Original Research

Exploring the aftermath: Work demands, workplace violence, and job satisfaction among nurses in a public hospital in the post-COVID-19 era

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Abstract

Background: Despite the shift from the COVID-19 pandemic to an endemic phase, many individuals, including nurses, may still be facing psychosocial challenges after enduring three years of the pandemic. Although the anticipation that psychosocial issues, such as work demand and workplace violence, have diminished and nurses' job satisfaction has improved, there is a scarcity of studies in Indonesia investigating this matter.

Objective: This study aimed to 1) explore the current state of nurses' work demands, workplace violence, and job satisfaction and 2) examine the relationships between work demands, workplace violence, and respondents' characteristics with nurses' job satisfaction.

Methods: The study employed a cross-sectional survey design involving 247 nurses from a regional general hospital in Jakarta, Indonesia. Simple random sampling was used to select the participants, and the Copenhagen Psychosocial Questionnaire (COPSOQ) III was used for data collection. Data were analyzed using multiple linear regression.

Results: The types of cognitive demands (M = 12.46, SD = 3.461), demands for hiding emotion (M = 11.66, SD = 3.554), and work pace (M = 9.87, SD = 2.847) scored an average close to or within the "sometimes/quite extensive" range on the scale. All types of workplace violence and conflicts occurred among nurses (Mean range = 1.21-2.57). Nurses perceived themselves as fairly satisfied with their job (M = 18.47, SD = 3.18). The results of the multiple linear regression indicated that nurses' job satisfaction was predominantly influenced by workplace violence (β = -0.191), followed by the type of care unit (β = -0.167) and work demands (β = -0.126). These factors collectively accounted for 9.1% of the variance in the job satisfaction variable (R^2 = 0.091, p <0.005)

Conclusion: Despite the decreasing number of COVID-19 cases, nurses still experience high work demands and continue to face workplace violence. These factors, as well as the type of care unit, influence nurses' job satisfaction. Therefore, further actions need to be taken by hospital management to address these psychosocial conditions. It is recommended that future research explore the role of nurse managers in managing the psychosocial factors associated with these three factors.

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Keywords

COVID-19; Indonesia; job satisfaction; nurses; workplace violence; work demands

Background

The global healthcare system, including nurses, has been significantly impacted by the COVID-19 pandemic. Nurses' psychosocial well-being, specifically job satisfaction, has experienced a notable decline because of this unprecedented crisis. Job satisfaction is a worker's attitude towards their work, often shown in responses of liking or disliking the work itself, the rewards, or the work context (American Psychological Association, 2023). Previous research has consistently demonstrated that the pandemic has led to unsatisfactory levels of job satisfaction among nurses. For instance, findings from Hong Kong indicated that approximately 35% of nurses expressed dissatisfaction with their jobs during the pandemic (Choi et al., 2022).

Similarly, studies conducted in Poland reported decreased job satisfaction among nurses (Piotrowski et al., 2022), while in China, job satisfaction levels remained only moderate (Hanum et al., 2023). This is further elucidated by a study on Portuguese nurses, which revealed a significant decline in job satisfaction during the pandemic, particularly regarding remuneration, assessment, recognition, and staffing satisfaction (Ribeiro et al., 2022). The decrease in job satisfaction is closely related to a desire to quit due to

unfavorable pandemic conditions (de Vries et al., 2023; Hanum et al., 2023; Piotrowski et al., 2022). Nevertheless, job satisfaction plays a crucial role in motivating nurses, acting as a significant driving force to mitigate heightened fatigue and alleviate the inclination to resign (de Vries et al., 2023; Zhang et al., 2020).

The adverse consequences of job dissatisfaction extend beyond increased fatigue and a heightened desire to quit. Furthermore, they impact nurses' performance, work motivation, and job commitment (Eliyana et al., 2021). Nurse performance is manifested through the quality of care, patient safety, and nursing services. When job satisfaction is low, the quality of care and nursing services will decrease (Janíková et al., 2021). Therefore, it is essential to prioritize maintaining and enhancing nurses' job satisfaction to prevent any degradation in the quality of care and nursing services.

Nurses' job satisfaction is closely associated with two psychosocial factors: work demands and workplace violence. The first factor, work demands, in nursing is related to several main components that explain it, including quantitative demands, cognitive demands, emotional demands, work speed, and demands for hiding emotion (Kristensen et al., 2005). Nurses perceive work demands to have sharply increased during the pandemic in healthcare settings. Nurses are under significant pressure and face high workloads, leading to work-related stress and fatigue (Fernandez et al., 2020). Concerning job satisfaction, workloads directly and indirectly influence nurses' job satisfaction (Baisa & Nilasari, 2022; Said & El-Shafei, 2021) and contribute to deteriorating working conditions (Malinowska Lipien et al., 2022). Nurses in Jakarta, Indonesia, feel pressured to work at a fast pace, with numerous tasks to be completed within tight timeframes and caring for multiple patients simultaneously (Adiba & Pratama, 2021; Baisa & Nilasari, 2022).

The second psychosocial factor closely associated with job satisfaction is the occurrence of violence against nurses, which has increased during the COVID-19 pandemic. Workplace violence is an incident where workers are mistreated, threatened, or assaulted while doing their jobs, which can affect their safety, well-being, and health (International Labour Office (ILO) et al., 2002). Notably, there has been a rise in violence perpetrated by patients or their families, both in verbal and physical forms, experienced by nurses in Indonesia. According to the Indonesian National Nurses Association (INNA), from 2020 to 2021, INNA handled 7-8 cases of violence, and this number does not include several cases reported at the provincial level or unreported incidents (Arunanta, 2021; Fadjarudin, 2021).

However, the violence experienced by nurses is not limited to patients and their families; various forms of violence from colleagues, professionals in other fields, and superiors have been occurring long before the pandemic. While there is no national-scale data on the incidence of violence, research conducted in several cities in Indonesia indicates that nurses experience several forms of violence, including approximately 30-50% verbal abuse, nearly 30% bullying, 10-30% physical violence, almost 20% threats, and 10% sexual harassment (Damopoli et al., 2019; Yosep et al., 2021; Zahra & Feng, 2018; Zulfan et al., 2022). The impact of this violence is keenly felt by nurses, leading to stress, frustration, depression, fatigue, and physical ailments (Chowdhury et al., 2022; Goh et al., 2022; Johnson & Benham-Hutchins, 2020). Prolonged stress resulting from violence has organizational implications, including job dissatisfaction, increased desire to quit, and higher nurse turnover rates (Ferdousi & Rony, 2022; Goh et al., 2022; Johnson & Benham-Hutchins, 2020).

Previous theories or models have also described the interrelationship among the aforementioned psychosocial factors. The Job Demand-Control Model, which has evolved into the Demands-Control Model, explains work demands as consisting of two variables: psychological demands, often referred to as work demands, and decision latitude (De Lange et al., 2002; Karasek Jr, 1979). Karasek Jr (1979) states high work demands occur when high psychological demands and low decision latitude increase stress and job dissatisfaction. Job satisfaction, as described in The Vitamin Model, is emphasized as one of the three principles for analyzing employee well-being (Ginting et al., 2019). Workplace violence has received significant attention from the World Health Organization and the International Labor Organization, resulting in the development of guidelines and reinforcement for preventing violence against employees (International Labour Office (ILO) et al., 2002). The Workplace Violence Interactive Model by Chappell and Di Martino (2006) supports the notion that violence influences job dissatisfaction and indirectly affects the increased costs borne by the workplace.

The high work demands, increased violence against nurses, and decreased job satisfaction among nurses during the early and mid-stages of the COVID-19 pandemic (spanning from 2020 to 2022) have been extensively evidenced by previous studies. The rates of illness and death due to COVID-19 have significantly declined, including in Indonesia (Indonesian Ministry of Health, 2023; World Health Organization, 2023). The decline in COVID-19 cases implies a potential decrease in the stressors related to COVID-19 infection, leading to reduced work pressure and a lower likelihood of violence against nurses. However, this is different from Flaskerud's (2023) view that psychosocial issues such as anxiety and restlessness are still felt by many people when entering the COVID-19 endemic period. Simultaneously, this decrease in stressors is expected to contribute to an increase in job satisfaction among nurses. This situation presents a significant and intriguing opportunity to investigate the psychosocial aspects of nurses working in hospitals, particularly after three years of the pandemic. Such exploration serves as a fundamental step towards effectively managing a conducive work environment and fostering the well-being of nurses. In addition, there is a dearth of studies in Indonesia investigating this issue in the post-pandemic world. Therefore, the primary objective of this study was to examine two key aspects: (1) the current state of work demands, workplace violence, and job satisfaction, and (2) the correlation between work demands, workplace violence, respondent characteristics, and job satisfaction among nurses.

Methods

Study Design
This quantitative study employed a cross-sectional survey approach to investigate the relationships between work demands and workplace violence as psychosocial factors in the workplace, with job satisfaction of nurses as the dependent

variable. The survey was conducted to examine the association between these variables and shed light on the influence of work demands, workplace violence, and respondent characteristics on nurses' job satisfaction.

Samples/Participants
The population of this study consisted of nurses working in one of the district public hospitals in Jakarta, Indonesia. The samples included nurses who met the inclusion criteria of having a minimum of one year of work experience, a minimum educational background of a Diploma in Nursing, and willingness to participate as respondents. The exclusion criteria were being on maternity leave/childbirth leave/annual leave, being on study leave, and being suspended from the nursing profession. The study required a minimum sample size of 233 participants to achieve a statistical power of 80% and establish a 95% confidence interval between 0.05 and 1.96 while maintaining a narrow 3% margin of error. This sample size determination was based on an assumed proportion of 76.1% of Indonesian nurses exposed to psychosocial risks (Felicia et al., 2023). Ultimately, 248 responses were obtained, of which 247 fully completed responses were considered for the analysis. This resulted in an additional 9.4% of participants (14 individuals) contributing to reducing the study's margin of error, thereby enhancing the precision of the findings. A simple random sampling method was employed. The authors initially randomized the list of nurses at the research hospital using MS Excel. If potential respondents who did not meet the criteria were found, they were removed from the list, and another round of random selection was conducted to identify additional respondents.

Instruments
The instruments used in this study consisted of a demographic data instrument developed by the researchers and the Indonesian version of the Copenhagen Psychosocial Questionnaire (COPSOQ) III instrument. The demographic data instrument included information on age, gender, highest level of education, marital status, length of employment as a nurse in the current hospital, nursing career level, nurse manager status, and the type of ward where the respondent works. COPSOQ is an instrument developed by Kristensen et al. (2005) to improve the psychosocial work environment. This instrument has evolved through research into the COPSOQ III version (Burr et al., 2019). The COPSOQ III instrument can be obtained from the official COPSOQ Network website and can be used for research in accordance with the license terms listed on the page: https://www.copsoq-network.org/licence-guidelines-and-questionnaire/. The COPSOQ III instrument used in this study has been translated into Indonesian, tested for validity and reliability by Ginting et al. (2019), and incorporated into the COPSOQ Network. Also, it has been published as a book that lists each question item (Ginting & Febriansyah, 2020). In this study, COPSOQ III was employed to explore the variables of work demands, workplace violence, and job satisfaction among nurses, which will then be analyzed for their relationships.

Work demands were measured using 18 items, divided into five factors: cognitive demands, emotional demands, work pace, demands to hide emotions, and quantitative work demands. A Likert scale was employed, ranging from 1 =

never/very low to 5 = always/very high. The variable of workplace violence was assessed through the domain conflict and offensive behavior instrument, consisting of nine items. Eight items with an unfavorable Likert scale ranged from 1 = Yes, every day; 2 = Yes, every week; 3 = Yes, every month; 4 = Yes, several times; to 5 = No. One item had a Likert scale ranging from 1 = Never to 5 = Always. The variable of job satisfaction was measured using an instrument within the Job Satisfaction factor, one of the factors in the Work Individual Interface domain. It comprised seven items with a Likert scale ranging from 1 = very dissatisfied/very low to 5 = very satisfied/very high. The Cronbach's Alpha value of the Indonesian version of the COPSOQ III instrument was 0.884.

Data Collection
Data were collected by the researchers, with assistance from the nursing division, in coordinating the schedule and data collection process. Respondents were gathered in a single room and completed the questionnaire online using Google Forms. Due to limited room capacity, data collection was divided into four sessions from February to March 2023. The schedule for each session was coordinated with the head nurses to deliver schedule information to the respondents. Respondents attended on a predetermined schedule each session. Before filling out the questionnaire, the researchers explained the study and asked for the respondent's consent. After the respondents filled out the questionnaire, the authors directly checked the completeness of filling out the questionnaire for each respondent.

Data Analysis
Data analysis in this study was conducted using IBM SPSS version 25. Descriptive analysis was employed to describe the characteristics of the respondents and the variables under investigation. Bivariate analysis (using Pearson correlation test, independent t-test, and ANOVA) and multivariate analysis (using multiple linear regression with ENTER method) were used to explore the relationships between the variables of work demands, workplace violence, respondent characteristics, and the variable of nurse job satisfaction.

Ethical Consideration
This study has obtained approval from the Research Ethics Committee of the Faculty of Nursing, Universitas Indonesia, with the reference number KET-247/UN2.F12.D1.2.1/PPM. 00.02/2022, and the Research Ethics Committee of Tarakan General Hospital, with the reference number 052/KEPK/RSUDT/2022. Before collecting data, detailed explanations were provided to potential participants regarding the study's objectives, potential benefits, research procedures, guarantees of identity and data confidentiality, and the voluntary nature of their participation. In order to indicate their willingness to participate, respondents completed an informed consent form using the Google Forms platform.

Results

Characteristics of the Respondents
The study included a sample of 247 nurses who participated in the research. The respondents had a mean age of 35.51 years (SD = 6.846 years; min-max = 13-57) and an average

work experience of 11.91 years (SD = 7.488; min-max = 1-35) in the hospital where the data were collected. The majority of participants were female (75.5%) and married (87%).

Table 1 Respondents' characteristics (*N* = 247)

Variables	*n*	%
Sex		
Male	60	24.3
Female	187	75.7
Marital Status		
Married	215	87.0
Unmarried	29	11.7
Widow/er	3	1.2
Education Background		
Diploma of Nursing	125	50.6
Bachelor of Nursing	15	6.1
Ners	101	40.9
Master of Nursing/Health	1	0.4
Nursing Specialist	4	1.6
Other	1	0.4
Clinical Nurse Level		
Level 1	32	13.0
Level 2	81	32.8
Level 3	109	44.1
Level 4	23	9.3
Level 5	2	0.8
Nurse Manager Status		
Nurse Manager	32	13.0
Not a Nurse Manager	215	87.0
Type of Care Unit		
Internal medicine	36	14.6
Surgical	21	8.5
Pediatric	8	3.2
Maternity	1	0.4
Intensive care	107	43.3
Emergency unit	12	4.9
Outpatient	19	7.7
Other	43	17.4

Regarding their career progression, 44.1% were at level 3 in the clinical nurse career ladder, and 87% did not hold a position as a nurse manager. The clinical nurse level is a career level for nurses who provide direct nursing care to clients. Level 1 is the lowest, and level 5 is the highest. The nurse manager in the respondents' characteristics section is a nurse who serves as head nurse, head of installations, nursing supervisor, clinical care manager, head of nursing sections, head of nursing divisions, or Director of Nursing.

Furthermore, 43.3% of the nurses were assigned to the intensive care unit. There was a similar proportion of respondents with a background in Diploma in Nursing (3 years program) compared to those with a background in Ners (Professional Nursing Program after Bachelor of Nursing Program). A nursing Specialist is a nurse who has completed nursing specialist education in Indonesia and is equivalent to an advanced practice registered nurse. Others with an educational background have a level other than nursing education, such as a Bachelor of Public Health (**Table 1**).

Description of Work Demands, Workplace Violence, and Job Satisfaction among Nurses
Based on the results of the descriptive analysis in **Table 2**, the types of work demands with mean scores approaching or within the range of "sometimes/quite extensive" on the scale are cognitive demands, demands for hiding emotion, and work pace. Nurses perceived that they sometimes experienced situations or conditions requiring them to work using their cognitive abilities (cognitive demands), sometimes to hide their emotions/feelings and work at a high pace. Overall, work demands were also perceived to be experienced by nurses occasionally.

Table 2 Description of work demands (*N* = 247)

Variable	Mean	SD	Min-Max
Quantitative demands	9.03	2.494	4-16
Cognitive demands	12.56	3.461	4-20
Emotional demands	6.90	2.393	3-14
Demands for hiding emotion	11.66	3.554	4-20
Work pace	9.87	2.847	3-15
Work demands (Total score)	50.02	9.816	22-74

Table 3 shows that all types of workplace violence and conflicts occurred among nurses, although with low mean scores (range 1.21-2.57). When viewed based on the proportion of "Yes" and "No" occurrences, the prevalence of violence and conflicts experienced by nurses were as follows: 61.1% for unpleasant teasing, 14.6% for threat of violence, 8.1% for sexual harassment, 6.5% for physical violence, 6.9% for harassment in social media, 25.5% for gossip and slander, 26.3% for conflicts and quarrels, 19.8% for bullying, and 62.3% for unjust criticism.

Table 3 Description of workplace violence (*N* = 247)

Variable	Mean	SD	Min-Max	*n* (%)				
				No	Yes, occasionally	Yes, every month	Yes, every week	Yes, every day
Unpleasant teasing	2.13	1.178	1-5	96 (38.9)	74 (30)	38 (15.4)	28 (11.3)	11 (4.5)
Threat of violence	1.35	0.976	1-5	211 (85.4)	12 (4.9)	8 (3.2)	5 (2.0)	11 (4.5)
Sexual harassment	1.23	0.87	1-5	227 (91.9)	5 (2.0)	2 (0.8)	3 (1.2)	10 (4.0)
Physical violence	1.21	0.839	1-5	231 (93.5)	1 (0.4)	3 (1.2)	3 (1.2)	9 (3.6)
Harassment in social media	1.22	0.867	1-5	230 (93.1)	2 (0.8)	2 (0.8)	3 (1.2)	10 (4.0)
Gossip and slander	1.55	1.128	1-5	184 (74.5)	28 (11.3)	9 (3.6)	13 (5.3)	13 (5.3)
Conflicts and quarrels	1.46	0.944	1-5	182 (73.7)	38 (15.4)	13 (5.3)	6 (2.4)	8 (3.2)
Bullying	1.45	1.042	1-5	198 (80.2)	18 (7.3)	13 (5.3)	6 (2.4)	12 (4.9)
Unjustly criticized[†]	2.57	1.562	1-5	93 (37.7)	46 (18.6)	33 (13.4)	24 (9.7)	51 (20.6)
Workplace violence (Total score)	14.18	6.446	9-41					

Note: [†] Unjustly criticized Using a Likert scale of 1-5, Never, Rarely, Sometimes, Often, Always

The mean score of the job satisfaction variable was 18.47 (SD = 3.18; min-max = 10-25). Looking at the score range of the Likert scale 1-5 and the 5-item questionnaire (score range 5-25), nurses perceived themselves as being fairly satisfied with their work. The frequency distribution shows that job satisfaction was perceived as being fairly satisfied and satisfied to an almost equal extent by nurses (around 30-40%). A detailed description of the job satisfaction is presented in **Table 4**.

Table 4 Description of job satisfaction ($N = 247$)

Job Satisfaction	n (%)				
	Very dissatisfied	Dissatisfied	Moderately satisfied	Satisfied	Very satisfied
How satisfied are you with your job prospects?	2 (0.8)	8 (3.2)	84 (34.0)	109 (44.1)	44 (17.8)
How satisfied are you with the physical condition of your work?	0 (0)	12 (4.9)	87 (35.2)	111 (44.9)	37 (15.0)
How satisfied are you with how your abilities are utilized?	0 (0)	7 (2.8)	75 (30.4)	117 (47.4)	48 (19.4)
How satisfied are you with your job overall, taking everything into consideration?	2 (0.8)	7 (2.8)	83 (33.6)	121 (49.0)	34 (13.8)
How satisfied are you with your salary/income?	2 (0.8)	27 (10.9)	97 (39.3)	96 (38.9)	25 (10.1)
(Mean = 18.47, SD = 3.180, Min-Max = 10-25)					

Relationships Between Respondents' Characteristics, Work Demands, and Workplace Violence with Job Satisfaction

Based on the bivariate analysis results, it was found that work demands and workplace violence were significantly associated with nurse job satisfaction (p <0.05). The correlation coefficients (r) for both variables indicate a weak and negative relationship, with work demands (r = -0.159) and workplace violence (r = -0.219), suggesting that higher work demands and more frequent experiences of violence lead to lower job satisfaction. According to the detailed bivariate results in **Table 5**, none of the respondent characteristics was associated with nurse job satisfaction based on a significant value of 0.05.

Table 5 Correlations between respondents' characteristics, work demands, workplace violence, and job satisfaction ($N = 247$)

Variables	Mean	SD	r/t/F value	p-value
Age[+]	35.51	6.846	0.026	0.679
Length of experience[+]	11.91	7.488	-0.030	0.639
Sex[+]			0.644	0.520
Male	18.70	3.674		
Female	18.40	3.011		
Nurse Manager Status[+]			0.951	0.342
Nurse Manager	18.97	3.703		
Not a Nurse Manager	18.40	3.098		
Education Background[¥]			1.277	0.275
Diploma of Nursing	18.01	3.428		
Bachelor of Nursing	18.60	2.640		
Ners	18.98	2.922		
Master of Nursing/Health	21.00	-		
Nursing Specialist	19.25	2.217		
Other	17.00	-		
Marital Status[¥]			0.197	0.821
Married	18.43	3.201		
Unmarried	18.69	2.989		
Widow/er	19.33	4.509		
Clinical Nurse Level[¥]			1.224	0.301
Level 1	19.16	2.384		
Level 2	17.96	3.211		
Level 3	18.48	3.343		
Level 4	19.22	2.999		
Level 5	19.00	5.657		
Type of Care Unit[¥]			2.039	0.051
Internal medicine	19.47	2.710		
Surgical	19.71	4.417		
Pediatric	20.13	1.356		
Maternity	17.00	-		
Intensive care	18.11	3.076		
Emergency unit	16.92	3.288		
Outpatient	18.16	3.387		
Other	18.21	2.924		
Work Demands[+]	50.02	9.816	-0.159	0.012*
Workplace Violence[+]	14.18	6.446	-0.219	0.001*

Note: [+]Analyzed using Pearson correlation test | [+]Analyzed using independent t-test | [¥]Analyzed using ANOVA| *Significant p <0.05

Furthermore, the researchers conducted multivariate analysis to determine the variables that most influence nurse job satisfaction and the strength of the relationship between each independent variable and job satisfaction. Multiple linear regression analysis with the ENTER method began with the selection of variables for inclusion based on bivariate selection. Variables with a *p*-value <0.25 were considered for further multivariate analysis, including work demands, workplace violence, and type of healthcare unit (as indicated by the *p*-value). These variables were included in the multivariate modeling, and the statistical tests yielded a *p*-value of 0.0005. All variables had a *p* <0.05, indicating that the overall regression equation was significant, and no variables were excluded from the model.

The assumptions of multiple linear regression were tested to predict the strength of the relationship between variables in the equation. In this study, the equation satisfies the assumptions of existence (mean residual of 0.000 and residual SD of 3.031), independence (Durbin-Watson coefficient of 1.927), linearity (ANOVA test *p*-value of 0.0005), homoscedasticity (scatter plot showed no specific pattern and points are evenly distributed around the zero line), and normality (P-P plot showed points scattered around the diagonal line). The Variance Inflation Factor (VIF) values for all three variables are <10, indicating no multicollinearity among the independent variables. Therefore, the final model was obtained, as shown in **Table 6.** The final model illustrated that the three independent variables could explain the job satisfaction variable by 9.1% (R^2 = 0.091), and other variables explained the rest. The final equation was: *Job Satisfaction = 22.978 - 0.234 type of care unit - 0.041 work demands – 0.094 workplace violence.* The model also revealed that nurse job satisfaction was most influenced by the variable of workplace violence (β = -0.191), followed by the type of care unit (β = -0.167) and work demands (β = -0.126).

Table 6 Multiple linear regression results (N = 247)

Variable	B	Std. Error	Beta (β)	t	p
Constant	22.978	1.117		20.570	0.0005*
Type of care unit	-0.234	0.086	-0.167	-2.731	
Work demands	-0.041	0.020	-0.126	-2.031	
Workplace violence	-0.094	0.031	-0.191	-3.082	

Note: R^2= 0.091 | Significant *p* <0.05

Discussion

This research was conducted among 247 nurses in a regional general hospital specializing in critical care services. It was found that the majority of respondents were assigned to the intensive care unit (approximately 40%). This aligns with the hospital's specialization in critical care, including intensive care. The majority of respondents were also Clinical Nurse III (approximately 40%). This number corresponds to the proportion of respondents assigned to the intensive care unit. The alignment between the type of care unit and the level of clinical nurse refers to the Minister of Health Regulation No. 40 of 2017 on the Development of Professional Career Levels for Clinical Nurses, which states that Clinical Nurse III is a nurse

with the ability to provide comprehensive nursing care in a specific area (Indonesian Ministry of Health 2017). However, it is worth noting that only 1.6% of the respondents had a background as Nurse Specialists. This condition does not highly support nurses' motivation and job satisfaction, considering that critical care is a specialty area in the hospital. The Job Characteristic Model explains that individual growth requires strength, contextual satisfaction, knowledge, skills, and abilities in performing a job with its core characteristics, which can result in high internal motivation (Kompier, 2003).

After three years of the pandemic, the condition of work demands, particularly in terms of cognitive demands, demands for hiding emotions, and work pace, are sometimes experienced by nurses. The high work pace and cognitive demands align with the hospital's specialization in critical care services. However, this study did not compare differences in the characteristics of the nurses and the hospitals involved. In order to facilitate a comprehensive comparison of the work demand conditions, further research is warranted.

High work pace can be effectively met if nurses possess good cognitive and psychomotor abilities that align with their specific areas of practice (Ginting & Febriansyah, 2020). This closely relates to the cognitive demands experienced by nurses in the present study, as competent nurses should be able to effectively manage the high demands associated with determining whether these work demands are caused by job characteristics or due to the pandemic conditions. Previous research conducted during the second year of the pandemic in Jakarta and Bekasi, Indonesia, described that the level of job demands for nurses was very high, and the highest perceived demand was when nurses had to perform multiple tasks in a short period (Baisa & Nilasari, 2022). These findings are consistent with the results reported by Adiba and Pratama (2021) in a regional general hospital in Bekasi, Indonesia, where nurses were required to work at a fast pace, indicating a demanding work environment. It is important to note that the present study's results cannot be directly compared to the work pace. Based on the descriptive analysis of job demands and educational backgrounds, it is recommended that the management evaluate the alignment between healthcare service needs in the hospital and the current available resources.

Another study finding is that nurses experienced workplace violence (mean range 1.21-2.57). Although the mean values appear low, the frequency distribution results indicate that instances of violence occurred more than once, suggesting that the goal of zero tolerance for violence in healthcare facilities has not been achieved (American Association of Critical-Care Nurses, 2019). The mean range seems lower compared to the mean horizontal violence in Iran at the end of 2021, which was 45.38 + 13.24 (score 0-100) (Habibzadeh et al., 2023). It is also similar to the experiences of nurses in Bangladesh who encountered workplace violence (mean 2.77; SD 2.66) and bullying (mean 17.64; SD 7.29), with an increase in violence from patients/families during the pandemic (Chowdhury et al., 2022; Ferdousi & Rony, 2022). Although the prevalence in other countries has shown higher rates during the early and mid stages of the pandemic, the lack of national and local prevalence data on workplace violence in the research hospital prevents our study from comparing the prevalence of violence between the early, mid, and current

stages. Thus, further research is needed to combine the findings of studies in Indonesia on violence prevalence across different periods, including before, early, mid, and post-lifting of the COVID-19 state of emergency, using meta-analysis methods. This would be useful in illustrating the prevalence of violence among nurses in Indonesia with a broader scope. These descriptive findings also provide insights for management to explore prevention and intervention efforts to mitigate incidents of violence against nurses.

The next finding is that the nurses in this study reported being fairly satisfied with their job, with a similar proportion of nurses indicating they were moderately satisfied and satisfied. The authors have not found any research results depicting the job satisfaction of nurses in early 2023. However, job satisfaction among nurses during the first and second years of the pandemic was found to have decreased (Choi et al., 2022; Piotrowski et al., 2022; Ribeiro et al., 2022). This decline in satisfaction is attributed to the conditions of the COVID-19 pandemic, as evidenced by the study of Labrague and de Los Santos (2021) in the Philippines, which found a significant correlation between nurses' fear of COVID-19 and decreased job satisfaction. It would be interesting to discuss further the factors contributing to this range of satisfaction, which falls between moderate and satisfied rather than just satisfied or highly satisfied, considering the significant decrease in COVID-19 patients. Alternatively, it could be due to work demands in a hospital specializing in critical care services. To answer these questions, further research is needed, incorporating additional variables beyond job demands and workplace violence.

The multiple linear regression analysis results indicated that job satisfaction was primarily influenced by workplace violence, followed by the type of care unit and job demands. Workplace violence has been extensively demonstrated in previous studies to cause nurse job dissatisfaction, which is preceded by experiences of stress, frustration, depression, and fatigue (Chowdhury et al., 2022; Ferdousi & Rony, 2022; Goh et al., 2022; Johnson & Benham-Hutchins, 2020). Similarly, high work demands could directly or indirectly lead to low job satisfaction among nurses (Baisa & Nilasari, 2022; Said & El-Shafei, 2021). The last factor that affected nurses' job satisfaction was the care unit type. In this study, the intensive care unit was the most common care unit where nurses were assigned. According to the Job Characteristic Model, job characteristics impact job satisfaction and nurse motivation (Ginting & Febriansyah, 2020; Kompier, 2003). Due to the type of care unit, work demands, and occurrences of violence against nurses, it becomes crucial to explore deeper into the role and efforts of nurse managers in managing the units through scientific methods.

Limitations of the Study and Recommendations
There are several limitations in this study. Firstly, no baseline data was available at the start of the pandemic, which prevented the comparison of conditions between the two time points. Secondly, the samples were limited to one hospital, which restricts the generalizability of the findings to the national context of Indonesia. Additionally, the study did not explore respondents' characteristics regarding their experience caring for COVID-19 patients. Therefore, the researchers provided some recommendations for further

research. Firstly, future studies could expand the scope and examine the psychosocial conditions during the early/mid-pandemic period and after the lifting of the COVID-19 emergency status by the WHO. A systematic review and meta-analysis could be conducted to obtain nationally representative data. Furthermore, considering that the results of this study pertain to the management aspect, it is necessary to investigate the role and efforts of nurse managers in managing psychosocial factors within the work units.

Implications of the Study
The research findings also have implications, particularly for healthcare services or hospitals. When perceived as only sufficient, job satisfaction can impact nurses and the hospital's overall performance. This study identified three factors that influenced nurses' job satisfaction: workplace violence, work demands, and the type of nursing unit. These factors fall under management and require attention and effective leadership by nurse managers to enhance nurses' job satisfaction and performance. Given the limited number of specialized nurses in the study, it is crucial to address the needs of critical care services that demand nurses to work with adequate knowledge and skills. Therefore, it is recommended that hospitals provide professional development opportunities for nurses through formal education pathways. By investing in the professional growth of nurses, hospitals can ensure that their workforce is equipped with the necessary expertise to meet the demands of critical care. This, in turn, can contribute to higher job satisfaction and improved performance among nurses. The study highlights the importance of addressing and managing factors such as workplace violence, work demands, and the specific characteristics of nursing units to enhance nurses' job satisfaction and overall performance. Furthermore, it emphasizes the significance of investing in nurses' professional development through formal education to meet the specialized needs of critical care services. By implementing these recommendations, hospitals can create a supportive work environment that fosters job satisfaction and facilitates optimal performance among nurses.

Conclusion

Considering the three-year duration of the COVID-19 pandemic, the nurses involved in this research have encountered various forms of violence, each with differing frequencies. Furthermore, nurses often confront high work demands in their daily work. Both workplace violence and work demands have negatively correlated with nurse job satisfaction. Additionally, the type of care unit as one of the respondents' characteristics, an essential aspect of nurses' work environment, also showed an adverse relationship with their job satisfaction. The experienced violence compromises nurses' safety and mental well-being and holds potential implications for their future performance. Prolonged exposure to high work demands, as perceived by nurses, may result in work-related stress and health complications, thereby impacting the overall quality of patient care. Thus, it is crucial for nurse managers and hospital administrators to address workplace violence, effectively manage work demands and workloads, and ensure the appropriate allocation of resources and facilities within care units to align with the specific services

provided. Such measures are instrumental in attaining job satisfaction, which significantly contributes to the overall well-being of nurses. Furthermore, future research endeavors should focus on exploring the role of nurse managers in effectively addressing workplace violence and managing work demands, as these efforts are fundamental in enhancing nurse job satisfaction and performance.

Declaration of Conflicting Interest

The authors have no conflict of interest to declare.

Authors' Contributions

DS, HH, MHK, and RDS planned the research concept and design. All authors contributed to the data collection process, drafted the manuscript, and provided input on manuscript content. All authors were responsible for the manuscript's content and approved the final version of the article to be published.

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Data Availability

The generated and analyzed datasets of this study are available in the corresponding author and accessible upon a reasonable request.

Declaration of Use of AI in Scientific Writing

Nothing to declare.

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