Effects of Social Support Toward Working Stress of The Nurses of X Hospital

Irmawa Puspita Anggraini*, Danan Prima Nanda
Universitas Airlangga, Indonesia
* Correspondent Author: mawapuspita@gmail.com

ABSTRACT
Nurse has essential role to provide health care for public. When the nurse has demands of work more increasing, it causes arising stress. This study aims to find out the effects of social support toward work stress. This study is conducted to the 30 intensive care ICU and ICCU nurses who is consisted of 11 males and 19 females. As a result, the calculation result indicates that p-value 0.006 < 0.05 so that it can be inferred that the effects of social support of work stress toward work stress of nurses in X hospital.

Keywords: Work Stress, Social Support, Nurse

BACKGROUND

In globalization era, technology develops more rapidly, in case, it is also occurred to technology in health sector. Furthermore, the development also makes the modern people health's requirement is more complex. So, the role of doctor, nurse, and health practitioners is really influential. In this circumstance, it can affect the health practitioners providing their health care to public. The nurses are demanded to improve the health care quality for public. Moreover, they are asked being professional in order to the health care quality given is more improving. Alimul (2002) states that in nursing ethics have several aspects such as sacrifice, dedication, devotion, and relation between nurses and patients, doctors, peers, and themselves. If the nurses have demands of works is more increasingly, so, it causes them having stress. In this case, it is also supported by the study of Selye (1996) who finds out that the reason of nurse job having high risk toward stress because the nurse has task and high responsible for safety of human life.

The research result of National Institute for Occupational and Health (NIOSH) discovers that the nurse is one of high risk occupation toward arising work stress (Schultz & Schultz, 1994). According to national survey in French, it discovers that running job as nurse has vulnerability causing work stress, in case, it is indicated by percentage result including 74% nurses having work stress on their work (Frasser, 1997). On the other hand, the research in Indonesia which is conducted by *Persatuan Perawat Nasional Indonesia* (2006) shows that there are 50.9 % nurses in Indonesia including four provinces are getting work stress. The symptoms arise of working stress include dizzy, having no rest since high work pressure and consuming time, low salary and inadequate incentive, bad interpersonal relation between patient family, patients, and co-workers.

Several studies find out that being nurse having high level stress (Butterworth, et al., 1989 in Gelsema, et al., 2005). The nurse's daily is susceptive for getting work stress in which is met in several cases such as conflict with doctor, discrimination, high work pressure, facing patients, patients' death, and patients' family (Perancis, et al., 1988 in Mark and Smith, 2011). Besides, the nurse is faced with different duties, working shift in particularly night shift, work condition, situation relating stress, misery, and patients' death (Cooper, 1999 in Moustaka & Constantinidis, 2010). Moreover, regarding to Cooper (1999, in Munandar, 2001) asserts that intrinsic factor of working such as the demands of work causing work stress. Besides, the result of PPNI survey in 2006, there are 50.9% nurses who work in four provinces in Indonesia getting stress in which having indications like feeling dizzy, tired, having no rest because of high work pressure and consuming more time, low salary without inadequate incentive. In previous study, it is asserted that working stress of nurse is phenomenon of disease since 20th century, and it is really happened to the nurses. So, this study approves that working stress affects terribly to the patients (Russeng, A, et al., 2007).

The unfavorable symptoms occurred to the nurse are able to affect to physiological, psychological, and behavior aspects (Robbins, 2002). In case, this statement is supported by the explanation of Perry and Potter (2005) who say that the bad impacts getting stress of nurses also can be occurred to someone's body system. So, the stress also affects to emotional, cognitive, physiological, and behavior. In this circumstance, the working stress impacts emotionally include anxiety, depression, physic pressure, and psychological. Then, impact cognitively affects to decreasing concentration, increasing distraction, and reducing short-term memory capacity. Furthermore, the impact psychologically causes releasing Epinephrine and Norepinephrine, deactivation of the digestive system, the breath being fast, enhancement of heartbeat, and construction of blood vessel. Thereupon, the impacts of

behavior include increasing absence, interfering sleep habit, and decreasing work performance (Eyesenck, 2009).

There are several aspects considered relating the conditions of nurses working stress, one of them are social support. The poor social support arises inconvenient feeling and creates less harmonious relation so that it influences working stress level of individual and nurses of hospital. In this case, this statement is supported by the explanation of House (199 in Fadillah, 2010) who says that individual who has high social support, he or she is able to control stress occurred in their working place. So, if the nurses have low social support it will affect the nurses' capability to handle and manage the stress because of their working demands. It is also supported by Manuba (2005) who explains that stress relating to work is caused by less social support from management and co-workers so that it can be inferred that social support has influential role to conquer the stress even the impact has been arisen. At the same time, the studies of Katz and Kahn (1978) and Tellen back, Breuner, Sten-Olof, and Lofgren (1983) discover that the social support is one of aspects in which can avoid psychological distress in working environment. Then, there are numerous sources of social support, as stated by Murtiningrum (2005) that the social supports operationally are divided into 3 factors including:

a. Life partner (Husband or Wife) and Family
    Family and life partner have potential as social support, and willing to give a help and support when individual needs it.
b. Supervisor
    Supervisor or individual who has ability to motivate the employees in order to collaborate with doing directed duties to achieve common goals. In case, the leader has a role to provide motivation, protection, and instruction toward the nurses so that they feel noticed and protected.
c. Co-workers or Friends
    Supports given by work partner or friends are like emotional, material, and social integration support. In circumstance, the nurses can help each other, share convenience, sympathy, reinforce social bond each other. It cause them tending to not feel loneliness.

METHODS

Kind of this study is explanatory research. Explanatory approach that being focus in this study aims to explain the influence between independent variable and variable depends on research through hypothesis examination formulated before (Singarimbun & Effendi, 2006). At the same time, this study also employs quantitative approach that underlines its analysis on the numeric data in which processed in statistics method (Azwar, 2003). The objective of research that uses quantitative approach is to conduct inferential research or be used to examine hypothesis, and base conclusion on probability of nihil hypothesis rejection error (Azwat, 2003). Besides, this study is non-experimental study which the researchers analyze systematic empirically and scientist cannot control directly its independent variable since the characteristic of variable in which to cover the possibility of manipulation (Kerlinger, 1990).

Sampling technique used is non probability sampling. Taking sample is conducted by purposive sampling. In case, purposive sampling is election the group of subjects determined earlier based on the characteristics or certain character considered having relation with the population's characteristics. The nurses' criteria who is being research subject is the nurses of intensive care, ICCU, and ICU as much as 30 nurses who is consisted of 19 female nurses and 11 male nurses. According to Dwijayanti's study (2010), it finds

out that perception of nurses' demands of ICU and ICCU says 39.1% perception of their working demands is heavy. It is caused kind of health care provided is more intensive than another nurses in the other department.

RESULTS

Analyzing data by describing and portraying collected data is called as descriptive statistic. Operational of descriptive analysis includes mean examination (mean), population class length (range), deviation standard, skewness, and kurtosis (Pallant, 2007). Furthermore, the descriptive statistic analysis also is used to find out general description of the research sample characteristic. Besides, the analysis is also utilized to observe whether there is a unfulfilled assumption relating to statistic technique used to answer the research's questions. In the table below, there are the results of descriptive statistic analysis by using SPSS program 20 version for Windows:

Table 1 of Descriptive Statistic Analysis

Variable	Minimum Value	Maximum Value	Mean	Deviation Standard	Varian	Skewness	Kurtosis
Social Support	31	37	35,00	1,757	-0,784	0,427	6
Working Stress	36	46	43,00	5,085	0,607	0,427	10

Based on the result of descriptive calculation above, it can be seen that each deviation standard on social support and working stress is 1.326 and 2.255 if it is compared to mean value in which is 34.63 and 42.53. To be inferred, the deviation standard smaller than its mean, and it means deviation data toward mean sample to both of scales is small.

Meanwhile, varians value to each scale. Varians explains how varied data obtained by the writer, if the varians value is further than mean data, so the data is heterogeneous since the data variation spread further than mean value (Riduwan, 2005). In the table, varians value of each social support and working stress scale are 1.757 and 5.085 if it is compared to mean value in which are 34.63 and 42.53. So, it can be concluded that varians value is farther than its mean or the data obtained is heterogeneous data.

Skewness value of each data on social support and working stress shows negative direction, it means data distribution a few skew to left so that collected data go to right, however, it is not too much since the value is nearly 0. On the other hand, Kurtosis value demonstrates sharpness or flatness on data distribution. In case, Kurtosis value shows positive value, so it is inferred if distribution data is relativel sharp or peakedness.

The Result of Normality Test

The test is used to examine data of certain variable whether they have normal distribution or not. The methods used by the writer to specify the data fulfill the distribution are using the result of Skewness and Kurtosis value by each error standard had each value. If ratios (the result of Skewness and Kurtosis value classification by each its error standard) are on range -2 until +2 or do not meet assumption $-2 > X > +2$, so that the obtained data have fulfilled normal distribution assumption. Here is the following table of Skewness and Kurtosis analysis along with their error standard:

Table 2 of Normality Test

	Social Support	Working Stress
Skewness	-0,784	-0,607
Skewness Error Standard	0,427	0,427
Kurtosis	0,794	0,980
Kurtosis Error Standard	0,833	0,833

Based on the table 2, it can be found out that the results of Skewness and Kurtosis ratio on subject social support are -1.836 and 0.953. At the same time, Skewness and Kurtosis ratio on working stress are -1.427 and 1.176. Therefore, the ratio shown by each data both of social support and working stress are unfulfilled the assumption $-2 > +2$ or the range are on -2 until +2, in case, in is able being concluded that the gained data by the writer has fulfilled the normal distribution assumption.

The Result of Linearity Test

The test aims to discover whether two variables have linear relation significantly. The test is usually applied as precondition to conduct Linearity regression analysis. In this circumstance, the writer use Test for Linearity method through SPSS program 16.0 for Windows by 0.05 significant level. Here is following table of Linearity test using SPSS program 16.0 for Windows:

Tabel 3. The Result of Linearity Test

ANOVA Table

			Sum of Squares	Df	Mean Square	F	Sig.
Working Stress * Social Support	Between Groups	(Combined)	73.424	6	12.237	3.801	.009
		Linearity	34.831	1	34.831	10.820	.003
		Deviation from Linearity	38.593	5	7.719	2.398	.069
	Within Groups		74.043	23	3.219		
	Total		147.467	29			

Regarding to the table 3, it indicates that significant value of linearity is 0.0003 smaller than 0.005, in conclusion that the relation between social support and working stress are linear. In this case, the linear relation both of variables also can be seen by Deviation

from Linearity value in which is 0.069. If it is > 0.05, so it can be known that both of them are linear. In sum, each conversion occurred on one variable will affect to the change with parallel value of another variable.

The Result of Heteroscedasticity Test
        The test aims to find out deviation of heteroskedasticity classic assumption in which there is inequality variant of residual to all observation of regression model. Residual is another variable involved but it is not included in regression model. At the same time, the good regression model is a model fulfills homoskedasticity test assumption. Therefore, the writers use SPSS program 16.0 for Window. Here is following result of analysis using the program:

Tabel 4. The Result of Heteroscedasticity Test
Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	-8.545	5.330		-1.603	.120
	Social Support	.292	.154	.338	1.900	.068

a. Dependent Variable: RES_2

        According to table 4.10 above, it is found out that significant values indicate 0.068. Meanwhile, the homoskedasticity test will be fulfilled if the significant values are more than 0.05. In consequence, the significant values in the table above explain that homokedasticity test is fulfilled. Then, homoskedasticity is there are similarity variants of residual between one observation and another ones tending remain.

The Result of Simple Regression Test
        This test will be conducted by the writers after they examine the correlation to observe the relation between social support and working stress. It is required since regression test is a sequel of correlation test. Thereupon, the correlation test used by the writers is Pearson test. The Pearson test is done using SPSS program 16.0 for Windows. It is following result of correlation test between social support and working stress:

Table 5. Result of Simple Regression Test
Correlations

		Stress Kerja	Dukunga Sosial
Working Stress	Pearson Correlation	1	-.486[**]
	Sig. (2-tailed)		.006
	N	30	30
Social Support	Pearson Correlation	-.486[**]	1
	Sig. (2-tailed)	.006	
		30	30

Correlation is significant at the 0.01 level (2-tailed).

        Based on the table above, it is able to be concluded that social support and working stress have significantly correlation. The correlation shows negative in which means lower

social support of nurses, so higher working stress. However, in this study the writers do not discuss about the magnitude of correlation between two variables so that the writers analyze directly the data using simple regression analysis. In case, the objective of analysis is to discover the effect of independent variable toward dependent variable. This study will discuss the influence of social support as independent variable toward working stress as dependent variable. Here is following result of simple regression test between both of variables using SPSS program 16.0 for Windows:

Table 5.1 of Regression Analysis Result

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	34.831	1	34.831	8.659	.006[b]
Residual	112.636	28	4.023		
Total	147.647	29			

a. Dependent Variable: Working Stress
b. Predictors: (Constant), Social Support

Regarding to the table above, it shows that result of regression analysis has smaller significant value than 0.05 in which is 0.06. In this circumstance, it means X variable and Y variable of this study have linear regression relation. The result of analysis also presents determinant coefficient to measure the influence of independent variable (X) to dependent variable (Y). The determinant coefficient is a standard describes whether the sample regression line fit with the data of formula or regression equation. In case, it is 0-1. It means higher its coefficient so that stronger relation between two variables, and vice versa. This is following result using SPSS program 16.0 for Windows to examine determinant coefficient:

Table 6. Result of Determinant Test

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.486[a]	.236	.209	2.006

a. Predictors: (Constant), Social Support
b. Dependent Variable: Working Stress

From the table above, it is known that R^2 or determinant coefficient is 0.236 in that means 23.6%. According to the result, it means 23.6% social support has an impact toward working stress. Nevertheless, 76.4% of working stress is affected by another variable in which is not being the focus of this study. The other result discovered is equation of linear regression. It is the following result of simple regression test using SPSS program 16.0 for Windows to observe the equation of its linear regression:

Table 7. Result of Linier Regression Test

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	71.164	9.737		7.309	.000
	Social Support	-.827	.281	-.486	-2.943	.006

a. Dependent Variable: Working Stress

Based on table 7, it indicates that its linear regression equation as following:

$$Y = 71,164 - 0,827X$$

It means that regression equation can be measured by constant namely 71.164. In case, it has meaning that if there is no social support value, working stress is 71.164. Meanwhile, if it is seen by X regression coefficient is -0.827, it can be discovered that there is an increase 1 value of social support so that working stress value will decrease -0.827.

DISCUSSION

According to data analysis conducted, the writers draw the conclusion that social support has an effect toward working stress or Ho refused, Ha, accepted. In this circumstance, it fits with the result of research conducted by Suryaningrum (2015) who indicates that there are negative effects of social support toward working stress of the nurses in PKU Muhammadiyah hospital. The result of writers' research states that if the nurses obtain higher social support, the working stress is lower. The writers also discover specifically explanation through regression equation. Then, the regression equation mentions that each addition 1 value of social support, so working stress value will decrease -0.827.

The result gained by the writers state that there is negative impact of social support toward working stress. It means lower social support received so that the working stress felt by the nurses is higher. In this case, it is also supported by Cohen and Wills (1985, in Wibowo, 2004) who state the function of social support is to help individual to face and tackle the causes of working stress. Therefore, it is essential for an organization or institution including hospital to pay attention social support involved among the nurses. If social support is built well, it must help them to handle problems in their duties in particularly causing stress during working. Then, Manuba (2005) who states that stress relating to work is one of being caused by less social support from the management or work partners.

The research conducted finds out that social support has negative effect to stress level. If the nurses obtain social support higher, they get stress lower. In this case, this statement is supported by Johnson and Johnson (2000) who state that social support got by individual will relieve the negative effects of stress, and also help individual to resolve the stress's symptoms. This study is also supported by the explanation of Lieberman (1992) who mentions theoretically that social support can decrease arising phenomenon in that cause anxiety. At the same time, Sulistyani (1997) asserts that stress can be eliminated by

providing social support. The good working atmospheres arise while social support among individual involved in its surrounding so that it improves enthusiasm for working, and help individual manage stress in working place.

The social supports discussed in this study are social support from family including life partner (husband or wife), co-workers, and supervisor. In case, the social support can contribute toward individuals' capability to handle the problems including stress in their working place. This statement is supported by Cohen and Syme who assert that social support continually in closest circle including main family, big family, work partner, and supervisor will make individuals feel appreciated and respected so that the problems will be handled well. Moreover, Sarafino (1990) describe further that the employees who receive emotional and instrumental support from supervisor, co-workers, and family have ability to handle problems better than the employees who do not receive it.

Greenglass, Fiksenbaum, and Eaton (2006) explain that support from life partner (husband or wife) is a partner's potency to help individuals such as information, advise, or things in that encouraging individuals being more enthusiastic to solve the problems being faced. Besides, Etzion (1984) asserts that a supportive leader can create working place less stress. In case, the kinds of supervisor's supporting include listening the problems occurred with great attention either personal or working problems, tolerance toward mistakes, giving trust to individuals that they are able to solve each demand of work so that building comfort working place. Furthermore, Katz and Kahn (1978) state that social support of co-workers, supervisor, or staff can decrease the effects arisen by stress. Working partners who encourage creating mutual assistance and friendly, collaborate to build nice working place to raise satisfaction on working (Hadipranata, 1999). Thereupon, social support in working place provides contribution such as productivity and employees welfare (Hodson, 1997).

Demanding of work had by the intensive care (ICU and ICCU) includes assessment toward patients' life-threatening condition by heart disease, assessment or early detection symptoms of complication due to heart disease, patient care by an acute critical condition requiring immediately action or chronically condition, monitoring hemodynamic continually per hour, interpretation and diagnostic test given on patients, providing therapy as with therapy program or another action. The dynamic of complex care and critical patient is being trigger of stress in critical care (Hudak & Gallo, 2010). However, it can be decrease if individuals receive social support as explained with Sulistyantini (1997) who describes that stress can be eliminated by giving social support. The good working place is created because there is social support in individuals' surrounding. So, it grows passion for working, and helps individuals to resolve stress in their work. Thereupon, it is important for institution to create social support involved between the ICU and ICCU nurse since they have many demands of work. In case, the social support contributes to handle the stress.

CONCLUSION
According to analysis data obtained, to be concluded, the social support affects stress for nurses. It also has negative impact toward stress working that means higher social support gained, lower stress working felt, and vice versa. Meanwhile, the subject categories of social support are very high, high, and average reaching 83.33% that consisting of 3.33% very high, 23.33% high, and 56.67% average. At the same time, subject with low category and very low of social support is 16.67% that the details are 10% low, and 6.67% very low. Furthermore, stress working felt by the nurses is on 59.97% very high, high, and average categories, in case, the details are 10% very high 23.33% and average 26.67%. Then, the

subject who feels low and very low stress are 40% with details 33.33% very low and low 6.67%

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