



Relationship between Family Support and Quality of Life in Stroke Patients

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Abstract

Stroke is a disease of the brain in the form of impaired local nerve function that appears suddenly, progressively, and quickly. Family support is very influential on stroke patients, because family support is very instrumental in a form of assistance provided by family members to provide physical and psychological comfort when someone experiences illness and provides social support. This article review aims to determine the relationship between family support and quality of life in stroke patients. This study used the literature review method with the Preferred Reporting Items for Systematic Reviews & Meta-Analyses (PRISMA) protocol. Scientific articles or journals were downloaded from PubMed, Garuda Portal, and Google Scholar with SINTA IV and V standards within 2020-2024. In this literature, it was found that family support is an aspect that plays an important role in the quality of life of stroke patients. Family support itself includes emotional support, appreciation support, instrumental support and information support. The family is the closest person who always interacts with post-stroke patients, so the role of the family is very important in an effort to provide various supports that create a sense of security for patients.

Introduction

Stroke is a disease of the brain in the form of localized nerve function disorders that appear suddenly, progressively, and rapidly (Tanua et al., 2023). Based on the cause, stroke is divided into two, namely hemorrhagic stroke and ischemic stroke. Hemorrhagic stroke occurs due to bleeding caused by rupture of blood vessels in the brain. Ischemic stroke occurs when brain cells experience a lack of oxygen and nutrients which causes narrowing and blockage of the brain's blood vessels (Hastuti et al., 2022; Syah et al., 2020; Tanua et al., 2023; Unak, 2021). Stroke is a rapidly developing clinical signs due to focal or global brain fungsi disorders, can cause death, without other causes besides vascular (Kusuma et al., 2022).

The second most deadly disease and the third most disabling disease in developed countries (Nisak et al., 2023). The American Heart Association (AHA) estimates that there are about 795,000 people in the United States who experience a stroke per year, of which about 610,000 events are first-time stroke attacks, and about 6.4 million Americans are stroke survivors (Vihandayani et al., 2019; Vihandayani et al., 2019). According to the Southeast Asian Medical Information Center (SEAMIC), stroke mortality is highest in Indonesia, then the Philippines, Singapore, Brunei Darussalam, Malaysia and Thailand (Hasan et al., 2022).

Based on recent data, stroke is one of the more common causes of death in Indonesia. The prevalence of stroke in Indonesia based on the diagnosis of health workers is 10.9 per mile or around 713,783 people. The highest prevalence of stroke is found in East Kalimantan 14.7 per mile, in DIY 14.5 per mile, in Papua 4.1 per mile and one of the provinces with the highest prevalence of stroke patients in Indonesia is the province of South Sulawesi with the number of patients 10.6 per mile (Komariah et al., 2022).

The etiology of stroke includes thrombosis, embolism, hemorrhage with other causes such as cerebral artery spasm with infectious causes, decreased blood flow to the brain and hypercoagulable conditions (Wahab & Sijid, 2021). Factors that can increase the risk of stroke are age, high blood pressure, previous history of stroke, diabetes, high cholesterol, smoking, atrial fibrillation, migraine with aura and thrombophilia (prone to thrombosis). Of all these factors, the easiest to control are high blood pressure and smoking. Eighty percent (80%) of stroke events can be avoided by managing risk factors (Unak, 2021).

Signs that occur in hemorrhagic stroke are such as slow narrowing of the lumen of the cerebral blood vessels (cerebri thrombosis), sudden narrowing of blood vessels due to pathological abnormalities in the heart of cerebral embolism (Caplan & Liebeskind, 2016). While non-hemorrhagic stroke is a cerebral circulatory disorder without a hemorrhage characterized by weakness in one or all four limbs or hemiparesis, headache, nausea, vomiting, blurred vision and difficulty swallowing (dysphagia) non-hemorrhagic stroke is divided into two, namely embolic stroke and thrombotic stroke (Agustiani et al., 2023; Bollineni, 2015).

The initial management aims to optimize brain metabolism during the pathological state, by stabilizing the patient's airway to avoid hypoxia. In addition, it is also necessary to ensure the patient's ability to swallow (Younis, 2023). If swallowing is impaired in unconscious patients, a nasogastric tube should be inserted to prevent aspiration during feeding. Preventive measures that can be taken are to control blood pressure, stop smoking, alcoholism, and cocaine use because these can trigger the risk of recurrent intracerebral hemorrhage (Setiawan, 2021).

Family support is very influential on stroke patients. Family support plays a very important role in a form of assistance provided by family members to provide physical and psychological comfort when someone is experiencing illness and provide social support. There are various forms of family support including emotional support, appreciation support, instrumental support and informational support (Pursitasari et al., 2020). Instrumental support is carried out by providing rehabilitation therapy while appreciation support is given in gratitude and attention. Family support is instrumental in the recovery phase as well as efforts to increase independence, confidence and minimize disability (Mihen et al., 2022; Yusuf et al., 2022).

Research conducted by Marcelyna Vihandayani et al. (2019) From the results of statistical tests obtained a spearman's rho value of 0.730, meaning that there is a strong relationship with (sign 2 tailed) of 0.000, which is smaller than 0.05 so it can be concluded that there is a significant influence between family psychosocial support on stroke quality of life (Vihandayani et al., 2019).

Looking at the problem of stroke disease that can cause various other health problems, most of which endanger life, it is necessary to find efforts to solve the problem, because complications that may arise from stroke are thorax infection, constipation, pneumonia, UTI (Urinary Tract Infection), depression, seizures, recurrent stroke, congestive heart disease, pressure sores (Decubitus), in addition to the complications mentioned above, stroke can also cause fatal complications in the form of coma to death, so it must be taken seriously, so family support is needed. Seeing these conditions, researchers are interested in conducting further research related to the relationship between family support and quality of life in stroke patients.

Methods

This research is a Literature Review research with Narrative Review design. This method is used to identify, review, evaluate and interpret all available research. With the use of this method, a systematic review and identification of journals can be carried out, which in each process follows predetermined steps or protocols. This research also uses the PICO method in searching for literature.

The type of data in this study is secondary data, namely databases from various references, such as research journals, journal reviews, annual reports, books and data related to the relationship between family support and quality of life in stroke patients published in 2019-2023. Literature searches were conducted through electronic databases, namely Google Scholar, Clinical Key, PubMed, Researchgate, national survey results such as RIKESDAS, PSG and WHO, searched using keywords: family support, quality of life and stroke. Content analysis was conducted using a synthesis table by comparing research methods, research subjects and objects, and variables studied including the relationship between family support and quality of life in stroke patients.

Result and Discussion

Table 1. Results of literature review study

Authors	Publisher	Objective study	Subject	Method	Result
(Tanua et al., 2023)	Thermometer: Scientific Journal of Health and Medical Sciences	The purpose of the study was to determine the relationship between family support and the quality of life of post-stroke patients.	Sampling using purposive sampling with 68 respondents	Analytic descriptive research design with Cross Sectional approach.	Data collection using a questionnaire sheet with the results of the study there was good family support as many as 53 respondents (77.9%), and sufficient family support as many as 15 respondents (22.1%). While the quality of life is good there are 53 respondents (77.9%) and the quality of life is less as many as 15 respondents (22.1%). The statistical test results obtained a p value = 0.000 with $\alpha < 0.05$, there is a significant relationship between family support and the quality of life of post-stroke patients.
(Vihandayani et al., 2019)	Binawan Journal	The purpose of this study was to determine the relationship between family psychosocial support and quality of life in Infarction Stroke patients at the Kartika Pavilion on the third floor of Gatot Soebroto Army Hospital, Central Jakarta in 2018.	The population of this study were all infarction stroke patients admitted to the third floor of the Kartika Pavilion, totaling 40 people.	This study used a correlational method using a cross sectional approach.	From the results of statistical tests, the Spearman's rho value is 0.730, meaning that there is a strong relationship with (sign 2 tailed) of 0.000, which is smaller than 0.05 so it can be concluded that there is a significant influence between family psychosocial support on stroke quality of life.

(Unak, 2021)	Binawan Journal	The purpose of this study was to determine the relationship between family support and the quality of life of post-stroke patients at the Royal Progress Hospital Outpatient Installation.	The data taken were 73 respondents obtained by filling out a questionnaire by purposive sampling.	This research is a correlational analytic quantitative research with a cross sectional study bivariate approach through the Chi-Square test.	The results of univariate analysis of the quality of life of post-stroke patients were good as much as 53.7% and good support was 56.2%. Bivariate analysis obtained a p-value of 0.000.
(Ludiana, 2016)	Journal of Health Discourse	The purpose of this study was to determine the relationship of family support to the Quality of Life of Post-Stroke Patients in the Banjarsari Metro Health Center Working Area in 2018.	The population in this study were post-stroke patients recorded in 2018, namely 27 people, total sampling technique.	Analytic research type, cross sectional design.	Results: The average family support in post-stroke patients is 70.63 ± 2.483 and the average quality of life of post-stroke patients is 120.04 ± 4.328 . The results of the analysis obtained $r = 0.774$; $p\text{-value } 0.000 < 0.05$ means that there is a relationship between family support and the quality of life of post-stroke patients. The correlation value obtained is included in the strong category with a positive correlation direction

Twenty articles were analyzed using a synthesis table to see the variables studied by each study regarding the relationship between family support and quality of life in stroke patients. Of the 20 articles that discussed the relationship between family support and quality of life in stroke patients, 20 articles mentioned that there was a relationship between family support and quality of life in stroke patients, four articles used correlation (journals 2, 5, 7, 10), five articles used correlation analytic studies (journals 3, 4, 12, 18, 19), two articles using analytic descriptive studies (journals 1, 8), five articles using correlation descriptive studies (journals 6, 13, 15, 16, 17), two articles using analytic observational studies (journals 9, 11), one article using prospective studies (journal 14), one article using longitudinal studies (journal 20).

One of the strengths of some of these articles is the use of nationally and internationally representative data with the latest edition and a large sample size that is sufficient to analyze the relationship between family support and quality of life in stroke patients. In addition, several variables that may be significant factors of quality of life in stroke patients. This is important so that interventions can be made to reduce the risk of stroke and it can be known whether these factors can improve the quality of life in stroke patients.

One of the limitations that need to be considered in some articles that use a cross-sectional design is that it requires a relatively large or large number of research subjects, assuming that there are enough influential independent variables, which cannot accurately describe the disease progression process. Researchers may tend to select data that fits their hypothesis, which may affect the results of the study and cause bias in the study. The data sources available in the literature review may be incomplete to answer all research questions. In addition, some articles used an insufficient coverage of the population. In analyzing the relationship between family support and quality of life in stroke patients, the articles were limited to discussing family support, not discussing other factors that can improve quality of life in stroke patients so that there is a comparison. Thus, the authors suggest future research with better

methodology, larger sample size, and more variables. Further research is needed to combat and reduce the number of stroke patients and reduce risk factors.

Stroke is a major public health problem and a leading cause of long-term immobility and disability in developing countries (Geneva & Usman, 2023). Stroke is a disease of the brain organ in the form of impaired nerve function that develops rapidly in minutes and even seconds. Impaired nerve function in stroke occurs due to impaired blood supply to the brain where a blood vessel ruptures or is blocked by a blood clot. According to WHO, stroke has contributed to 5.7 million deaths or equivalent to 9.9% of the overall prevalence of death in the world (Kusumaningrum & Perdana, 2020). The severe disease category physically causes many brain cell tissues to lose normal function (Permatasari, 2023). Apart from being a cause of death, stroke also has an impact on disability and can even lead to paralysis which can affect sufferers in carrying out their daily activities (Widhayanti et al., 2023; Ali et al., 2020).

Obesity, hypertension, cholesterol, high blood pressure, family history of heart disease, diabetes mellitus and unhealthy life habits including stress and smoking can all contribute to the current stroke epidemic (Abdu et al., 2022; Permatasari, 2020). Stroke can also be triggered by age, this is because at a higher age a person's blood pressure also increases which has an impact on a person easily experiencing a stroke. Likewise with gender. The male gender is easy to experience a stroke because men have a tendency to smoke, which is one of the risk factors for stroke. High blood pressure can damage the blood vessels (arteries) that supply blood to the brain. Stroke can test a person's physical and mental abilities and reduce their quality of life. Stroke-related long-term disability is a typical occurrence, with 20% of patients requiring hospitalization after three months and 15-30% experiencing permanent disability (Abdu et al., 2022).

The need for family support for individuals in need, so that these individuals understand and know that they are cared for (Lindeza et al., 2024). Family support itself includes emotional support, appreciation support, instrumental support and information support. The family is the closest person who always interacts with post-stroke patients, so the role of the family is very important in an effort to provide various supports that create a sense of security for patients (Permatasari, 2020; Tanua et al., 2023). The form of support that families can provide is psychosocial support. Psychosocial support relates to the importance of the social context in dealing with psychosocial problems faced by individuals due to stressful events. The main social support comes from family support, because family support plays an important role in the lives of patients struggling to recover, think ahead, and make their lives more meaningful (Vihandayani et al., 2019; Wyder t al., 2022).

Based on the results of research conducted by Raudhotun Nisak et al. (2023), it was found that most respondents (66.7%) received high support from their families and had a high quality of life (68.3%). In the results of the Spearman test analysis, it was found that there was a strong and unidirectional relationship between family support and the quality of life of stroke patients in the neurology clinic of RSUD Dr. Soeroto Ngawi (p value 0.000; r 0.674) (Nisak et al., 2023).

Another study conducted by Heri Saputro (2019) on post-stroke physical patients in the Nerve Poly of Karsa Husada Batu Hospital in 2017 as many as 35 patients. The results showed 16 respondents or 45.8% of respondents received sufficient family support. Respondents who had sufficient quality of life amounted to 15 respondents or 42.7%. With the Spearman Rho test, the significance value (p value = 0.00) < ($\alpha = 0.05$) was obtained, which proves that there is no relationship between family support and the quality of life of post-stroke elderly people in the neurology clinic of Karsa Husada Batu Hospital (Saputro et al., 2019).

Conclusion

Based on the results of the identification and review of several in this literature review, it can be concluded that family support is an aspect that plays an important role in the quality of life of stroke patients.

Suggestions by researchers are for medical personnel to provide education to families regarding the provision of social support for stroke patients. Meanwhile, other researchers in the future are expected to not only focus on quality of life, which can explore other more specific aspects or variables that measure the quality of life of post-stroke patients.

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