Effect of Workload and Job Stress on Burnout in Nursing Staff at the Regional Public Hospital of West Nusa Tenggara Province, Indonesia

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Abstract: Nurses are people who are responsible for caring for patients who face various challenges including workload and work stress which are thought to affect burnout. Some research results show the influence of workload and work stress on burnout. But the results of this study are not consistent with the results of other studies. The inconsistency of the results of these studies makes the study of the effect of workload and work stress on burnout in nurses becomes important.

This study aims to determine the effect of workload and work stress on burnout. This study uses associative causality design. The population in this study were all functional nursing personnel totalling 478 people with a sample of 218 that selected using proportionate random sampling. Descriptive statistics used are frequency distribution analysis while the causality analysis used is multiple linear regression.

The results showed that the workload had a positive effect on burnout and work stress also had a positive effect on burnout in nursing staff at the Regional Public hospital of West Nusa Tenggara Province, Indonesia.

Based on the results of these studies, it is recommended for the hospital to make efforts to maintain workload and work stress is at a low level so that the incidence of burnout will not increase.

Key Words: workload, work stress, burnout.

1. INTRODUCTION:

Hospital as one of the health service facilities is part of the health resources that are very necessary. Hospitals need to make efforts to improve the quality of public services and medical services, either through accreditation, certification or other quality improvement processes (Ministry of Health, 2012), including the quality of nursing services. The quality of nursing services is a process of activities carried out by the nursing profession in meeting patients' needs in maintaining the patient's biological, psychological, social and spiritual conditions (Sauri & Bahtiar, 2012).

Nurses are people who are responsible for caring for patients every day and are constantly faced with many factors that are full of challenges and imbalances. Decreasing the quality of nursing services is not only due to the quality factor of labor but can also be due to the high workload which results in nurses becoming physically and mentally exhausted. This can be seen if there is an increase in the number of patient visits and an increase in Bed Occupancy Rate (BOR), while the number of nurses remains in a long period of time (Ilyas, 2013). Maharaja (2015) states that nurses have task demands and high demands for responsibility, especially for nurses who are inpatient care. This is because all nursing care services are carried out 24 hours for 7 days thus increasing the responsibility of nursing care. These high job demands can interfere with the health of the nurse.

Based on the nature of the work, nurses are a group of health workers who are at risk of experiencing burnout compared to other health workers (Lorenz, Benatti, & Sabino, 2010). Burnout is a condition of physical, mental and emotional fatigue that appears as a consequence and incompatibility between the condition of the individual and his work or environment and the design of his work (Gunarsa, 2004). Burnout is found in many human service professions such as police, nurses, doctors, counselors and social workers. Nurses who experience burnout and have a less secure environment can provide less efficient care than nurses who do not experience burnout. Nurses who experience burnout are also at risk of making mistakes that have the potential to harm patients.

Some previous studies that showed the effect of workload on burnout, such as research conducted by Vanderbroeck, Gerven, Witte, Vanhaecht and Godderis (2017) on doctors and nurses in Belgium showed that workload had a positive effect on burnout. This research is supported by research conducted by Andela., Truchot and Doef (2016) and Marciano and Ardiansa (2018). On the contrary, some previous studies also showed no significant effect between workload and burnout such as the research conducted by Pahu, Doda and Boky (2016), Nurjannah (2014), and Leris Banaran and research by Khairunnisa, Susanti and Sunarti (2017).
In addition to workload, work stress can also affect the occurrence of burnout, because it is a result of chronic work stress. Stress is all the action of the human body against all stimuli both from outside and from within the body itself which can cause various adverse effects ranging from decreased health to the suffering of an illness. According to Siagian (2014) work stress is a condition of tension that affects one's emotions, mind and physical path. Stress causes a person to experience work fatigue which then continues to emotional exhaustion and will affect physical fatigue.

Several previous studies showed the effect of work stress on burnout, such as research conducted by Fernet, Torres, Austin and Pierre (2016), and Mehrabian, Baghizadeh and Alizadeh (2018). In addition, research conducted by Nguyen, Kitaoka, Sukigara and Thai, (2018) in Vietnam showed that 3.5% of nurses had experienced depression. One factor that causes fatigue is work stress and also a lot of workload. Research conducted by Mewengkang, Rattu and Umboh (2017) states that fatigue in nurses in inpatient care is dominated by work stress. Likewise, the research conducted by Luan, Wang, Hou, Chen and Lou, (2017) found a similar result. Conversely, research conducted by Alimudin, Josephus and Akili (2016) shows that work stress does not have a significant effect on burnout. This research is supported by research conducted by Waruwu, Arianto and Nugroho (2018).

The inconsistency of the results of the research conducted by previous researchers made research on the effect of workload and work stress on burnout to be important to continue. Based on the above description, a research is needed to determine the effect of workload and work stress on burnout in nursing staff. As a case study, the Regional Public hospital of West Nusa Tenggara Province in Indonesia was considered.

2. STUDY PURPOSE:

The aim of this study is to test and analyze the effect of workload on burnout of nursing staff; and to test and analyze the effect of work stress on burnout nursing staff.

3. RESEARCH METHODS:

3.1. Types of Research, Population and Samples

The type of research used in this research is associative causality research. The population in the study is functional nursing staff who directly provide nursing services in the Regional Public Hospital of West Nusa Tenggara (NTB) Province in Indonesia. The staff consists of nurses and midwives who are in the Inpatient Installation, Outpatient Installation, Intensive Care Installation, Emergency Installation, Central Surgery Installation and Hemodialysis Installation on various staffing status and education level with a total of 478 people. The sample in this study amounted to 218 people who were determined using proportional random sampling techniques.

3.2. Research Variables and Variable Operational Definitions

3.2.1. Burnout

Burnout is the respondent's response to the decline in conditions experienced by nursing staff both physically and psychologically. The decrease in the condition is characterized by symptoms such as feeling tired and tired every day, ditching or not going to work, the desire to move, there is a feeling of failure in yourself or feeling inadequate, often dizzy, irritable and often upset, very sore after work withdraw and so on.

3.2.2. Workloads

Workload is the respondent's response to a condition where a nursing staff is required to do work in a predetermined quantity or quantity or even more done in a certain period of time with the availability of time that can be less to complete the task or work. So that it requires more capabilities from the employee both physically, cognitively or even psychologically from the employee.

3.2.3. Job Stress

Job stress is a condition of tension that affects emotions, the way of thinking. Indicators and elements that are part of the concept of work stress, include the demands of the role of individuals in the organization, the demands of the task, organizational structure and interpersonal demands.

3.2.4. Econometric Model

To answer the research objectives, the Ordinary least Square model was developed as follows:

\[ Y = b_0 + b_1X_1 + b_2X_2 + e \]

Where \( Y \) = burnout; \( X_1 \) = workload; \( X_2 \) = Job Stress.

4. RESULTS:
4.1. Characteristics of Research Respondents

Data on the respondents' characteristics of the research obtained included gender, age of the respondent, the last education of the respondent, length of employment and employment status. Descriptive analysis of the characteristics of respondents found that, most of the respondents in this study were female, 152 people (69.7%) and most of them were in the age range of 25-35 years, 107 people (49.1%). The last education, most of the respondents of this study had completed Nurse education, namely 98 people (45%). Regarding the length of work and employment status, the majority of respondents in this study had worked more than 6 years, namely 141 people (64.7%) and most of them were civil servants, 143 people (65.6%).

4.2. Results of Descriptive Analysis of Research Variables

Multiple linear regression analysis of the estimated models is as follows:

\[ Y = -4.178 + 0.488X_1 + 0.997X_2 \]

\[ \text{(-1.019)} \quad (5.869)***(5.938)*** \]

\[ F = 49.854 \]

\[ R^2 = 0.317 \]

***Significant at \( \alpha \) 1%

The linear function above can be described as follows:

The constant value of -4.178 means that if each independent variable i.e. workload and work stress is worth 0, then burnout will be negative at 4.178. This means that burnout is always present in each individual even though there are no factors that influence it.

The regression coefficient of workload (b1) is positive which is equal to 0.488 which means that if the workload factor is added to the linear regression model, then the burnout of each individual will increase by 0.488. Workload regression coefficient (b1) which has a positive value means that the higher the workload score, the burnout of each individual will increase. Likewise, conversely the lower the value of the workload of a nursing staff, the burnout of each nursing staff will be reduced.

The regression coefficient of work stress (b2), which has a value of 0.997, explains that if the work stress variable is entered into a linear regression model, the burnout of each nursing staff will increase by 0.997. The work stress regression coefficient (b2) which has a positive value means that the higher the job stress score, the burnout of each nursing staff will increase. And vice versa, the lower the value of work stress from nursing staff, the burnout will decrease.

4.3. Classical Assumption Test Results

The Saphiro-Wilk test shows the data are normally distributed, pass the multicollinearity test, pass the linearity test and pass the heteroscedasticity test so that the results of the classic assumption test are feasible to use multiple linear regression analysis.

4.4. Analysis of Multiple Linear Regression

4.4.1 Correlation Coefficient Test (Test F)

Based on the results of the F Test (ANOVA), it shows that the independent variables used in this study have feasibility in the regression model of the dependent variable. This conclusion is obtained from the calculated F value greater than F table (49.854> 3.04). This is also indicated by a P value of less than 0.001 (<0.001) at \( \alpha = 0.05 \). In this case, it can be said that the two independent variables have a decent model used to estimate or predict burnout variables.

4.4.2. Regression Coefficient Test (T Test)

Partially, workload has a significant effect on burnout. This is indicated by the value of t count in the workload variable is 5.869 where the value is greater than the value of the t table which is 1.652. In addition, it is also indicated by the value of p value <0.001 at the error rate \( \alpha \) of 0.05. The direction of the regression coefficient is a positive workload variable which means that any increase in workload will increase the occurrence of burnout.

In addition, partially, work stress has a significant effect on burnout. This can be seen in the value of t count which is greater than t table (5.938> 1.652). Besides that, it can be seen with p value (<0.001) which is smaller than the error value \( \alpha \) of 0.05. The direction of the regression coefficient of work stress variables is also positive which also means that any increase in work stress will increase the occurrence of burnout. So that it can be concluded that there is a positive influence between workload variables and work stress on burnout in nursing staff in Regional Public hospital of West Nusa Tenggara Province.

4.4.3. Determinant Coefficient Test (R²)

R value is 0.563 which indicates that there is a strong influence between workload variables and work stress on burnout. \( R^2 \) is 0.317 which is equal to 31.7%, which means that the percentage contribution to the workload variable and work stress on burnout is 31.7%. Or in other words, variations in workload and work stress variables can explain
31.7% of the variation in burnout variables. While the remaining 68.3% is influenced or explained by other variables not included in this research model such as work environment, social welfare, organizational culture, interpersonal communication, organizational support and job support, work climate, appreciation and patient safety and social support, and others.

5. DISCUSSION:

5.1. Effect of Workload on Burnout

The results of the analysis show that workload has a positive and significant effect on burnout. This means that if the workload of nursing staff in the Regional Public hospital of West Nusa Tenggara Province is high, then the burnout will also be felt by the nursing staff and vice versa if the workload of a nursing staff in the Regional Public hospital of West Nusa Tenggara Province is low, so the perceived burnout will be low. One of the factors in the occurrence of burnout according to Lee and Ashfort (1996) in Sari (2015) such as workload, role conflict, role ambiguity and support. And from the results of the research conducted, the most influential factor is the workload (Sari, 2015). The problem of workload experienced by nursing staff has a very negative impact on hospitals, because nursing staff who experience burnout will experience physical and psychological changes that have an impact on work outcomes not optimal and affect the quality of nursing services.

According to Manuaba in Irawati and Carolina (2017) too much workload will have a bad impact, which will lead to physical and mental fatigue and emotional reactions such as headaches, indigestion and irritability. While the workload is too little where the work that occurs because of the reduction of motion will cause boredom. Boredom in work done or too little work results in a lack of attention to work so that it is potentially harmful to workers.

The results of this study are in accordance with research conducted by Romadhani et al (2015) in librarians and Vandenbroeck et al (2017) which states that workload has a positive effect on burnout. Likewise, with the research conducted by Prijanti (2015) and Ardhani (2017). Which means that the higher the workload given, the higher the perceived burnout.

The high workload seen in the number of patient visits in the Regional Public hospital of West Nusa Tenggara Province continues to increase every year. In 2016 the number of visits was 170,132 people, in 2017 the number of visits was 186,089 people, an increase of 10.9% from the number of visits in 2016 (the average visit per day was 510 people) and in 2018 the number of visits was 198,244 people, an increase of 10.6% of the number of visits in 2017 (the average visit per day is 543 people). According to Kurniawati and Solikah (2015) in Marciano et al (2018) explained that burnout is directly proportional to the increase in patients.

Previous research (Kurniawati and Solikah, 2013) in Marciano et al., 2018 suggests that a nursing staff is given the responsibility to be able to serve one patient, but because the number of patients increases so that a nurse must serve more than one patient. This causes an increase in workload which leads to increased occurrence of burnout. Whereas according to Mandusari et al., 2014, nurses’ workloads are fluctuating due to the number of patients and the predictable severity of patients, the variety of nursing tasks, nurses required to be prepared for 24 hours, nurses are required to work quickly, responsibly and precisely in handling patients, as well as the pressure and demands to save patients both moral demands, demands from hospital leaders and demands from the patient's family, resulting in increased workloads faced by nurses. The high workload is feared to cause burnout and affect the reliability of nurses in providing services. Almost every workload can lead to the emergence of burnout depending on how the nursing staff react themselves to deal with it (Frasser, 1992 in Lekahena 2015).

From the results of the descriptive variable analysis, the results show that the workload is in a sufficient category but the results of burnout are in the low category, where if based on statistical analysis the higher the workload, the higher the burnout that will occur. This might be attributed to the characteristics of the first respondent of the study, the majority of respondents in this study were women (69.7%) and based on the research of Shaw and Constanzo (1982) in Lumbantobing (2013) stated that achievement motivation in women was different from achievement motivation in men. This happens because there are fundamental differences in how to view success between men and women. Men see success singly while women see success ambiguously. Men do not have confusion when facing situations of competitive achievement because it is in accordance with their masculine gender roles. Or in other words men are supposed to be successful (Matlin, 2000) in Lumbantobing (2013). Whereas in women, the environment does not appreciate the achievements they get. Coupled with the gender role it has requires these feminists to be merciful, obedient and not compete (Shaw and Constanzo, 2003) in Lumbantobing (2013). This is also in accordance with the research conducted by Arieandhini (2009) about the differences in employee achievement motivation in terms of gender characteristics.

The work target that must be achieved is closely related to work motivation. Mc Clleland (in Mangkunegara, 2008) defines achievement motivation as an encouragement from within a person to do an activity or task as well as possible to achieve achievement. So that even though women and men have the same achievement motivation to achieve success, women are influenced by the values and hopes that develop in the community to behave according to their gender roles (Unger, 2004).
Second, it is associated with work conditions where this is consistent with the research conducted by Andriani (2004) in Sani (2017) which shows that there is a negative correlation between perceptions of work conditions and the tendency of burnout for nurses in Emergency Services. This means that the more positive perceptions of work conditions, the lower the burnout and vice versa. In the NTB Province Public Hospital the conditions of work have adjusted to the development of science and technology so that nursing staff may feel more comfortable and confident in providing services so that the indicators of employment conditions are in a sufficient category but the burnout category is low. Plus, the nature of this work works in a team so that even though the workload is in a sufficient category but done in a team then burnout will be in the low category.

Third, it is associated with the characteristics of respondents where 45% are Ners who have a higher standard of work than respondents with education under Ners. Nurses with good education will carry out effective and efficient nursing practices which will then produce high-quality nursing services. Because this is in accordance with the standard of work so that even though the workload is in sufficient category but burnout in the low category.

5.2. Effect of Job Stress on Burnout

The results of data analysis showed that job stress has a positive and significant effect on burnout. Thus, the second hypothesis which states "work stress has a positive and significant effect on burnout" is accepted. This means that if the work stress of a nursing staff in the Regional Public hospital of West Nusa Tenggara Province is high, the burnout will also be felt by the nursing staff. Likewise, vice versa if the work stress of a nursing worker in the Regional Public hospital of West Nusa Tenggara Province is low, so the burnout will be low. Work stress problems experienced by a nursing staff have a very negative impact on a hospital, because the work stress experienced by the nursing staff can result in losses that must be considered by the hospital.

According to Mangkunegara (2010: 308) namely "the feeling of stress experienced by employees in the face of work". So that nursing staff with low stress levels are able to complete their work on time during working hours and do not need to bring office work home, they are able to complete the existing workload without feeling depressed for the work provided, they still have time to rest and socialize with others so that work does not limit them from interacting with their colleagues. They feel cared for by the hospital both in terms of welfare and other needs, feeling their suggestions are always heard so that they have a sense of responsibility for this organization to jointly achieve prosperity.

When a hospital can control the stress felt by a nursing staff, then the losses that must be considered by the hospital can be reduced even without the loss that arises due to stress. When a nursing staff has low stress, clear responsibilities are given, then unclear roles can be avoided, they feel clear information both in terms of descriptions and job specifications in accordance with clinical authority and nursing career paths. As a result of these low stresses, the perceived burnout will also be low and there may not even be a tendency for burnout to the nursing staff so that emotions will not emerge from the work, there will be no feeling tired due to being burdened by work, or not eager to work. So that positive things will emerge in the form of enthusiasm in working and trying to contribute positively to the hospital.

The hospital management needs to take steps in controlling the stress of nursing staff and pressing it to keep it low so that it does not result in the appearance of burnout or the tendency of nursing staff to become exhausted. It is necessary to do socialization and education about how to control stress so that it can have an impact on being positive for yourself and can be a motivation in working. The need to anticipate the stress of the work of nursing staff because the impact will be bad on nursing services.

The impact of work stress can be beneficial or detrimental to nursing staff. The beneficial impact is expected to be able to spur nursing staff to be able to complete the work with the best enthusiasm, but if stress is not able to be overcome it will cause an impact that will be detrimental to the nursing staff (Gitosudarmo, 2000). The impact of work stress according to Cox in Amanda (2017) concludes that the impact of work stress is that it can be subjective, behavioral, cognitive, physiological and organizationally. The same effect was expressed by Ivancevich, Konopaske and Matteson (2007: 297), namely behavioral symptoms, physiological symptoms and cognitive symptoms. So that too high work stress experienced by nursing staff can cause several problems caused by internal and external factors. If the stress of work experienced by the nursing staff is prolonged it will have an impact on the symptoms that affect the nursing staff due to job demands including irritability, aggression, uncooperative and excessive smokers.

The results of this study are consistent with the research conducted by Ferinet et al (2016) and Smith et al (2017) which states that work stress has a positive and significant effect on burnout. Likewise, with the research conducted by Andela et al (2018) and research conducted by Cui et al (2018) which states that work stress has a positive effect on burnout. While the research conducted by Khamisa et al all states that work stress has a significant effect on burnout.

From the perspective of the Theory of COR (Conservation of Resources / COR Theory) or known as the Resource Conservation Theory, someone will try to obtain and maintain / maintain the resources they have. Resources here include target conditions (marriage status, position), personal character (self-value) and energy (time, money and knowledge). Threats to the actual loss of these three resources will result in "negative circumstances" such as
experiencing stress, job dissatisfaction, depression or pressure. If the behavior to protect or replace these resources is not raised (e.g., leaving work), these resources can be so dry that it will lead to burnout (Hobfoll & Shirom, 1993; Wright & Cropanzano, 1998) in Astuti (2012).

This theory also explains the impact of work stress on someone who experiences it, which is reflected when getting a conflict originating from work they may believe that they will not succeed in carrying out the tasks they are charged with. As a result, they may be forced to invest more of their resources into work roles for fear of losing their employment status. In addition, potential or actual losses require behavioral changes such as plans to abandon their role in employment, so that they need to protect or even substitute / replace threatened resources. Job stress occurs when there is a loss of resources it has, including time and energy. The loss of resources in time and energy because of the excessive role will result in a person not being able to do his role adequately or comfortably, thus impacting stress or emotional fatigue. Under stressful conditions, workers tend to be more active and emotionally aggressive. Burnout and stress sufferers both experience problems, especially at work, but the response is different. Prolonged stress can potentially become burnout, while the burnout conditions experienced by workers are not necessarily caused by stress. In the results of the descriptive analysis shows that the work stress variables are in sufficient categories but burnout in the low category. This might be attributed to, first, the role of individual roles associated with length of work, which in table 4.4 shows that the majority of respondents (64.7%) worked > 6 years so this is consistent with previous research (Lee, 2007) in Eliyana (2016) which states that someone who has worked for one job for a long time, the worker has a realistic view of the situation at hand. In other words, workers who have worked longer show emotional fatigue at a low level.

Second, because of the nature of the work, a nursing staff has the demands of a task that must be completed quickly and precisely. The number of variations and types in carrying out nursing actions and can be carried out in teams causes no emergence of work that is routine and monotonous. This is consistent with the research conducted by Eliyana (2016) which states that work is routine and monotonous which makes nurses become bored and can lead to burnout.

Third, it is associated with organizational structure related to job description and job specification which clearly causes burnout in the low category. According to Lee and Ashfort (1996) in Dewanti (2010) states that 1) role ambiguity can influence the occurrence of burnout because of the ignorance and obscurity of a worker about what to do, confused and unsure because of lack of rights and obligations, and 2) the existence of role conflict, where conflict occurs because someone carries more than one conflicting role. While the respondents in this study are clear what the duties and responsibilities are in accordance with their clinical authority.

Fourth, according to Sihotang (2004) basically burnout can occur in all people, both male and female. This happens because every human being naturally experiences the pressure obtained in life, especially in carrying out work. In general, men are easier to experience burnout than women. This is because women do not experience pressure ratings like those faced by men, which can be caused by differences in roles, for example in terms of work, for men "working" is an absolute thing to support their family, but not for women, where women can work or not, so it is not a necessity (Gibson in Sihotang, 2004).

6. CONCLUSION:
Based on the results of research on 218 nursing staff respondents in the Regional Public hospital of West Nusa Tenggara Province regarding the effect of workload and work stress on burnout, it can be concluded as follows; first, workload has a positive and significant effect on burnout. This shows that the workload experienced by nursing staff has a positive effect on burnout, which means that the higher the workload felt by nursing staff, the higher the burnout that will occur in nursing staff in the Regional Public hospital of West Nusa Tenggara Province.

Second, Job stress has a positive and significant effect on burnout. This shows that work stress experienced by nursing staff has a positive effect on burnout, which means that the higher the work stress that is felt, the higher the burnout that will occur in nursing staff in Regional Public hospital of West Nusa Tenggara Province.

REFERENCES:

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