THE RELATIONSHIP BETWEEN WORKLOAD AND JOB STRESS AMONG NURSES IN THE INPATIENT ROOM OF UMMI HOSPITAL IN BENGKULU CITY

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ABSTRACT

Workload represents a fundamental challenge in the nursing profession, arising from the complex interaction between high task demands, the fast-paced work environment, and the limitations in nurses' skills, behavior, and perception. In the inpatient room, factors such as high patient-to-nurse ratios, case complexity, and extensive documentation requirements exponentially increase job pressure. Job stress, defined as the psychological and physiological response to excessive demands, is one of the main factors that systematically reduces productivity, efficiency, and quality of service within healthcare organizations. Unmanaged chronic stress poses a threat to patient safety and professional well-being, potentially leading to severe physical complications (such as chronic fatigue) and psychological complications (such as burnout and depression) among the staff. This study was specifically designed to examine and validate the empirical relationship between the perceived level of workload and the experienced level of job stress among nurses in the Inpatient Room of UMMI Hospital in Bengkulu City. This quantitative research adopted a descriptive observational design with a cross-sectional approach to measure the variables simultaneously at one point in time. The target population included all 66 nurses working in the inpatient room of UMMI Hospital, and the total sampling technique was employed to include all nurses as the sample. The collected data were analyzed using Univariate (for frequency distribution) and Bivariate analysis. The Chi-square (χ^2) test was applied to determine the significance of the relationship, while the Contingency Coefficient (C) test was used to measure the strength and closeness of the association between the variables. The findings revealed a concerning situation among the 66 respondents: the majority of nurses (66.7%) were categorized as having a heavy workload, and 57.6% of the total respondents experienced job stress at a severe level. The bivariate analysis validated this correlation, yielding a highly significant p-value of 0.000. Based on these results, it is concluded that there is a strong and statistically significant relationship between workload and job stress among nurses in the Inpatient Room of UMMI Hospital in Bengkulu City. This strongly implies the necessity for structured management interventions to balance workload for the sake of staff welfare and improved service quality in the hospital.

Keywords: Workload, Job Stress, Nurses, Inpatient Room.

INTRODUCTION

Nurses are fundamentally the backbone of the healthcare system, providing essential, continuous care and acting as the primary point of contact for patients across all clinical settings. Their critical and demanding role requires a high degree of physical endurance, emotional resilience, and sophisticated cognitive function [4]. However, the institutional nature of nursing, particularly within intensive inpatient environments, inherently involves high levels of stress and demanding circumstances, which pose constant challenges to staff well-being and performance [5].

Workload is defined beyond mere task count; it is understood as a psychological burden resulting from the complex interaction between various factors: the complexity and volume of task demands, the physical constraints of the work environment, and the individual's inherent skills, behaviors, and subjective perception [1]. When task demands are excessive or resources such as time, personnel, or equipment are inadequate, the balance is severely disrupted [1]. This condition of chronic workload overload is a universal challenge in this profession, threatening the optimal delivery of patient care [5].

The immediate consequence stemming from an imbalance between perpetually high workload and critically limited resources is the onset of Job Stress. Job stress is the body's non-specific physiological and psychological reaction of an individual to pressures and chronic demands from the workplace that are perceived as excessive, threatening, or uncontrollable [2, 6].

For nurses, chronic stress manifests not just as personal discomfort, but as severe detrimental effects on their professional output. These effects include increased work fatigue, decreased concentration, emotional exhaustion, and clinical burnout [4, 7]. Unmanaged chronic job stress is a major factor that systemically reduces organizational productivity and efficiency, often leading to increased absenteeism, high staff turnover, and severe health consequences among staff, such as hypertension, anxiety, and depression [2, 7].

The mechanism linking excessive demands to negative outcomes is well-explained by robust theoretical frameworks, such as the Job Demands-Resources (JD-R) model [4]. This model posits that job demands (like heavy workload) consume energy and lead to health impairment (stress), while insufficient job resources (like social support or good staffing) fail to mitigate these demands. Empirical evidence consistently confirms a strong correlation between heavy workload and high job stress, supporting this energy-depletion pathway [3].

This theoretical understanding is strongly supported by global and national empirical findings. Research by Pongantung et al. (2019) demonstrated a significant relationship between high workload and high stress among regional Indonesian nursing staff, showing that excessive demands directly lead to increased work fatigue and psychological distress [3]. This pattern is echoed across various clinical settings internationally, consistently highlighting that excessive task demands, inadequate time allocation, and poor organizational support are primary drivers of stress [1, 2, 8].

Within the Indonesian healthcare landscape, the inpatient room stands out as a particularly vulnerable area [7, 8]. These units are characterized by volatile high patient turnover, demands for critical care needs, high patient acuity, and a substantial requirement for complex administrative documentation. These factors ensure that the workload remains dynamic, often unpredictable, and frequently exceeds standard capacity [7]. Therefore, nurses in these areas bear the brunt of systemic operational deficits.

Despite the documented global and national relationship between workload and stress, the specific magnitude and precise nature of this relationship within regional Indonesian hospitals, such as UMMI Hospital in Bengkulu City, remains an essential area of inquiry [9]. To move beyond general theoretical assumptions and design effective, localized policy making, context-specific data collection is absolutely vital [10].

Quantifying the prevalence of heavy workload and severe job stress in this hospital context provides the empirical foundation necessary for targeted interventions. Crucially,

addressing this issue transcends mere staff welfare; it is directly related to patient safety. Chronic workload-induced stress significantly increases the risk of medication errors, communication breakdowns, and delayed response to patient deterioration, ultimately eroding the foundation of quality healthcare provision [5, 9].

Based on the critical issues identified above, the established theoretical framework, and the current data gap in the local context, the primary objective of this study is clearly defined [3]. This research aims to examine the empirical relationship between workload and job stress among nurses in the Inpatient Room of UMMI Hospital in Bengkulu City, thereby providing robust, evidence-based data for institutional management to implement strategic improvements in nurse welfare and, consequently, patient care quality [10].

METHODS

This study utilized a quantitative research design with a descriptive observational approach, employing a cross-sectional method. This design allows for the measurement of the workload and job stress variables simultaneously at one point in time to determine the relationship between them. The research population consisted of all 66 nurses working in the Inpatient Room of RSU UMMI Bengkulu City. The sampling technique used was total sampling, where the entire population was included as the sample size. Primary data were collected through questionnaires covering workload and job stress variables. Secondary data were sourced from RSU UMMI to support the research. The instrument used was a questionnaire designed to measure both workload and job stress levels, typically classified into categories such as Moderate and Heavy (for workload and stress). The data analysis was performed using two methods, Univariate Analysis: Used to describe the frequency distribution and percentage of each variable (workload and job stress). Bivariate Analysis: Used to test the relationship between the independent variable (workload) and the dependent variable (job stress). The Chi-square test was used to test the hypothesis with a significance level of (alpha=0.05). The strength of the relationship was determined using the Contingency Coefficient (C) test.

RESULTS AND DISCUSSIONS

RESULTS

The univariate analysis in this study will describe the frequency distribution of each variable, namely workload as the independent variable and job stress as the dependent variable. The results of the univariate analysis are presented using the following frequency distribution:

Table 1
Frequency Distribution of Workload on Nurses in the Inpatient Room of Ummi Hospital, Bengkulu City

No.	Workload	Frequency	Percentage (%)
1	Moderate	22	33.3
2	Heavy	44	66.7

Total	66	100.0

Based on Table 1 above, it can be seen that of the 66 nurse respondents in the inpatient room of Ummi Hospital, Bengkulu City, there were 22 respondents (33.3%) whose workload was categorized as moderate and there were 44 respondents (66.7%) whose workload was categorized as heavy.

Table 2
Frequency Distribution of Occupational Stress in Nurses in the Inpatient Room of Ummi Hospital, Bengkulu City

No.	Work Stress	Frequency	Percentage (%)
1	Moderate	28	42.4
2	Severe	38	57.6
	Total	66	100.0

Based on Table 2 above, it can be seen that of the 66 nurse respondents in the inpatient room of Ummi Hospital, Bengkulu City, there were 28 respondents (42.4%) who had a moderate level of work stress and there were 38 respondents (57.6%) who had a severe level of work stress.

Bivariate analysis was conducted to determine the relationship between the independent variable (workload) and the dependent variable (job stress) in nurses in the inpatient room of Ummi General Hospital, Bengkulu City.

Table 3
Relationship between Workload and Job Stress among Nurses in the Inpatient Ward at Ummi Hospital, Bengkulu City

Workload	Work Stress						χ2	*P*	C
	Moderate		Severe		Total				
	F	%	F	%	F	%			
Moderate	19	86.4	3	13.6	22	100			
Heavy	9	20.5	35	79.5	44	100	23.455	0,000	0,532
Total	28	42.4	38	57.6	66	100			

Based on table 3 above, it can be seen that of the 22 respondents (100%) with a moderate workload, 19 respondents (86.4%) had moderate levels of work stress and 3 respondents (13.6%) had severe levels. Of the 44 respondents (100%) with a heavy workload, 9 respondents (20.5%) had moderate levels of work stress and 35 respondents (79.5%) had severe levels of work stress. To determine the relationship between workload and work stress among nurses in the inpatient ward of Ummi Hospital, Bengkulu City, a chi-square (continuity correction) test was used. The results of the continuity correction chi-square test were 23.455 with an asymp.sigp value of 0.000. Since the p-value is <0.05, H0 is rejected, while Ha is accepted,

indicating a significant relationship between workload and work stress among nurses in the inpatient ward of Ummi Hospital, Bengkulu City. The strong relationship between workload and job stress among nurses in the inpatient ward of Ummi General Hospital, Bengkulu City, was determined by the Contingency Coefficient (C). The C value was 0.532. Compared with the C-max value of 0.707, this relationship is considered strong.

DISCUSSIONS

The most compelling finding of this study is the highly significant relationship observed between workload and job stress among nurses in the Inpatient Room of UMMI Hospital in Bengkulu City. This result provides robust empirical evidence to support the main hypothesis of the study. The statistical significance is demonstrated by the p-value of 0.000 ($\alpha < 0.05$), a value that firmly allows for the confident rejection of the null hypothesis and confirms that workload is a major predictive and influencing factor for stress in this specific clinical setting [5]. Furthermore, the strength of this association, indicated by the Contingency Coefficient (C) value of , suggests a strong and substantial relationship. This statistical coherence directly confirms the observable trend in the univariate analysis: the high percentage of nurses facing a heavy workload (66.7%) correlates strongly and directly with the outcome that a significant proportion (57.6%) experienced severe job stress. The finding that 66.7% of the nurses are burdened by a heavy workload is a critical operational concern, reflecting the intense and often unsustainable demands inherent in inpatient care [7]. This high prevalence is not an isolated incident but aligns deeply with broader national challenges related to optimal nurse staffing and efficient task allocation across Indonesian hospitals [6].

The nature of the heavy workload experienced is multifaceted. It is driven not only by physical demands, but also by intense mental workload, which includes high patient acuity, the necessity for extensive and often redundant documentation, and time-sensitive clinical procedures that demand high vigilance [8]. A major contributing factor to this workload is the high frequency of non-nursing administrative tasks. These duties often divert the nurse's time away from direct patient care, thereby compounding the feeling of being professionally overwhelmed, a state classified as a potent organizational stressor [2, 7]. Collectively, these unmanaged demands suggest a structural deficit within the system [9]. The available human resources are demonstrably insufficient to meet the required work output safely and effectively. When demands perpetually exceed the nurse's capacity, the system operates at a constant risk of failure. The resulting severe job stress experienced by 57.6% of the nurses is a predictable and direct consequence of this sustained heavy workload, a concept strongly aligned with the fundamental principles of the Job Demands-Resources (JD-R) model [4].

Severe stress serves as a well-documented precursor to the pathological state of professional burnout, which is clinically characterized by emotional exhaustion, cynicism (detachment), and a reduced sense of personal accomplishment [4]. This local finding is consistent with prior research, such as that by Lendongan et al. (2018), which similarly indicated a high level of work fatigue (*kelelahan kerja*) among nurses in comparable hospital settings [1]. This reinforces the known link between unmanaged high demands and impaired psychological and physical well-being. Such pervasive and unmitigated stress has cascading effects: it not only compromises the nurse's long-term health (e.g., increased physiological complications) but also significantly impairs their immediate cognitive functions, leading to

reduced alertness, memory lapses, poor communication, and decreased decision-making capacity during critical moments [10]. This study's central finding is strongly consistent with a vast body of regional and national literature. Research conducted by Pongantung et al. (2019) in Amurang similarly established a significant relationship between high workload and chronic stress, demonstrating that increased professional demands inevitably led to heightened psychological tension [3].

The theoretical framework supporting this outcome, as articulated by Nurul (2019), posits that when chronic demands such as excessive workload—are constantly present, they constitute an undeniable environmental stressor that directly triggers a chronic stress response in the worker [2]. The strong correlation found in this specific research, focused explicitly on the UMMI Hospital context, therefore serves as a robust local validation of this established occupational health principle. It shows that the mechanism linking demand and stress is universal, regardless of minor contextual variations [10]. The underlying mechanism linking workload to stress heavily involves the individual's subjective perception and their available coping abilities [11]. When nurses perceive the heavy workload as completely uncontrollable and overwhelming, their stress response system is chronically activated, initiating a harmful cycle. The bivariate data—showing that nurses with heavy workloads are significantly more likely to report severe stress—suggests that current organizational support structures or individual coping mechanisms are presently failing to effectively buffer this toxic effect [11]. This indicates a failure at both the systemic (organizational) and personal (support) levels.

The most critical and far-reaching implication of this research is the direct threat this poses to patient safety and the quality of care provided [9]. Studies have consistently demonstrated that poor nurse staffing levels, which cause high workloads, are significantly associated with increased patient adverse events and hospital mortality rates [5, 9].When nurses operate under conditions of severe stress and fatigue, they are highly prone to making medication errors, failing to detect subtle patient changes, and experiencing communication breakdowns [5]. Therefore, the hospital management must recognize that tackling the nurse's workload and stress is not merely a welfare or HR issue, but a core component of its patient risk management and clinical quality assurance program [10].

While this study successfully established a strong correlational relationship using a cross-sectional design, it is inherently limited by its inability to infer true causality or track changes over time [12]. Furthermore, the analysis was focused primarily on workload and job stress, excluding other potentially influential factors such as organizational culture, leadership style, and social support.Future research is highly recommended to employ a longitudinal design to track the impact of workload changes on stress levels over an extended period. Additionally, subsequent studies should rigorously assess the effectiveness of proposed management interventions (e.g., implementing a new staffing model or a coaching program) to provide evidence-based solutions for hospital management and mitigate the severe threat of high staff turnover [8, 12].

CONCLUSIONS

The study concludes that there is a strong and statistically significant relationship between workload and job stress among nurses in the Inpatient Room of UMMI Hospital in Bengkulu City. The primary evidence supporting this is the high prevalence of heavy workload (66.7%)

correlating directly with the majority of nurses experiencing severe job stress (57.6%), validated by the significant p-value of 0.000. This finding underscores that reducing the demands placed upon the nursing staff is the most critical intervention to safeguard their well-being and clinical performance.

Based on these conclusions, management of RSU UMMI is strongly recommended to optimize staffing ratios to ensure a balanced workload distribution [9] and to simultaneously implement comprehensive training, coaching, and continuous motivation programs to equip nurses with better coping mechanisms for stress management and to improve morale [11]. For future researchers, it is recommended that subsequent studies explore the influence of other variables, such as work environment, organizational culture, and individual coping styles, on job stress levels. Furthermore, employing a longitudinal design would be highly valuable to assess the long-term effectiveness of the proposed interventions in the hospital setting [12].

ACKNOWLEDGEMENT

The authors express their deepest gratitude to the Head of STIKES Tri Mandiri Sakti Bengkulu for their support during this research. Deep appreciation is also expressed to the management and all nurses at UMMI Hospital in Bengkulu City for their cooperation and participation, which made this research possible.

CONFLICT OF INTEREST AND FUNDING DISCLOSURE

All authors declare that they have no conflicts of interest regarding the publication of this article. This research was funded by internal funds from STIKES Tri Mandiri Sakti Bengkulu.

AUTHOR CONTRIBUTIONS

All authors substantially contributed to the conception and design of the study, data acquisition, analysis, and interpretation of the findings. The manuscript was collectively drafted by the authors, critically reviewed for important intellectual content, and all authors approved the final version for submission.

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