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THE RELATIONSHIP BETWEEN FAMILY SUPPORT AND SELF-MANAGEMENT IN POST-STROKE PATIENTS

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Abstract

Stroke is a leading cause of disability and the second leading cause of death worldwide, significantly affecting patients' physical, psychological, and social aspects of life. This condition requires post-stroke patients to have adequate self-management abilities to support optimal recovery. Family support plays an important role as a primary support system in enhancing patients' ability to manage their illness. This study aimed to determine the relationship between family support and self-management among post-stroke patients. This study employed a quantitative design with a correlational analytical approach and a cross-sectional method. The sample consisted of 72 post-stroke patients attending outpatient care at the Neurology Clinic, selected using purposive sampling. Research instruments included a family support questionnaire and the Southampton Stroke Self-Management Questionnaire (SSSMQ). The results showed a significant positive relationship between family support and self management among post-stroke patients ($r = 0.609$; $p < 0.05$). Adequate family support contributes to improved self-management abilities in post-stroke patients.

Keywords: *stroke, family support, self-management.*

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INTRODUCTION

Stroke according to *the World Health Organization* (WHO) is a rapidly developing clinically significant or global signs of impairment of brain function with symptoms lasting 24 hours or more, or causing death, with no apparent cause other than blood vessel origination. Stroke is the leading cause of disability worldwide and the second leading cause of death (Donkor, 2018) . Global Burden Disease (2019) reveals that stroke is the second leading cause of death in the world and the third leading cause of disability in the world In the United States, an estimated 795,000 patients suffer a stroke each year, and the prevalence of stroke increases with age (Feigin et al., 2022; Hui et al., 2022).

Riskesdas (2018) stated that the prevalence of stroke increased from 7% in 2013 to 10.9% in 2018. (Riskesdas, 2018) Most striking is that most of the global stroke burden (86% of stroke deaths and 89% of DALY) occurs in low- and lower-middle-income countries. As one of the efforts to reduce this, it is necessary to carry out proper self-management in post-stroke patients. (Feigin et al., 2022) (Nott et al., 2021)

Self-management refers to an individual's ability to manage symptoms, medications, physical and psychosocial consequences as well as lifestyle changes inherent in living with a chronic condition. Stroke has complex impacts, including biopsychosocial. The complexity of the challenges faced by stroke patients requires self-management as an adaptation to new post-stroke conditions. Self-management interventions can effectively improve the health education level of stroke patients, help them gain confidence in disease self-management, and facilitate the formation of effective patient self-management behaviors, to improve the patient's quality of life and subjective well-being (Dewi, 2025).

Sahely., et al (2023) conducted research by applying self-management strategies such as patient education, information, goal setting, problem-solving, action planning, self-monitoring, and social support integrated with rehabilitation therapy to improve post-stroke mobility. The results of this study showed improvements in functional mobility and gaitability, self-efficacy, participation in physical activity, and quality of life at various levels. Participants in qualitative studies considered self-management interventions to be valuable additions to their therapy and felt increased mobility after they did. (Sahely et al., 2023) *Self-management* can be optimal if you get adequate environmental support, one of which is from support from family.

The family is a support system that plays a very important role in the recovery process of stroke patients. Family support includes not only physical assistance, but also the emotional support, information, and motivation that patients desperately need to carry out consistent self-care. A qualitative study in 2025 shows that family members play an active role in supporting the *self-management* of stroke patients. The study found that families not only help with practical tasks such as assisting with activities of daily living and rehabilitation exercises, but also provide emotional support and motivation that are important for encouraging post-stroke patient independence. (McCarthy et al., 2025)

Although the relationship between family support and *self-management* of stroke patients has been widely supported by research, more comprehensive studies are still needed that integrate the concepts of social support, health literacy, and family dynamics in the context of stroke patient self-management. More empirically robust research will help understand the mechanisms by which family support can strengthen patients' ability to manage their condition independently, as well as how health professional interventions can optimize the role of families in post-stroke recovery.

Against this background, research on "The Relationship between Family Support and *Self Management* in Post-Stroke Patients" is an important issue that needs to be studied more deeply to improve rehabilitation effectiveness, patient independence, and long-term health outcomes.

METHODS

This study uses a quantitative design with a correlational analytical approach and *a cross-sectional method.* This design aims to determine the relationship between family support as an independent variable and the *self-management* of stroke patients as a dependent variable at the same time. The population in this study is post-stroke patients.

The sampling technique in this study uses *a nonprobability sampling* technique with the sampling method in the study being *a purposive sampling* technique. *Purposive sampling* is carried out by identifying the source of important variation in the population. Next, select cases according to the source of the variation according to the

research inclusion criteria included in the study until the required number of subjects is met. The large sample collection in this study is based on the Slovin formula with the result of calculation *of n* 72 people.

The sample criteria in this study are, the inclusion criteria are: (a) post-stroke patients who undergo outpatient treatment at the Neurological Poly (b) post-stroke patients in the subacute phase (2 weeks – 6 months after the last onset) (c) post-stroke patients who can communicate well. Meanwhile, the exclusion criteria in this study are: (a) patients with mental disorders, mental retardation (b) patients with communication disorders (c) uncooperative patients.

The instrument used in this study is a questionnaire with a closed or structured questionnaire type where the questionnaire is made in such a way that the respondents only have to choose or answer the existing answers. The variables in this study used the Likert scale to determine family support with the level of depression in stroke patients. The questionnaire sheet used contains:

a. Demographic data
   The research questionnaire contained demographic data including name (initial), gender, age, education and occupation.
b. Questionnaire for family support
   To measure family support variables, you can use a type of measurement scale in the form of an ordinal scale (Likert Scale). The instrument used in this study is a standard questionnaire so there is no need to conduct an instrument test (validity and reliability test). The type of questionnaire is *closed ended*, with the question answer codes: SL = Always, SR = Often, J = Rare, TP = Never which consists of 20 questions.
c. SSSMQ (*The Southampton Stroke Self-Management Questionnaire*) consists of 28 questions divided into 4 domains and 6 likert scale answer options. Questions 1-9 are questions with the capacity domain, numbers 10-15 are the domains of confidence in interaction, numbers 16-21 are the domain of strategy, and numbers 22-28 are the domain of health professional guidance.

RESULTS AND DISCUSSION

RESULTS

General Characteristics of Respondents

Distribution of respondents by age

The results of descriptive statistics of demographic characteristics by age are as follows:

Table. 1 Frequency Distribution of Respondent Characteristics by Age

Age of respondents	Frequency (n)	Percentage (%)
< 60 years old	32	44,4%
≥ 60 years old	40	55,6%
Total	72	100%

Based on the table. 1 It is known that out of 72 respondents, there were 32 respondents (44.4%) with an age of < 60 years and 40 respondents (55.6%) with an age of ≥ 60 years.

Distribution of respondents by gender

The results of descriptive statistics of demographic characteristics by gender are as follows:

Table. 2 Frequency Distribution of Respondent Characteristics by Gender

Gender	Frequency (n)	Percentage (%)
Male	38	52,8%
Women	34	47,2%
Total	72	100%

Based on the table. 2 It is known that out of 72 respondents, there were 38 respondents (52.8%) with male gender and 34 respondents (47.2%) with female gender.

Distribution of respondents by education

The results of descriptive statistics of demographic characteristics based on education are as follows:

Table. 3 Frequency Distribution of Respondent Characteristics by Education

Education	Frequency (n)	Percentage (%)
SD	10	13,8%
Junior High School	30	41,7%
High School	22	30,5%
University	10	13,8%
Total	72	100%

Based on the table. 3 It is known that out of 72 respondents, 10 (13.8%) have elementary education, 30 respondents (41.7%) have junior high school education, 22 respondents (30.5%)

Item	Scale	f	%
Self Management	Good	58	80,6
	Enough	12	16,7
	Less	2	2,7
Capacity	Good	45	62,5
	Enough	25	34,8
	Less	2	2,7
Confidence	Good	51	70,8
	Enough	19	26,4
	Less	2	2,7
Strategy	Good	40	55,5
	Enough	23	32
	Less	9	12,5
Guidance of Health Professionals	Good	55	76,4
	Enough	11	15,3
	Less	6	8,3

have high school education, and 10 respondents (13.8%) have higher education.

Distribution of respondents by occupation

The results of descriptive statistics of demographic characteristics based on employment are as follows:

Table. 4 Frequency Distribution of Respondent Characteristics by Occupation

Jobs	Frequency (n)	Percentage (%)
Work	28	38,9 %
Not working	44	61,1 %
Total	72	100%

Based on the table. 4 It is known that out of 72 respondents, there are 28 respondents (38.9%) with working status and 44 respondents (61.1%) with non-working status.

Family Support for Stroke Patients

The *independent variable* in this study is the status of family support with the interpretation of the likert scale of family support of the patient who conducted the study is presented in Table 5 as follows.

Table. 5 Family Support Likert Scale Interpretation

Quality of Life	f	%
Good	60	83,3%
Enough	9	12,5%
Less	3	4,1%

Results from the Table. 5 shows the interpretation of the respondents' family support with a good category with a total of 60 respondents (83.3%), the cukuo category of 9 respondents (12.5%) and less than 3 respondents (4.1%).

***Self Management* in Stroke Patients**

The *dependent* variable in this study is *self-management* with the interpretation of *the likert scale of self-management* can be seen in the Table. Sec. 6.

Table. 6 Frequency distribution and scale interpretation *Likert*

In Table 6, it is known that respondents who had a good *interpretation of the self-management* score were 80.6% or 58 respondents, the sufficient score was 16.7% or 12 respondents, while the respondent received a *lacking likert* score of 2.7% or 2 respondents.

Analysis of the Relationship between Family Support and *Post-Stroke Patient* Self Management

In this study, data analysis used a correlation test *Rank Spearman* because the distribution of data used is abnormal. The results are as follows.

Table. 7 Results of the Spearman Rank correlation analysis

Variable	Correlation Coefficients	*P Value*	Remarks
Family Support with *Self Management*	0,609	0,000	There is a Relationship

Table. 7 shows the correlation coefficient between family support and *Self-management* 0.609 (r = 0.609) with a significant value of 0.000 ($p<0.05$), so it can be concluded that there is a significant positive correlation. The closeness of the family support relationship with *Self-management* 60.9%, which means that the higher the family support, the higher the *Self-management* in post-stroke patients.

DISCUSSION

Based on the results of the study in Table 5, it is known that of the 72 respondents, most of them had family support in the good category, namely as many as 60 respondents (83.3%), while 9 respondents (12.5%) were in the adequate category, and 3 respondents (4.1%) were included in the poor category. These results show that the

majority of post-stroke patients receive optimal family support during the recovery process. Good family support includes emotional, informational, instrumental, and reward aspects given to patients, which play an important role in increasing the patient's motivation and independence in carrying out self-care. High family support is significantly associated with improved *self-management* in post-stroke patients, as the family serves as the primary source of physical and emotional support (Faradisa et al., 2025).

The high proportion of good family support in this study also shows the existence of awareness and family involvement in the patient rehabilitation process. Consistent family support can improve patient adherence to treatment, accelerate recovery of motor function, and reduce the risk of post-stroke depression. This happens because family support not only provides practical help such as medication reminders or helps with daily activities, but also provides a sense of security and psychological motivation that post-stroke patients desperately need (Li et al., 2024).

In addition, good family support has been shown to have a positive correlation with increasing *the self-efficacy of* stroke patients. According to Zhang et al. (2024), stroke patients who received high family support showed a significant increase in confidence to perform rehabilitation and self-management exercises. Family support creates a positive environment for patients to learn to adjust to physical limitations and develop more effective self-care strategies. Therefore, strong family support can be an important predictor in the success of *post-stroke patient* self-management (Zhang et al., 2024).

However, although most of the respondents in this study had good family support, there were still 16.6% of respondents with adequate and insufficient family support. This indicates that there are still families that are not optimal in providing support, both due to limited time, understanding, and psychological burden in caring for family members who have had a stroke. Low family support can hinder the patient's recovery process because patients feel unmotivated and lose confidence to do independent activities. Therefore, health workers need to actively involve families in patient education and assistance to strengthen sustainable support at home (Yuniarti & Kariasa, 2020).

***Self Management* in Stroke Patients**

Self-management *interventions* can effectively help patients gain confidence in disease self-management, and facilitate the formation of effective patient self-management behaviors, to improve the patient's quality of life and subjective well-being. *Self management* can be an alternative solution for stroke patients in improving post-stroke recovery. *Self-management* interventions include specific education about stroke and its effects and focus on skills training to increase active enthusiasm for patient treatment management (Dewi, 2025).

The results showed that most post-stroke patients have varying levels of *self-management*, depending on the individual's ability to manage self-care, adhere to treatment, and adjust lifestyle after a stroke. *Self-management* in post-stroke patients is the ability of patients to take an active role in the management of their disease, including the regulation of physical activity, emotional control, and prevention of recurrence. *Self management* is an important component in the long-term rehabilitation of stroke patients because it contributes to improved quality of life, reduced risk of complications, and increased functional independence (Sun et al., 2022).

Post-stroke *patients' self-management* skills are greatly influenced by social support, especially family support. Stroke patients' *self-management* behavior increases significantly with high attention and family involvement in disease management. The family plays a role in providing emotional support, assisting with treatment, reminding the therapy schedule, and motivating the patient to carry out regular physical exercise. In this context, *self-management* cannot be separated from the patient's social environment, especially from the active role of the family as the main companion during the recovery process (Wang et al., 2024).

In addition to family support, *self-efficacy* and patient knowledge also have a great influence on the success of *self-management*. Stroke patients who have a high level *of self-efficacy* show better ability to manage diet, physical activity, and long-term medication. Patients who have high self-confidence are better able to maintain healthy behaviors, adhere to treatment, and actively participate in rehabilitation compared to patients who have low *self-efficacy*. Therefore, health education and patient empowerment are an important part of nursing interventions to improve *self-management* (Wang et al., 2025).

Psychological factors are also an important aspect of *self-management*. Post-stroke patients often experience emotional changes such as anxiety, depression, or loss of motivation that can

hinder their involvement in self-care. Emotional support from family and health workers plays an important role in maintaining the psychological stability of patients so as to increase involvement in *self-care* activities. Family-based interventions, such as therapeutic communication training and psychosocial mentoring, have been shown to improve emotion regulation and improve patient consistency in carrying out *self-management* (Li et al., 2024) .

In this study, the findings regarding *the self-management* of stroke patients show that these abilities are not only determined by individual factors, but also by the social environment and family support. These results are in line with the study of Zhang et al. (2024) who explained that family support contributes directly to increasing *the rehabilitation motivation* of stroke patients, which ultimately increases the success of *self management*. Thus, to achieve optimal *self-management* success, a holistic approach is needed that involves patients, families, and healthcare workers simultaneously (Zhang et al., 2024).

Analysis of the Relationship between Family Support and *Post-Stroke Patient* Self Management

Based on the results of the correlation analysis in Table 10, the value of the correlation coefficient was obtained**r =** 0.609 with **p-value = 0.000 (p < 0.05)**, which indicates that there is a significant positive relationship between Family Support and Self-management in post-stroke patients. This means that the higher the level of family support that the patient receives, the higher the patient's ability to manage themselves after having a stroke. These results are in line with research Wang et al. (2024) which explains that family support plays an important role in shaping behavior *Self-management*. Stroke patients because of family are the main source of emotional, motivational, and instrumental support in undergoing rehabilitation and adaptation to changes in physical conditions. (Wang et al., 2024)

The strength of the relationship is as great as 60,9% shows that family support makes a significant contribution to improving abilities *Self-management*post-stroke patients. This confirms that the involvement of the family in the patient's treatment process not only helps physically, but also strengthens the patient's confidence and commitment in undergoing long-term treatment. High family support increases rehabilitation motivation and *Self-efficacy* stroke patients, which ultimately affects behavioral consistency *Self-management*. Family support has also been shown to serve as a protective factor against the psychological stress that often arises in patients after a stroke, so that patients become more focused on managing their health (Zhang et al., 2024).

In addition, the results of this study are consistent with the findings Wang et al. (2025) which explains that family support has a significant positive relationship with behavior *Self-management* through upgrades *self-efficacy* and health literacy. Patients with high family support tend to be more active in controlling blood pressure, following a healthy diet, doing physical exercise, and adhering to medication therapy. The family also plays a role in ensuring that patients get the correct health information and help make decisions in the treatment process. Thus, the role of the family is not only as a passive companion, but also as an active partner in the rehabilitation process of stroke patients (Wang et al., 2025).

High family support also has an impact on the patient's psychological condition. Stroke patients who feel they are receiving attention and emotional support from their families show lower levels of depression and anxiety, making it easier to be motivated to do *Self Care* and rehabilitation regularly. This aspect explains why family support can increase *Self-management*up to more than half of the patient's behavioral variability (60.9%), as shown in this study. Family emotional involvement helps patients maintain hope and confidence to return to optimal functioning in daily activities (Wang et al., 2025).

Furthermore, the results of this study also strengthen the view of Sun et al. (2022) who affirm that the success of *self-management* of stroke patients depends on active collaboration between patients, families, and health workers. Family education programs and home-based interventions have proven effective in increasing the independence of post-stroke patients. Therefore, nursing personnel have a strategic role in providing health education to families so that they are able to support patients effectively, both in physical, psychological, and social aspects (Sun et al., 2022).

CONCLUSION

Based on the results of a study of 72 respondents regarding the Relationship between Family Support and *Self Management* in Post-Stroke Patients, it can be concluded that:

1. The characteristics of the respondents showed that most of the post-stroke patients were at the age of ≥ 60 years (55.6%), male (52.8%), junior high school education (41.7%), and most were unemployed (61.1%). This illustrates that the majority of stroke patients are in the elderly age group with a low level of secondary education and socioeconomic conditions, which has the potential to affect their level of independence and ability to *self-manage*.
2. Patient family support is mostly in the good category (83.3%), indicating that the family has an active role in helping the post-stroke patient recovery process, both in the form of emotional, informational, and instrumental support. This high level of family support reflects the family's care, empathy, and involvement in accompanying patients through therapy and life adaptation after stroke.
3. *Self-management* of post-stroke patients is at varying levels, but in general it shows that patients who have good family support also have higher *self-management* skills . These abilities include medication adherence, dietary arrangements, physical activity, and emotional stress management.
4. Analysis of the relationship between family support and *self management* showed a significant positive relationship with a correlation coefficient of r = 0.609 and p = 0.000 (p < 0.05). This means that the higher the family support received by the patient, the higher the *self-management* skills of post-stroke patients. Family support contributed 60.9% to improving patients' self-management skills . Thus, family support is an important factor in the successful rehabilitation of stroke patients.

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