



THE EFFECT OF HEALTH EDUCATION ON THE LEVEL OF ANXIETY IN PATIENTS WITH STROKE

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ABSTRACT

Anxiety faced by stroke sufferers is a serious problem. Health education can be used to overcome anxiety in stroke sufferers. Objective: to determine the effect of health education on the anxiety level of stroke patients at Laburan Baji Hospital, Makassar. The research design used was a pre-experimental study with the One Group Pre Post Experiment type. The population was stroke patients who were treated at Laburan Baji Makassar General Hospital, totaling 123 people. The sampling technique used purposive sampling and obtained 30 people. The instrument in this research is a questionnaire. The analysis showed that the majority experienced severe anxiety, namely 18 people (60.0%) during the pretest. posttest results showed a decrease in respondents with severe anxiety, namely 7 respondents (23.3%). Wilcoxon test with a value of $p = 0.001$ which means that there is an effect of providing health education on the anxiety level of stroke patients.

Keywords: anxiety; health education; stroke

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INTRODUCTION

Anxiety is a vague and pervasive worry associated with feelings of uncertainty and helplessness. This emotional state has no specific object (Wang et al., 2021). Anxiety is different from fear, which is an intellectual judgment of danger. Anxiety is an emotional response to the judgment (Stein et al., 2021). Anxiety is different from fear, which is an intellectual judgment of danger. Anxiety is an emotional response to the judgment (Saleem, Ahmad Khan, & Saleem, 2019). Anxiety is an emotional state that usually involves fear, tension and worry and is generally associated with the anticipation of a threat. Anxiety is an emotional state that usually involves fear, tension and worry and is generally associated with the anticipation of a threat (Domhardt, Geblein, von Rezori, & Baumeister, 2019).

Anxiety is a subjective experience of the individual and cannot be observed directly and is an emotional state without a specific object. Anxiety in individuals can provide motivation to achieve something and is an important resource in efforts to maintain a balance of life. Anxiety occurs as a result of threats to self-esteem which is very basic for an individual's existence (Shahsavarani, Abadi, & Kalkhoran, 2015). Anxiety is communicated interpersonally and is a valuable and important part of everyday life for maintaining self-balance and self-protection (Giri, 2020). Mental pressure or anxiety caused by excessive concern about problems that are being faced (real) or imagined that might occur. Especially because stroke is a serious problem

because it can cause death, disability, and the costs incurred are enormous (Cianconi, Betro, & Janiri, 2020). Seeing this, it is necessary to prevent the occurrence of primary strokes and secondary strokes (re-stroke). One of the important risk factors for stroke is hypertension. Therefore, by controlling blood pressure, the incidence of primary and secondary strokes can be reduced. Stroke is the third leading cause of death after heart disease and cancer (Boehme, Esenwa, & Elkind, 2017).

Stroke is still a major cause of disability. Data shows, every year a stroke affects around 15 million people worldwide. In Indonesia, every year it is estimated that 500 thousand people experience a stroke. Of that number, about 2.5 percent of them died. While the rest suffered mild or severe disabilities. The incidence of stroke in Indonesia has increased sharply. In fact, currently Indonesia is the country with the largest number of stroke sufferers in Asia, due to various reasons other than degenerative diseases, most of them because stress is very concerning considering that stroke patients usually feel low self-esteem and their emotions are out of control and they always want to be cared for (Aprilatutini, Yustisia, & Rustati, 2019).

Data obtained from Undata Palu General Hospital from January to April 2008 regarding the total number of inpatients was 4957 people and stroke patients were 176 people (3.55%) of the total number of inpatients with an average monthly number of 44.0 people (25%). Thus it can be seen that the number of stroke patients is still quite a lot and will probably increase every month where stroke itself can cause things that can affect the psychology and physic of both the patient himself and his family including in terms of financing and stroke itself requires long treatment therefore affects the anxiety of the family (Laulo, Tumboimbela, & Mahama, 2016). Thus it can be seen that the number of stroke patients is still quite a lot and will probably increase every month where stroke itself can cause things that can affect the psychology and physic of both the patient himself and his family including in terms of financing and stroke itself requires long treatment so that can cause anxiety. Anxiety is an emotion and subjective experience of a person, or also a condition that makes a person uncomfortable and can be divided into several levels. So, anxiety is associated with feelings of uncertainty and helplessness. Apart from the patient, anxiety can also occur in the family of a patient who has had a stroke (Tang, Price, Stephan, Robinson, & Exley, 2020).

In Indonesia the incidence of stroke also continues to increase, because it is supported by lifestyle changes, obesity and smoking habits that are still free. Based on the survey, it shows that the incidence of stroke is 234/100,000 residents and in rural areas it is lower than in urban areas (Pan et al., 2019). Stroke is a serious health problem because it is characterized by high morbidity and mortality. In addition, there appears to be an increasing trend of incidence. Stroke ranks third in the order of causes of death, after heart disease and malignancy in developed countries. In developing countries, besides the large number, the death rate is still quite high. Besides that, stroke is a disease that affects the nervous system, causing chronic disability and can occur not only in the elderly, but also in middle-aged people (40-50 years), at which age people are active and productive (Donkor, 2018).

Based on medical record data from the Laburan Baji Regional General Hospital, Makassar, the number of stroke patients being treated in the last 2 years seems to have increased. In 2011 the number of stroke sufferers who were treated at the Laburan Baji Makassar Hospital was 123 people, while in 2012 there were 100 people, in 2010 there were 55 people, in 2009 there were 45 people and in 2008 there were 19 people. From these data it can be seen that the trend of the number of stroke patients each year continues to increase. The results of interviews with several stroke patients can be concluded that the level of anxiety for each patient is different, so it is

necessary to be careful to review the level of anxiety in other patients. Based on the data above, the aim of this research study was to determine the effect of health education on the anxiety level of patients with stroke at Laburan Baji General Hospital, Makassar.

METHODS

The research design used was pre-experimental research with the type of One Group Pre Post Experiment. In this study, the population was stroke patients who were treated at Laburan Baji Hospital, Makassar there were 123 people. The sample in this study was taken based on a specific purpose and the researcher determined himself, the sample to be taken was 30 patients who had suffered a stroke. Sampling technique is a process of selecting from a population to represent it. In this study using a purposive sampling technique with a sample of clients who have had a stroke, are willing to be respondents, can be invited to communicate, and are willing to be researched and fill out a questionnaire. The dependent variable data collection was carried out using observation of the patient's status to see the medical diagnosis of stroke. The independent variable is measured by conducting counseling and using questions in questionnaires or interviews for those who cannot fill out the questionnaire. Bivariate analysis using Paired T test. This research was conducted at the Laburan Baji General Hospital in Makassar.

RESULTS

Table 1.
Frequency Distribution of Respondents' Anxiety Before Given Health Education Based on Age, Gender, Education, Occupation

Characteristics	Anxiety						Total	
	Heavy		Moderate		Weight			
	f	%	f	%	f	%	f	%
Age								
40-65	1	4,2	10	41,7	13	54,2	24	100
66-80	0	0	1	16,7	5	83,3	6	100
Gender								
Male	1	12,5	4	50,0	3	37,5	8	100
Female	0	0	7	31,8	15	68,2	22	100
Education								
Elementary school	0	0	3	20,0	12	80,0	15	100
Junior high school	0	0	3	50,0	3	50,0	6	100
Senior high school	0	0	4	57,1	3	42,9	7	100
Bachelor	1	50,0	1	50,0	0	0	2	100
Employment								
Housewife	0	0	6	28,6	15	71,4	21	100
Civil servant	1	25,0	3	75,0	0	0	4	100
Self-employment	0	0	1	33,3	2	66,7	3	100
Etc	0	0	1	50,0	1	50,0	2	100

In table 1 of the 30 respondents who experienced the most anxiety at the age of 40-65 years were severe anxiety, namely 13 people (54.2%), based on gender the most experiencing severe anxiety were women, namely 15 people (68.2 %). Regarding educational characteristics, the majority of anxiety is severe in the educational category, namely SD 12 people (80.0%). The last characteristic category is work, the majority of anxiety is in IRT experiencing severe anxiety, 15 people 71.4%.

Table 2.
Pre Test Anxiety Level

Level of anxiety	f	%
Mild Anxiety	1	3,3
Moderate Anxiety	11	36,7
Severe Anxiety	18	60,0

Table 3 shows that 1 person (3.3%) had mild anxiety, 11 respondents (36.7%) had moderate anxiety, and 18 people (60.0%) had severe anxiety.

Table 3.
Post test anxiety level

Level of anxiety	f	%
Mild Anxiety	6	20,0
Moderate Anxiety	17	56,7
Severe Anxiety	7	23,3

Table 4 shows that respondents with mild anxiety increased to 6 respondents (20.0%), moderately anxious patients increased to 17 respondents (56.7%), compared to the results of the pre test. Whereas in the category of severe anxiety decreased by 7 respondents (23.3%).

Table 5.
The Effect of Health Education on the Anxiety Level of Respondents with Stroke

P	Criteria	Decision
0,001	P sig < α (0,05)	Hypothesis accepted

Table 5 shows that in the study using the Wilcoxon test with a value of $p = 0.001$ ($p < 0.05$), this means that there is an effect of providing health education on the anxiety level of patients with stroke.

DISCUSSION

Anxiety level of patients with stroke before health education.

The level of anxiety of respondents before health education was carried out, namely mild anxiety as many as 1 person (3.3%), moderate anxiety as many as 11 respondents (36.7%), and severe anxiety as many as 18 people (60.0%). According to Stuart (2006) patient's anxiety arises from a feeling of worry that is not clear and spreads related to feelings of uncertainty, helplessness, and objects that are not specific. Anxiety is manifested directly through physiological changes such as (shaking, sweating, increased heart rate, abdominal pain, shortness of breath) and behavioral changes such as (restlessness, fast speech, startled reaction) and indirectly through the emergence of symptoms as an effort to fight anxiety. From the results above, the researcher assumes that the role of nurses is very important in overcoming anxiety and trying to prevent patients from feeling anxious through comprehensive nursing care biologically, psychologically, socially, and spiritually. The role of nurses is also very important to provide support or support and counseling to reduce anxiety levels in patients.

Anxiety is an individual response to an unpleasant situation experienced by every living thing in everyday life. Anxiety is a subjective experience of the individual and cannot be observed directly and is an emotional state without a specific object. Anxiety in individuals can provide motivation to achieve something and is an important resource in efforts to maintain a balance of life. Anxiety occurs as a result of threats to self-esteem which is very basic for an individual's existence. Anxiety is communicated interpersonally and is a part of everyday life, providing

valuable and important warnings for maintaining balance and self-protection (Kurniadi & Kasyulita, 2019).

According to the researchers' assumptions, anxiety is a priority problem in stroke patients because stroke patients can experience various fears. These fears include fear of pain or death or other threats to body image that can cause unrest or anxiety. And after the researchers observed that before being given health education to stroke patients, they were very anxious about the disease they were experiencing, there were even some patients who were indifferent when they were given this education because apparently there were still some people, both patients and their families, who did not know the factors risk factors for stroke. However, after the researchers provided health education, it could be described that the patient's condition was starting to improve and giving a good response as well. So it can be concluded that services at the Laburan Baji Hospital have not fully provided good service to stroke patients because after being examined it is still very rare for health workers to provide individual health education. According to (Robinson & Jorge, 2016) study, depression in stroke patients was reported to have a negative effect on affective function, cognitive improvement, withdrawal after an attack, and increased mortality. Depression in stroke patients is a prolonged sad state in stroke patients as a response to situations that are considered unpleasant, where one of the factors that affect the level of depression in stroke patients is the ADL level.

Anxiety level of patients with stroke after health education.

Respondents' anxiety levels after health education were mild anxiety by 6 respondents (20.0%), patients with moderate anxiety increased to 17 respondents (56.7%), and severe anxiety by 7 respondents (23.3%). Mental pressure or anxiety caused by excessive concern for problems that are being faced (real) or imagined may occur. Especially because stroke is a serious problem because it can cause death, disability, and the costs incurred are enormous. Therefore, it is necessary to prevent the occurrence of primary stroke and secondary stroke (re-stroke). One of the important risk factors for stroke is hypertension. Therefore, by controlling blood pressure, the incidence of primary and secondary strokes can be reduced (Caneiro, O'Sullivan, Smith, Moseley, & Lipp, 2017). However, after being given health education to stroke patients, the results of changes in the patient's physiology (no longer shaking, sweating, heart rate starting to normal, no abdominal pain, no shortness of breath) and changes in patient behavior are obtained as a result of not experiencing anxiety. , the patient's speech began to improve, no longer experiencing reactions of surprise) and indirectly through the emergence of symptoms as an effort to fight anxiety (National Board of Medical Examiner, 2010).

According to researchers, someone who has a negative self-concept tends to be insecure, unable to face a problem and difficult to socialize with society and the environment. Thus making them more likely to experience severe anxiety. Anxiety is a stressor that can reduce the body's immune system. Implementation of counseling can reduce the patient's anxiety level so that nursing actions can run well (Morey, Boggero, Scott, & Segerstrom, 2015). According to the researcher's assumption, patients can overcome their anxiety by using coping resources in their surroundings. These coping sources are economic assets, problem-solving abilities, family social support and cultural beliefs that can assist individuals in using adaptive coping mechanisms. An important source of coping for patients is family social support, especially from spouses, because from the encouragement of researchers before health education was carried out and after it was given, there was a very visible difference between the two.

The effect of health education on the level of anxiety in stroke patients

Based on the results of the study using the Wilcoxon Pairs Test showing a value of $p = 0.001$ ($p < 0.05$) it was obtained an illustration that there were differences in the anxiety levels of patients with stroke during the pre-test and post-test after being given counseling, where there was a decrease in the level of anxiety felt by patient. Anxiety will affect the hypothalamus and cause two different mechanisms. The first impulse is supported by the sympathetic nervous system which influences the adrenal medulla in producing epinephrine and norepinephrine, which will cause strong and fast heart contractions, impaired peristalsis, glycogenolysis and gluconeogenesis in the liver. The second mechanism affects the anterior pituitary gland thereby stimulating the production of adrenocorticosteroid hormones, namely aldosterone and glucocorticoids which result in disturbances in fluid and electrolyte balance, impaired water and sodium reabsorption and increased blood pressure (Mulianda & Umah, 2021). No one can be free from anxiety and anxiety, including stroke patients. Feelings of tension or stress always circulate in the work environment, social interactions, household life and even creep into sleep. If not treated, stress can take up energy, reduce work productivity and reduce immunity to disease, meaning that if left unchecked, it can eat away at the body silently (McCurley et al., 2019). According to the assumptions of nursing intervention researchers in stroke patients is to reduce patient anxiety. Preparations that can be made by nurses in reducing the anxiety of patients who will face nursing actions, one of which is providing counseling about the actions to be given, as well as providing health education to reduce patient anxiety so that nursing actions can run well.

CONCLUSIONS

From the results of research on the effect of health education on the level of anxiety in patients with stroke at Laburan Baji Hospital, with a total sample of 30 people, the following conclusions can be drawn: Respondents with the most pre-test anxiety category are those who experience severe anxiety, Respondents with the category The most post-test anxiety is those who experience moderate anxiety. There is an effect of health education on the level of anxiety in stroke patients at Laburan Baji Hospital.

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