



WORKLOAD AND PSYCHOLOGICAL WELL-BEING AMONG NURSES PURSUING HIGHER EDUCATION: A DESCRIPTIVE QUANTITATIVE STUDY

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Abstract

Nurses undergoing study leave face dual roles responsibilities as healthcare providers in clinical settings and as students pursuing professional advancement. This dual role may lead to increased workload and mental health challenges. The purpose of this study was to describe the workload and mental status of nurses undergoing study leave. A descriptive cross-sectional design was applied. The accessible population comprised 73 nurses enrolled in the Nursing Professional Program, and 57 were selected through purposive sampling. Inclusion criteria were students of the Nursing Professional Program who work as nurses in health facilities and are undergoing study leave, and willing to participate. Data were collected using two standardized instruments: NASA-TLX to assess workload and DASS-21 to evaluate depression, anxiety, and stress. Questionnaires were analyzed univariately. The workload was perceived by respondents most dominantly in the very high category (52%), with the dominant factor causing the workload being the Temporal Demand (TD). The most dominant mental status was in the normal category for depression (89%), anxiety (67%), and stress (86%). However, some respondents experienced mild to moderate depression, mild to severe anxiety, and moderate to mild stress. Nurses undergoing study leave experience substantial time pressure in balancing clinical and academic responsibilities, which may increase fatigue and reduce cognitive resources. Despite most respondents remaining in the normal range for depression, anxiety, and stress, the presence of mild to moderate symptoms highlights the need for workload management, early mental-health monitoring, and coordinated hospital–university policies that recognize and support the dual role of these nurses.

Keywords: Clinical practice, Mental Status, Nurses, Nursing Students, Study Leave, Workload

Abstrak

Perawat yang menjalani izin belajar menghadapi tanggung jawab peran ganda sebagai pemberi layanan kesehatan di lingkungan klinis sekaligus sebagai mahasiswa yang sedang menempuh pengembangan profesional. Peran ganda ini dapat menyebabkan peningkatan beban kerja dan tantangan kesehatan mental. Penelitian ini bertujuan untuk menggambarkan beban kerja dan status mental perawat yang menjalani izin belajar. Penelitian ini menggunakan desain deskriptif cross-sectional. Populasi terjangkau terdiri dari 73 perawat yang terdaftar dalam Program Profesi Ners, dan sebanyak 57 responden dipilih menggunakan purposive sampling. Kriteria inklusi adalah mahasiswa Program Profesi Ners yang bekerja sebagai perawat di fasilitas kesehatan, sedang menjalani izin belajar, dan bersedia berpartisipasi. Data dikumpulkan menggunakan dua instrumen terstandar, yaitu NASA TLX untuk menilai beban kerja dan DASS 21 untuk mengevaluasi depresi, kecemasan, dan stres. Kuesioner dianalisis secara univariat. Beban kerja yang dirasakan responden paling dominan berada pada kategori sangat tinggi (52%), dengan faktor dominan penyebab beban kerja adalah Temporal Demand (TD). Status mental yang paling dominan berada pada kategori normal untuk depresi (89%), kecemasan (67%), dan stres (86%). Namun, beberapa responden mengalami depresi ringan hingga sedang, kecemasan ringan hingga berat, serta stres ringan hingga sedang. Perawat yang menjalani izin belajar mengalami tekanan waktu yang cukup besar dalam menyeimbangkan tanggung jawab klinis dan akademik, yang dapat meningkatkan kelelahan dan menurunkan sumber daya kognitif. Meskipun sebagian besar responden tetap berada dalam rentang normal untuk depresi, kecemasan, dan stres, adanya gejala ringan hingga sedang menunjukkan perlunya manajemen beban kerja,

pemantauan kesehatan mental secara dini, serta kebijakan terkoordinasi antara rumah sakit dan universitas yang mengakui dan mendukung peran ganda para perawat tersebut.

Kata kunci: *Praktik klinik, Status mental, Perawat, Mahasiswa keperawatan, Izin belajar, Beban kerja*

Introduction

As a profession, nurses are required to continuously develop their knowledge and skills to meet patient needs in a safe and professional manner. Continuing Professional Development (CPD) generally consists of formal education and non-formal training. In line with this demand, many nurses in Indonesia with a diploma in nursing are pursuing further studies in a Bachelor of Nursing program followed by the Nursing Professional Program. The Nursing Professional Program is an integrated clinical nursing practice program in Indonesia that aims to synthesize students' cognitive abilities and clinical skills acquired during their academic studies and apply them directly in patient care (AIPNI, 2021).

Nursing students undergoing clinical nursing practice in hospitals perceive their workload to be very heavy. Previous research found that nursing students perceive their assignments during hospital practice to be numerous, leading them to usually prioritize tasks with an imminent deadline over those with a longer deadline (Mukti et al., 2019). The workload in professional practice causes poor sleep quality (a short sleep duration of less than 6 hours at night and daytime disturbances) (Manoppo et al., 2023) or sleep deprivation, reduced leisure time (Mukti et al., 2019), stress (Firawati, Damansyah H, 2023), and even dropout. Poor sleep quality is influenced by the numerous academic and related learning experiences that nursing students must undergo. Without adequate sleep, they are susceptible to significant anxiety during clinical practice. Such as the fear of contracting an illness from contact with seriously ill patients and healthcare workers who may be infected with infectious diseases (Guro & Buenavidez, 2023).

The level of stress intensity in nursing students is influenced by the type of ward where they practice, the difficulty of providing care, and previous clinical experience. For example, stress intensity is higher in pediatric wards, which provide the most demanding care, compared to surgical and medical wards. However, previous clinical experience can reduce perceived stress, so educational institutions need to pay attention to the quality of preclinical training, especially that focused on pediatric patient care (Mrosová et al., 2024). Dropout can be influenced by mental health issues such as depression related to "Academic performance" as well as anxiety and stress due to "Lack of support" (de Alencar Ribeiro et al., 2025). These problems have been linked to heavy clinical assignments, strict deadlines, limited recovery time, and the emotional demands of caring for acutely ill or vulnerable patients. However, most of this literature focuses on regular students who are not simultaneously employed as full-time nurses, and therefore may not fully capture the complexity of nurses who study while working.

In Indonesia, a distinct group of learners consists of working nurses who pursue further formal education while retaining their employment status under a study-leave arrangement. Study leave refers to permission granted to civil-servant nurses to undertake higher education, generally at their own expense, with the expectation that their formal duties will not be substantially disrupted and that they will continue to contribute to staffing needs in hospitals and community health centers (Permenkes, 2017). Nurses who pursue further education while maintaining active clinical employment face unique challenges because they must simultaneously meet the expectations of two demanding systems: the healthcare organization and the academic institution. This dual role amplifies workload through overlapping schedules, extended working hours, and competing deadlines for patient care and academic tasks, which can increase temporal pressure, fatigue, and difficulty maintaining work-life balance. Over time, such conditions may adversely affect mental health—raising the risk of stress, anxiety, and depressive symptoms—and may also compromise the consistency, attentiveness, and safety of the care they provide to patients if support mechanisms and workload adjustments are not adequately in place. Although some Indonesian studies have explored dual-role conflict and stress among nurses and transfer students, no previous research in Indonesia has quantitatively measured perceived workload using NASA-TLX together with mental health status using DASS-21 specifically in working nurses on study leave. Addressing this gap, the present study aims to describe the workload and mental status of nurses undergoing study leave while enrolled in the Nursing Professional Program at Universitas Borneo Tarakan.

Methods

Study Design

This study used a cross sectional descriptive design to describe the workload and mental health status of nurses on study leave. The design provided a single time point overview of perceived workload and mental status in this dual role population without examining causal relationships.

Participants and Sample Size Determination

The target population comprised all 73 students enrolled in the Nursing Professional Program at Universitas Borneo Tarakan who were officially on study leave from their clinical positions. Of these, 57 nurses were included in the study. A purposive approach was applied because only students who met the dual-role criteria (actively working as nurses while on study leave) and were present and available during the data-collection period were invited to participate. Inclusion criteria were: (1) being a student in the Nursing Professional Program, (2) currently employed as a nurse in a clinical health facility (hospital, clinic, or Community Health Center), and (3) willingness to participate as indicated by signed informed consent. Nursing students employed in non-clinical positions (such as health departments or educational institutions) were excluded.

Data Collection and Data Analysis

Data collection was conducted at Universitas Borneo Tarakan from June to September 2024. The instrument used in this study consisted of two questionnaires. Perceived workload was assessed using the National Aeronautics and Space Administration Task Load Index (NASA-TLX) questionnaire. NASA-TLX is a method for measuring mental workload subjectively, based on the subjective perception of the respondent/worker. Researchers assessed respondents' workload perceptions into five categories: low, moderate, moderately high, high, and very high. Then, researchers assessed the most dominant workload factors: mental, physical, or temporal demands, own performance, effort, or frustration levels. The assessment of respondents' mental status used the Depression, Anxiety and Stress Scale (DAS) 21. Researchers assessed respondents' depression, anxiety, and stress into five categories: normal, mild, moderate, severe, and very severe. Univariate analyses were performed, and no inferential statistical tests were conducted to examine associations between variables analyzed using statistical analysis tools to identify participant demographics, baseline characteristics, workload and mental status (mean, frequency, and percentage) of participants.

Ethical Considerations

Ethical principles in nursing research applied during data collection included the four ethical principles according to Flanagan et al. (2025)): beneficence, respect for human dignity (autonomy), and justice. Beneficence: the results of this study are expected to be beneficial for respondents. 2) Respect for human dignity: the researcher provides an explanation of the objectives, benefits, and procedures of the study and guarantees the confidentiality of the information provided by respondents. 3) Justice: the researcher provides equal treatment to all respondents. 4) Anonymity and confidentiality: the researcher guarantees the confidentiality of data obtained from participants by only providing a code for each respondent's data. The research has received ethical approval from Universitas Borneo Tarakan with the number: No.111/KEPK-FIKES UBT/XI/2024.

Results

The respondents in this study were 57 (fifty-seven) nurses currently undergoing study leave in the Nursing Professional Program at Universitas Borneo Tarakan. The characteristics of the respondents are shown in the table below:

Table. 1 Respondent Characteristics

Characteristics	n (%)
Gender	
Women	38 (67)*
Man	19 (33)
Age	
26-35	10 (18)
36- 44	23 (40)
45- 59 (pre- elderly)	24 (42)*
Length of Service at Work	
< 5 years	0

5- 10 years	7 (12)
> 10 years	50 (88)*
Working Units	
Community Health Center	3 (5)
Inpatient Care	9 (16)*
Pediatric Inpatient Care	4 (7)
TB Inpatient Care	1 (2)
VIP Ward	3 (5)
Hemodialysis	1 (2)
Chemotherapy	1 (2)
Central Surgical Departement	8 (14)
<i>Emergency Operation</i>	6 (10)
Emergency Room	4 (7)
<i>Intensive Care Unit</i>	3 (5)
Neonatal Intensive Care Unit	2 (4)
<i>Intensive Cardiac Care Unit</i>	1 (2)
Perinatology	1 (2)
Outpatient Care	6 (10)
Management	4 (7)
Total	57 (100)

Table. 1 shows the dominant characteristics of respondents: female, aged 45-59, married, with three children, civil servant status, working in a hospital, having worked at their current workplace for more than 10 years, working at the Central Surgical Departement, and having worked at their current ward for more than 10 years.

Workload Analysis

Table. 2 Respondent Workload

Workload	n (%)
Low	0
Moderate	1 (2)
Moderately High	1 (2)
High	25 (44)
Very High	30 (52)*
Total	57 (100)

Table. 2 shows that the most dominant workload category among respondents was very high workload, reported by 30 (52%) respondents.

Table. 3 Dominant Factors Causing Workload

Dominant Factor Causing Workload	n (%)
Mental Demand (MD)	7 (12)
Physical Demand (PD)	6 (11)
Temporal Demand (TD)	15 (26)*
Own Performance (OP)	8 (14)
Effort	11 (19)
Frustration Level (FR)	10 (18)
Total	57 (100)

Table. 3 indicates that the dominant factor causing the respondents' workload was the temporal demand, affecting 15 (26%) respondents. A very high workload related to the need for time means that the perceived pressure related to the time for completing work at the workplace and on campus is fast and exhausting.

Table. 4 Workload Analysis Based on Workspace

Working Units	Moderate	Moderately High	High	Very High	Total
	n (%)	n (%)	n (%)	n (%)	n
Community Health Center	0	0	1 (33)	2 (67)*	3
Inpatient Care	0	0	3 (33)	6 (67)*	9
Pediatric Inpatient Care	1 (25)*	0	2 (50)	1(25)	4
TB Inpatient Care	0	0	1 (100)	0	1
VIP Ward	0	0	1 (33)	2 (67)*	3
Hemodialysis	0	0	0	1(100)*	1
Chemotherapy	0	0	0	1(100)*	1
Central Surgical Departement	0	0	3(37)	5(63)*	8
Emergency Operation	0	1 (17)*	2(33)	3(50)	6
Emergency Room	0	0	3(75)	1(25)	4
Intensive Care Unit	0	0	2(67)	1 (33)	3
Neonatal Intensive Care Unit	0	0	1(50)	1(50)	2
Intensive Cardiac Care Unit	0	0	1(100)	0	1
Perinatology	0	0	0	1(100)	1
Outpatient Care	0	0	3(50)	3(50)	6
Management	0	0	2(50)	2(50)	4
Total	1	1	25	30	57

Table. 4 shows that respondents who perceived their workload to be very high came from the hemodialysis room as many as 1 (100%) respondents, chemotherapy as many as 1 (100%) respondents, perinatology as many as 1 (100%) respondents as many as 2 (67%) in the Community Health Center, inpatient care as many as 6 (77%) respondents, VIP Ward as many as 6 (77%) respondents and Central Surgical Departements as many as 5 (63%) respondents.

Mental Status Analysis

Table. 5 Respondent Mental Status

Mental Status	Depression	Anxiety	Stress
	n (%)	n (%)	n (%)
Normal	51 (89) *	38 (67)	49 (86)
Mild	4 (7) *	6 (10)	4 (7) *
Moderate	2 (4)	11 (19) *	4 (7) *
Severe	0	2 (4) *	0
Very Severe	0	0	0
Total	57 (100)	57 (100)	57 (100)

Table. 5 shows that the most dominant mental status of the respondents was in the normal category. However, some respondents experienced mild depression (4 or 7%), moderate anxiety (11 or 19%), severe anxiety (2 or 4%), and moderate and mild stress (4 or 7% each).

Discussions

Workload

This study indicate that the workload is perceived by nursing students undergoing study leave as being in the very high category. The workload is perceived as high because they must undertake dual roles simultaneously: as a nurse in the workplace and as a nursing student undergoing clinical practice in the hospital. The workload of a nurse is influenced by the type of working unit or service provided, job demands, resource support from colleagues, time spent on direct patient care, and time spent on registration (Van Den Oetelaar et al., 2021). The very high workload was perceived by respondents from units such as Hemodialysis, Chemotherapy, Perinatology, Community Health Center, Inpatient Unit, VIP Ward, and Central Surgical Departement. This suggests that the working units where the workload is perceived as very high are those that provide direct patient care. Van Den Oetelaar et al., (2021) found that the higher the proportion of direct patient care in a working day, the higher the perceived workload.

The workload of respondents as nursing students conducting clinical practice includes: direct patient care, mentoring with clinical and institutional instructors, preparing patient nursing care reports, preparing preliminary reports, and supervision. This series of activities contributes to stress, with primary factors being financial difficulties, academic workload, clinical practice, fear of poor grades, pressure from instructors and clinical staff, lack of knowledge regarding patient diagnosis and treatment, and environmental factors (Ullah et al., 2025). Other factors: cognitive assessment, skills, affective, mentoring and nurse involvement with students, placement area or clinical environment, appropriate learning model and supervision to improve the learning environment for students (Purwarini & Baua, 2021).

This study found that the dominant factor causing the workload is the need for time. This implies that the perceived pressure related to the time for completing work at the workplace and on campus is fast and exhausting. Previous research Herqutanto et al. (2023) supports this, finding that pressure from workload, including strict deadlines and too many responsibilities, as well as a lack of managerial support, can pose a risk of depression. Another study Firawati et al. (2023) also found a relationship between the burden of clinical practice assignments or workload and the stress level of nursing students undergoing clinical practice.

Clinical practice is a vital component of nursing education that connects theory with practice, this process must be completed by nursing students, despite the difficulty. For students undergoing study leave, they must manage two equally important roles simultaneously: the role of a nurse in a health facility and that of a nursing student. Therefore, clinical practice sites and educational institutions must collaborate to develop learning models that can address the highly perceived workload of these students.

Status Mental Status

Mental health disorders are life-threatening conditions that can affect the individual's social well-being, physical health, personal life, and professional work of nurses in hospitals(Pousa and Lucca, 2021). The results of this study show that the most dominant mental status of the respondents was in the normal category. Mental health is influenced by two factors: Personal factors (e.g., age, female gender, married status, having children, having elderly parents, being a nurse, working in a high-risk setting, conflict between personal and professional interests, low job satisfaction, and work-life balance)(Nurfadillah, Arafat and Yusuf, 2021). Situational factors (e.g., risk of disease exposure, poor support from family and friends, inadequate Personal Protective Equipment (PPE), social stigma, high workload, excessive working hours, staff shortages, low salary, working in psychiatric units, work routines demanding high standards for cognitive, emotional, and work speed, physical and psychological violence, and shift work models disrupting family life) (Nurfadillah, Arafat and Yusuf, 2021; Pousa and Lucca, 2021; Pasaribu and Ricky, 2021).

This study also found that some respondents experienced mild to moderate depression, mild to severe anxiety, and mild to moderate stress. This aligns with research Chirico et al. (2021) indicating that common mental health disorders among nurses include depression, burnout syndrome (BOS), sleep disturbances (sleeping less than the recommended eight hours), and post-traumatic stress disorder (PTSD). Nurses are also susceptible to work stress, which is one of the causes of burnout (Liu et al., 2021).

Depression in nursing students on study leave can be caused by factors such as age, tenure, job stressors, role conflict stressors, role ambiguity, quantitative workload, qualitative workload, career development stressors, and increased responsibility. The relationship between workload and depression is that health workers burdened with a workload exceeding their capacity are more likely to experience psychological distress compared to those assigned a suitable workload (Herqutanto et al., 2023). Nurses on study leave have dual roles, requiring more energy to complete their responsibilities, which can lead to depression. Furthermore, increased working hours and work intensity can worsen their mental health.

Anxiety in nursing students undergoing licensure was categorized as normal, mild, moderate, and severe. One indicator of this assessment is their anxiety about situations that might lead to panic and embarrassment, as well as feelings of fear for no apparent reason. The same study found that among nursing students during their initial clinical experience, 83% had a normal range of anxiety, while 17% had mild to moderate levels of anxiety (Lavina et al., 2021). These results align with previous research that found that anxiety and fear in students undergoing clinical practice depend on their attitudes or interactions with the preceptor. Students who react negatively to stressors become embarrassed when confronted with other group members, which interferes with their learning and academic performance. Whenever they make mistakes

during their practice, they may reconsider pursuing a career in nursing and drop out, despite having the potential to thrive in the profession (Araújo et al., 2022).

Stress is a nonspecific response by the body to any factor that threatens the body's ability to maintain homeostasis. Stress in nursing students on study leave can be caused by several factors. Stressors or stress-inducing agents include: physical, chemical, physiological (strenuous exercise), infection, psychological or emotional, and social (lifestyle, conflict). Stress in nurses is caused by: 1) high pressure and challenges in the workplace. 2) perceived managerial support that is not optimal. 3) Emotional disturbances resulting from the experience of caring for and witnessing the suffering of patients during illness (Roghieh Sodeify & Habibpour, 2020). 4) Work routines that demand high standards for cognitive, emotional, and work speed. 5) Physical and psychological violence. 6) Shift work models that disrupt family life and exacerbate nurse burnout (Pousa & Lucca, 2021). 7) Interprofessional conflict. 8) High workloads and workforce shortages (Argyriadis et al., 2023). 9) The type of ward where they practice. For example, stress intensity is higher in pediatric wards, which provide the most demanding care, compared to surgical and medical wards (Mrošková et al., 2024). Stress in nursing students undergoing clinical practice is influenced by: dealing with patients with psychosocial problems and ignorance of the patient's clinical condition (Ullah et al., 2025).

Therefore, to prevent mental health disorders and manage the workload of nursing students on study leave, strategies should include: creating a comfortable work environment, psychological capital training, asking colleagues for help to reduce work fatigue, implementing mindfulness therapy (Liu et al., 2021; Ruiz-Fernández et al., 2019), and increasing student resilience (Hughes et al., 2021). For example: conducting self-efficacy assessments on students increases students' optimism, emotional intelligence, and self-management/self-care. Educational strategies to strengthen internal protective factors in nursing students include reflection, positive reframing, problem-based learning, and mindfulness (Hughes et al., 2021).

This study has several limitations. The sample size was relatively small and drawn from a single university, which restricts the generalizability of the results. In addition, the cross-sectional design and reliance on self-reported questionnaires preclude causal inference and may be subject to response bias. Future research should include multi-center samples, longitudinal designs, and mixed-methods approaches to more comprehensively explore how dual roles influence workload and mental health among nurses pursuing further education.

Conclusion

This study found that students undergoing study leave perceive their workload to be in the very high category, with temporal demand being the most dominant factor. Respondents consistently felt a lack of time to complete their duties at both the hospital and the campus. The average mental status of respondents was in the normal category. However, some respondents experienced mild to moderate depression, mild to severe anxiety, and mild to moderate stress. Therefore, hospital management needs to implement policies for nurses pursuing further education that take into account the workload and mental status of these nurses.

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