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THE STRESS OF INDONESIAN NURSES DURING A TIME OF CHANGE

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ABSTRAK

Stres memiliki efek positif dan negatif pada perawat. Perubahan dalam manajemen dan sistem rumah sakit mengharuskan perawat menyesuaikan diri dengan kebijakan baru, budaya kerja, dan lingkungan rumah sakit, yang dapat menimbulkan stres. Selama perubahan dan transisi, beban kerja perawat mungkin terpengaruh, sehingga dapat meningkatkan tingkat stres. Penelitian ini bertujuan untuk mendeskripsikan tingkat stres kepala perawat dan staf perawat selama masa transisi di rumah sakit. Penelitian ini menggunakan desain deskriptif kuantitatif dengan desain cross sectional. Menggunakan metode purposive sampling, responden terdiri dari 44 perawat teregistrasi. Kriteria inklusi ialah perawat yang telah bekerja setidaknya selama satu tahun di bawah sistem manajemen saat ini. Dengan menggunakan Bianchi Stress Questionnaire versi bahasa Indonesia, penelitian ini mengukur tingkat stres terkait pekerjaan (Alpha Cronbach 0,974). Penelitian ini dilakukan pada pertengahan tahun 2019. Tingkat stres yang dialami perawat ditentukan dengan analisis deskriptif. Hasil penelitian ini, 37,5 persen kepala perawat (n=16) mengalami stres ringan dan stres berat selama masa transisi, dengan manajemen personalia (M = 3,8; SD = 1,99) dan manajemen unit (M = 3,8; SD = 1,97) menjadi stresor yang paling intens. 53,58 persen staf perawat mengalami stres berat, dengan hubungan interpersonal merupakan stresor yang paling intens (M = 4,48, SD = 1,35). Meskipun stres dari berbagai subskala, penelitian ini memberikan bukti bahwa selama masa transisi, kepala perawat dan staf perawat dapat mengalami tingkat stres ringan hingga berat, dan rekomendasi untuk penelitian selanjutnya adalah menyelidiki faktor penyebab stres pada perawat.

Kata kunci: Manajemen, Tingkat Stres, Transisi, Perawat

ABSTRACT

Stress has both positive and negative effects on nurses. Changes in the hospital's management and systems necessitate nurses to adjust to the hospital's new policies, work culture, and environment, which can be stressful. In addition, nurses' workloads may be impacted during the change and transition, increasing their stress levels. This study aimed to describe the stress levels of head nurses and staff nurses during a hospital's transitional period. The research employed a quantitative descriptive cross-sectional design. This study used a purposive sampling method, recruiting 44 registered nurses. Inclusion criteria were those working for at least one year under the current management system. Utilizing the Indonesian version of the Bianchi Stress Questionnaire, this study measured levels of work-related stress (Alpha Cronbach 0,974). This study was conducted midway through 2019. A descriptive statistic is used to measure the nurses' level of stress. The results of this study, 37.5 percent of head nurses (n=16) experienced mild stress and severe stress during the transition period, with personnel management (M = 3.8; SD = 1.99) and unit management (M = 3.8; SD = 1.97) being the most intense stressors. In addition, 53.58 percent of staff nurses experienced severe stress, with interpersonal relationships constituting the most intense stressor (M = 4.48, SD = 1.35). Despite stress from various subscales, this study provides evidence that during the transition period, head nurses and staff nurses can experience mild to severe stress levels, and the recommendation for future research is to investigate the contributing factors of stress in nurses.

Keywords: *Management, Stress Levels, Transition, Nurse*

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INTRODUCTION

Hospital mergers have high potential benefits for patients, staff, and managers (Cerezo-Espinosa de los Monteros et al., 2021). The effect of hospital mergers on the patient experience is one indication of their potential value (Attebery, Hearld, Carroll, Szychowski, & Weech-Maldonado, 2020). However, hospital mergers can cause stress among healthcare professionals, which can have a negative effect on employee performance and organizational performance (Daniel, 2019).

Stress in the workplace can have a negative impact on the physical and emotional health of healthcare professionals by lowering their productivity and overall quality of life (Koinis et al., 2015). Stress, however, is not always harmful; it can be a source of inspiration (Mata et al., 2021). Due to the nature of the profession, health care workers and nurses, in particular, are more susceptible to stress, making the health services industry one of the most stressful industries to work in (Putra, Rahmadhani, & Hidayat, 2021)

Job stress can be defined as the physical and psychological effects of an imbalance and disparity between job demands and the degree of control one has over these demands (Eslami Akbar et al., 2015). A study that examined the root causes of stress and the manifestations of stress in primary and secondary care providers concluded that nurses face stressful situations every day. These include, but are not limited to, workplace violence, death, a staffing shortage, and an excess of patients (Starc, 2018). In addition, workload, work environment, and work-family influenced nurses' workplace stress in hospitals (Rizany, Elisabeth Sihombing, & Setiawan, 2022). In a study comparing the outcomes of work stress and burnout among senior and head nurses, work stress and burnout were found to be greater among senior nurses than head nurses; this was due to the fact that senior nurses' degrees and education were lower in this study than those of head nurses(Luan, Wang, Hou, Chen, & Lou, 2017). According to a cross-sectional survey of Iranian critical care unit (CCU) nurses, the mean occupational stress ranged from moderate to high, with the highest and lowest mean occupational stress levels correlated to the subscales of role overload and physical environment, respectively (Faraji, Karimi, Azizi, Janatolmakan, & Khatony, 2019).

Patient conditions that are constantly changing, as well as the average number of hours of care required to provide direct services to patients, can all impact a nurse's workload (Maharani & Budianto, 2019). The workload of the Outpatient Department (OPD) nurses has a positive effect on their job stress, such that as the workload of nurses increases, their level of stress relating to their job also increases (Kokoroko & Sanda, 2019). According to a survey of practicing nurses in the United States, 46% of nurses felt their work was stressful, and 34% considered leaving their job in the previous 12 months due to work stress (Mundung, Kairupan, & Kundre, 2019).

A study that examined the relationships between work-related stress, burnout, job satisfaction, and nurses' general health found that of the five stressors that contribute to work-related stress, staff issues were found to be the most associated with burnout and job satisfaction (Khamisa, Oldenburg, Peltzer, & Ilic, 2015). To provide quality nursing services in hospitals, nurses should provide satisfactory nursing care. A study by Karaca and Durna (2019) indicated that patients expressed higher levels of satisfaction with nursing care when nurses shown concern and compassion.

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It is evident that nurses are susceptible to stress, and the hospital system changes resulting from mergers are contributing to the nurses' stress levels. The purpose of this study was to describe the acquisition-related stress levels of the head nurses and staff nurses in the hospital.

RESEARCH METHODS

This study employed a descriptive quantitative design. It included 44 nurses and was divided into two groups based on position, namely 16 ward administrator/head nurse and 28 staff nurses, from a private hospital in Bekasi, West Java. The inclusion criteria were nurses who have been working for at least one year, were willing to be respondents, and were hands-on with patients. This study excluded nurses who had worked for less than a year and who were taking anti-anxiety, anti-depressant, or antipsychotic medication. This is due to the fact that mental health issues affect nurses' stress level.

The data in this study was primary, which means that all of the information was obtained directly from the results of distributing questionnaires. The Bianchi Stress Questionnaire (BSQ) was used to collect data. This questionnaire was developed and validated to assess the stress level of nurses in hospitals (Bianchi, 2009). The 51 items were divided into six subscales to compare the different stressors among the nurses' activities:

A. Interpersonal Relationship (nine items: 40, 41, 42, 43, 44, 45, 46, 50, 51);
B. Activities related to the adequate function of the unit (six items: 1, 2, 3, 4, 5, 6);
C. Activities related to the personnel management (six items: 7, 8, 9, 12, 13, 14);
D. Nursing care (fifteen items: 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30);
E. Unit management (eight items: 10, 11, 15, 31, 32, 38, 39, 47);
F. Work conditions (seven items: 33, 34, 35, 36, 37, 48, 49).

Nursing activity stressors included 51 items on a 7-point Likert scale ranging from 1 to 7; 1 represents low stress, 4 represents medium stress, and 7 represents high stress. The zero value was chosen to indicate that the nurse did not engage in the mentioned activity. The score of each subscale was calculated by adding the item scores contained within each subscale and dividing by the number of items. The subscale score ranges from 1.0 to 7.0 as well. The nurse's average score for each item and subscale was calculated as follows: less than or equal to 3.0 = low stress level; between 3.1 and 5.9 = medium stress level; greater than or equal to 6.0 = high stress level. The total score ranges from 28 (indicating a low level of stress for all activities) to 305 (indicating a total score of 7 for all activities).

The original questionnaire has been translated from Portuguese to Indonesian. A native Portuguese speaker translated the document into English, and an English-speaking Indonesian translated it into Indonesian. The validity and reliability of this questionnaire were tested on 30 nurses, 12 of whom were head nurses and 18 of whom were staff nurses (Cronbach Alpha of 0.974). The research was approved by the Institutional Review Board (IRB) (No. 003/RCTC-EC/R/SHHOSANA/VI/2019). The study was conducted in one private hospital in the middle of 2019.

RESULTS AND DISCUSSION

The study was conducted on 44 respondents consisting of 16 head nurses and 28 nursing staffs. According to the study population, respondents were divided into three age groups 20-30 years (65.91%), 31-40 years (25%), and 41-50 years (9.09%). The gender of this sample were men (18.18%) and women (81.82%). Regarding work experience, nurses with 1-10 years (79.55%), and 11-25 years (20.45%). A total of 56.82% of the study subjects had worked in the inpatient unit (Tabel 1).

Table 1. Characteristics demographic of the respondents (n=44)

Demographic Characteristics	Frequency	Percentage (%)
Age		

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Demographic Characteristics	Frequency	Percentage (%)
20-30 years	29	65.91
31-40 years	11	25
41-50 years	4	9.09
Gender		
Men	8	18.18
Woman	36	81.82
Position		
Head Nurse	16	36.36
Staff nurses	28	63.64
Work Unit		
Inpatient unit	25	56.82
Outpatient unit	7	15.91
Special care unit (IGD, OT, HCU/ICU/NICU)	12	27.27
Work Experience		
1-10 year	35	79.55
11-25 year	9	20.45

According to the average score for each item question, Table 2 describes the most intense stressors for head nurses were personnel management (M = 3.8; SD = 1.99) and unit management (M = 3.8; SD = 1.97).

Table 2. Stressor of head nurses (n=16) based on subscales of BSQ

No.	Subscales	Head Nurses	
		Mean	SD
1.	Interpersonal relationships	3.51	1.94
2.	Nursing care	3.26	1.81
3.	Working conditions	3.66	2.01
4.	Activities related to the adequate function of the unit	3.7	2.21
5.	Activities related to the personnel management	3.8	1.99
6.	Unit management	3.8	1.97

The descriptive of stressor based on BSQ subscales for head nurses and staff nurses is explained in the following six subscales. The BSQ questions explored the factors contributing to the stress experienced by head nurses in managing their personnel. Specifically, the questions focused on the methods of controlling the nursing team, distributing employees, supervising team activities, conducting training, evaluating employee performance, and determining monthly compensation. The subscales for unit management include control of care quality, coordination of unit activities, preparation of monthly unit reports, conducting case discussions with employees, conducting case discussions with multi-professional teams, developing routines, standards, and procedures, updating routines, standards, and procedures, and defining the nurse's functions.

Table 3 shows a different result, that the most intense stressor for staff nurses was interpersonal relationships (M = 4.48, SD = 1.35).

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Table 3. Stressor of staff nurses (n=28) based on subscales of BSQ

No.	Subscales	Staff nurses	
		Mean	SD
1.	Interpersonal relationships	4.48	1.35
2.	Nursing care	4.23	1.28
3.	Working conditions	4.37	1.43

Staff nurses experienced the highest levels of stress due to interpersonal relationships. The BSQ questionnaire included questions related to various aspects of these relationships, such as relationships with other units, the surgical center, the material center, the warehouse, the pharmacy, maintenance, patient admission or discharge, communication with nursing supervisors, and communication with superior management.

The causes of stress experienced by head nurses and staff nurses were explained according to questions of BSQ. Table 4 shows that the source of the stressor of the head nurses came from a relationship with pharmacy (M= 4.25, SD= 2.44), orienting family members of a critical patient (M=4.19, SD=1.83), participating in scientific events (M=4, SD=2.03), material replenishment (M=3.81, SD=2.48), serve critical family members (M= 4.6, SD=1.6), and control of care quality (M= 4.06, SD=2.14).

Table 4. Stressor of head nurses (n=16) based on questions of BSQ

Subscales	No.	Question	Head Nurses (n=16)	
			Mean	SD
Interpersonal Relationship	1	Relationship with other units	3.63	2.33
	2	Relationship with surgical center	3.19	1.94
	3	Relationship to material center	3.5	2.39
	4	Relation ship with warehouse	3.25	1.88
	5	Relationship with pharmacy	4.25	2.44
	6	Relationship with maintenance	3.31	1.85
	7	Relationship with patient admission/discharge	2.94	1.69
	8	Communication with nursing supervisors	3.5	2.5
	9	Communication with superior management	4.06	2.41
Nursing care	1	Admit the patient to the unit	3.56	2.34
	2	Physical examination of the patient	2.63	2
	3	Prescribe nursing care	2.5	1.83
	4	Assess the patient's condition	3	2.31
	5	Meet the patient's needs	3.06	1.91
	6	Meet the family's needs	3	1.83
	7	Guide the patient to self care	3.06	2.11
	8	Guide family members to take care of the patient	3.13	2.06
	9	Supervise the nursing care	3.56	2.16

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Subscales	No.	Question	Head Nurses (n=16)	
			Mean	SD
		provided		
	10	Guide to patience discharge	2.69	2.24
	11	Provide nursing care	2.63	2.13
	12	Meet the emergencies in the unit	4	2.37
	13	Serve critical family members	3.75	1.81
	14	Facing the patient's death	4.13	1.75
	15	Orient family members of critical patient	4.19	1.83
Work conditions	1	Conduct case discussion with multi professional team	3.88	2.39
	2	Participate in committees at the institution	3.81	2.1
	3	Participate scientific events	4	2.03
	4	The physical environment of the unit	3.31	2.18
	5	Drive noise level	3.81	2.59
	6	Perform bureaucratic activities	3.5	2
	7	Perform tasks with minimal time available	3.31	1.89
Activities related to the adequate function of the unit	1	Prediction of material to be used	3.5	2.37
	2	Material replenishment	3.81	2.48
	3	Control of used material	3.63	2.19
	4	Equipment control	3.44	2.1
	5	Requests for equipment repair and overhaul	3.75	2.24
	6	Survey of material quantity in the unit	3.81	2.26
Activities related to the personnel management	1	Control of the nursing team	3.94	2.11
	2	Conduction of employee distribution	4	2.28
	3	Team's activity supervision	3.81	1.94
	4	Carry out the training	3.81	2.2
	5	Evaluate employee performance	3.5	2
	6	Elaborate employee's monthly scale	3.69	1.99
Unit management	1	Control of care quality	4.06	2.14
	2	Coordination of unit activities	3.63	2.22
	3	Prepare monthly unit report	3.88	1.71
	4	Conduct case discussion with employees	3.63	2.16
	5	Conduct case discussion with multi professional team	3.94	1.95
	6	Develop routines, standards, and procedures	3.88	2.09
	7	Update routines, standards, and procedures	3.81	2.01

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Subscales	No.	Question	Head Nurses (n=16)	
			Mean	SD
	8	Definition of the nurse's functions	3.56	2.03

Table 5 shows that the source of the stressor of staff nurses came from the relationship with other units (M=5.1, SD=1.6), serving critical family members (M=4.6, SD=1.6), and participating in scientific events (M=4.5, SD=2).

Table 5. Stressor of staff nurses (n=28) based on questions of BSQ

Subscales	No.	Question	Staff nurses (n=28)	
			Mean	SD
Interpersonal Relationship	1	Relationship with other units	5.1	1.6
	2	Relationship with surgical center	4.29	1.72
	3	Relationship to material center	4.36	1.54
	4	Relationship with warehouse	4.18	1.74
	5	Relationship with pharmacy	4.79	1.6
	6	Relationship with maintenance	4.18	1.81
	7	Relationship with patient admission/discharge	4	1.3
	8	Communication with nursing supervisors	4.5	1.7
	9	Communication with superior management	4.9	1.6
Nursing care	1	Admit the patient to the unit	4.4	1.9
	2	Physical examination of the patient	3.9	1.7
	3	Prescribe nursing care	3.86	1.58
	4	Assess the patient's condition	3.89	1.59
	5	Meet the patient's needs	4.18	1.76
	6	Meet the family's needs	4.36	1.77
	7	Guide the patient to self-care	4.2	1.6
	8	Guide family members to take care of the patient	4.36	1.37
	9	Supervise the nursing care provided	4.32	1.54
	10	Guide to patience discharge	3.9	1.6
	11	Provide nursing care	4.14	1.63
	12	Meet the emergencies in the unit	4.43	1.48
	13	Serve critical family members	4.6	1.6
	14	Facing the patient's death	4.4	1.5
	15	Orient family members of critical patient	4.5	1.6
Work conditions	1	Conduct case discussion with multi professional team	4.3	1.8
	2	Participate in committees at the institution	4.5	1.8
	3	Participate scientific events	4.5	2
	4	The physical environment of the unit	4.2	1.4

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5	Drive noise level	4.5	1.7
6	Perform bureaucratic activities	4.4	1.8
7	Perform tasks with minimal time available	4.2	1.6

The results revealed that the most intense stressor on the "Interpersonal Relationship" subscale for head nurses was the relationship with the pharmacy (M = 4.25, SD = 2.44), while the relationship with other units was the most intense stressor for staff nurses (M = 5.1, SD = 1.6). The stressor stress on the "Nursing Care" subscale from the head nurses was orient family members of critical patient (M = 4.19, SD = 1.83), while it was serving critical family members (M = 4.6, SD = 1.6) for the staff nurses. In addition, the cause of stress on the "Work Conditions" subscale from the head nurses was participating in scientific events (M = 4, SD = 2.03), while the staff nurses were participating in scientific events (M = 4.5, SD = 2), participating in committees at the institution (M = 4.5, SD = 1.8), and driving noise level (M = 4.5, SD = 1.7).

Other findings on the head nurse, the stressor stress on the subscale "Activities related to adequate functioning of the unit" were material filling (M = 3.81, SD = 2.48) and survey of material quantity in the unit (M = 3.81, SD = 2.26). Moreover, in the subscale "Activities related to personnel management", the stressor stress for head nurses was the implementation of employee distribution (M = 4, SD = 2.28). Additionally, in the subscales of "Unit management", the most intense stressor stress was quality control of care (M = 4.06, SD = 2.14).

According to the findings, the most intense stress has been experienced by head nurses as a result of their role as a leader in each unit of work. This was different in that staff nurses face the highest level of stress because they try to build positive interactions with other units, professionals, patients and patient's family. The findings of stress levels showed that the majority of respondents were staff nurses, namely 15 respondents (53.58%), were under severe stress. Table 6 indicates that the head nurse experienced mild and severe stress during the hospital management change, with 6 respondents (37.5%). On the other hand, the staff nurses predominantly experienced severe stress, with 15 respondents (53.58%).

Table 6. Stress levels of head nurses (n=16) and staff nurses (n=28)

Stress Levels	Frequency	Percentage	Mean	SD
Head Nurse				
Mild stress	6	37.5	1.42	0.63
Moderate stress	4	25	3.96	0.34
Severe stress	6	37.5	5.41	0.35
Staff nurses				
Mild stress	3	10.71	2.08	0.21
Moderate stress	10	35.71	3.46	0.68
Severe stress	15	53.58	5.37	0.31

Workplace-related stress is a disturbing or harmful emotional and physical response. The split of work shifts is a contributing factor to fatigue among nurses, in the study of Sumarto, Asfian, and Munandar (2016) discovered that the night shift induces higher stress levels than the morning and afternoon shifts. Starc's (2018) study revealed that the primary sources of stress among nurses were

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workplace abuse, both psychological and physical, exposure to mortality, inadequate staffing, and a high patient load.

Direct caregivers like nurses are engaged in an interpersonal process called "caring," which is characterised by competent nursing care, interpersonal sensitivity, and close relationships, as well as effective dialogue and the application of technical expertise (Worku Hailu, Ejigu, & Siraneh, 2020). Nurse managers have an important role in care organizations where the work is highly complex and changes daily, and this role is critical in improving care and patient outcomes (Nurmeksela, Mikkonen, Kinnunen, & Kvist, 2021). This can be accomplished by elucidating the role of nurses and ensuring that their nurses adhere to all applicable safety standards regarding patients and procedures (Yuswardi, Boonyoung, & Thiangchanya, 2015).

Based on the results of this study, head nurses experienced the highest level of anxiety during the transition phase due to the tasks related to people management and unit management. The conduction of staff distribution is the most significant stressor among the subscales of activities associated with personnel management. However, the most significant source of stress in unit administration is the control of care quality. According to a study conducted by Elsayed (2019), head nurses demonstrated superior unit management scores due to their ability to gather necessary information efficiently and their authoritative demeanor, intelligence, and precision in controlling and overseeing the unit. The study by Luan et al. (2017) found a correlation between job stress and burnout when head nurses have greater job control. The educational attainment of head nurses significantly influences their ability to effectively manage personnel (Al-jazaery & Khaleel, 2016).

This was distinct from the staff nurses. The primary source of stress for the staff nurses was their interpersonal relationships. According to a study, nurses exhibit higher levels of psychological distress compared to salespeople due to their prolonged and consistent interaction with the same patients, as opposed to salespeople who encounter new consumers each time (Kato, 2014). This conclusion was corroborated by Rizany et al. (2022), who asserted that the primary factors influencing job-related stress among nurses were the amount of work, the work environment, and conflicts between work and family responsibilities.

According to the findings, the majority of staff nurses experienced severe stress (53.58%), while the majority of head nurses experienced mild stress (37.5%) and severe stress (37.5%) during the management transition period. Changes in the work environment and high job demands can cause stress on nurses (Murharyati & Kismanto, 2015). Nurses can use stress coping strategies such as direct action, seeking social support, anticipation, apathy, avoidance, and caution to overcome stress (Ratri & Parmitasari, 2014).

There are several limitations to this study. First, because the majority of the nurses in this study were female, the findings cannot be generalized to male nurses, as female stress levels are different from male stress levels. Second, this study was limited to one private hospital in West Java and may not be representative of other hospitals with different work systems such as in public hospitals.

CONCLUSION

This study discovered that the hospital management change caused stress for both head nurses and staff nurses. The primary source of severe stress for head nurses were the tasks associated with personnel management and unit administration. With regard to staff nurses, the primary source of acute stress was found to be interpersonal relationships. When hospital management problems beyond the control of staff nurses or head nurses, it is required that nurses possess the ability to implement efficient stress management techniques in order to minimize the impact on patient care.

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SUGGESTIONS

Based on the study's findings and conclusions, it is recommended that the following measures be implemented to assist employees in reducing stress at work: management must investigate the causes of employee dissatisfaction within the working environment, as well as use stress management interventions such as regular counselling sessions, time management, and behavioural training.

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