Social needs and resilience of post-stroke patients: an exploratory case study

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Abstract

Stroke recovery is a long-term process where resilience proves to be a very important factor in the stroke recovery process. This study aimed to investigate the existence of social needs in undergoing resilience in post-stroke patients, which can be used as basic data for designing intervention strategies to increase the resilience of post-stroke patients. This research was an applied qualitative study with an exploratory case studies type of research. Participants were selected using the purposive sampling method. Semi-structured in-depth interviews and field notes during the interview process were conducted with 9 informants. The data analysis used in this research was thematic analysis. There were three themes found in this research, including the need for a support system, the need for assistance in accessing health facilities, and the need for information on the whereabouts and assistance of social worker. The improvement of post-stroke patients' resilience cannot be separated from meeting the patient's social needs from family, peers, and the surrounding community, including social workers. Collaboration between various parties including the local community needs to be carried out as an effort to improve post-stroke patients' resilience.

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Introduction

The burden of mortality and disability caused by stroke is rapidly increasing worldwide.[1] It is estimated that 40% of stroke patients experience sequelae within one month to five years following a stroke.[2] The sequelae that occur mostly include paralysis and disability. Approximately three-quarter of stroke patients experience paralysis and severe disability.[3] This has a significant psychosocial impact,[4] where a third of post-stroke patients experience depression,[5] a quarter experience anxiety,[6] feel lonely,[7] and changes in social relationships between family and friends.[4] This situation affects the patient's ability to carry out post-stroke care, including rehabilitation, which has an impact on achieving post-stroke recovery.

Stroke recovery is a long-term process where resilience is proven to be a very important factor in the stroke recovery process.[8] Resilience is related to the patient's ability to adapt to the conditions they experience. Resilience involves a dynamic development process that allows individuals in a community to bounce back from the difficulties they face.[9] A resilient individual is considered to have comprehensive psychological resources that are indispensable for overcoming adverse events, including self-confidence, personal competence, and interpersonal interactions.[9] Previous research on post-stroke resilience also proved that resilience can improve the functional abilities of post-stroke patients.[10]

Studying resilience requires a contextual approach because the dynamic partnership between individuals and social ecosystems can result in positive adaptations when individuals face adversity.[11] Literature studies related to resilience also found that existing resilience interventions have not examined the involvement of family and community as social resources that can enhance indi-

vidual/patient's resilience abilities. Our previous research found that the management of post-stroke patients needs to involve family and the community.[12] This is in line with the meaning of resilience, namely resilience is "a process of utilizing resources to maintain well-being".[13] Social resources (family and community) play a significant role in resilience.[14] The post-stroke patients who received social support from family and peers show an improved quality of life.[15]

Fulfillment of social needs is essential for individuals to function effectively and develop themselves. These needs encompass the desire for close relationships and respect from others, including feeling loved, understood, empathized with, and feeling that others are willing to help without expecting anything in return.[16] Social needs are one of the needs in Maslow's concept of needs. In Maslow's Concept, basic social needs must be fulfilled, or at least acknowledged, so that individuals can focus on their health and well-being.[17] When social needs are met, the degree of an individual's health will likely improve.[17] There is a connection between social needs and health, along with the impact of social needs interventions on health outcomes, utilization, and costs.[18] Knowing a patient's social needs can improve the quality of health services, medication management, interactions with other patients so that it can reduce the stress and worry of health workers when caring for patients with unmet social needs.[18] Social support promotes a sense of belonging and community attachment, resulting in decreased anxiety and depressive symptoms.[19] Higher resilience is associated with positive mental health outcomes (reduced depression or perceived stress).[20] Social support positively impacts individuals' self-efficacy, increasing their ability to cope with stressful experiences, as well as adherence to treatment.[19]

However, social needs navigation programs are rarely available universally to patients or community members and without considering individual differences in health risk profiles.[18] Therefore, patients or community members still have insufficient social support in accordance with their health conditions. In addition, the lack of health insurance and geographical access to service providers also contribute to social needs in the health sector.[17] An individual's social needs change over time. Moreover, the capacity of social service institutions also varies, with urban communities having higher capacity than rural communities.[18] Up to this point, social needs assessment has only been carried out sporadically and only at a few points in time, resulting in the inability to identify the social needs required by individuals according to their health conditions, such as those of post-stroke patients. For this reason, the aim of this research was to investigate the existence of social needs during post-stroke patient resilience. The findings in this study can be used as basic data for designing intervention strategies to improve the resilience of post-stroke patients.

Materials and Methods

The research design used applied qualitative research with an exploratory case study type of research. Data collection was conducted for two months (June - July 2024) in Kendari, Sulawesi Tenggara, Indonesia. Participants came from Kendari. Participants were selected using the purposive sampling method. The informants consisted of post-stroke patients who had successfully adapted to their post-stroke situation (stroke survivors). Inclusion criteria included those who had no cognitive impairment (assessed using the Indonesian version of the Montreal Cognitive Assessment/MoCa-Ina with a score ≥25), did not have dementia, had composmentary awareness, and were medically stable. Information about the post-stroke respondent was obtained from the community, after which the researchers conducted home visits. The home visit was conducted after the respondents signed the informed consent.

In-depth interviews were conducted by researchers to obtain information about the social needs that patients need while living their lives in post-stroke conditions. The interview focused on the informants' ability to solve the problems faced.[21] All informants were free to express their thoughts and comments. During the interview process, the researcher was assisted by a research assistant in writing field notes. The interview was conducted at the informants' homes for 50-60 minutes, and it was repeated twice to clarify their statements. During the process, an audio recording device was utilized to record the conversation. Data saturation was reached at the ninth informant interview.

The data analysis used in this research is thematic analysis. The thematic analysis process follows a structured and sequential approach to interpret the research data. Each stage builds upon the previous one, resulting in a comprehensive understanding of the data. The steps involved in thematic analysis are as follows: i) familiarizing with the data; ii) identifying keywords; iii) selecting codes; iv) determining themes; v) interpreting keywords, codes, and themes; and vi) developing a conceptual model.

Based on those steps, data analysis began with transcribing all data into narrative form. Familiarization with the data was achieved by reading and rereading the transcripts. Researchers identify keywords that suit the research objectives. The next step is to determine a theme by collecting several similar codes to combine them into a theme. Determining themes is done by defining and giving a label to each theme found. The quality of definitions is assessed based on their clarity, accuracy, reliability, applicability, and contribution to theory and practice. The final step in the thematic analysis was the development of conceptual models. This step marked the culmination of the analysis, summarizing all findings and insights gained from the data.

The trustworthiness of this research was ensured using four approaches: credibility, transferability, dependability, and confirmability.[22] The credibility of this research data was carried out by spending sufficient time in the field/research location, building a relationship of mutual trust with informants to understand their perspectives in depth. Additionally, the credibility of this research was also carried out using the data triangulation where the data were obtained through various sources (patient informants, families, and local community officials) and methods (in-depth interviews and observations). To ensure credibility, researchers also asked informants to read the transcript again and sign the transcript sheet if the data was appropriate and matched their (informant's) statement. Transferability in this study was achieved by applying a sound methodology and purposive sampling in the recruitment of informants. Dependability refers to the stability of data. Dependability in this research was achieved by consulting data and document reviews by experts, both experts in the field of social and policy of public and experts in the field of post-stroke care. Confirmability refers to the accuracy, relevance, and meaning of the data. Confirmability relates to the impartiality and objectivity of findings, guaranteeing that they were not influenced by any biases or preferences of the researcher. The researcher confirmed the findings of this study to the scientific community, including expert researchers. This reflective practice enhanced transparency and provided insight into the researcher's subjectivity, thereby contributing to the confirmability of the findings.[22]

This research was conducted after obtaining approval from the

ethics committee of Mandala Waluya University (No.: 18/KEP/UMW/VII/2024). All informants were informed about the purpose of the study, the procedures, and their right to withdraw at any time. This information was provided before they signed the consent form to participate in the study. The identity of each informant was assigned a code to ensure that their personal information remained confidential and only known by the researcher. As a gesture of appreciation, they were given certificates and souvenirs, which included booklets on post-stroke patient care. This appreciation was presented following the completion of the interview process.

Results

The informants involved in this research were aged 38 to 65 years, with the majority being women and Muslim. Most held a bachelor's degree, were married, and were retired civil servants. All informants had a history of being diagnosed with non-hemorrhagic stroke and were in the post-stroke recovery stage at home within 1 – 3 years after the stroke (Table 1).

Three main themes were identified, including needing a support system, needing assistance with access to healthcare facilities, and needing information on the whereabouts and assistance of social worker (Table 2). Each theme is explained and supported by the following quotes:

Theme 1: Needing a support system

This theme encompasses a support system in the form of family support, friends' attention, and neighbors' concern. Almost all informants received support from their families, who assisted in their care, provided walking aid facilities, and helped with medical expenses. Informants received support from peers through visits from peers, where they always encouraged and shared their experiences in post-stroke care. In addition, the informants received neighbor concern in the form of visits from neighbors, neighbors feeling worried if they didn't see each other after a few days, and neighbors often delivering food. The informants' statements are as follows:

"My husband and children helped me during my illness. They took turns taking care of me. In the morning, my oldest daughter came to cook and help me bathe, while my youngest daughter assisted me in the afternoon." (Informant 1).

"Neighbors would also often stop by, even if just to chat and ask about my condition." (Informant 4).

"Friends would come to visit me at home, and I was happy about that. I felt I was not alone. They shared tips on how to take care of my stroke at home so that I could recover quickly." (Informant 8).

Theme 2: Needing assistance to access health facilities

This theme covers assistance required due to physical limitations, challenging living conditions on a mountain, and the absence of public transportation. Nearly all informants needed help due to their weak physical condition and their inability to grip with their hands. Some informants needed assistance to reach healthcare facilities, as they live on the mountain and felt anxious about going down the mountain alone; they needed 2 people to assist them in descending the mountain. Furthermore, some informants also live in homes that are far from health facilities and lack access to public transportation.

Table 1. Informant characteristics.

Informant	Age (year)	Level of education	Marital status	Occupation	Sex	Socioeconomic status	Post-stroke period (years)
In1	56	Senior High School	Widowed	Retired	Female	Above PMW	2
In2	48	Bachelor	Married	Civil servant	Male	Above PMW	1
In3	38	Bachelor	Married	Housewife	Female	Above PMW	1
In4	57	Bachelor	Married	Civil servant	Female	Above PMW	3
In5	61	Senior High School	Married	Housewife	Female	Below PMW	3
In6	50	Bachelor	Married	Private employer	Male	Above PMW	2
In7	65	Senior High School	Widower	Retired	Male	Below PMW	3
In8	61	Senior High School	Married	Retired	Female	Below PMW	3
In9	45	Bachelor	Married	Civil servant	Female	Above PMW	2

In1–In9, informant 1– 9; PMW, provincial minimum wage.

Table 2. Categories and themes.

Category	Theme
Family support Attention from friends Concern for neighbors	Needing a support system
Assistance due to living conditions in the mountains There was no public transportation Assistance due to limited physical conditions	Needing assistance to access health facilities
Needing information on the whereabouts of social worker Needing assistance of social worker at home	Needing information on the whereabouts and assistance of social worker

Theme 3: Needing information on the whereabouts and assistance of social worker

This theme includes the need for information on the whereabouts of social workers and assistance from social workers. Almost all informants need for information and assistance from social workers, especially when family members were not with the informant. The following is the informant's statement:

""I didn't know who I should contact to find out where the social worker was and whether I was entitled to get this assistance". (Informant 1-7).

"If only I could contact a social worker to accompany me at home so that I wouldn't feel lonely, because my children are all married and working". (Informant 6,8,9).

"I needed the help of a social worker... I was not yet skilled at using the walking aids in my house... maybe a social worker could help me". (Informant 2, 5, 7)

Discussion

This study aims to explore the social needs of post-stroke patients during their period of resilience. The findings in this study were used to design intervention strategies for improving the resilience of post-stroke patients. The nursing interventions prepared later can be a guideline for improving the quality of life for these patients. The immediate consequences of stroke during the acute phase are the beginning of their struggle against the physical impairment and disability caused. As time passes, the immediate clinical consequences of stroke become complicated due to a variety of poorly recognized medical, musculoskeletal, and psychosocial difficulties. The emphasis is on enhancing survival.[23] This attitude is described by almost all informants diligently doing physical exercise. This is in line with other studies indicating that awareness of the importance of physical exercise increases in post-stroke patients, particularly those with a history of ischemic stroke.[24] A correlation was found between physical activity and a decrease in stroke attacks.[24] A form of physical exercise that is often performed by post-stroke patients is walking. Informants in the current study attempted to walk in various ways (holding onto walls, chairs, tables, or by using walking aids). This is in accordance with other studies which found that more than 85% of respondents consider walking as their primary form of exercise among post-stroke ischemic patients.[24]

However, in improving post-stroke functional abilities, patients require support from various parties. This can be seen in theme 1 of the study's findings, highlighting the need for a support system from family, friends, and neighbors. This support affects patients' resilience in living their lives with post-stroke conditions, enabling them to improve their quality of life. This is consistent with the findings of our earlier study, which revealed that the involvement of patients, family, and peers in the care of post-stroke urinary incontinence patients significantly correlates with the achievement of patients' functional independence in self-care, sphincter motor, transfer, and locomotion.[12]

Social support received by post-stroke patients not only contributes to the achievement of functional abilities but also psychological aspects. The social support system is considered a crucial protective factor, especially for those experiencing stress, and these protective factors are necessary for the recovery process.[25] Social support can indirectly improve patients' adaptability and mental health by mobilizing their internal psychological resources to cope with adverse conditions and provide significant assistance in their physical and mental recovery.[26] Physical recovery of post-stroke patients can also be optimally achieved by utilizing available health facilities. This is in line with the findings of this study regarding theme 2, which highlights the need for assistance to access health facilities. The challenging living conditions in the mountains, which are rocky and slippery during rainy weather, coupled with the lack of public transportation, necessitate support for accessing healthcare services, including medical rehabilitation centers.

Transportation barriers have a significant impact on people's access to health services. People living in rural and peripheral areas, where public transportation and internet services may be limited, need to travel long distances to be able to access those health services. This poses a challenge for those living with chronic diseases that require regular care. Policymakers can play an important part in translating science into practice in the field of stroke care.[27] For stroke patients, improving accessibility to healthcare facilities and stroke teams is essential to ensure better outcomes.[27] Cross-program and cross-sector collaboration, along with local community empowerment, needs to be strengthened to effectively address complex and multifactorial public health challenges, including prevention, management, and rehabilitation. The empowerment approach in stroke rehabilitation involves collaboration between stroke survivors, caregivers, healthcare providers, health services, and the existing stroke community support structures.[28] For this reason, collaboration between various parties, including the local community, needs to be carried out to increase patients' resilience in overcoming the post-stroke conditions they experience. Beside it, the social worker presence is also needed. Social workers focus on helping individuals, families, groups, and communities improve their well-being and quality of life. This can be seen in the findings of theme 3 of this study. The need for information on whereabouts and assistance that social workers can provide is the thing most often mentioned when stroke patients return to community life.[29] Health systems must maintain relationships with stroke patients through sustainable, personalized, long-term and practical services, to meet their changing needs. This will ensure that they are truly helped and do not feel excluded. The presence and assistance of social workers can also meet the psychosocial needs of post-stroke patients.[29]

This research has its limitations as well as its strengths. The limitation is that the research findings cannot be broadly generalized, since the informants only came from Southeast Sulawesi, despite the use of purposive sampling to select participants. Conversely, the strength of this study is that the data obtained can serve as basic data in developing interventions to increase the resilience of post-stroke patients, particularly in regions characterized by plains, hilly and mountainous areas, and coastal areas.

Conclusions

Exploration of the social needs and resilience of post-stroke patients can help determine further interventions that can enhance their quality of life. Resilience can be achieved by requiring a support system, requiring assistance for access to health facilities, and requiring information of social worker assistance. Future research should consider obtaining research samples from numerous regions with varying ethnicities and customs, as resilience is also influenced by the normative values adopted. Furthermore, exploring various regions with geographical differences can help identify social needs

that align with the patients' condition. The results of this study can also be expanded into quantitative research methods by examining the relationship or influences of the themes identified.

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