

The Relationship of Age, Income, and Mental Workload of Nurses with Work Stress in General Hospital

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Abstract: Workplace stress is a harmful reaction that people have when they are under a lot of pressure and have a lot work to do. Night shifts, multiple role conflicts, a lack of social support, conflict between work and family, diverse task demands that are not in accordance with compensation, excessive workload, unpleasant working conditions, job uncertainty, the absence of awards, excessive promotions or under-promotions, and an imbalance in the number of nurses to the number of patients are all factors that can cause work stress for nurses. The goal of this study was to see if there was a link between nurse qualities and mental workload and work stress. This is a descriptive analytic study that uses a cross-sectional strategy. A convenience sample of 126 nurses was used to create the research sample. The National Aeronautics and Space Administration Task Load Index (NASA-TLX) Questionnaire and the Work Stress Questionnaire (WSQ) instrument were used to collect data. Chi Square was utilized to analyze the data. The statistical test results revealed a link between nurse work stress, income ($p = 0.015$) and mental workload ($p = 0.001$). To decrease stress, this study proposes striking a balance between demands and restricted abilities to offer nursing care

Keywords: Age, Income, Mental Workload, Nurse, Work Stress

I. INTRODUCTION

Nursing care is provided through a process of contact between nurses and clients who respond to one other, exchange energy, and manage stress in order to reduce patient health problems (Allgood, 2014). Workload pressure, which includes short grace periods in fulfilling each obligation undertaken by nurses, too many responsibilities, and a lack of managerial assistance, is the most common work aspect indicated by respondents as a source of job-related stress, sadness, or anxiety (Health and safety executive, 2020). Nurses' duties, which often bring them in direct contact with patients and families, can lead to conflicts, pressure due to time constraints, a lack of social support, differences of opinion, and a loss of control over their work. Nurses must be emotionally mature in order to perform their duties (Maslach and Leiter, 2008; Mediawati, Nurachmah, Mansyur, & Tries Eryando, 2016). Task demands, additional tasks, and performance targets are all factors that affect mental burden. Individual factors, such as gender, length of employment, and marital status, also play a role (Donders, Velden, and Gulden,

2013; Seker, 2014; Soleman, 2011; Aprilia, Samsir, & Pramadewi, 2016).

Several research on nurse work stress have found that work stress is generated by a variety of elements in the workplace. The problem of work stress in nurses in hospital institutions, according to (Ilyas, 2020). Is a severe problem, with the cause of stress stemming from biological, psychological, social, and physical factors. According to research conducted by Padilha et al., (2017) in Brazil, nursing staff had an average stress level of 77.40 %; 17 % and 56.6 percent were dissatisfied with the environmental characteristics and considered the nursing workload to be inadequate (73.24 %).

Nurses' performance at the hospital might be influenced by their workload and work stress (Aprilia, Samsir, S., & Pramadewi, A., 2016). The quantity of workloads, workload changes, underused abilities, employment unpredictability, work shifts, role conflicts, lack of control, and interpersonal issues are all work characteristics that can generate stress (ILO, 2016). The increase in mental workload caused by the tiny nurse to bed ratio and the income to job demands mismatch produces psychological issues such as work stress. The goal of this study is to see if there's a link between nurses' age, income, and mental workload and work stress in general hospitals.

II. METHOD

This study's research design is analytic with a cross sectional approach. Nurses who work in regular hospitals made up the study's population. Convenience sampling is used to choose samples. This study was place over the course of two months, from January to March 2022.

In this study, 126 nurses were used as samples. The sample was chosen based on inclusion criteria, which included a minimum of a Diploma III in nursing, 2 years of service, and working as an implementing nurse.

A demographic questionnaire, the National Aeronautics and Space Administration-Task Load Index (NASA-TLX), and the Work Stress Questionnaire were used to collect data (WSQ). The ethics committee Universitas

Syiah Kuala, approved this study. After signing the informed consent form, respondents were taken.

III. DATA ANALYSIS

The Chi-Square statistical test was performed to determine the impact of age, income, and mental workload on nurses' work stress. In the meantime, a logistic regression test was used to determine the elements that predominate in the analyze the data.

IV. RESEARCH RESULT

a. Characteristics of Respondents

The most respondents were in the age group of 26-35 years, with 67 (53.1%), the most income of respondents was Rp. 3.280.327,- 100 (79.4%), the most moderate mental burden was 67 (53.2%), and work stress was said to be the most stressful as high as 59 (46.8%). Data on respondent characteristics are distributes in a frequency distribution (Table 1).

Table 1. Summary of Nurse Characteristics

No	Characteristics	Total n (%)
1	Age	
	26-35 Years	67 (53.2)
	36-45 Years	59 (46.8)
2	Monthly income	
	<3.280.327,-	100 (79.4)
	>3.280.327,-	26 (20.6)
3	Mental workload	
	Low	67 (53.2)
	Currently	59 (46.8)
4	Work Stress	
	Normal	63 (50.0)
	Stress	63 (50.0)

b. Nurses' work stress is related to their age, income, and mental workload. The statistical test revealed that income (0.015), and mental workload ($p=0.000$) were all associates to nursing work stress (Table 2).

Table 2: Analysis of the Relationship between age, monthly income and mental workload of nurses with work stress In the hospital

No	Karakteristik	Total n (%)	Stress		X ²	p-value
			Normal n (%)	Stress n (%)		
1	Age					
	26-35 Years	67 (53.1)	38 (56.7)	29 (43.3)	2.040	0.153
	36-45 Years	59 (46,8)	25 (42.4)	34 (57.6)		
2	Monthly income					
	< 3.280.327	100 (79.4)	44 (44.0)	56 (56.0)	5.864	0.015
	≥ 3.280.327	26 (21.6)	19 (73.1)	7 (26.9)		
3	Mental workload					
	Low	67 (53.2)	61 (91.0)	6 (9.0)	92.946	0.000
	Currently	59 (46.8)	2 (3.4)	57 (96.6)		

V. DISCUSSION

The association between age, income, and mental workload, as well as work stress among nurses at the North Aceh District General Hospital, is explored in this study. The findings of this study show that there is a link between age and work stress, with the most dominating age group of respondents being 26 to 37 years old, according to the bivariate statistical test. The investigation's findings (Nanda Kinanti Allu, Fahrurazi, & Handayani, 2020) with a p-value of 0.05, researchers discovered a link between age and nursing work stress. A different research was discovered by (Awalia, Medyati, & Giay, 2021) there was no link between age and occupational stress in the inpatient ward, according to the study. Nurses in their latter years who work in hospital for lengthy periods of time complain of exhaustion, boredom, and stress as a result of their profession (Angelina et al., 2020).

According to the findings of this study, there is a substantial link between monthly income and work stress. The respondent's salary is far from prosperous, ranging from 300.000 to rp 1.500.000/month when compared to the Lhokseumawe City Minimum Wage of Rp. 3.280.327/month. However, this finding contradicts previous research, which claims that there is no link between salary and work stress among nurses in the Southeast Sulawesi Provincial Mental Hospital's Inpatient Room in 2016 (Kaimudin, Lestari, & Afa, 2016). Nurses with a high level of work stress (54.5%), and nurses with a moderate burden (54.4%). According to research (Difibri, Syarif, & Fikriyanti, 2021), up to 56% of nurses have a heavy workload. Many variables contribute to a heavy workload for ER nurses, including patient characteristics and clinical circumstances of patients who must be treated. handling, as well as family members who were agitated when members of his family fell ill.

The researcher studied the mental workload of nurses in the inpatient room of the North Aceh Regency General Hospital. It could be in the form of mental effort and perception (such as: thinking, deciding opinions, calculating, remembering, seeing, searching, responding, etc.) needed to do the work in the work unit. Both physical effort and mental effort are required to do tasks in the work unit (e.g., lifting, pulling, pushing, controlling, conducting medical treatments, etc.). The average mental workload of nurses in the medium and high categories, namely the Dahlia work unit of 81.87 (high); Orchid work unit of 81.20 (high); Cempaka work units of 82.48 (high); Edelweis work units of 68.50 (medium); Flamboyant work unit of 70.15 (medium); Kenanga work unit of 81.25 (high); Lavender work unit of 81.25 (high); (Nurrianti et al., 2019).

VI. CONCLUSION

The findings of this study show that the majority of respondents are between the ages of 26 and 35 years old (53.1%), have a monthly income of Rp. 3.280.327,- (79.4%), have a moderate mental workload (53.2%), and are under

work stress (96.6%). It was also shown that there was a link between mental workload and nurse work stress.

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