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Factors Affecting Nurses' Workplace Stress Inyowari Hospital of Sentani District, Jayapura

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Abstract

Work stress is distress experienced by individuals in the face of work caused by the stressors of work environment factors such as physical environment, organizational systems and individuals. The research objective was to determine what factors are causing stress in nurses who work in Hospital. This research used *explanatory research* with *cross sectional* approach. These samples included 55 nurses in hospitalization ward. The instrument of this study is a questionnaire. The data were analyzed using descriptive statistics, bivariate analysis using *chi square test,* and multivariate analysis using *Structural Equation Modeling (SEM).*The results of univariate analysis showed that the nurses stress of 61.8% found in the characteristics of the age of 21-40 years (87.3%), female (85.5%) education level Diploma Nurses (74.5%), has a work period ≤ 5 years (60.0%), the status of civil servants (54.5%), were married (76.4%), and working in the internal ward (30.9%), with a personality type extrovert (70.9%). The level of stress is often the case that *self esteem* (87.3%), despair and a sense of worthlessness (80%), success (72.7%) and interest (72.7%). The bivariate analysis showed that, Stressors that significant with stress were: support, organization, interaction with the *p-value* (0.012 <0.05). The coping mechanisms were social support as an emotional reason the value of *p-value*(0.040 <0.05). The closeness to the religious *p-value*(0.002 <0.05) significantly between closeness to religion with work stress. The most factors that have an effect on the coping mechanisms *Equtional Modeling Structural* testing with loading value of 0.598 and 7.798 correlated, which means that the coping mechanisms 7 times have influence to reduce stress in the workplace.

Keywords: workplace stress, nurse, patient wards

1. Introduction

Work stress is a distress experienced by employees in work caused by the stressors of work environment factors such as the physical environment; the system of organizations and individuals, the stress on the nurses can be caused by various factors including the workload. According Manuaba workload can be in the form of demands of the task or job, the organization and the working environment. Nurses are profession that have specialization in handling the patient treatment or care to patients with vary demands, depending on certain characteristics needed.

Nurses in hospitals vary widely in terms of both the type and number. The symptoms of perceived stress have not been reached. In performing their duties, many hospital

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nurses are exposed to a variety of factors that can cause a negative impact and affect fatigue and cause stress. They are always associated with a variety of potential dangers, which if we're not anticipated and properly managed may affect the health and their safety at work.

The impact of *distress* that appear by the symptoms on a nurse in every patient room are: lose concentration and anxiety, dizziness, less effective communication with co-workers, loss of appetite, irritability, fatigue, insomnia, headaches, irritability, digestive system problems (often gastritis), a lot of silence. These symptoms if not treated properly, will lead to prolonged stress and impact on the nurses work performances. There are 73 nurses who work in hospitalization wards.

2. Research Methods

2.1. Type and Research Design

This type of research is *explanatory Research,* the research that explains the correlation between different variables. In this study we identified whether the characteristics (age, gender, education, employment, employee status, and marital status), stressors, and mechanisms for coping have correlation with nurses' stress in Yowari Hospital Sentani District, Jayapura. *Cross sectional* approach was used to study variables, data collection at a time.

2.2. Population and Sample of Research

a. Population

Population is the object / subject that have certain qualities and characteristics defined by the researchers to be studied and conclusions drawn. The population in this study is 73 nurses in the hospitalization wards.

b. Sample

Respondents who were included based on criteria of inclusion were all nurses who work in the hospitalization ward. However, there were several nurses that we did not include as sample because of several reasons such as: 12 nurses who were continuing their education, 2 nurses who were breastfeeding and 4 nurses that were in their maternity leaving. Thus, our total samples were 55 nurses.

2.3. Research Instrument

a. Instrument of Quantitative Research

Tool or instrument used in this study was the level of stress, stressors and coping strategies questionnaires used by previous researchers that drg. Z. Shaluhiyah, MPH, PhD. In addition, there are some questions that were used as additional data in this study, such as: age, sex, education, length of employment, employment

status, marital status, and personality as well as the ward where the nurses work as the characteristics of respondents.

b. Test of Validity and Reliability

2.4. Processing and Data Analysis

a. Quantitative Data Processing

The data collection were then analyzed by these processing steps:

1. Editing
2. Cleaning
3. Coding
4. Entry

To analyze the data, SPSS version 16 was used for statistical analysis purpose with stage statistical analysis as follows:

b. Univariate analysis

This analysis was performed to obtain a picture of the proportion of each of the studied variables such as the percentage of respondents each category

c. Bivariate analysis

This analysis aimed to find a significance relationship between independent and dependent variable using crosstab (cross tabulation).Cross tabulation (crosstab) is basically to present the data in a table that includes rows and columns. Bivariate analysis was conducted with statistical tests *chi-square test* for normal distribution of data with 95% CI.

d. Multivariate Analysis

This hypothesis testing is done using *software Partial Least Square* (PLS).PLS is a variance based SEM method designed to solve problems that cannot be done by the CB-SEM *(Covariance-Based SEM)*because these several reasons such as small sample size, the data is not normally distributed, the missing values, and the problem multi-coloniarity between exogenous variables.

3. Results

3.1. Characteristics of Respondents

Most respondents are 21-40 years old with total 48 respondents (87.3%), female respondents as many as 47 respondents (85.5%), nurses with diploma level of education (D3)were41 respondents (74.5%), work experiences less than 5 years were 33

The level of stress	Frequency	%
High stress ≥ 29	34	61.8
Low stress <29	21	38.2
Total	55	100.0

TABLE 1: Workplace Stress Distribution in inpatient ward of Yowari Hospital Sentani Jayapura District in 2012.

Stressor	Frequency	%
Severe Stressors≥112	34	61.8
Mild stressors <112	21	38.2
Total	55	100.0

TABLE 2: Frequency distribution of stressors on the Respondent at the Inpatient ward of Yowari Hospital Sentani Jayapura District in 2012.

respondents (60.0%), status as civil servants were 31 respondents (56.4%) respondents who are married were 42 respondents (76.4%), respondents who work in inpatient ward were 17 people (30 , 9%), respondents who have an extrovert personality were 39 respondents (70.9%).

3.2. Workplace Stress

Table 1 Indicated that most respondents had experienced a variety of changes in the level of stress in the workplace, and it causes severe stress for respondents (61.8%).

3.3. Stressors

Table 2. This indicated that the severe stressors perceived by respondents were (61.8%) and mild stressors experienced by respondents were (38.2%).

3.4. Bivariate between Stressors with Workplace Stress

Table 3 showed that the support of the organization and interaction had a significant relationship with the occurrence of workplace stress on nurses in inpatient ward with*p-value*= 0.020 <0.05.

3.5. Bivariate Analysis between Coping Mechanism and Workplace Stress

3.6. The Results of Multivariate Analysis

*Outer model*or models of measurement, in principle, is a test indicator (characteristics: age, sex, level of education, the length of work, employment status, marital status, ward, personality types) to the dependent variables. On the other wordis to measure

No.	Variables	X^2	p-value	Result
	Stressors			
1.	Work environment	X^2 = 0.266	0.606	No relationship
2.	Conflict and household work	X^2 = 0.116	0.734	No relationship
3.	Support	X^2 = 5.395	0,020	There is a relationship
4.	Job satisfaction	X^2 = 0.194	0.660	No relationship
5.	Task managerial	X^2 = 0.338	0.561	No relationship
6.	Patient care	X^2 = 0,629	0.428	No relationship
7.	Rule	X^2 = 0.536	0.464	No relationship
8.	Job duties	X^2 = 0.189	0.663	No relationship

TABLE 3: Results of bivariate analysis between stressors with workplace stress on nurses who work in inpatient ward of Yowari Hospital Sentani, Jayapura district in 2012.

No.	Variables	Value X^2	The value of p	Result
	Coping Mechanisms			
1.	Planning and defense	X^2 = 0,001	0,981	No relationship
2.	Behavior rejection	X^2 = 0.356	0.551	No relationship
3.	Emotional support	X^2 = 4,199	0,040	There is a relationship
4.	Faith belief	X^2 = 9.982	0,002	There is a relationship

TABLE 4: Results of bivariate analysis between coping mechanism with workplace stress on nurses who work in inpatient ward of Yowari Hospital Sentani, Jayapura district in 21012.

how far the indicators that can explain the dependent variables. As for the *inner* structural *model* is to test the influence or hypothesis test between the dependent variable with the independent variable in this study.

Hypothesis testing *(inner model)* sees the percentage coefficient of determination (R^2), which is the coefficient of parameters and statistics. The Output of VPLS is results of hypothesis testing *(inner model).* The estimated value for the relationship to be a significant pathway in structural, estimates for the relationship in the path must be a significant structural models, which can be obtained by *bootstrapping* model after characters are removed because they have a correlation value below 1.96

The model showed that the value of the correlation value d was good, because the correlation value is more than 1.96, so it can be said that a good model in this study is a model which has influence among stressors, coping with 29% and the effect on stress 35%, the result of stressors correlation with coping 6.780 > 1.96 and correlation of coping with stress 7.798 > 1.96.

4. Discussion

Caplan et al mentioned that the workplace stress refers to all the characteristics of work that may pose a threat to the individual. Workplace stress affecting work motivation caused by the influence of the social environment and is influenced by the social
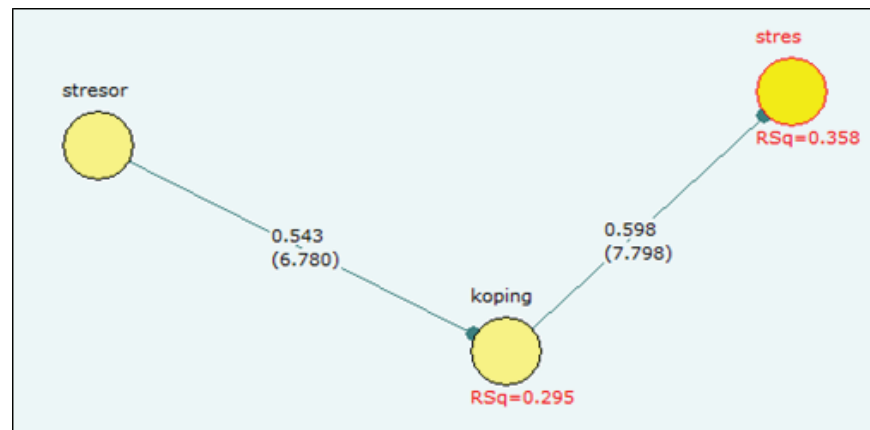
Figure 1: *Bootstrapping* test results after removing the character variable that is not correlated to the dependent variable.

environment of other community members. Korman said that if people want the success in the social environment, then they would try to motivate themselves to achieve such success. The results showed that the support, interaction within the organization have significant value with workplace stress with a *p-value* (0.040 <0.050).Support is a way that can be used by any person for influencing others. A good support will create something good and vice versa. A study conducted by Hudak showed that the factors that cause job stress in ICU nurses are interpersonal conflict with nurses about providing care to patients, issue of administrators and managers of nursing, communication patterns, monitoring and staff planning, political interdisciplinary at manager level between nurses and physician, awards (including salary and promotion and access to education), providing support from peers, departments of nursing, as well as the ethical issues associated with patients dying.

Social support from the workplace can be a positive influence, especially on productivity and employee welfare. Ganster, Fusilier, and Mayes said that social support of coworkers directly related to the integration of a person's social environment in the workplace. Coworkers who support each other will create a mutual relationship in term of help, friends, and work together to create a pleasant working environment and lead to job satisfaction. This is according to research conducted by French and Tellenback, Breuner, Sten-Olof, and Lofgren found that social support could prevent the occurrence of *psychological distress* in the workplace.

Social supports from co-workers were able to create a sense of comfort and serenity in the work, so that a person can get support to focus on doing job. Coworkers who support each other creating a situation of mutual help, friendship and work together to create a pleasant working environment and lead to job satisfaction.

Support from superiors, willing to listen to the problems experienced by the employee with attentive, both personal and professional problems, tolerance for mistakes and giving confidence to the employee are proved to be effective in minimizing workplace stress. Research conducted by French found that social support from friends, supervisors and subordinates will effects workplace stress.

The results of this research noted that the stressor most likely increasing the level of employee stress is because lack of support in their ward, this can be seen in the squared value of Multiple Correlation (SMC) on SEM lack of support higher than other indicators existed. Same thing also expressed by Qamari, which maintains good relations with colleagues and superiors around, it is important to prevent unnecessary problems. Moral and emotional support from colleagues and superiors can make working become more exciting. Their presence can also be crucial in helping when faced with family problems. Understanding and attention are able to make a comfortable feeling when one worker having to leave the office or late to come to work because of the family problems. The peers that available will help to delegate some of the work.

Emotional support and closeness to religion have significant relationship with workplace stress, coping emotional support of respondents are an influence used to reduce the occurrence of stress in the workplace. In the context, human life has two different roles, which are social beings and personal beings. Humans as social beings means humans need other humans to meet their needs. The status of humans as social beings that then encourage people to do the various forms of social interaction and to establish relationships with other human beings. The second role is as an individual or personal being.

The influence of family and neighbors often have negative impacts such as stress, depression, addiction to cigarettes and alcohol even to suicide, but it also affects the health of individuals. The negative impacts of the above can lead to an adult individual to experience social isolation and loss interaction with others. These things can also adversely affect physical health, psychological, and well-being of themselves. For that reason, well-being can help someone succeed in various areas of life including health, so the decrease of wealthy and self can be prevented.

Social support is an interesting phenomenon in psychology because it can potentially help to understand the relationship between the individual and his social environment. This relationship involves various aspects of the support received by individual or social community of other people and the wider social environment. Thus, in general, social support has been regarded as something beneficial either directly or indirectly on the quality of social relationships. Studies and literature in the last decade showed the positive benefits of social support for someone. Cohen and Wili, found that people who lack social support will tend to experience depression and anxiety and stress. Cutrona, suggested that people who receive good social support showed better well-being *(well being)*in different levels of stress compared to those who lack social of support. Wolchik, Sandler, and Braver, suggested a large number of studies have shown that social support has a beneficial effect on the physical and psychological of health. Taylor research results suggested that social support can help a person thinks that there is someone who can help in dealing with stressful events. Another study conducted by Walen and Lachman suggested that social support can explain most of the variance in life satisfaction and positive affects, and predict low negative effect in adults. Moreover, it found that social support has a direct effect in reducing the negative effect on African adult living in America. Yi Pei Kuo, found that

there is a positive correlation between social support and well-being in the high-tech employees. Research conducted by Gatari showed that social support has a positive relationship with life satisfaction and happy affects.

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