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THE CORRELATION BETWEEN THE LEVELS OF ACTIVITIES OF DAILY LIFE WITH STRESS LEVELS AMONG STROKE PATIENTS

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ABSTRACT

Introduction: A stroke resulting in loss of control function of the brain that affects the paralysis of certain body parts, it may inhibits the activity of daily life. The objective of this study was to identify the correlation between activities of daily life with stress levels of stroke patients. **Method:** This study used correlational analytic. Samples were taken using simple random sampling, with 22 patients in Neurological Wards, Dr. Ramelan Navy Hospital, Surabaya. Data collection was undertaken using *General Health Questionare* (GHQ-12) and observation Katz Index. Data were analyzed with Spearman Rank test with significance level of 0,05. **Results:** Results showed that the average of stroke patient decreased partly function in activities of daily life (40,9%), the average experience of stress (59,1%). This study found that there was a significant correlation between activities of daily life with stress levels of stroke patients ($\rho = 0.01$). **Discussion:** Functional decline in activities of daily life as a result of a stroke becomes a stressor for patients. Developing positive coping, range of motion exercise and social support may help patients adapt to the conditions.

Key words: *activities of daily life, stres, stroke*

INTRODUCTION

Stroke is a loss of brain function caused by the cessation of blood supply to part of the brain (Smeltzer & Bare, 2002, cited by Muttaqin, 2008). Stroke patients are often characterized by the absence of some weakness in the body (hemiplegi), wry mouth, loss of speech and psychological disorders such as depression or changes in behavior. Stroke patients become depressed because of paralysis that can not perform activities of daily life. This lack of motivation and expectations of patients' recovery and lack of family support is potentially lead to stress.

METHOD

This study used correlational analytic. This research conducted to identify the correlation between activities of daily life with stress levels of stroke patients. Samples were taken using simple random sampling, with 22 patients in Neurological Wards, Dr. Ramelan Navy Hospital, Surabaya, who have passed the acute phase, cooperative, minimal day care is one day, patients who experience hemiparese, hemiplegic, monoparese, tetraparese, and did not experience aphasia. Data collection was undertaken using observation Katz Index and *General Health Questionare* (GHQ-12). Both activities of daily life and stress levels were observed only one at a time. Katz Index was used to observe the level of stroke patients' ability to perform activities of daily life, which include the adequacy of the implementation of the six functions such as bathing, dressing, toileting, transferring, continent, and eating. General Health Questionnaire (GHQ - 12) by Goldberg, which consisted of 12 item question, contains some of the common symptoms of mental health disorders such as 1) problems in concentrating and decided something, 2) feelings of worthlessness and useful, 3) inability to enjoy the usual activities, 4) feelings of sadness and depression, 5) sleep disorder due to anxiety, stress, or pressure continues, 6) loss of confidence. Each answer given a score of 0 = better or the same as usual, 1 = less than or greatly reduced than usual, have a range of scores 0-12, then the scores were added / total, and can be categorized as distress if ≥ 5, and declared no stress or normal when <5. Data analysis used Spearman Rank test with significance level of 0,05.

RESULTS

Overall, from 22 participants the majority of stroke patient were male (72,7%) and The average age was 65-75 years old (40,9%). Length of stay in Neurological ward mostly was 1-7 days (81,8%). Result showed that on average the study participants experienced a decline in part a function in activities of daily life (40.9%), and on average, participants experienced stress (59.1%). This study found that there was a significant correlation between activities of daily life with stress levels of stroke patients ($\rho = 0.01$).

Tabel1 : Participants charcteristic

Characteristic		Frequency	Percent
Age (Years)	<45 tahun	3	13,6%
	45-<55 tahun	2	9,1%
	55-<65 tahun	8	36,4%
	65-75	9	40,9%
Sex	Male	16	72,7%
	Female	6	27,3%
Marital state	Married	19	86,4%
	Widow	1	4,5%
	Widower	1	4,5%
	Unmarried/single	1	4,5%
Length of Stay	Day 1st - 7th	18	81,8%
	Day 7th - 14th	3	13,6%
	> day 14th	1	4,5%
the ability of muscle strength / paralysis	Parese	13	59,1%
	Plegi	2	9,1%
	Not parese or plegi	7	31,8%
Attack number	First attack	18	81,8%
	Second attack	1	4,5%
	Third attack	3	13,6%

Table 2 : The correlation between activities of daily life with stress levels

Activities of Daily Life	Stress Levels					
	Stress/Distress		Normal/ NoStres		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Full function in activities of daily life	1	14,3	6	85,7	7	100
Partially function decline	6	66,7	3	33,3	9	100
Severe decline in function	6	100	0	0	6	100
Total	13	59,1	9	40,9	22	100

p = 0,01

DISCUSSION

Stroke is a condition that occurs when the blood supply to a part of the brain is suddenly interrupted. If it can be saved sometimes people will experience paralysis of the limbs and difficulty speaking, resulting in inability to carry out activities of daily life (Rosita et.al, 2012).

Results showed that the average stroke patients decreased partly function in activities of daily life as much as 9 participants (40,9%), full function in activities of daily life as much as 7 participants (31,8%), and severe decline in function as much as 6 participants (27,3%). Stroke is a cerebrovascular disease referring to each sudden neurological abnormality due to blood flow congestion or cessation of cerebral arterial supply system (Price & Wilson, 2005). Researchers assume that the normal aging process that could lead to functional impairment can be reduced by avoiding risk factors (hypertension, smoking, and lack of exercise), in the absence of disease.

These study also found that of the nine participants who experienced a decline in part a function in activities of daily life, the average experienced weakness (parese) due to a stroke (55,5%). This is in line with the statement of Sugiarto (2005) that the activities of daily life is affected by the ROM (Range Of Motion) joints, muscle strength, muscle tone, proprioceptive, visual perception, cognition, coordination, balance, so the researchers assume that the stroke patient decreased muscle

strength and weaknesses will have difficulties to live independently. The majority of stroke patients have always experienced dependence on others in performing activities of daily life - today.

Nadesul (2009) said that the impact of stroke depends on what happens in the brain blood vessels, and vessels of the brain affected, stroke symptoms are different. If there is a blockage of how big the blockage, and the location where the brain vessels are clogged, determine the type and weight of stroke symptoms. Most specifically the emergence of symptoms of paralysis of half the body. When a disturbance in brain vessels left, the symptoms that appear on the right side of the body. Conversely, the right brain vessel disorders, symptoms in the left side of the body. Symptoms of strokes vary in light weight and variety of complaints. Starting from the initial symptoms just tingling, muscle weakness, involuntary movements agile to a more severe form of loss of some field of vision, sudden blindness, annoyance glance, speech disturbances, impaired understand speech, difficulty moving, bedwetting, to coma. This is evidenced by the results of the study that of the 7 participants who have full function in activities of daily life, is largely a stroke patient's first attack (85,7%). Cahyono (2008) explains that a stroke can cause a reduction in strength in all muscle groups from all parts of the body. But the muscles on the face, hands, arms, feet and legs on one side of the body more often affected (hemiparesis).

Paralysis or weakness of the right side of the body part is usually caused by malfunction of the left side of the brain, either because of stroke infark or stroke bleeding. Conversely, if a failure occurs right brain function, eating parts of the body will be left to suffer paralysis. On a mild stroke that sometimes we feel as if it is difficult to control the movement of our limbs, which is often said to be people with movement of the arm or legs become weak. Assumptions researchers on the point that various kinds of paralysis that occurs resulting in decreased function, which is located on the affected part of the brain, resulting in decreased function of various partial and berat.pada interview some patients complain of inability to move parts of the body have weaknesses, causing the patient reluctant to try to exercise, on the part of the body is weak because of ignorance of how to do it, but not a few patients who have a desire to be able to move the limbs are weak with the help of the family, because it is not used to perform the basic activities for daily living (bathing, toileting, and urinating) on the bed, so that the patient tries to move the limbs that experienced weakness, and boredom perceived as could only lay in bed.

Stroke disease impacts not only in the form of physical limitations but also emotional and psychosocial disorders sufferers, there is the possibility of stroke patients are not mentally prepared to accept the existence of various problems due to a stroke that can lead to stroke patients so stressed. The results showed that the average participants respondent in neurological ward experiencing stress (59.1%), and normal / not stressed (40.9%).

Research Hartigan, O'Connell, McCarthy and O'Mahony (2011) about the perception of stroke patients first attack, said that the patients felt their health had deteriorated as a result of stroke, initially they expressed surprise and fear associated with loss of control of the body to materialize as anger, frustration and optimism.

Stroke patients in the early period of acute become totally dependent on others, namely nurses and family. Response and impact shown assortment can be separate stressors that require adaptation of the patient. Psychological and emotional condition at the onset of pain causing the patient less motivated to get well soon. Once past the acute stage, the patient is also expected to begin to accept what had happened. Weiten (2007), cited by Putra (2011) that every stressor received by individuals will be studied carefully so as to produce the correct perception will eventually responded properly anyway.

Adaptation is an individual effort to overcome the unpleasant circumstances, such as conflict, tension, frustration, or stress on the individual. The aspects of adjustment, is a function of the social, moral, and physical health (Lazarus & Folkman in Santrock, 2004). Not everyone can adjust to these changes, which cause tension or stress on yourself. Results showed that most participants is the first attack of stroke patients (81,8%), in line with Kariasa (2009), which explains that the change of the meaning of life after a stroke, so his life post-stroke patients feel unappreciated, unnoticed life, life useless. Researchers assume about this, that the stressful factors of stroke

patients are not only seen on the inability to perform activities of daily life - the day, but also thinking about the patient's current life after suffering a stroke and decreased due to weakness and lose some of the ability of stroke patients. The patient feels can not work anymore, feel dependent on family and did not feel as strong as before stroke, inability to fulfill the role of family breadwinner, and the burden of thinking for leaving pending work due to illness.

Stroke Impact usually depends on what part of the brain that suffered injury, severity and health status. Severity generated based on the size and location of the bleeding and infarction that occur in the brain, so that it can be known how much functional impairment suffered by the patient. Neurological deficits occur depending on which blood vessels are clogged and the size of the brain area that experienced the inadequate perfusion. Symptoms of a stroke can be physical, psychological and behavioral. The most characteristic physical symptoms are paralysis, weakness, loss of sensation on the face, arm or leg in one side of the body, difficulty speaking, difficulty swallowing and partial loss of vision in one side.

The results showed that of the nine participants who decreased some of the functions in the activities of daily life - today, mostly stressed as many as 6 participants (66,7%), decreased motor function in stroke patients, will have an impact on the ability of activities of daily life. A decrease in activity of daily life also happened in the recovery process, it is in line withIndriyati (2006), which revealed that patients who recover with severe levels of disability can not be independent. Most major life activity need help, even to the most basic activities of life though. This situation became one stressor for stroke patients. Sunaryo (2004) explains that the factors affecting stress are biological factors: heredity, body constitution, physical condition, neurophysiologic and neurohormonal, as well as psychoeducative and socio-cultural factors : the development of personality, experience, and other conditions that affect. This study found that there was a significant correlation between activities of daily life with stress levels of stroke patients (ρ = 0.01). Stroke patients used to pass through a series of emotional reaction to the inability of the newly earned. This reaction can develop from disorganization and confusion to deny disability, mourning the loss of function or body parts, anger, depression and finally accept such incompetence. Not all stroke patients through all these stages and these stages can occur at various times and several steps that may not appear at all (Rosita, et al., 2012).

Researchers assume that nurses should recognize when patients appeared ineffective coping and adjustment to the failure of incompetence. This coping mechanism is indispensable as a cognitive and behavioral change efforts to overcome internal and external demands that exceed the capabilities of individuals. A variety of coping strategies can be used among other stroke patients by increasing the fun activities or improve activities of daily life activities that can be done independently by the patient. Stress is also influenced by environmental factors, therefore the support of the family is very important that patients are able to increase their independence in activities of daily life.

According Bastable (2003) during the process of rehabilitation, family education must take place consistently and wisely as most residual damage is not visible, except sensorymotor damage. Stroke patient often suffer because of changes in behavior, personality, and damage to the ability of activities of daily life, as well as cognitive disorders (Idrus, 2007).

Generally stroke continues with depression, meaning that the patient conscious of her condition were not able to perform daily activities as normal, this is due to the problems that arise in people with stroke such as paralysis on one side of the body, decreased or loss of taste (not able to distinguish hot and cold), impaired field of vision, disturbances of perception (difficult to distinguish the shape, size, color), emotional problem (laughing or crying does not correspond to the real situation), communication problems (difficulty in expressing opinions or do not speak at all). Patients often can not deal with the situation, that is why stroke patients need a lot of support to accelerate healing process.

CONCLUSION

A stroke cause various effects both physically and psychologically. Weakness and dependency in activities of daily life becomes a stressor, stroke patients who could not accept his condition would have a negative perception

and inadequte coping, if it continues stroke patients who are unable to adapt can be a condition of distress, it will affect the healing process, Nurses are advised to provide support in the adaptation process by facilitating and directing a positive perception, constructive coping and doing treatment physical range of motion exercise regularly and facilitating family support for the patient.

ACKNOWLEGEMENTS

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