



THE RELATIONSHIP BETWEEN THE LEVEL OF FAMILY KNOWLEDGE ABOUT POST-STROKE CARE AND THE LEVEL OF INDEPENDENCE IN ACTIVITY DAILY LIVING (ADL)

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ABSTRACT

Stroke is a condition characterized by the rapid development of clinical signs of focal and general neurological deficits that can be severe, last for more than 24 hours, and may lead to death. Activities of Daily Living (ADL) refer to the functions and activities that an individual can normally perform without assistance from others. The level of family knowledge about post-stroke care is crucial in supporting the ADL of stroke patients. This study aims to determine the relationship between the level of family knowledge and the level of independence in ADL among post-stroke patients. This research is a descriptive correlational study with a cross-sectional design using quantitative methods. Sampling was conducted using a total sampling technique. The data collection tool used was a questionnaire. The total sample in this study was 46 people. The results showed a p-value of 0.000, which is less than the alpha value of 0.05, thus rejecting H₀ and accepting H_a. This means there is a significant relationship between the level of family knowledge and ADL in post-stroke patients, with a correlation strength of 0.658, indicating a strong and positive relationship. Furthermore, the relationship between the two variables is in the same direction. If the level of family knowledge is continuously improved, the level of independence in ADL among post-stroke patients will also increase.

Kata kunci: ADL; level of knowledge; stroke

INTRODUCTION

Stroke is one of the main health problems not only in Indonesia but also in the world. According to the World Health Organization, stroke is a condition of rapidly developing clinical signs in the form of focal and generalized neurological deficits which can be severe and last for 24 hours or more and can also cause death. Stroke is a functional brain disorder that occurs suddenly with focal or global clinical signs that last more than 24 hours without signs of non-vascular causes, including signs of subarachnoid hemorrhage, intracerebral hemorrhage, ischemia or cerebral infarction.(Mutiarasari, 2019). The results obtained from the World Stroke Organization data on the prevalence of stroke in the world show that every year there are 13.7 million new cases of stroke, and around 5.5 million deaths occur due to stroke. Approximately 70% and 87% of deaths and disabilities due to stroke occur in low and middle income countries. Over the last 15 years, on average, strokes occur and cause more deaths in low and middle income countries compared to high income countries.(Mayasari et al., 2019)Nationally, the prevalence of stroke in Indonesia in 2018 according to Rikesdas results based on doctor's diagnosis in residents aged ≥ 15 years was (10.9%), while based on the age group 55-64 years (33.3%) and the proportion of stroke sufferers was the lowest is the age group 15-24 years (Ministry of Health of the Republic of Indonesia, 2018). In Bali itself, the prevalence of stroke is (10.7%)(Mayasari et al., 2019).

A stroke can cause weakness in carrying out daily activities, one of which is the inability to carry out self-care due to weakness in the extremities and decreased mobility which can hamper daily living activities (ADL). ADL is an individual's functions and activities that can normally be carried out without assistance from other people. There are several factors that influence the level of independence in daily activities, the first of which is age, developmental status, physiological health, cognitive

function, psychosocial function, level of stress and depression in a person so that a person can experience dependence on other people who need ongoing assistance such as eating, drinking, mobilizing, self-care, toileting, dressing, and walking around the house (Mayasari et al., 2019). Post-treatment of stroke patients can affect conditions such as decreased quality of life because patients who have had a stroke are unable to carry out daily activities or ADLs including eating, dressing, bathing, defecating, urinating, controlling elimination, mobilizing and moving. independently (Widiyawati, 2017).

Knowledge is the result of knowing and this occurs after people sense a particular object. This sensing occurs through the five human senses, namely sight, hearing, smell, taste and touch, most human knowledge is obtained from the eyes and ears. Sufficient knowledge can slowly increase the functional capacity of post-stroke patients. So that it can minimize family assistance for post-stroke patients 3 at home. According to research by Irdawati (2009), there is a significant relationship between knowledge and behavior in caring for post-stroke patients. In this case, post-stroke patients need knowledge and understanding in carrying out daily activities. If it is not understood it will cause the healing process to take a long time. The objective of this study is to assess the relationship between family knowledge of post-stroke care and the independence level of patients in daily activities (ADL). It aims to determine how family understanding of proper care influences the functional capacity and independence of post-stroke patients. By evaluating both the family's knowledge and the patients' ADL performance, the study seeks to identify significant correlations and provide recommendations for improving family education on post-stroke care. Enhanced family knowledge is expected to support better recovery outcomes and increased patient independence.

METHOD

This research is a descriptive correlational study using a cross-sectional design with quantitative methods. The population in this study consisted of post-stroke patients who had been treated at XX Hospital and had experienced post-stroke for the past 3 years. The data used were from the last 3 months, comprising 46 patients. The sample size was 46 individuals, utilizing the total sampling method. Data collection was carried out at the hospital. Data analysis in this study employed both univariate and bivariate analyses. The Spearman Rank Test was used for the bivariate analysis to examine the relationships between variables. This approach allowed the researchers to assess the correlation between family knowledge about post-stroke care and the level of independence in daily activities (ADL) of the patients.

RESULTS

Table 1.
Frequency Distribution of Respondents Based on Gender

Gender	f	%
Post-Stroke Patients		
Man	26	56.5
Woman	20	43.5

Table 1, the results showed that the majority of respondents from post-stroke patients were 26 men (56.5%) and 20 people (43.5%) were female.

Table 2
Frequency Distribution of Respondents Based on Age

Variable	N	Mean	Min	Max	elementary school	95%CI
Age	46	66.37	49	85	5,882	64.6268.12

Table 2, it can be seen that the average age of respondents is 66.37 years. With the lowest age being 49 years and the highest age being 85 years.

Table 3
Frequency Distribution of Respondents Based on Education Level

Education	f	%
Post-Stroke Patients		
No school	7	15.2
elementary school	17	37.0
Junior High School	8	17.4
Senior High School	8	17.4
PT	6	13.0

Table 3, the results showed that the highest education level of post-stroke patient respondents was elementary school, namely 17 people (37.0%) and the lowest number of post-stroke patient respondents was tertiary education, 6 people (13.0%).

Table 4.
Frequency Distribution of Respondents Based on Occupation

Work	Amount	Percentage %
Post-Stroke Patients		
Doesn't work	15	32.6
Self-employed	11	23.9
IRT	15	32.6
Retired	5	10.9

Table 4, it can be concluded that of the 46 respondents from post-stroke patients, most of them did not work and were housewives, namely 15 people (32.6%) and the lowest number of post-stroke patient respondents were civil servants, 5 people (10.9%) .

Table 5.
Frequency Distribution of Respondents Based on Family Knowledge Level about Post-Stroke Patient Care

Knowledge level	f	%
Good	4	8.7
Low	42	91.3

Table 5, it shows that some respondents have a low level of knowledge, namely 42 people (91.3%) and some have a good level of knowledge, namely 4 people (8.7%).

Table 6.
Frequency Distribution of Respondents Based on Post-Stroke Patient Independence

ADLs	f	%
Mild Addiction	7	15.2
Moderate Dependency	39	84.8

Table 6, the results show that of the 46 respondents who were post-stroke patients, the majority had a moderate level of dependency, namely 39 people (84.8%) and some respondents had a mild level of dependency, namely 7 people (15.2%).

Table 7.
Distribution of Respondents based on the Relationship between Knowledge Level and ADL Independence in Post-Stroke Patients

Variable	N	R	P Value
Knowledge Level of Daily Living Activities (ADL)	46	0.658	0,000

Table 7, the p value of 0.000 is less than the alpha value of 0.05, so H₀ is rejected and H_a is accepted, meaning that there is a significant relationship between family support and activity daily living (ADL) in post-stroke patients with a strength of relationship value of 0.658 which means that it has a strong and positive relationship and the relationship between the two variables is in the same direction. So if the level of knowledge continues to increase, the level of independence in daily living activities (ADL) in post-stroke patients will increase.

DISCUSSION

Results of Identification of Family Knowledge Levels about Care for Post-Stroke Sufferers

Based on table 6, it shows that the majority of respondents have a low level of knowledge, namely 42 people (91.3%) and some have a good level of knowledge, namely 4 people (8.7%). Research acc(Davidson et al., 2020)Gradually the patient can carry out daily activities independently, that is, getting support from the family is very influential in the patient's recovery process after a stroke. The family is the most important support system that provides direct services to its members in health and illness. Therefore, family support is really needed so that patients can continue to carry out daily activities. The family is a significant support system, so it can provide clues about the client's mental health (Tatali et al., 2018). The role of the family will help the patient's treatment process to be able to return to activities even though they are not completely normal before the stroke. To achieve this function, families are required to have good knowledge about disease and how to treat it at home (Hikmawati, 2018). Based on researchers' assumptions, most families of post-stroke sufferers have a low level of knowledge, this is due to a lack of information exposure to families regarding the importance of family support for post-stroke patients in carrying out daily activities. Daily activities can encourage post-stroke patients to undergo rehabilitation. Rehabilitation is intended to increase physical activity as therapy so that weakened muscles can move so they are not stiff and also helps improve blood circulation. If a post-stroke patient just stays silent, this means that all activities are assisted by the family. This condition can also make the disease worse. What post-stroke patients need is regular and stable activity to help them rehabilitate so they are not dependent on other people.

Results of Identification of Daily Living Activities in Post-Stroke Patients

Based on the research results, it was found that of the 46 respondents, the majority of respondents had a level of independence with light dependence, namely 39 people (84.8%) and some respondents had a moderate level of dependence, namely 7 people (15.2%). This explains that the level of independence in daily living activities in post-stroke patients at Surya Husadha Hospital mostly has a level of independence in daily living activities in the mild dependency category. Where some respondents stated that they were confident in their ability to carry out their daily activities independently. According to researchAquino et al., (2018)Factors that influence independence include age and education. Post-stroke patients who have reached the age of 70 years are seniors who are at high risk. Usually there will be a decrease in various things, including the level of independence in carrying out daily activities. Independence in the elderly can be influenced by the elderly's education. A person's higher education will be able to maintain his life longer and maintain his functional abilities and independence for longer because he tends to carry out maintenance and preventative efforts on his health (Kyomuhendo et al., 2021). Based on researchers' assumptions, the level of activity in post-stroke patients can influence their level of independence in carrying out light daily activities such as eating, drinking, wearing clothes and so on. Independence in this activity can also help the patient's

healing process, this is because regular and stable activity allows weakened muscles to continue to contract so that the blood circulation cycle runs smoothly. Daily activities at home are also considered as rehabilitation therapy for the healing process of post-stroke patients.

Results of Analysis of the Relationship between Family Knowledge Level and ADL in Post-Stroke Patients

Based on table 7, the p value of 0.000 is less than the alpha value of 0.05, so H_0 is rejected and H_a is accepted, meaning that there is a significant relationship between the level of family knowledge and activity of daily living (ADL) in post-stroke patients with a strength of relationship value of 0.658. which means it has a strong and positive relationship and the relationship between the two variables is in the same direction. So if the level of family knowledge continues to be increased, the level of independence in activity daily living (ADL) in post-stroke patients will increase.

Research Rosiana Eva Rayanti et al., (2018)entitled "Support of Family Members and Activity of Daily Living (ADL) in Post-Stroke Sufferers at the Graha Medika Main Clinic Salatiga" shows that family support and activity of daily living (ADL) in post-stroke sufferers obtained a significant value which shows that there is a relationship between support families with activity of daily living (ADL) post-stroke sufferers. Then the correlation coefficient (rs) was also obtained which shows that the strength of the relationship between family support and ADL in stroke patients has a strong relationship category with the correlation coefficient interval (rs). The better the level of family knowledge regarding a family member who is experiencing the recovery period after a stroke, the activity daily living (ADL) of post-stroke sufferers will improve.

According to Lalu et al (2021), it is important for families to have good knowledge of caring for stroke patients. Factors that influence this knowledge include age, education, occupation, gender, and caring experience. This research is in line with Wulandari (2021) who stated that the level of family knowledge about caring for stroke patients has a significant relationship with the level of independence of stroke patients. According to Davidson et al., (2012)stated that family support which always provides motivation, appreciation and information can increase enthusiasm for carrying out daily activities. Based on researchers' assumptions, family support plays an important role in the healing process of post-stroke patients. A good level of family knowledge from the family will provide enthusiasm and motivation for the patient to be able to carry out daily activities independently. Routine and stable activity can improve the physical condition of post-stroke patients, with activity it can increase muscle contractions and improve blood circulation in weakened muscles caused by stroke.

CONCLUSION

The results of the study found that there was a relationship between the level of family knowledge about post-stroke patient care and the patient's level of independence in activities of daily living (ADL). So if the level of family knowledge continues to be increased, the level of independence in activity daily living (ADL) in post-stroke patients will increase.

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