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Effectifty of Family Social Support on Koping and Stress Mechanism Post Stroke Patients

Ambar Asnaningsih[1)], Ah. Yusuf[2)], Puji Astuti[3)]

[1)] Program Studi: S2 Keperawatan (Magister Terapan keperawatan) UNUSA
[2)] Fakultas Keperawatan Universitas Airlangga Surabaya
[3)] Departemen Keperawatan Medikal Bedah, Fakultas Keperawatan dan Kebidanan, Kampus UNUSA, Surabaya Jawa Timur, 60237 Indonesia Master Study Program of Applied Nursing St. Smea No. 57, Wonokromo, Surabaya (Kampus A) Tower UNUSA St. Jemursari No. 57, Jemur Wonosari, Wonocolo, Surabaya (Kampus B)
Email: ambarasnaningsih@gmail.com

Abstractc: Discussion and Counseling This means that the FSS intervention significantly affects the stress reduction of post-stroke patients. Social support families improve adaptive responses so they can reduce stress that helps patients and their families go to the process of accepting changes that occur after stroke so that the quality of life of patients will increase.

Keyword: Stroke, coping, stress, family, social support mechanisms

1. Introduction

Post-stroke patients can experience neurological dysfunction depending on the area of brain damage they experience (Idris, Hill, Ross, & Sharma, 2010). Stroke ranks number three in the world as the cause of death. WHO data in 2011 amounted to 795,000 stroke patients in America. A total of 610,000 patients were the first stroke and the remaining 185,000 were recurrent strokes (Jauch et al., 2013). Global Barden Disease in 2010 of all stroke patients in the world as many as 80% had ischemic and 20% had Hemorrhagic stroke (AHA, 2015). Death events in the world according to the American Heart Assocation (AHA) in 2013 were caused by strokes which reached 23% of the number of stroke patients. Stroke sufferers in Indonesia in 2013 were 1,236,825 people (10.6%) and the results of the 2018 Riskesdas were 10.9%. While based on diagnosis, 2,137,941 people (12.1%) experienced symptoms of stroke. The prevalence of stroke in East Java Province according to the diagnosis of health personnel in 2018 is 12.3% and ranks number three in Indonesia, reaching 302,987 sufferers. Stroke sufferers at Wahidin Hospital Sudiro Husodo Mojokerto in September and October 2018 were 102 sufferers.

Post-stroke patients generally experience damage to brain cells so that patients experience physical disabilities such as partial or all body parts paralysis, speech disorders and swallowing disorders (Suwardiman, Kirnantoro, Sulistyarini, 2013). Physical disability after stroke affects feelings of lack of confidence, uselessness, and other psychological symptoms such as depression and stress (Nurhamidah, & Nofiani, 2015). Physical disability experienced by post-stroke patients is a stressor that triggers the body to carry out coping mechanisms. Individuals who have adaptive coping in solving problems, will be able to adjust to the desires to be achieved and responses to situations that pose a threat to individuals can be overcome (Utami, 2016).

Taluta, Mulyadi, Hamel (2014) states that coping mechanisms used by patients are sad, angry and useless. Stroke sufferers with depression and stress tend to use the strategy of maladaptive coping mechanisms. Hoge, McGurk, Thomas, Cox, Engel, Castro (2009) show that stroke patients as much as 37% use adaptive coping rather than maladaptive coping strategies.

Based on the data obtained from the Medical Record at Dr. General Hospital Wahidin Sudiro Husodo Mojokerto on November 16, 2018, that the number of stroke patient visits in 2018 was 1,732 patients. In 2017 stroke was ranked fourth after hypertension, Diabetes Mellitus and pneumonia.

Masaaki, et. al (2009) states that there is a link between stress and coping mechanisms. Hayulista and Desti (2014) revealed that someone who experiences stress due to post-stroke paralysis can affect the ability to accept oneself. Factors that contribute to building coping mechanisms for post-stroke patients include family support (social support). Families to be able to provide cognitive and emotional support so that post-stroke patients can undergo post-stroke days more easily and understand the conditions so that they use adaptive coping mechanisms and problem focused coping and emotion focused coping (Gonsalisti, 2016). Thompson, Sobolew-Shubin, Graham & Janigian, (2009) which states that there is a relationship between families and the motivation of post-stroke patients. Social support from family or social family support will help produce an adaptive response that will reduce stress in post-stroke patients and can help patients and their families go to the admission process.

2. Method

The research design was quasi experiment. The purpose of this study was to analyze the effect of social family support on coping and stress mechanisms in post-stroke patients. Family social support will help produce an adaptive response so that it can reduce stress in post-stroke patients so that the quality of life of patients will increase.

2.1 Population

The population in the study is a subject (for example humans, clients) who meet the criteria that have been fixed (Setiadi, 2013). The population of this study was post-stroke patients at Dr. Wahidin Sudiro Husodo Mojokerto hospital.

2.2 Research Samples

The sample consists of parts that can be used as research subjects through sampling (Nursalam, 2016). The sample size of the treatment and control groups of 30 samples.

2.3 Sampling Research

Sampling is the process of selecting portions of the population to be able to represent the population. Sampling technique is the methods taken in sampling, in order to obtain samples that are truly in accordance with the overall subject of the study (Setiadi, 2013). In this study the technique used in Simple Random Sampling is sampling randomly and the sample obtained is called a random sample, this random sampling technique should only be used if each unit or member of the population is homogeneous, this means that each member of that population has equal opportunity to be taken as a sample. Selection of samples with the following criteria:

1) Inclusion criteria
a. Mild and moderate post-stroke sufferers based on NIHSS
b. Cooperative sufferers and willing to be studied
c. Families live in homes with sufferers
d. first stoke attack
2) Exclusion criteria
a. People with severe stroke
b. Impaired consciousness
c. Not willing to be studied

3. Result

3.1 Characteristics of Respondents

3.1.1 Demographic characteristics of respondents' general data

Tabel 1 Characteristics of Respondents Based on age, gender, last education, occupation and duration of illness in Dr.Wahidin Sudiro Husodo General Hospital Mojokerto 2019 (n=60)

No	Characteristics	Intervension	Control

		∑	%	∑	%
1	Age				
	17-50 year	14	46.6	12	40.0
	> 50 year	16	53.4	18	60.0
2	Education				
	Basic School	13	43.3	12	40.0
	Elementary	7	23.3	6	20.0
	High School	8	26.7	9	30.0
	University	2	6.7	3	10.0
3	Fender				
	Woman	15	5.0	12	40.0
	Man	15	50	18	60.0
5	Work				
	Gouverment				
	Employ	3	10	2	6.7
	Private	7	23.3	8	26.6
	Enterpreneur	1	3.4	2	6.7
	Not work	13	43.3	12	40.0
	Farmer	6	20	6	20.0
6	Lama sakit				
	1-< 6 month	9	30	8	26.6
	6 month – 1 year	10	33.3	11	36.7
	>1 year	11	36.7	11	36.7
7	Family				
	Hunsband/wife	19	63.3	18	60.0
	Child	10	33.3	11	36.6
	Parent	1	3.4	1	3.4
		30	100	30	100

Based on table 1 shows that the respondents were more than 50 years old, most of the respondents (53.4%) in the treatment group, and most (60%) in the control group. The last education was elementary school, almost half (43.3%) of the treatment group respondents and almost half (40%) in the control group. The male sex is partly (50%) in the treatment group and most (60%) in the control group. The type of work is almost half of work (43.3%) of respondents in the treatment group and half (40%) in the control group. While the duration of illness is more than 1 year, most (36.7%) in the treatment group, and almost half (36.7%) in the control group. Family relationship is the relationship between husband and wife found mostly (63.3) in the control group and most (60%) in the treatment group.

3. 2 Description and related variable

3.2.1 Differences in the Koping mechanism before and after the treatment group in post-stroke patients

Tabel 2 Difference between Koping Mechanism before and after treatment group of post-stroke patients at Dr.Wahidin Sudiro Husodo Mojokerto Hospital Mojokerto 2019

Koping Mechanism	Mean	SD	t	df	p
Pre	48.133	8.394	-2.366	29	0/025
Post	51.867	7.546			

Based on table 2 shows that the coping mechanism of the treatment group with a p value of 0.025 <0.05 indicates a significant difference between the coping mechanism before FSS and after the intervention.

Tabel 3 Difference between Koping Mechanism before and after treatment group of post- stroke patients at Dr.Wahidin Sudiro Husodo Mojokerto Hospital

Mojokerto 2019

Koping Mechanism	Mean	SD	t	df	*p*
Pre	47.233	7.942	1.329	29	0,194
Post	48.00	5.343			

Based on table 3 in the control group significant value of coping mechanism is equal to 0.194> 0.05 indicating that there is no significant difference between coping mechanisms before giving health education using leaflets and after intervention.

3.2.2 Different stress before and after treatment group of post- stroke patients

Tabel 4 Different stress before and after treatment group of post- stroke patients at Dr.Wahidin Sudiro Husodo Mojokerto Hospital Mojokerto 2019

Stress	Mean	SD	t	df	*p*
pre	56.4667	19.662	5.916	29	0,000
Post	30.2000	14.847			

Based on table 4 Stress in the treatment group with a value of p value of 0,000 <0,05 indicates a significant difference between levels before FSS and after intervention.

Tabel 5 Different stress before and after control group of post- stroke patients at Dr.Wahidin Sudiro Husodo Mojokerto Hospital Mojokerto 2019

Stres	Mean	SD	t	df	p
pre	68.700	15.643	2.118	29	0,043
post	67700	15.336			

In table 5 the control group had a significant value of stress at 0.043 <0.05 indicating a significant difference between stress before giving health education using leaflets and after intervention.

3.2.3 The influence of family social support on coping mechanisms in the treatment group and control group of post-stroke patients

Table 6 Coping mechanisms before FSS is performed in the control and treatment groups

Koping mechanism	Mean±SD Perlakuan	Mean±SD Kontrol	t	p	Mean difference	Information
pre	48,13 ±8,39	47,13 ±7,54	0,42	0,67	0,900	Not Significan

Table 6 data shows that the coping mechanism in the treatment group of post-stroke patients on average before being given a social support family is 48.13 and in the control mechanism the coping mechanism is 47.13. The mean values of coping mechanisms of 48.13 and 47.13 are in the adaptive mall category. The results of the independent test statistical test of coping mechanism variables in post-stroke patients before the education of the family social support value of t is 0.42, the p value is 0.67.

Table 7 Coping mechanisms after FSS was performed in the control and treatment groups

Koping Mechanism	Mean±SD Perlakuan	Mean±SD Kontrol	t	p	Mean diffrence	Information
post	51,87 ±7,03	48,00 ±5,34	3,47	0,001	5,86	Significan

Table 7 data shows that the results of the measurement of coping mechanisms in the treatment group of post-stroke patients on average after being given education on social social support

amounted to 51.87 and in the coping mechanism the control group was 48.00. The coping mechanism category in the treatment group remained in the adaptive mall category even though the FSS had done but from the interval score showed the number that had increased from the initial score of 48.13 to 51.87 means that it was getting closer to the adaptive category.

5. DISCUSSION

The coping mechanism of post-stroke patients before intervention is in the maladaptive category. After getting treatment by the family through FSS intervention for 14 days, there is an increase in patient coping mechanisms. Patients can realize their weakness due to a stroke, realize the trigger of a stroke but the patient still feels a burden in the family.

The results of research conducted by Hayulista and Desti (2014) revealed that someone who experiences stress due to post-stroke paralysis can affect the ability to accept oneself.

The Roy Adaptation Model explains that humans have a system of adaptation to various stimulus or incoming stressors. Roy's adaptation theory views that each individual has the ability and potential to adapt in achieving a prosperous condition (Tomey & Alligood, 2009). Coping mechanism is the process of translating stimulus with two sub-systems, namely sub-system cognator and sub-system regulator (Siyoto, Peristiowati, Agustin, 2016). Through family social support as the closest environment to the patient, the process of translating stimulus (coping mechanism) will increase. This opinion is reinforced by the results of Thompson's research, Sobolew-Shubin, Graham & Janigian, (2009) which states that there is a relationship between the role of caregivers in this case is the family with the motivation of patients after stroke.

Treatment in the form of family social support intervention (FSS) has a good influence on coping mechanisms. This means that there is an increase in coping mechanisms after the FSS treatment. Patients can realize their weakness due to a stroke, realize the trigger of a stroke but the patient still feels a burden in the family. FSS should be able to improve coping mechanisms because post-stroke patients get good support from the family in the form of instrumental, information, mental and appreciation. Stroke patients who will return home should be motivated to do their own self-care activities as best they can and the result is progress in the ability to carry out basic ADL, namely, eating, dressing, bathing, dressing, toileting, continence control, transfer, and mobilization (Bogousslavsky, 2009)

The measurement results of stress variables before family social support intervention showed that the results of the independent test statistical test of stress variables in post-stroke patients before and after social family education support stated that family social support interventions had a positive and significant effect on the stress of post-stroke patients. When compared between the different mean both, the mean value after FSS is greater. This means that there is a significant increase that strengthens the results that stress in the treatment group is more meaningful.

Stroke is a condition that results in a person experiencing paralysis or death due to the occurrence of bleeding disorders in the brain which causes the death of brain tissue (Rhestifujiayani, Huriani, Muharriza, 2015). According to Smeltzer and Bare (2008) strokes are usually caused by one of four events, namely thrombosis, cerebral arteriosclerosis, cerebral embolism, ischemia and cerebral hemorrhage. Temporary or permanent loss of brain function causes disability in post-stroke patients. Someone who experiences physical disability after stroke tends to experience various psychosocial effects ranging from feelings of lack of confidence, uselessness, and other psychological symptoms such as depression and stress (Nurhamidah, & Nofiani, 2015).

Family social support interventions make the family the closest environment to the patient that will help produce an adaptive response to patients after stroke and can help patients and their families go to the process of accepting changes that occur after a stroke. The results of the study which showed the existence of a family relationship as a wife or husband were the biggest among the kinship relationships of parents or siblings in assisting the care of patients at home after a stroke. Through family social support intervention intervention modules (IFSS) there is an improvement in patient coping mechanisms so that patients can be fulfilled their basic needs, patients are not alone in their lives and gradually an independent level can be achieved in fulfilling ADL. The better the family social support (FSS) intervention given, the less stressed the patient post-stroke.

4. CONCLUSIONS AND RECOMMENDATIONS

4.1 Conclusion

a. Family social support (FSS) is influential in improving coping mechanisms for post-stroke patients.
b. Family social support (FSS) has an effect on reducing the stress of post-stroke patients.

4.2 Suggestions

a. For Patients Post-stroke

Post-stroke patients are always enthusiastic and actively involved in fulfilling their daily needs so that independence is quickly achieved and families with great hearts can assist patients to provide support

b. For families

Family support will be more effective for patients if the family is actively involved in providing support, so that optimal results can be obtained

c. For Hospital Nurses

The Family Social Support (FSS) module can be used as a reference and guide in providing health education in post-stroke patients and their families because the material and system in the module are structured systematically so that it is easy to run in achieving recovery.

d. For hospitals

Develop policies that support nurses' actions to provide FSS by creating SOPs, establishing FSS modules as HE facilities and forming home care teams and providing financial support to nurses for home visits to post-stroke sufferers once a week.

e. The next researcher can examine family reflection in providing support to post-stroke patients. Family reflection will strengthen the occurrence of transactional in supporting the achievement of the progress of the independence of post-stroke patients.

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