asymp values. Sig. (2-sided) = 0.043 and 0.017 ≤ α (0.05). The results showed that 23 respondents had a light workload, and 21 respondents had light work stress, while 29 respondents had good sleep quality. It is hoped that this study can provide knowledge and insight to nurses regarding workload and work stress with good sleep quality. And evaluate to be input to the management of the Husda Mulia Lumajang clinic to consider workload and work stress in nurses.

INTRODUCTION

High job demands, particularly in terms of completing tasks quickly, often result in excessive workloads that negatively impact the physical and psychological well-being of workers. Workload itself encompasses aspects such as the gap between a worker's capacity and the demands of the job. When job demands exceed a worker's capabilities, the risk of fatigue and stress increases, whereas if the worker's capacity is greater, the job may feel tedious and unchallenging (Sumayku et al., 2023; Yanda & Arifah, 2023). This underscores the importance of balance in job demands to avoid adverse effects on workers' physical and mental health.

In the context of nursing, workloads can be evaluated based on various factors, including the number of patients, patient conditions, and additional tasks beyond primary functions. Workloads can be categorized into two types: physical and mental. Mental workload has the potential to cause psychological disturbances that are not immediately visible, whereas physical workload directly impacts observable physical conditions (Assa, 2022; Silalahi et al., 2021). The presence of these

two types of workload necessitates a careful approach to prevent stress among nurses, which could impair their performance and the quality of care they provide.

Work-related stress among nurses also has a direct effect on healthcare service delivery. Emotional strain caused by stress can block positive thinking and hinder nurses' ability to provide optimal care. Research indicates that high workloads among nurses can lead to physical and emotional exhaustion, resulting in suboptimal healthcare services (Fauzan, 2022). Thus, management efforts to balance workloads must be a priority within healthcare settings.

Furthermore, job stress experienced by nurses is influenced by several factors, including significant responsibilities, job pressure, and insufficient rest. Research shows that approximately 50.9% of nurses in Indonesia experience significant stress and workload. This workload not only induces stress but also affects nurses' sleep quality, which in turn can diminish their overall performance. Inadequate sleep and disruptions in circadian rhythm due to shift work add to the physical and mental burden on nurses (Padila & Andri, 2022; Rudyarti, 2021)

Sleep disturbances resulting from heavy workloads impact nurses' cognitive abilities, productivity, and memory. This increases the risk of work-related accidents, highlighting the importance of sleep in maintaining nurses' physical and mental well-being. Studies show that nurses with poor sleep quality tend to exhibit lower performance, posing a potential risk to both patient and nurse safety (Kristanto et al., 2022; Nafs, 2020). Therefore, improving sleep quality through better work schedule management is essential.

Overall, efforts to reduce stress among nurses can begin with optimal workload management. Not only does effective workload management help prevent work-related stress, but it also enhances the quality of healthcare services provided by nurses. Studies indicate a significant relationship between mental and physical workload and work stress among nurses, underscoring the need for policies that support a balance between job demands and nurses' capacities in performing their duties (Anindita, 2023; Asep et al., 2024).

METHOD

This research utilizes a quantitative design with a cross-sectional approach to examine the relationship between workload, job stress, and sleep quality among nurses at Husada Mulia Clinic in Lumajang. Cross-sectional studies collect data at a single point in time, allowing researchers to assess risk and outcomes simultaneously. The study population includes all 40 nurses at the clinic, and the total sampling technique was employed, meaning all population members became the sample. The independent variables in this study are workload and job stress, while the dependent variable is sleep quality. Data were collected through validated and reliable questionnaires measuring workload (15 questions) and job stress (25 questions).

Data validity was evaluated by comparing the calculated correlation coefficient (r) with the r table value, with items considered valid if the r value exceeded the r table threshold. Reliability testing of the Pittsburgh Sleep Quality Index (PSQI) instrument, previously found to have internal consistency reliability (α = .83), was done using Cronbach's Alpha, with values over 0.60 indicating reliability. The study will take place in May 2024, with data analysis focusing on establishing the relationship between workload, stress, and sleep quality, highlighting the importance of proper workload management in improving nurses' well-being.

RESULT

Table 1. Characteristics of Respondents (n=40)

Characteristics	Frequency	Percentage (%)
Age		
17-25 years	18	45
26-35 years	22	55
Gender		
Male	0	0
Female	40	100
Education		
Diploma of Nursing	36	90
Bachelor of Nursing	4	10
Marital Status		
Married	29	72.5
Unmarried	11	27.5
Length of Employment		
<6 years	30	75
6-10 years	7	17.5
>10 years	3	7.5

The respondent characteristics at Husada Mulia Clinic Lumajang, as of May 2024, show that most nurses are between 26-35 years old (55%), all respondents are female (100%), and the majority are married (72.5%). Most respondents also have less than six years of work experience (75%) and hold a D3 Nursing degree (90%). These demographic characteristics suggest a young, predominantly female workforce with relatively short tenure, many of whom are married and possess a diploma in nursing. This profile may influence how the nurses approach their workload, balance work-life responsibilities, and address professional challenges.

Table 2. Nurse Workload, Job Stress, and Sleep Quality at Husada Mulia Clinic, Lumajang(n=40)

Category	Frekuensi	Persentase (%)
Workload		
Light	23	57.5
Heavy	17	42.5
Job Stress		
Light	21	52.5
Heavy	19	47.5
Sleep Quality		
Good	29	72.5
Poor	11	27.5

The specific data from Husada Mulia Clinic in Lumajang, May 2024, reveals that most nurses experience a light workload (57.5%), mild job stress (52.5%), and good sleep quality (72.5%). The prevalence of light workloads and mild stress levels may positively impact the nurses' overall well-being, as indicated by the high percentage reporting good sleep quality. This balance suggests that the work environment at the clinic supports manageable stress levels, contributing to better sleep quality and overall health among the nursing staff.

Table 3. Correlation Between Workload, Job Stress, and Nurse Sleep Quality at Husada Mulia Clinic, Lumajang (n=40)

Variable	Sleep Quality			Chi-Square
	Good	Poor	Total	
Workload				
Light	17	6	23	0.043
Heavy	12	5	17	
Job Stress				
Light	15	6	21	0.017
Heavy	14	5	19	

The bivariate analysis at Husada Mulia Clinic in Lumajang reveals significant relationships between workload and sleep quality, as well as job stress and sleep quality among nurses. The Chi-Square test results show a statistically significant relationship between workload and sleep quality (p = 0.043 ≤ 0.05) and between job stress and sleep quality (p = 0.017 ≤ 0.05). These findings indicate that a lighter workload and lower job stress levels are associated with better sleep quality, highlighting the importance of manageable work demands and stress reduction to support nurse well-being and overall health.

DISCUSSION

The Husada Mulia Clinic Lumajang workload data indicates that most nurses experience a light workload, with 23 respondents (57.5%). Age, gender, work experience, education, and marital status contribute to this outcome (Lubis, 2024; Wirajaya & Tunas, 2023). Most nurses fall within the 26-35 age range, typically associated with higher physical capacity to manage work demands. Additionally, the clinic's workforce is entirely female, a demographic that influences workload perception and management (Prastyo & Stella, 2024; Pujiastuti et al., 2021). Most of these nurses have also worked for less than six years, which aligns with (Pujiastuti et al., 2021) findings that newer nurses often encounter distinct job challenges compared to those with more experience. This demographic profile, combined with the relatively light workload, contributes to the manageable stress levels among nurses.

The data on job stress shows that most nurses (52.5%) report only mild stress. Several factors impact stress levels, including age, gender, work duration, and marital status (Rasheed et al., 2024). With 55% of nurses aged 26-35, this age group can often handle job-related stress more effectively due to their physical capacity, even though they may experience mild stress. Young, married nurses can manage mild stress effectively because they can balance work and family life. This balance is essential for keeping stress levels low and positively impacts their work experience (Liana, 2020).

Most nurses (72.5%) report good sleep quality, likely due to factors like age, gender, work experience, and education. The clinic's young, predominantly female workforce indicates that workers in their late 20s to mid-30s often maintain good sleep quality and manage physical exhaustion effectively. Additionally, female workers at this age are typically adept at balancing work and home life, especially when married, leading to better rest and sleep. Maintaining a balanced lifestyle appears to significantly and positively influence their sleep quality (Maisa et al., 2021; Sulana et al., 2020).

The relationship between workload and sleep quality is further supported by a Chi-Square test, which shows a significant correlation (Sig. (2-sided) = 0.043 ≤ 0.05). This suggests that balanced workload levels contribute to positive physical and mental well-being, allowing nurses to rest adequately and maintain good sleep quality. A lighter workload means that nurses experience less

Health and Technology Journal (HTechJ)

fatigue, which improves sleep quality and, in turn, their overall health and productivity (Panjaitan et al., 2024)

Similarly, the relationship between job stress and sleep quality is also significant, as shown by a Chi-Square test (Sig. (2-sided) = 0.017 ≤ 0.05). Unmanaged job stress can have a negative impact on sleep quality; therefore, stress management is critical in this context (Adiyono, 2020). Monthly rewards the clinic provides help keep job stress manageable and support better sleep quality (Prasetyo & Ibnu Fitroh Sukono, 2023). These incentives, combined with an understanding of work-life balance, contribute to an environment where stress remains low and sleep quality high.

The researcher observes that the balanced nurse-to-patient ratio at Husada Mulia Clinic contributes significantly to the light workload, supporting adequate rest and low fatigue levels. The monthly reward system also boosts motivation and helps manage stress effectively, encouraging nurses to maintain a good work-life balance. This approach allows married nurses to manage both home and work responsibilities effectively, promoting high-quality sleep and enhancing their overall well-being.

CONCLUSION

In conclusion, the findings at Husada Mulia Clinic Lumajang indicate that a balanced nurse-to-patient ratio, along with supportive factors like age, work experience, and the monthly reward system, contribute to a manageable workload and low-stress environment for the nursing staff. The clinic's predominantly young, female workforce, with many in the 26-35 age range, exhibits a higher physical capacity to meet job demands and a strong ability to balance work and family life, especially among married nurses. These factors positively impact their sleep quality, with a majority reporting good rest, which enhances their overall well-being, productivity, and satisfaction with work-life balance.

ACKNOWLEDGEMENT

CONFLICT OF INTEREST

The authors declared no competing interests in the production of this manuscript.

REFERENCES

Adiyono. (2020). Manajemen Stres. *Cross-Border*, *3*(1), 255–265.

Anindita, M. (2023). Kualitas Kehidupan Kerja Tenaga Kesehatan Pada Organisasi Pelayanan Kesehatan. *Jurnal Embistek*, *1*(1), 108–114.

Asep, Setiawan, A., & Nuradhawati, R. (2024). Kualitas Pelayanan Kesehatan Di Instalasi Gawat Darurat Bagi Pasien Pada Rumah Sakit Umum Daerah Cililin Kabupaten Bandung Barat Dalam Konteks Rumah Sakit Umum Daerah (Rsud) Cililin Kabupaten Bandung Barat , (Igd). Pelayanan Di Igd Masih Sering Diangg. *Jurnal Mimbar Administrasi*, *21*(2), 297–310.

Assa, A. F. (2022). Dampak Beban Kerja Dan Lingkungan Kerja Terhadap Burnout Syndrome Pada Karyawan Pt. Sinergi Integra Services. *Jurnal Ilmiah Manajemen, Ekonomi, & Akuntansi (Mea)*, *6*(3), 436–451. Https://Doi.Org/10.31955/Mea.V6i3.2454

Fauzan, R. (2022). Peran Stres Kerja Dan Komitmen Organisasional Pada Pengaruh Konflik Pekerjaan-Keluarga Terhadap Kinerja Pegawai Wanita Rumah Sakit Jiwa Provinsi Kalimantan Barat. *Performance*

Jurnal Personalia Financial Operasional Marketing Dan Sistem Informasi, *29*, 61–73. Https://Doi.Org/10.32424/1.Jp.2022.29.1.4852

Kristanto, B., Diyono, & Hartono, M. (2022). Efektifitas Terapi Rendam Kaki Menggunakan Air Hangat Terhadap Penurunan Kejadian Insomnia Pada Lansia. *Kosala : Jurnal Ilmu Kesehatan*, *10*(2), 117–127. Https://Doi.Org/10.37831/Kjik.V10i2.242

Liana, Y. (2020). Analisis Faktor Yang Berhubungan Dengan Burnout (Kejenuhan Kerja) Pada Perawat. *Jurnal Ilmu Kesehatan Bhakti Husada: Health Sciences Journal*, *6*(1), 108. Https://Conference.Unsri.Ac.Id/Index.Php/Snk/Article/View/1760

Lubis, M. (2024). Faktor-Faktor Yang Berhubungan Dengan Burnout Perawat Icu-Hcu Rsud Dr. H. Jusuf Sk Provinsi Kalimantan Utara. *Vol 6 No 2 (2024): Jurnal Inovasi Kesehatan Terkini*, *6*(1), 56–74.

Maisa, E. A., Andrial, A., Murni, D., & Sidaria, S. (2021). Hubungan Stres Akademik Dengan Kualitas Tidur Mahasiswa Keperawatan Tingkat Akhir Program Alih Jenjang. *Jurnal Ilmiah Universitas Batanghari Jambi*, *21*(1), 438. Https://Doi.Org/10.33087/Jiubj.V21i1.1345

Nafs, T. (2020). Pengaruh Beban Kerja Terhadap Stres Kerja Pada Guru Tahfidz Di Pesantren Terpadu Darul Qur'an Mulia. *Acta Psychologia*, *2*(2), 199–208. Https://Doi.Org/10.21831/Ap.V2i2.35106

Padila, P., & Andri, J. (2022). Beban Kerja Dan Stres Kerja Perawat Di Masa Pandemi Covid-19. *Jurnal Keperawatan Silampari*, *5*(2), 919–926. Https://Doi.Org/10.31539/Jks.V5i2.3582

Panjaitan, T. O., Nababan, D., Siregar, L. M., & Tua, M. (2024). Stres Pada Dokter Praktek : Studi Kualitatif Pada Dokter Umum Di Fktp Biddokkes Polda Sumut Tahun 2023. *Prepotif : Jurnal Kesehatan Masyarakat*, *8*, 5017–5029.

Prasetyo, D., & Ibnu Fitroh Sukono, F. (2023). Pengaruh Manajemen Talenta, Work Life Balance, Dan Stress Kerja Terhadap Kinerja Karyawan Millenial Di Point Coffee Se- Kota Semarang. *Journal Of Economics And Business Ubs*, *12*(4), 2163–2178. Https://Doi.Org/10.52644/Joeb.V12i4.354

Prastyo, T. M., & Stella, S. (2024). Tingkat Stres Kerja Pada Perawat Kamar Operasi Rumah Sakit X Di Jakarta Tahun 2023. *5*, 2567–2582.

Pujiastuti, A. T., Lestantyo, D., Wahyuni, I., & Jayanti, S. (2021). Analisis Tingkat Kelelahan Berdasarkan Beban Kerja Fisik Perawat Di Ruang Isolasi Rumah Sakit X Saat Pandemi Corona Virus (Covid – 19). *Jurnal Riset Kesehatan Masyarakat*, *1*(1), 1–7. Https://Doi.Org/10.14710/Jrkm.2021.11570

Rasheed, S. A., Mariyati, S., Nataprawira, D., Kedokteran, P. S., Kedokteran, F., & Tarumanagara, U. (2024). Analisa Stres Dan Imunitas Guru Khadijah Islamic Boarding School Di Jakarta Analysis Of Stress And Immunity Levels In Khadijah. *Journal Health & Science*, *8*(4).

Rudyarti, E. (2021). Pengaruh Stres Kerja Terhadap Kelelahan Kerja Pada Perawat Di Rumah Sakit X. *Journal Of Industrial Hygiene And Occupational Health*, *5*(2), 13. Https://Doi.Org/10.21111/Jihoh.V5i2.4654

Silalahi, H. K., Fathimahhayati, L. D., & Tambunan, W. (2021). Analisis Beban Kerja Mental Dan Fisik Operator Hd Komatsu 785-7 (Studi Kasus: Pt.Sims Jaya Kaltim. *Arika*, *15*(1), 37–50. Https://Doi.Org/10.30598/Arika.2021.15.1.37

Sulana, I., Sekeon, S., & Mantjoro, E. (2020). Hubungan Tingkat Stres Dengan Kualitas Tidur Mahasiswa Tingkat Akhir Fakultas Kesehatan Masyarakat Universitas Samratulangi. *Jurnal Kesmas*, *9*(7), 37–45. Https://Ejournal.Unsrat.Ac.Id/Index.Php/Kesmas/Article/View/31609

Sumayku, I. R., Bolang, A. S. L., & Doda, D. V. D. (2023). Hubungan Stres Kerja, Hubungan Interpersonal Dan Tugas Tambahan Dengan Beban Kerja Perawat Di Ruangan Palma Rsup Prof. Dr. R. D. Kandou, Manado. *E-Clinic*, *11*(2), 204–213. Https://Doi.Org/10.35790/Ecl.V11i2.44904

Wirajaya, K. M., & Tunas, I. K. (2023). Karakteristik Dan Motivasi Terhadap Kepuasan Kerja Petugas Rekam Medis Rsud Wangaya Denpasar. *Higeia (Journal Of Public Health Research And Development)*, *7*(3), 442–451. Https://Doi.Org/10.15294/Higeia.V7i3.53201

Yanda, J., & Arifah, L. (2023). Analisis Beban Kerja Karyawan Bagian Sertifikasi Pesawat Angkat Dan Angkut Pada Pt Gavco Indonesia. *Mabis: Jurnal Manajemen Bisnis Syariah*, *3*(1), 1–14. Https://Doi.Org/10.31958/Mabis.V3i1.9081