

Research Article

Relationship Between Family Support and Self-Care Independence in Stroke Patients



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ABSTRACT

Stroke is a sudden neurological condition that causes local or widespread disturbances in brain function. Its impact includes physical limitations, disabilities, and psychological issues such as stress and depression. These often lead to patients becoming dependent on others and needing continuous assistance. Family support plays a crucial role in the recovery process, especially for stroke survivors. Families can assist by providing motivation and guidance so that patients can gradually perform daily activities independently. This study aims to examine the relationship between family support and the level of independence in self-care among stroke patients. The research used a quantitative design with a cross-sectional approach. A total of 80 stroke patients were selected using the Accidental Sampling technique. The results showed that most patients (53.8%) received adequate family support. Meanwhile, 50% of the patients were in the category of moderate dependence in self-care activities. A Spearman correlation test showed a significant relationship between family support and self-care independence, with a correlation value of 0.640, indicating a strong positive relationship. Therefore, it is highly recommended that families provide continuous support and encouragement to help patients stay motivated, improve their independence in daily life, and optimize their recovery.

INTRODUCTION

A stroke is a neurological condition that occurs suddenly and rapidly, caused by a non-traumatic disruption in blood flow to the brain. This disruption results in either local or global dysfunction in the brain.

Symptoms may include speech difficulties, such as slurred or slow speech, changes in consciousness, and visual impairments. Stroke is a common condition today that can strike suddenly and worsen quickly due to a disturbance in brain blood flow that is not

caused by trauma (Siregar and Anggeria, 2019).

According to the World Stroke Organization (WSO), stroke is one of the most serious health conditions worldwide. Each year, stroke affects 13.7 million people and causes 5.5 million deaths. It is the leading cause of death in older adults and one of the highest in developing countries. (World Stroke Organization, 2019).

The 2023 Indonesian Health Survey (SKI) recorded a stroke prevalence of 8.3 per 1,000 people. Stroke is the leading cause of disability (11.2%) and death (18.5%) in Indonesia. The region with the highest stroke prevalence is the Special Capital Region (DKI) of Jakarta, with a rate of 10.7 per 1,000 population, followed by West Java Province with a prevalence of 10.0 per 1,000 population (Health Development Policy Agency, 2023). These findings indicate that the burden of stroke in Indonesia remains high and requires comprehensive and sustained public health interventions (Kementerian Kesehatan RI, 2023).

Data from RSUD Ciamis shows a significant change in the number of inpatients diagnosed with stroke over the years. In 2022, the number of infarct stroke patients reached 465, and hemorrhagic stroke patients totaled 132, an increase from 2021, which recorded 149 infarct stroke patients and 59 hemorrhagic stroke patients. In 2023, these numbers continued to rise to 703 infarct stroke patients and 187 hemorrhagic stroke patients. Additionally, data on inpatient discharge visits shows a notable upward trend at RSUD Ciamis. In 2021, there were 423 patients discharged with a stroke diagnosis. The number of stroke inpatients increased to 650 in 2022 and reached 889 in 2023. This reflects a yearly increase in stroke-related inpatient visits at RSUD Ciamis (Rekam Medik RSUD Ciamis, 2023). The stroke diagnosis at RSUD Ciamis also recorded changes in the ranking of the most frequently diagnosed diseases. In 2022, stroke ranked fourth with 457 patients, following bronchopneumonia, dyspepsia,

and gastroenteritis and colitis from infectious causes. In 2023, the number of stroke patients increased to 611, ranking second after bronchopneumonia, which had 1,214 patients (Rekam Medik RSUD Ciamis, 2023).

Stroke has a significant impact, causing physical limitations, disabilities, and psychological issues such as stress and depression, which often lead to the affected individuals relying on others for continuous assistance. Families play a crucial role in the recovery process, serving as the primary support system that influences the patient's health and quality of life (Nurapandi et al., 2024). The family is responsible for providing the necessary care in all health conditions of its members, as well as offering motivation and training to help the family member perform activities independently without requiring assistance from others (Kurnia, 2019).

If a family member experiences a stroke and faces weakness that hinders their ability to perform daily activities such as eating/drinking, transferring from a wheelchair to a bed or vice versa, maintaining personal hygiene, bathing, walking, going up and down stairs, dressing/shoe-wearing, or controlling urination and defecation, they will require full or partial assistance to carry out these activities. This help is generally provided by close relatives, such as the patient's family members. Families play a crucial role in supporting the patient's recovery process, and therefore, they must be involved in helping the patient regain their health. According to Orem's theory, self-care needs encompass aspects such as air, fluids, food, normal excretion, balanced activity and rest, social interaction, avoidance of harm, and human well-being. Through self-care, it is expected that the patient's physical and mental health can be restored to its original condition (Siregar and Anggeria, 2019).

Orem describes self-care as a personally significant behavior aimed at enhancing an individual's ability to live and interact with

their environment, enabling them to maintain life, health, and well-being, and to contribute to their own personal development. According to Orem's theory, self-care involves efforts to meet the needs required to sustain life, maintain health, and promote well-being—whether in times of health or illness. Orem's model has been expanded to include family care, recognizing that the involvement of the family is essential when an adult is unable to carry out adequate self-care to sustain life, preserve health, or manage illness (Aini, 2018).

In the context of stroke patients, they often rely on assistance from others such as neighbors or close friends, with the primary support typically coming from their family. Friedman (2018) notes that the role of the family is crucial in providing both physical and emotional support when someone is ill. It is essential to offer social support to these individuals, including emotional support, affirmation, instrumental support (such as physical assistance with daily care), and informational support (such as providing information about the health condition).

Consistency in performing self-care has a significant impact on the recurrence and risk of disability in stroke patients. Therefore, in order to restore and maintain the daily functioning of stroke patients so they can resume normal activities like most people, it is essential that self-care be carried out both by the patient and their family. A patient's adherence to self-care practices is a key factor in determining their condition. When self-care is performed regularly, potential complications can be prevented, and functional recovery can be accelerated through proper personal care. On the other hand, non-adherence or inconsistency in self-care may lead to a faster progression toward permanent disability in the affected body parts, even before paralysis fully sets in. One of the factors influencing a patient's adherence to self-care is family support (Santoso, 2019).

The level of independence of stroke patients is greatly influenced by family support

(Setyoadi et al., 2017). In their study, they concluded that strong family support is associated with increased patient independence. Fadlulloh et al. (2018) also found that family support in carrying out daily activities (ADLs) contributes significantly to achieving lower levels of dependence—ranging from mild or minimal dependence to complete independence in performing these activities. Their findings also revealed a significant correlation between the level of independence in ADLs and the patient's health status. Similarly, Karunia (2016) reported that family support is significantly associated with the level of independence in performing Activities of Daily Living (ADLs) among post-stroke patients in the Medical Rehabilitation Unit at Haji General Hospital, Surabaya.

Based on a preliminary study conducted through interviews with 10 families who have members affected by stroke, it was concluded that 6 families experienced difficulties in meeting the needs of the patient, as most family members were working to support the family's financial needs. In contrast, the remaining 4 families did not experience such difficulties in providing care for the patient. More specifically, out of the 10 stroke patients observed, seven still faced challenges in performing daily activities independently. These patients required assistance from close relatives for tasks such as using the bathroom, bathing, changing clothes, moving from one place to another, and, in most cases, eating and drinking. Meanwhile, the other three stroke patients did not encounter significant difficulties in carrying out activities such as changing clothes, moving around, and similar tasks.

METHOD

In this study, a quantitative method was chosen because the data collected are numerical and analysed using statistical techniques. The quantitative approach is appropriate when the research aims to investigate the gap between ideal

conditions and reality, theory and practice, or plans and implementation. This study employs a cross-sectional design, as described by Sugiyono (2018), in which observations are made at a single point in time determined by the researcher to explore the relationship between dependent and independent variables.

This study involved stroke patients in the Inpatient Ward of Ciamis Regional Hospital, with an average of 80 patients per month. The 80 respondents were selected through accidental sampling. The Spearman Rank test was used to examine the relationship between variables. The instruments used were the family support questionnaire and the Barthel Index. The family support questionnaire includes four types of support with 12 questions on a scale of 1–4. The total score is divided into three categories: less (12–24), sufficient (25–36), and good (37–48). The Barthel Index assesses independence through 10 daily activities with a total score of 0–100, which are classified as: total (0–20), severe (21–60), moderate (61–90), mild (91–99), and independent (100).

In this research, data for both the dependent and independent variables were collected simultaneously, reflecting the conditions at the time of data collection specifically, the relationship between family support and the level of independence in self-care among stroke patients at RSUD Ciamis. The results are presented in the form of frequency distribution tables and cross-tabulation tables.

RESULTS

Table. 1

Respondent Demographic Data Based on Gender

No	Gender	n	%
1	Male	48	60
2	Female	32	40
	Total	80	100

Based on the table, among the 80 respondents, the highest frequency is for

males, with 48 individuals (60%), while the lowest frequency is for females, with 32 individuals (40%).

Table. 2
Respondent Demographic Data Based on Age

No	Age	n	%
1	40-49 Years	54	67,5
2	50-69 Years	26	32,5
	Total	80	100

Based on the table, among the 80 respondents, the highest frequency is in the 40-59 years age group, with 54 individuals (67.5%), while the lowest frequency is in the 50-69 years age group, with 26 individuals (32.5%).

Table. 3
Respondent Demographic Data Based on Education

No	Education	n	%
1	Elementary School (SD)	9	11,3
2	Junior High School (SMP)	47	58,7
3	Senior High School (SMA)	16	20
4	Diploma (D3)/Bachelor's Degree (S1)	8	10
	Total	80	100

Based on the table, among the 80 respondents, the highest frequency of education level is junior high school (SMP) completion, with 47 individuals (58.7%), while the lowest frequency is for those with a D3/S1 education level, with 8 individuals (10%).

Table. 4
Family Support for Stroke Patients

No	Category	n	%
1.	Good	21	26,3
2.	Enough	43	53,8
3.	Less	16	20
	Total	80	100

Based on the table, it is known that family support for stroke patients at Ciamis Regional Hospital has the highest frequency in the adequate category, with 43 individuals (53.8%), and the lowest frequency in the insufficient category, with 16 individuals (20%).

Table. 5
Level of Independence in Self-Care Among Stroke Patients

No	Category	n	%
1.	Independent	16	20
2.	Mild Dependence	9	11,3
3.	Moderate Dependence	40	50
4.	Severe Dependence	12	15
5.	Total Dependence	3	3,8
	Total	80	100

Based on the table, the level of independence in self-care of stroke patients at Ciamis Regional Hospital is mostly in the moderate dependency category, namely 40 people (50%), while the least is in the total dependency category, namely 3 people (3.8%).

Table. 6
Relationship Between Family Support and Self-Care Independence in Stroke Patients

No	Family Support	Self-Care Independence										ρ value	
		Independent		Mild Dependence		Moderate Dependence		Severe Dependence		Total			
		F	%	F	%	F	%	F	%	F	%		
1.	Good	11	52,4	5	23,8	3	14,3	2	9,5	0	0	21 26,3	
2.	Enough	2	4,7	4	9,3	34	79,1	3	7	0	0	43 53,8	
3.	Less	3	18,8	0	0	3	18,8	7	43,8	3	18,8	16 20	
	Total	16	20	9	11,3	40	50	12	15	3	3,8	80 100	

It was found that among the 21 stroke patients who received good family support, the majority, or 11 individuals (52.4%), had a high level of independence. Meanwhile, 5 individuals (23.8%) had a mild level of independence, 3 individuals (14.3%) had a moderate level, and 2 individuals (9.5%) had a severe level of independence, with none having total independence. Among the 43 stroke patients with adequate family support, the majority, or 34 individuals (79.1%), had a moderate level of independence. Additionally, 2 individuals (4.7%) were independent, 4 individuals (9.3%)

had a mild level of independence, and 3 individuals (7%) had a severe level, with none having total independence. Among the 16 stroke patients with poor family support, the majority, or 7 individuals (43.8%), had a severe level of independence. Moreover, 3 individuals (18.8%) were completely independent, while the remaining 3 individuals (18.8%) had moderate independence, with none exhibiting a mild level of independence.

The analysis results showed a p-value of 0.000 ($p < 0.05$), indicating a significant relationship between family support and independent self-care in stroke patients at Ciamis Regional Hospital. The correlation coefficient of 0.640 indicates a strong relationship between the two.

DISCUSSION

Based on the research results, family support for stroke patients at RSUD Ciamis shows that the highest frequency is in the moderate category, with 43 people (53.8%). There are four parameters used to measure family support, The family support referred to includes emotional, assessment, informational and instrumental support. According to the data, most respondents indicated that their families rarely inform them about the results of examinations and treatments given by doctors. This indicates that family support is lacking, which is also influenced by limited knowledge about examination results or treatment. As a result, the information is not effectively conveyed to the patient.

According to Scheurer's theory (2018), family social support includes instrumental support, namely the practical and tangible assistance provided by the family. When a family member is ill, the family is expected to provide the direct assistance needed. In this case, stroke patients require support from their families. In addition, the family's function includes informational support, acting as a collector and disseminator of information. The family can support the patient by providing adequate information.

The final support function is emotional support, namely the role of the family as a comfortable and calming place for patients to rest, recover, and manage their emotions. This aligns well with the theory, as respondents truly felt family support, especially regarding information about medical examinations and treatments.

The research also shows that most respondents with moderate family support are influenced by educational factors. Based on interviews, nearly half of the respondents have an education level equivalent to junior high school, which is considered low education. Low education can affect one's ability to absorb information. The lower the education level, the less knowledge and insight a person has, which impacts their attitudes and behaviors (Nurapandi et al., 2025).

According to Stanley, Blair, & Beare (2018), several factors influence compliance or non-compliance in following health professionals' advice, including the interaction of values, knowledge, and life experiences of the elderly, family support, the ability of professionals to teach and recommend, and the complexity of lifestyle rules. Therefore, it can be concluded that low knowledge affects compliance in following health recommendations, which in turn influences health status and family support.

This study also found that the highest frequency of independence in self-care among stroke patients at RSUD Ciamis falls into the moderate dependency category, with 40 people. Self-care parameters include eating, dressing, and mobilization. Most respondents are unable to walk well, indicating a high level of dependency in mobility. This condition relates to musculoskeletal system strength, which affects the ability to perform self-care.

According to Hincliff's theory (2020), mobility needs include the ability to walk, stand up, and move between the bed, chair, and toilet, along with the ability to move upper and lower extremities. Age influences

these abilities because as age increases, physical activity, digestion, mental, and social functions gradually decline. Higher age impacts health and self-care abilities, making it difficult to perform self-care routinely.

Orem's theory in Aini (2018) states that aging groups experience declines in cognitive, perceptual, and numerical abilities. Physical and behavioral changes occur predictably, such as declines in digestion, physical activity, mental capacity, heart function, mobility, and social activities, due to aging. Gender also influences self-care ability. Most respondents are male, and males tend to exhibit more health deviations such as poor weight management and smoking habits compared to females, which affect self-care ability. Orem's theory in Aini (2018) also explains that gender contributes to self-care ability, with males more likely to have health risk behaviors.

This study proves that there is a relationship between family support and the level of independence of stroke patients in carrying out self-care. Most respondents receiving moderate family support show moderate independence in self-care. Adequate family support improves patient independence because it includes interpersonal support through attitudes, actions, and acceptance from family members, helping patients in the recovery process.

However, there are cases where lack of family support affects patient independence. One factor is the patient's fear to move or be independent, especially after trauma like falling during activities. This causes the patient to rely more on family assistance.

The study also found that patients with poor family support tend to have higher dependency levels. This is due to family members lacking time to accompany or assist post-stroke patients, making the family's support system neglected. Consequently, patients become less motivated to follow treatment and rehabilitation.

Good family support, such as providing exercise equipment or nutritious diets, can accelerate recovery and increase independence in daily activities (Padila, 2018).

Research by Antari, Saktika, and Ferianto (2020) shows that social support affects a person's quality of life, including instrumental support, informational support, emotional support, and appraisal support. These supports help patients during rehabilitation.

Nuryanti's (2020) research also shows that there is a significant relationship between family support in the form of information, emotions, physical assistance, and assessment—and the motivation of post-stroke patients to do Range of Motion (ROM) exercises. Meanwhile, Sobirin, Husna, and Sulistiawan (2020) found a significant relationship between family roles in motivating stroke patients and their compliance with rehabilitation at the National Stroke Rehabilitation Unit in Bukittinggi.

However, Mare (2020) found that there was no significant relationship between family support and self-care ability in post-stroke patients at the Gundhi Community Health Center, Surabaya. That study suggested that strong family support could increase patient dependency, while poor family support might encourage independence because patients must meet their daily needs themselves.

Researchers consider family support crucial for stroke patients' self-care because they are the closest people and act as primary caregivers. Good family support can increase patients' independence in self-care.

CONCLUSION

Family support has been shown to be strongly associated with independent self-care in stroke patients. The analysis showed a statistically significant relationship ($0.05 > 0.000$), with a correlation coefficient of 0.640, indicating that the greater the family

support, the more independent the patient is in self-care.

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