



Analysis of the Influence of Work Stressors on Fatigue of Nurses in Inpatient Rooms, General Hospital of Haji Medan

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Abstract

Work stress is caused by many factors from workplace, family, home, or environment. Excessive work stress will make someone anxious until developing excessive fatigue. Fatigue will decrease performance and increase work error rate that cause fatal workaccident. This study aimed to analyze influence of working stressors against nurses fatigue in patien room in haji hospital Medan. This study was quantitative method with a cross-sectional design, with a sample of 53 respondents. This study used questioners of the NIOSH Generic Job Stress Questionnaire and Industrial Fatigue Research Committee which has been translated into Indonesian and has cheeked for validity and reliability. The results of the study regarding the influence work fatigue and work stress (P-value 0,000, r : 1,000), the influence workload and work fatigue (P-value 0,000, r : 1,000), the influence interpersonal conflict and work fatigue (P-value 0,000, r : 1,000), the influence job satisfaction and work fatigue (P-value 0,000, r : -0,588), the influence social support and work fatigue (P-value 0,000, r : -0,892), and based on the logistic regression test workload were variables the most influential, with an odds ratio of 94,5. The conclusion shows that workload is a variable that has strong influence on fatigue. Nurses with heavy workload are 94,5 times more likely to experience fatigue. So that the hospital needs to monitor and evaluate the performances of the nurses so the workload can be fixed and adjusted with the right capacity and ability of the nurses in providing services

Introduction

The General Hospital for Haj in Medan, North Sumatra Province was inaugurated by the President of the Republic of Indonesia on June 4, 1992. Since December 29, 2011, General Hospital for Haj in Medan, North Sumatra Province has been officially managed by the North Sumatra Provincial Government based on the Regulation of the Governor of North Sumatra 2011 dated December 13 2011. The Medan Hajj General Hospital, North Sumatra Province currently has 254 beds for inpatient care, almost double when it was inaugurated. The above efforts, to improve services to the community in accordance with the vision and mission of the General Hospital Haji Medan, North Sumatra Province as one of the options for the community to get health services.

In accordance with Law Number 44 of 2009, the definition of a hospital is a health service institution that provides complete individual health services that provide inpatient, outpatient

and emergency services. Hospitals in order to "survive" must have a good management system, especially in managing human resources so that they can meet all the needs of the community and patients. All hospital activities can run well if they have the support of all members of the organization. Services from quality, effective and efficient hospitals must be supported by adequate personnel in quantity and quality, procurement of coaching and development of personnel requires a lot of time and money, for that we need a management method in resource planning (Indonesia DKR 2009).

As a health service provider, the hospital operates 24 hours a day. The hospital makes a separation of patient nursing services, namely patient services that require emergency treatment, not sick emergencies, and hospitalization. These services are carried out by health workers in the hospital. Nursing personnel are one of the health workers who also take part in handling patients. Nursing personnel are the caring profession who have an important role in producing quality health services in hospitals. The services provided are based on a bio-psycho-socio-spiritual approach which is carried out for 24 hours and continuously is a distinct advantage compared to other services.

Nurses, as human resources for health workers, also contribute greatly to health services in hospitals in terms of direct services to patients. Nursing services are essential for the life and welfare of patients, therefore the nursing profession must be accountable for the quality of care provided. Development of science and technology enable nurses to obtain the information needed in order to implement care for patients with complex needs. To ensure the effectiveness of nursing care in patients, criteria must be available in the practice area that directs nursing to make decisions and carry out safe nursing interventions (PPNI, 2015).

The hospital is an agency that works for 24 hours so it is necessary to hold work shifts or work shifts. Work shifts are implemented in hospitals as a pattern of working time which has a considerable impact on the health of workers. Shift work itself is a job that has a certain and varied schedule, generally a regular shift work is divided into 6 to 8 hours per shift, the remaining 16 to 18 hours are used for family life, rest, sleep, and others (Doney, 2018).

Stress is a part of human life, where the body responds to the environment that can protect ourselves which is also part of the defense system that keeps us alive. Stress is caused by physical, emotional social, economic, work or circumstances, events and experiences that are difficult to endure. Too much stress makes a person's performance decrease and tends to be unproductive, but a little stress will help someone focus one's attention and performance (Gunarya et al., 2010).

Stress at work is common, an inevitable fact in people's lives is caused by many factors at work, in family, at home, or in the environment. According to Wilton, stress affects human and resource management at the same time (Prasanty et al., 2018).

While stress can also be expressed as a phenomenon in which there is a strong stimulus that can cause tension in the individual experiencing it to fix it. The reaction shown from the stimulus may or may not be well adapted. Frightening events cause painful reactions when the individual is unable to adapt. Short effects such as painful reactions occur as an immediate reaction to conditions in the work environment (Najimi et al., 2012)

Stressors can generally be described as conditions that a person experiences, good or bad to oneself (physical, mental, or social) that can trigger a person based on the sensitivity values that differ from one person to another. The cause of stress can come from the person himself or interpersonal influences at work including norms, rules, wages, reputation, and philosophy that trigger various individual responses, such as physical, mental, and social behavior (Najimi et al., 2012; , Biron et al., 2008).

Job stress is a serious health problem, both in terms of its high incidence and impact. The World Health Organization (WHO) in 1996 declared stress as a world epidemic in the 21st century. The National Institute of Occupational Safety and Health (NIOSH) reports that around 40% of workers describe their jobs as stressful to extreme levels. Another report from Attitude in American Workplace VII stated that 80% of workers feel stress at their job and half need help dealing with it (Yana, 2015).

In the initial survey the researchers conducted interviews with 5 nurse representatives (1 person per room) there were several symptoms of fatigue that arose including decreased concentration, trembling hands, cold sweats, body fatigue and headaches easily when the workload is excessive, sometimes it becomes a big problem, respondents Others also say that the presence of patients who need nursing action simultaneously makes it difficult for nurses to concentrate on nursing actions, this is because in one day and night shift there are only two to three nurses on guard while each patient is always full and sometimes one patient requires two nurses as assistance. The existence of a co-worker who is unable to attend makes the workload increase.

From the data obtained by the researcher, it is known that the number of hospitalized patients in January 2020 reached 958 patients, for this could not be proportional to the distribution of nurses. Where an average of 5 new patients each day and an average of 20 patients needing treatment.

Based on previous research conducted at the Medan Hajj General Hospital by Prasanty, et al. In 2018 the Spearman correlation test found a significant influence between overloaded quantitative work and psychological stress ($p = 0.0001$), with a weak positive correlation ($r = 0.289$). Qualitative work overload also had a significant effect on psychological stress ($p = 0.0001$), with a weak positive correlation ($r = 0.381$) (Prasanty et al., 2018).

In an emergency that requires nurses to be ready, sometimes it makes nurses become overly anxious so that usually there is excessive stress and sometimes a fatal work accident, a result of excessive workload and work stress. According to Suma'mur (2013) that work accidents bring harm to the workplace, both in terms of cost, time, productivity and labor. Work fatigue experienced by nurses must be a concern for the hospital. Hospitals should immediately carry out work fatigue management that is integrated with K3 management in the hospital (K3RS). According to Lientje, (2011), work fatigue management is an important thing to pay attention to and implement to prevent and inhibit the negative impact of work fatigue. Work fatigue management can be short-term or long-term. The short term can be in the form of education and training on K3 to the board of directors to the bottom structure, while the long term can be in the form of health promotion Lientje, (2011). Work fatigue management related to K3 management must be implemented and integrated by all This is done so that the impact of work fatigue management can be felt as a whole (Maharja, (2015).

Based on the description above as well as the facts found in the field, and to find a applicable hospital development concept, the researchers were interested in conducting research on "Analysis of the Effect of Work Stressors on Nurse Fatigue in the Inpatient Room of General Hospital Haji Medan".

Methods

This research uses a quantitative approach, an observational analytic research type with a cross sectional design. This research was conducted in September 2020 at the General Hospital Haji Medan, having the address at Jalan Rumah Sakit H No. 47, Kenangan Baru, Kec. Percut Sei Tuan, Deli Serdang Regency, North Sumatra. The sample in this study were nurses in the inpatient room of the Medan Haji General Hospital with a total of 53 respondents. The sampling technique used in this study was proportional stratified random

sampling because the population in this study had members or elements that were not homogeneous and proportionally stratified. The sample size in this study used the Slovin formula with an error tolerance limit of 5%.

In this study, several tools are needed to support research such as stationery, biodata forms, informed consent, and this research uses the NIOSH Generic Job Stress Questionnaire and Industrial Fatigue Research Committee which has been translated into Indonesian and has been tested for validity and reliability.

Result and Discussion

Table 1. Univariate Analysis

Variable	Frequency (F)	Percentage (%)
Work Stress		
Not Stress	23	43.4
Stress	30	56.6
Total	53	100
Age (years)		
20-24	5	9,4
25-29	27	50,9
30-34	14	26,4
35-39	7	13,2
Total	53	100.0
Number of Children		
0	20	37.7
1	16	30.2
2	11	20.8
3	6	11.3
Total	53	100.0
Sex		
Female	32	60.4
Male	21	39.6
Total	53	100.0
Marietal Status		
Not Married	20	37.7
Married	33	62.3
Total	53	100.0
Work Load		
High	30	56.6
Low	23	43.4
Total	53	100.0
Interpersonal Conflict		
High	30	56.6
Low	23	43.4
Total	53	100.0
Work Satisfaction		
High	26	49.1
Low	27	50.9
Total	53	100.0
Social Support		
High	26	49.1

Low	27	50.9
Total	53	100.0
Work Fatigue		
Tired	29	54.7
Not Tired	24	45.3
Total	53	100.0

Tabel 2. Bivariate Analysis

Variable	Work Fatigue						P Value	R
	Tired		Not Tired		Total			
	N	%	N	%	N	%		
Work Stress								
Not Stress	-	-	23	43.4	23	43.4	0,000	1,000
Stress	30	56.6	0	1.9	30	56.6		
Total	30	56.6	23	43.4	53	100		
Age								
20-24	4	7.5	1	1.9	5	9.4	0,194	0,181
25-29	12	22,6	15	28,3	27	50.9		
30-34	7	13.2	7	13.2	14	26.4		
35-39	7	13.2	-	-	7	13.2		
Total	30	56.5	23	43.5	53	100		
Number of Children								
0	10	18.9	10	18.9	20	37.7	0,154	0,198
1	9	16.9	7	13.2	16	30.2		
2	5	9.4	6	11.3	10	18.9		
3	6	11.3	-	-	6	11.3		
Total	30	56.6	23	43.4	53	100		
Sex								
Female	15	28.3	17	33.1	32	60.4	0,080	-
Male	15	28.3	6	11.3	21	39.6		
Total	30	56.6	23	43.4	53	100		
Marietal Status								
Not Married	10	18.9	10	18.9	20	37.7	0,460	-
Married	20	37.7	13	24.5	33	62.3		
Total	30	57.6	23	43.4	53	100		
Work Load								
High	28	52.8	2	3.8	30	56.6	0,000	1,000
Low	2	3.8	21	39.6	23	43.4		
Total	30	56.6	23	43.4	53	100		
Inter-Personal Conflict								
High	30	54.7	-	-	30	54.7	0,000	1,000
Low	-	-	23	45.3	23	45.3		
Total	30	54.7	23	45.3	53	100		
Work Satisfaction								
High	7	13.2	19	35.9	26	49.1	0,000	-0,588
Low	23	43.4	4	7.5	27	50.9		
Total	30	56.6	23	43.4	53	100		
Social Support								
High	3	5.7	23	43.4	26	49.1	0,000	-0,892
Low	27	50,9	-	-	27	50.9		

Total	30	56.6	23	43.4	53	100		
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For the purpose of predicting and estimating the factors that most influence the work fatigue of nurses in the inpatient room of RS Haji Medan, a multivariate analysis was performed using logistic regression tests. The factors tested were eligible to be included in the multivariate model if they had a p value of <0.025 with the enter method on a simple logistic regression test.

Table 3. Selection of Variables that Become Model Candidates in the Logistic Regression tetst

Variable	P-value	Selection
Work Stress	0,000	Candidate
Age	0,194	Not Candidate
Number of Children	0,154	Not Candidate
Sex	0,080	Not Candidate
Marietal Status	0,490	Not Candidate
Work Load	0,000	Candidate
Interpersonal Conflict	0,000	Candidate
Work Satisfaction	0,000	Candidate
Social Support	0,000	Candidate

Table 3 shows there are five variables with p value <0.05, namely work stress, workload, interpersonal conflict, job satisfaction, and social support. Thus the five variables fit into the multivariate model. The results of the logistic linear regression test can be seen in the table below

Table 4. Logistic Regression Test Results

No	Independent Variable	B	P	Exp (B)	95% CI	
					Lower	upper
1	Workload	4,549	0,000	94,5	14,450	617,992
2	Job Satisfaction	-2,953	0,000	0,052	0,013	0,212
3	Social Support	-5,295	0,000	0,005	0,000	0,052

Table 4 is based on tests using three modeling shows the odds ratio of the variables that most influence work fatigue. Nurses with heavy workloads have 94.5 times the chance of experiencing fatigue compared to nurses with light workloads. Nurses with high job satisfaction have 0.052 times the chance to experience fatigue, while high social support provides an opportunity for fatigue of only 0.005 compared to nurses who get low social support. This shows that the workload has the strongest influence on work fatigue on nurses in the inpatient room of the Medan Haji General Hospital and the effect is inversely proportional.

Analysis of the Effect of Work Stress on Work Fatigue

Job stress and work fatigue are very influential factors in influencing workforce performance. This was found in Widyastuti's (2018) study of the effect of work stress and work fatigue on employees in the truck construction area. Not only the nurses in the inpatient room of the Medan Haji General Hospital, the same thing was found in the nurses at the Deli Serdang Bukit Pakam Hospital through research conducted by Ardian (2019). According to Ardian (2019), it is necessary to handle work fatigue and stress so that the work performance of nurses can increase rapidly and provide excellent service for patients. Even so, according to research conducted by Ramadhani (2016) in the Inpatient Room of Dr. Pirngadi Medan in 2016 did not find a significant effect between fatigue and work stress on nurses (Rahmania et

al., 2018) It is necessary to trace back whether these differences occur due to differences in conditions in each type of work environment.

Analysis of the Effect of Age on Work Fatigue

In previous research, it was found that nurses from the UGD, Outpatient, and Inpatient Hospital dr. Mohamad Soewandhie Surabaya through Perwitasari (2014) research, age can determine a nurse's resilience to the conditions and demands of her work in the hospital, where the nurse is young people tend to be more resistant to fatigue (Mallapiang et al., 2016). Meanwhile, Dewi (2015) in her research on nurses at Grhasia Mental Hospital DIY found a significant effect between age and fatigue in nurses. Often jobs that require more physical exertion are assigned to younger nurses because they are considered more capable than older nurses, or for reasons of norms upheld in the work environment.

Analysis of the Effect of Number of Children on Work Fatigue

A factor that can cause the number of children to affect work fatigue is the possibility of interruption of rest time which can be caused, for example, by children who are fussy when their parents are supposed to rest (Juliana et al., 2018). The number of children plays a role in causing the role of parents, especially a mother to be dual, namely between being a parent and wife at home, and the workforce in the environment where they work. The more the number of children at home, the burden of parents' homework, especially a mother (Herdianti, et al., 2019). Therefore, it is necessary to have a balanced division of duties between the residents of the house so that the role is not too heavy and reduce the fatigue factor at work. In addition to the wife, a father's work fatigue can be heavier because often a father is the only backbone of the family (Rachman, 2013). Even though their roles in the family are different, the responsibilities of the father and mother, or husband and wife must be determined equally, so that they do not have a negative impact in various sectors of life, one of which is work performance. In this study, the range of the number of children was between 0 and 3. None subjects with the number of children far from this range which can be a clear indication of the effect of the number of children on work fatigue.

Analysis of the Effect of Gender on Work Fatigue

In the research of Chesnal (2015) which shows that there is no significant effect between sex and work fatigue. Setyawati (2010) argues that gender can affect fatigue because the muscle capacity of men is different from that of women, where men tend to be stronger than women so they do not tire faster than women. However, in the field of nursing work is done. do not really need physical exertion, so that it does not provide a significant difference that can be found in this study. In addition, in various hospitals most nurses are female (Trinofiandy et al., 2018). It is necessary to further investigate whether gender affects fatigue in a psychological form. and how it is different between men and women.

Analysis of the Effect of Marital Status on Work Fatigue

The findings of this study are different from the findings of Lukitasari (2018) who found an influence between marital status and work fatigue in workers in spinning units, where work fatigue is more likely to occur in married workers. a similar thing in nurses at the Horas Insani Pematangsiantar Hospital. These differences can be indicative of other differentiating factors between different work environments (Agustinawati et al., 2019). Marital status influences household conditions and also affects the number of children one has. Domestic problems can affect a person's performance. Often the burden from the home is carried by someone to his work environment.

Analysis of the Effect of Workload on Work Fatigue

Pajow, 2016) found that high workloads can cause a decrease in work activities for the Bokor industrial craftsmen in Menyali Village. This high workload can cause fatigue so that work is not completed and accumulates. This piling up of work causes a more workload so that work fatigue is increasing as well. This should be prevented by a system of even distribution of tasks. This system should be done by paying attention to individual working capacity so that the working portion can be adjusted to the work capacity of each individual, thereby preventing the accumulation of work on individuals with different working capacities less than the other personnel (Dijkstra, 2009).

The Effect of Interpersonal Conflict on Work Fatigue

Interpersonal conflict can be the cause of fatigue and oppression in the world of work, as stated by Dijkstra (2009). The existence of conflict and oppression is a condition that is not ideal in the work environment (Akroyd & Adams, 2000). Fatigue caused by conflict in the world of work is often in the form of emotional exhaustion. This does not rule out that physical exhaustion can arise as a direct result of interpersonal conflict or through emotional exhaustion. Siswanto (1991) argues that this fatigue will arise if the conflict has occurred for years. A work environment that is harmonious and protected from conflict is a support for increasing work productivity of each component of the work environment.

Analysis of the Effect of Job Satisfaction on Work Fatigue

Research on Temaluru (2015) on employees of PT Bank Internasional Indonesia, Tbk, that the higher the level of work fatigue experienced by an employee, the lower the level of job satisfaction (Hasibuan, 2010). A pleasant work environment can increase job satisfaction. By increasing satisfaction and reducing fatigue at work, productivity will increase significantly (Adawiyah & Blikololong, 2019). Several factors can be elements that build job satisfaction. These factors can be in the form of salary, position, co-workers, achievement in work, or promotion. Factors that build this satisfaction need to be investigated in further research.

Analysis of the Effect of Social Support on Work Fatigue

Similar research was found by Adawiyah (2018) at the Tangerang City Hospital and Tangerang Regency. Social support needs to be given to workers in order to help overcome fatigue due to work. This support can be obtained from superiors, colleagues, or family or the home environment (Difayoga & Yuniawan, 2015). Social support can be a positive trigger and motivation to increase work power, where it is shown that the work done is meaningful and not in vain. Appreciation is an important factor that can encourage a workforce to achieve job targets. Social support from superiors can be in the form of awards from doctors or hospital management when a nurse works well or achieves a certain target. Support from peers can be in the form of working hand in hand in carrying out daily tasks and maintaining good communication with each other. Support from family is support provided at home after a nurse carries out her duties at the hospital.

Analysis of the Joint Effect of Job Stressor Factors on Work Fatigue

Difayoga's research on nurses at Panti Wilasa Citarum Hospital Semarang (Hardani, (2016). Reducing stressors and increasing job satisfaction can prevent fatigue and further improve performance in doing work. Good work conditions can have a positive influence on various aspects of life, ranging from family, social environment, hobbies and work colleagues. When all aspects of life are achieved properly, a good quality of life can be achieved and will lead to positive feedback on the conditions of the work environment (Munandar, 2001). Stress at work is another result of the work process, which can cause a decrease in labor conditions, both physically and mentally, causing disturbances in job optimization.

Conclusion

Based on the results of the research that has been done, it can be concluded as follows: (1) There is an influence with a positive correlation between work stress and work fatigue in the inpatient room nurses at RSUD Haji Medan. (2) There is no influence between age on work fatigue in inpatient nurses at RSUD Haji Medan. (3) There is no influence between the number of children on work fatigue in inpatient nurses at RSUD Haji Medan. (4) There is no influence between gender on work fatigue in the inpatient room nurses at RSUD Haji Medan. (5) There is no influence between marital status on work fatigue in inpatient nurses at RSUD Haji Medan. (6) There is an influence with a positive correlation between workload and work fatigue in inpatient nurses at RSUD Haji Medan. (7) There is an influence with a positive correlation between interpersonal conflict on work fatigue in the inpatient room nurses at RSUD Haji Medan. (8) There is an influence with a negative correlation between job satisfaction and work fatigue in the inpatient room nurses at RSUD Haji Medan. (9) There is an influence with a negative correlation between social support on work fatigue in the inpatient room nurses at RSUD Haji Medan. (10) Workload is the variable that most influences the work fatigue of the inpatient nurses at RSUD Haji Medan.

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