

Post-Stroke Rehabilitation Education at the ILP Dahlia Integrated Health Post (Posyandu) in Pelem Village, Pare District, Kediri Regency Family Empowerment Strategy Approach

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ABSTRACT

Stroke is a brain dysfunction that occurs suddenly due to disruption of blood flow to the brain, and this condition can be experienced by anyone, at any time. In Indonesia, the prevalence of stroke has increased from 7% to 10.9%. It is estimated that around 500,000 people suffer from stroke each year, with around 25% dying and the remaining 75% experiencing hemiparesis, which is muscle weakness on one side of the body. At the ILP Dahlia Integrated Health Post (Posyandu), there are 10 elderly people who experience weakness and are unable to carry out activities due to stroke. The purpose of this community service is to provide education about post-stroke rehabilitation for the elderly. The community service method used is providing education to participants. The number of community service participants was 35 elderly people at the ILP Dahlia Integrated Health Post, Pelem Village, Pare District, Kediri Regency. The results of the Community Service showed an increase in knowledge of community service participants after the counseling on post-stroke rehabilitation for the elderly, with an increase in knowledge in the good category of 71% compared to before the counseling the knowledge was in the good category of 5%. Knowledge is the basis for someone in making a decision because it is related to a person's ability to make the right choice, where knowledge is the basis for forming behavior.

Keywords : Education, Elderly, Post-Stroke Rehabilitation

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INTRODUCTION

Stroke, or cerebral circulatory disorder (CVD), is a common neurological condition that requires immediate and appropriate treatment. A stroke is a sudden disruption of brain function caused by a disruption in blood flow to the brain, and it can affect anyone at any time (Habsari et al., 2024). According to the World Health Organization, there has been a significant increase in stroke deaths since 2000, rising from 2 million to 8.9 million (11%) in 2019. In the United States, the number of stroke sufferers reached approximately 7 million people (3.0%).

Globally, the incidence of stroke reaches 15 million cases annually, with one-third of patients dying and another third experiencing permanent disability. Approximately 795,000 new or recurrent strokes occur each year, with 610,000 of these being first attacks and 185,000 being recurrent attacks (Sutejo et al., 2023). In Indonesia, the prevalence of stroke has increased from 7% to 10.9%. An estimated 500,000 people suffer from stroke each year, with approximately 25% dying and the remaining 75% experiencing hemiparesis, which is muscle weakness on one side of the body. (Yanti & Rizkia, 2022).

Stroke is considered a very dangerous condition because the brain is a vital organ that controls all bodily functions. When someone experiences a stroke, it can disrupt motor function. One consequence of a stroke is varying degrees of dysfunction, such as decreased muscle strength or tone, loss of sensation in a limb, difficulty moving the affected limb, and the inability to perform certain activities. One body part frequently affected is the upper extremities (Melizza & Putri, 2022). Various body functions are necessary for daily activities. Decreased extremity function, particularly in the upper body, can impact a patient's ability to perform daily activities such as bathing, eating, playing a musical instrument, and other activities that require upper extremity use. (Amilatul Mabrurroh, Sunanto, 2023).

Currently, services for stroke patients are very limited, while the number of sufferers continues to increase. According to a survey, at least 20 patients have not received optimal care and are not independent. This situation is very unfavorable, especially in the long term, because it can cause various residual symptoms and further complications. Analysis shows that not all patients are able to leave the house for physical recovery and independence due to various reasons, including physical disability, financial problems, and limitations and ignorance about post-stroke independent care, both among the patients themselves and their families (Rahayu & Ambarwati, 2020).

Besides medication, one way to address muscle weakness in post-stroke patients is through physical exercise. One form of this exercise is isometric handgrip exercises, which involve statically contracting the hand muscles without causing excessive movement of the muscles and joints. This exercise can help reduce muscle weakness in post-stroke patients, allowing them to maintain their muscle strength. (Susilo et al., 2023).

Stroke patients require rehabilitation programs to improve their extremity motor skills. One way to prevent permanent disability in stroke patients is to provide early mobilization exercises, including range of motion (ROM) exercises, which can increase or maintain flexibility and muscle strength. (Sri Sudarsih & Windu Santoso, 2022)

The community service activity entitled "Education on Post-Stroke Rehabilitation at the ILP Dahlia Integrated Health Post, Pelem Village, Pare District, Kediri Regency" aims to increase partners' knowledge about rehabilitation efforts for stroke patients so that they can increase muscle strength and improve mobilization function in patients, so that patients, especially participants of the ILP Dahlia Integrated Health Post, are able to increase their independence and there is an increase in the quality of life in the elderly.

METHOD

The method used in this community service was to provide education on post-stroke rehabilitation to the elderly at the "Dahlia" Integrated Health Post (Posyandu) in Pelem Village, Kediri Regency. The activity took place on Thursday, September 11, 2025, at the "Dahlia" Integrated Health Post (Posyandu) building in Pelem Village. The equipment needed for this activity included: a user interface (SAP), leaflets, counseling materials, an LCD, and documentation tools. This activity was attended by 35 elderly individuals.

This community service activity was divided into several stages, the complete stages of which are shown in the following table:

Table 1. Procedures for implementing community service activities

No	Method Type	Proceduru
1	Planning	a. Coordination b. Division of Tasks c. Target Determination
2	Implementation	a. The community service implementation team conducts a briefing on activity preparation. b. The team prepares the necessary space and equipment. c. The team allocates personnel according to their respective duties. d. The community service implementation team provides education on stroke rehabilitation for the elderly.
3	Evaluation (Follow-up Plan)	a. Analyze the number of activity targets b. Analyze the responses of community service participants c. Document the community service activities

RESULTS

This community service activity took place on Thursday, September 11, 2025, at the "Dahlia" Integrated Health Post (Posyandu) in Pelem Village, Pare District, Kediri Regency. It was attended by 35 participants, the majority of whom were elderly and at high risk for stroke (hypertension, diabetes, and a family history of stroke). This activity focused on addressing the elderly's suboptimal understanding of post-stroke rehabilitation based on the risk factors inherent in advanced age. The community service team provided a solution to the problem by providing direct counseling related to post-stroke rehabilitation for the community service participants.

The community service activity began with participant registration, followed by blood pressure, height, weight, and abdominal circumference measurements. Participants were then given a questionnaire about post-stroke rehabilitation.

In this community service activity, participants were taught ROM (Range of Motion) exercises, commonly known as range of motion exercises, which serve to increase muscle strength and prevent joint contractures in post-stroke patients.

After participants performed stroke prevention exercises, they immediately proceeded to counseling on post-stroke rehabilitation for the elderly.



Figure 1. Educational Activities on Post-Stroke Rehabilitation

Participants in this community service activity were very active and enthusiastic about the material presented. They actively asked questions and were able to answer them posed by the community service facilitator team.

The results of the knowledge gained before and after the post-stroke rehabilitation education for the elderly were as follows:

Table 1. Results of the Pre-Test of Post-Stroke Rehabilitation Knowledge in the Elderly

No	Category	Frequency	Percentage
1	Good	2	5%
2	Enough	15	43%
3	less	18	52%
Total		35	100%

Based on the knowledge table before the counseling on post-stroke rehabilitation, 5% of community service participants were in the good category.

Table 2. Post-Test Results of Post-Stroke Rehabilitation Knowledge

No	Category	Frequency	Percentage
1	Good	25	71%
2	Enough	7	20%
3	less	3	9%
Total		35	100%

Based on the knowledge table after the post-stroke rehabilitation counseling session, 71% of participants' knowledge was in the good category. The post-test results showed that 71% of participants' knowledge was in the good category, compared to 5% before the counseling session. These results indicate an increase in the knowledge of community service participants after the post-stroke rehabilitation counseling session for the elderly.

DISCUSSION

Stroke is a condition that causes sudden, progressive, and rapid brain damage, caused by disturbances in cerebral blood circulation unrelated to trauma. Several major risk factors for stroke include hypertension, which is a significant factor. Furthermore, smoking, diabetes mellitus, and dyslipidemia also contribute to the occurrence of ischemic and hemorrhagic strokes. Therefore, it is crucial to increase public awareness of the factors that can trigger stroke as a preventative measure to reduce the incidence of this disease. (Permina, 2025).

Community service activities with initial activities of pre-test, ROM training, post-stroke rehabilitation counseling and ending with a post-test. Based on the analysis of knowledge after receiving counseling on post-stroke rehabilitation, it is clear that the level of post-test knowledge is predominantly in the good knowledge category, namely 71% compared to before being given education, which was 5%. This illustrates that the participants did not fully understand or know the methods and efforts in post-stroke rehabilitation. The counseling activities carried out were able to increase participants' knowledge and understanding of post-stroke rehabilitation.

Knowledge is considered as the result of a person's assessment through the five senses using (eyes, ears, nose, skin and so on) on a specified object. Knowledge can also be associated with a person's basis in making a decision because it is related to a person's ability to determine the choice that is considered most appropriate in a certain situation. Where the knowledge possessed by a person can also influence the individual himself in assessing or perceiving

something according to the existing reality so that it is appropriate in acting or making behavioral changes according to the beliefs he has. The occurrence of new changes, especially behavior in a person begins from the scope of his cognitive possession through the stimulus stage originating from external objects, so that this can provide new information and knowledge that gradually forms new behavior or attitudes. (Dewi et al., 2022).

After this community service activity, it is hoped that participants will be able to improve post-stroke rehabilitation efforts. (Arabta Malem Peraten Pelawi et al., 2024). Stroke is a condition that causes sudden, progressive, and rapid brain damage, caused by disturbances in cerebral blood circulation unrelated to trauma. Several major risk factors for stroke include hypertension, which is a significant factor. Furthermore, smoking, diabetes mellitus, and dyslipidemia also contribute to the occurrence of ischemic and hemorrhagic strokes. Therefore, it is crucial to increase public awareness of the factors that can trigger stroke as a preventative measure to reduce the incidence of this disease. (Permina, 2025).

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CONCLUSION

The implementation of community service activities consisting of providing education and ROM training for post-stroke rehabilitation can increase knowledge, understanding and optimize the implementation of post-stroke rehabilitation so as to improve the quality of life of the elderly.

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