

Factors Associated With Job Fatigue In Outpatient Nurses In Hospital X

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Abstract

Work fatigue is a prevalent issue among public service workers, particularly nurses, impacting their performance and patient care. This study focuses on outpatient nurses at Hospital X in South Jakarta, aiming to identify factors associated with job fatigue. Using a quantitative cross-sectional design, data was collected from 100 outpatient nurses in 2023. Univariate and bivariate analyses, including the chi-square test, were conducted. Results revealed that 68.9% of nurses reported moderate fatigue, with significant associations found between high fatigue complaints and workload (p-value 0.000) and age (p-value 0.026). These findings underscore the need for Hospital X to address workload issues by considering additional personnel to mitigate fatigue among nurses. Such measures can enhance service quality and potentially improve nurse well-being, thereby benefiting patient care. Furthermore, implications suggest the importance of empathy training and holistic awareness of biopsychosocial components in addressing nurse fatigue and improving patient outcomes.

Keywords: Nurse, Work Fatigue, Workload

Introduction

Fatigue is defined as a disabling symptom in which physical and cognitive functions are limited by interactions between performance fatigability and perceived fatigability (Frasie et al., 2024). Work fatigue is constant or repetitive emotional stress caused by the involvement of many people over a long period of time. In the literature, it is explained that work fatigue is experienced by many workers in public services, such as nurses, police, and social services (social service) (Kreitzer et al., 2020).

One workplace that has occupational health risks is the Hospital, so implementation is needed for Hospital Occupational Safety and Health (K3RS) in its work process (Damayanty et al., 2022). Hospital Occupational Safety and Health (K3RS) encompasses all efforts to ensure and safeguard the safety and well-being of hospital personnel, patients, visitors, and the hospital environment by proactively preventing workplace accidents and occupational illnesses within the hospital ((Marzuki et al., 2021);(Mayangkara et al., 2021)).

The ill health that occurs because of work fatigue results in poor nursing outcomes due to absenteeism and sick leave (Austin et al., 2020). Literature has shown that the most common factors that contributed include, among others, interpersonal conflicts, high work demands and shortage of staff (Masoloko et al., 2024). The shift work system adopted in Indonesia is

classified as a rotational shift with the working hours distributed into two or three shifts in a day. The most common shift scheme implemented in Indonesian hospitals, both government and private hospitals, is the 6-6-12 shift scheme (Juniartha, Sardjono, & Ningsih, 2020).

It caused a fatigue at work contributes significantly to the occurrence of occupational accidents, with data from the International Labour Organization (ILO) indicating that approximately two million workers succumb to work-related accidents caused by fatigue each year (Berek, Ruliati, Ndun, & Nabuasa, 2022). Analyzing incident reports from hazardous work environments can help identify prevalent dangers, thereby assisting in the prevention of future accidents. However, many existing studies primarily concentrate on physical hazards as the underlying causes (Hinze, König, & Bowen, 2021).

According to a study, out of 58,115 individuals sampled, approximately 32.8%, or around 18,828 individuals, experienced fatigue (Allo et al., 2020). Findings from a study conducted by the Japanese Ministry of Labor involving 12,000 companies and approximately 16,000 randomly selected workers revealed that 65% of workers reported physical fatigue from routine tasks, 28% experienced mental fatigue, and approximately 7% suffered from severe stress and feelings of exclusion (Bernards, 2016).

The Center for Human Resources Development Health Agency of the Indonesian Ministry of Health (2015) reported that the number of hospitals in 2014 was as many as 2,406, with the highest number of health workers in nurse positions being 122,689 people on duty in hospitals. Nurses are medical personnel with the most frequent direct contact with patients so they are prone to fatigue (Pane & Prayitno, 2020).

This research was conducted at Hospital X in the South Jakarta area. This hospital is a type B hospital that provides health consultation, outpatient, inpatient, emergency, and rehabilitation services. To provide services with service excellence, hospital workers work shifts and have varied workloads. To provide outpatient Poly Clinic services, nurses have 2 shifts with 7.5 hours of work hours and 1 day off outside the calculation of overtime every week. The Outpatient Polyclinic opens services from 07.00 am to 21.00; if the patient is still above 21.00, then the nurse on duty will experience overwork. Most of the nurses in the polyclinic are nurses assisting doctors who are practising. From the data obtained from Hospital X, outpatient polyclinic visits in May 2033 reached 19,311 patients.

From the results of the preliminary study, researchers conducted a preliminary study by filling out the IFRC questionnaire on 10 polyclinic nurses of Hospital X randomly and found 8 nurses with a proportion of 80% in the polyclinic feeling high fatigue and 2 with a proportion of 20% with moderate fatigue. The impact that nurses have felt is a decreased performance from service. The author is interested in investigating the fatigue experienced by nurses working in the outpatient department of Hospital X in 2023, prompted by the observation that issues which should not result in patient complaints, such as patient care, communication, and nursing attitudes, have led to a total of 9 patient complaints between January and May. This data has prompted the researcher to explore the factors contributing to nurse fatigue in the outpatient clinic setting.

Previous research has extensively investigated the prevalence and consequences of work fatigue among healthcare professionals, particularly nurses, across various contexts. Studies consistently demonstrate that work fatigue negatively impacts nurses' job performance, patient care, and overall well-being. For instance, (Nagorcka-Smith et al., 2022) discovered

that elevated levels of work fatigue among nurses correlated with reduced patient satisfaction, increased medical errors, and heightened burnout rates.

However, the novelty of this study lies in its specific examination of outpatient nurses at Hospital X in South Jakarta and its exploration of the factors contributing to nurse fatigue within this particular setting. While existing literature provides valuable insights into work fatigue among nurses broadly, there is a scarcity of research focused explicitly on outpatient clinic environments. Moreover, this study builds upon preliminary findings that indicate a notable prevalence of fatigue among polyclinic nurses at Hospital X, further emphasizing the urgency of addressing this issue. Furthermore, this research introduces a novel consideration by examining the impact of nurse fatigue on patient complaints. By identifying a significant rise in patient complaints between January and May, the study underscores the potential repercussions of nurse fatigue on patient care quality and satisfaction. This aspect of the study sheds light on the broader implications of nurse fatigue within the outpatient clinic context and emphasizes the necessity for targeted interventions to mitigate its effects.

Therefore, this study aimed the factors that associated with job fatigue in outpatient nurses at Hospital X highlights the complexity of developing empathy towards consumers with dual diagnosis. It reveals that mental health nurses' unemotional empathy experiences are linked to their inability to connect with consumers' choices and feelings, negative attitudes towards consumers, and factors like novelty, insufficient information, and neutral evaluation of a consumer's situation. The implications for practice emphasize the importance of enhancing mental health nurses' empathy towards consumers with dual diagnosis, suggesting the need for empathy training packages and a core curriculum focusing on holistic awareness of the biopsychosocial components of dual diagnosis.

This study also highlights the importance of empathy training packages and a core curriculum focusing on holistic awareness of the biopsychosocial components of dual diagnosis. This is in line with the findings of a study that found that empathy training can improve nurses' ability to connect with patients and provide more compassionate care (Mirzaei Maghsud, Abazari, Miri, & Sadat Nematollahi, 2020). Another study found that a core curriculum focusing on holistic awareness of the biopsychosocial components of dual diagnosis can improve nurses' understanding of patients with dual diagnosis and their ability to provide more effective care (Mthombeni, 2021).

Research Methods

The study employs a quantitative approach with a cross-sectional research design, utilizing statistical analysis through Chi-Square tests. In this design, data is collected and analyzed at a single point in time to examine the relationship between independent and dependent variables. Risk factors such as age, workload, length of employment, and shifts, as well as reports of work fatigue complaints, are measured and observed concurrently.

The method of data collection in this study involves the use of primary data. Primary data is obtained by filling out questionnaires directly by outpatient nurses at Hospital X. The researcher collects data directly by gathering information from the nurses in one location. Prior to this, the researcher obtained permission from the workers and explained the contents of the questionnaire before filling it out. The data collection process took place over 5 days for nurses to fill out the questionnaires.

The population in this study consists of all nurses working in the outpatient unit of Hospital X, totaling 90 individuals, of which 10 have already participated in the preliminary study. The research sample comprises nurses in the outpatient unit of Hospital X, selected using total sampling method, totaling 90 individuals because 10 have already participated in the preliminary study. Sampling is conducted after the nurses finish work simultaneously, and if any nurses are absent, sampling will be repeated once they are on duty.

The research instrument consists of several variables, including work fatigue, age, workload, length of employment, and shift work. Work fatigue is measured using the IFRC questionnaire consisting of 30 questions, which are then scored and categorized into two levels of fatigue. Age is measured using questions about the respondent's date, month, and year of birth. Workload is measured using the NASA-TLX Questionnaire, while length of employment and shift work are measured using appropriate questionnaires. After obtaining the data, data processing is conducted using computer software, followed by univariate and bivariate analysis, including Chi-Square statistical tests to determine the relationship between variables.

Results and Discussion

Univariate and Bivariate Results:

Table 1. Univariate Analysis Results

Characteristic	n = (Total Sample)	%
Work Fatigue		
Keep	62	68.9%
Tall	28	31.1%
Age (Years)		
≥30	54	60%
<30	36	40%
Workload		
Tall	53	58.9%
Normal	37	41.1%
Period of Service		
> 5	76	84.4%
<5	14	15.6%
Shift Work		
Morning	50	55.6%
Noon	40	44.4%

In this study, univariate analysis examines the frequency and percentage distribution of individual variables (age, workload, length of employment, and shift work) believed to be associated with work fatigue among outpatient nurses at Hospital X in 2023, involving a total of 100 participants.

Table 2. Bivariate Analyst Results

Work Fatigue		p-value	PR value (95%CI)
Tall	Keep		

	n	%	n	%		
Age (Years)						
≥30	12	42.9%	42	67.7%	0.026	0.714 (0.516-0.989)
<30	16	57.1%	20%	32.3%		
Workload						
Tall	26	92.9%	27	43.5%	0.000	0.539 (0.409-0.709)
Normal	2	7.1%	35	56.5%		
Period of Service						
> 5	22	78.6%	54	87.1%	0.352	0.804 (0.500-1.294)
< 5	6	21.4%	8	12.9%		
Shift Work						
Morning	19	67.9%	31	50.0%	0.111	0.800 (0.608-1.052)
Noon	9	32.1%	31	50.0%		

Bivariate analysis was conducted on 2 variables that are thought to be related or correlated. Data analysis was conducted to assess the correlation between work fatigue and factors such as age, workload, tenure, and shift schedule among nurses working in the outpatient department of Hospital X in 2023. The study involved a total of 100 nurses as respondents.

Discussion

Analysis of the Relationship Between Age and Work Fatigue in Nurses in Outpatient Unit of Hospital X in 2023

According to the study findings, individuals aged 30 years or older showed a higher prevalence of work fatigue, with 51 individuals (76.1%) experiencing high levels of fatigue, compared to 26 individuals (78.8%) aged under 30. The calculated P-value of 0.026, which is less than the significance level of 0.05, indicates a statistically significant relationship between age and work fatigue. The Prevalence Ratio (PR) of 0.714 with a 95% confidence interval (CI: 0.516-0.989) suggests that individuals aged 30 or older are 0.714 times more likely to experience work fatigue compared to those under 30, indicating a positive association between age and the risk of work fatigue among nurses in the outpatient department of Hospital X.

This study aligns with research conducted by Surantri et al. (2022) on the determinants of work fatigue among nurses in the inpatient ward of Dr. Soedarso Pontianak Hospital. Their findings also indicated a significant relationship between nurses' age and work fatigue, with a P-value of 0.037, underscoring the relevance of age as a factor influencing work fatigue among nurses.

Analysis of the Relationship Between Workload and Work Fatigue in Nurses in Hospital Outpatient Unit X in 2023

Based on the results of the study, it is known that most have a high workload of nurses with high fatigue, as many as 26 nurses with a proportion of 92.9%, and a normal workload of high fatigue of 2 nurses with a proportion of 7.1%. Based on these results, it can be seen that the P-value value of $0.000 < 0.05$ means that there is a variable relationship between workload

and work fatigue. From the table above, it is known that the Prevalence Ratio (PR) of 0.539 to 95% (CI: 0.409-0.709) means that nurses who have a high workload are more at risk of experiencing fatigue while working compared to nurses who have a normal workload.

Therefore, there exists a correlation between workload and work fatigue among nurses in the outpatient department of Hospital X in 2023. These findings are consistent with a study conducted by Sihombing et al. (2021), where the results of the chi-square test yielded a significant P-value of 0.000, indicating a notable association between workload and work fatigue among nurses at Tarutung General Hospital.

The results of a questionnaire by nurses at Tarutung General Hospital in 2020 found that workers who experienced workload from 47 respondents as many as 41 respondents (87.2%) experienced work fatigue, while those who did not experience work fatigue as many as 6 respondents (12.8%). Of the 43 respondents who did not experience workload, 32 respondents (74.4%) did not experience work fatigue, while those who experienced work fatigue 11 respondents (25.6%). The researchers' assumption is that workers who experience workload but do not experience work fatigue because they have an age that is not too old so that work fatigue does not occur but experiences work fatigue even though they do not experience workload, workers have a high working period.

Analysis of the Relationship Between Working Period and Work Fatigue in Nurses in the Outpatient Unit of Hospital X in 2023

According to the study findings, a majority of nurses with a tenure of over 5 years experienced high levels of fatigue, comprising 22 nurses (78.6%), while 6 nurses (21.4%) with less than 5 years of tenure reported high fatigue levels. The calculated P-value of 0.352, which exceeds the significance threshold of 0.05, indicates that there is no significant relationship between length of service and work fatigue. From the table above, it is known that the Prevalence Ratio (PR) is 0.804 with 95% (CI: 0.500-1.294), which means that nurses who have long tenure are more at risk of experiencing burnout while working compared to new nurses with high fatigue.

Hence, there is no association between length of service and work fatigue among nurses in the outpatient department of Hospital X in 2023. These findings are consistent with a study conducted by Trinofiandy et al. (2018), where the chi-square test yielded a P-value of 0.165, indicating no significant relationship between tenure and work fatigue among nurses at Hospital X in East Jakarta.

Analysis of the Relationship Between Work Shifts and Work Fatigue in Nurses in Hospital Outpatient Unit X in 2023

According to the study findings, the majority of nurses working morning shifts experienced high levels of fatigue, comprising 19 nurses (67.9%), while 9 nurses (32.1%) reported high fatigue levels during day shifts. However, the calculated P-value of 0.111, which exceeds the significance threshold of 0.05, indicates that there is no significant relationship between shift variables and work fatigue. The Prevalence Ratio (PR) of 0.800 with a 95% confidence interval (CI: 0.608-1.052) suggests that nurses working morning shifts may be slightly more susceptible to burnout compared to those working day shifts with high fatigue.

Therefore, there is no association between shift work and work fatigue among nurses in the outpatient department of Hospital X in 2023. These findings are consistent with a study by Ginting & Malinti (n.d.), where the chi-square test yielded a P-value of 0.683, indicating no

significant relationship between shift work and work fatigue among nurses in the inpatient ward of Bandar Lampung Adventist Hospital.

Conclusion

Based on the results of research conducted on nurses in the outpatient unit of Hospital X in 2023, the picture of work fatigue in nurses in the outpatient unit of Hospital X in 2023 is that 62 nurses experienced moderate fatigue by 68.9%, and high fatigue by 28 people (31.1%). The age factor against high fatigue is greatest in age ≥ 30 years, nurses' workload on burnout is on the workload tall The nurse's working period against fatigue is at > 5 years, the nurse's work shift against fatigue is on the nurse who runs the morning shift. The results concluded that there was a significant relationship between age, workload, and work fatigue in nurses in the outpatient unit of Hospital X.

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