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EXPLORING STROKE THERAPY IN NON-URBAN AREA: A QUALITATIVE DESCRIPTIVE STUDY

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ABSTRACT
Someone who survives a stroke attack with live change is called a stroke survivor. Several limitations both of physics and psycho as an impact from stroke attack need attention, with no expectation in a non-urban area. The most common intervention for it is complementary therapy, which combines conventional medicine and non-conventional treatments. Sociodemographics, beliefs, values, and culture are considered for use. This study aims to explore stroke therapy in non-urban areas—methods: A qualitative descriptive study supported by 17 participants. Participants' observations and in-depth interviews are collecting data methods. Content analysis is used to analyze data for this research. The setting area for this research is Samarinda, East Kalimantan, Indonesia. The study results are three themes that represent the participants interviewed. These were 1)preventing joint stiffness and muscle weakness, 2)cooking, and 3)seeking spiritual support. Stroke disease has the golden period for acute care and rehabilitation training times; when optimizing this time, the loss of body function is controlled. Long-term care for stroke survivors needs several supports, including complementary therapy. Instruction, instructor, and right, safe guidance are necessary for continued recovery in a community setting.

Keywords: non-urban; stroke therapy; survivor

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INTRODUCTION

One of the public health burdens is stroke disease. In South East Asia, Indonesia is the most evidence view for stroke accidents that impact death and disability. Statistics show that the urban population is higher than the rural population, and the healthcare cost is high. According to the systematic review, there are three categories of impacts on stroke survivors: individual, family, and social impacts2–15. Regarding stroke impacts, one of the popular recommendations related to neurological conditions is complementary therapy/medicine16. Complementary therapy is a non-mainstream approach used together with conventional medicine17. In Indonesia, some policies are rising to support it, specifically in nursing practice18,19. The most common community reasons for using it are complementary benefits, unsuccessful use of conventional medicine, and safety20.

Stroke recovery is a dynamic process with various outcomes and may be experienced differently by others21. In complementary therapy, a healer is a person who supports caring, except the profession of the health care system. Another author was divided into two types:

traditional and spiritual healers12,17,22–25. Based on a health survey in Indonesia that started in 2014, complementary therapy is becoming the first choice for health management, for example, chronic conditions24,26. Additionally, one of the factors related to their preference is sociodemographic, such as age, religion, religiousness, and social capital. Not only are stroke survivors' conditions making a long-term recovery, but also geographic location could be another problem. Stroke survivors who live in a nonurban area, which internationally evidence showed poorer key access to health service facilities for stroke care and treatments27,28.

This study aims to explore stroke therapy in non-urban areas. The geographic factor in some literature proved a relationship with health access, whereas, in stroke conditions, the golden period is essential. Furthermore, the results of this study could promote capability and ability for health skills, mainly for stroke caring in the community setting, especially in non-urban areas.

METHOD

This study uses a qualitative descriptive design. The data collection times start from July 1st until December 26, 2021, and all processes finish in September 2022. In this design, we are observing and in-depth interviews. Observation is to understand the daily activity of stroke survivors, and some participants observe those who have connectivity with stroke rehabilitation. Some are family as stroke caregivers, health facilities in fieldwork, and traditional healers. In this term, the researcher uses observation forms and field notes. The second way is in-depth interviews, which are used to explore stroke therapy for stroke survivors deeply. Times duration is 30-60 minutes for a one-time interview and could be two or three times for participants interviewed with semi-structured interviews where there are some questions inside the beginning literature process and discussion with the second author as associate prof. Firstly. In this study, the researcher used thematic analysis to analyze data. The researchers completed the research ethics at Khon Kaen University, Thailand, with the number HE642022. Additionally, the researcher considers trustworthiness in this study.

RESULTS

The effort to reduce stroke symptoms is growing in a variety of ways. The seventeen stroke survivors have opinion-related contributions. Other treatments will be healing quickly. The researchers extracted three themes for this study: 1) preventing joint stiffness and muscle weakness, 2) cooking, and 3) seeking spiritual support.

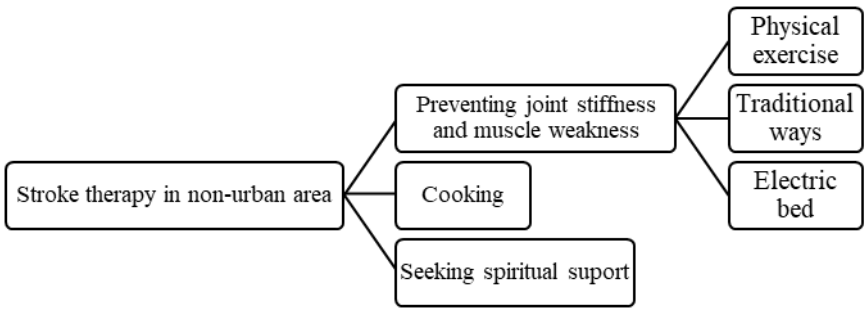

Chart 1. Typology of stroke therapy in non-urban area

Table 1.
Characteristics of stroke survivors

Characteristics	f	%
Gender		
Female	3	21.4
Male	14	82.4
Age		
50-55 years old	1	7.14
56-60 years old	9	52.9
61-65 years old	7	50
Type Rehabilitation		
Alternative	6	35.3
Complementary therapy	11	64.7
Stroke Duration		
< 1 years	5	29.4
1-5 years	11	64.7
>10 years	1	5.88
Level Education		
Elementary school	4	23.5
Junior high school	8	47.1
Senior high school	5	29.4
Family Economic Status		
< Standard regional wage	8	47.1
Standard regional wage	9	52.9

Theme 1: Preventing joint stiffness and muscle weakness

Values, behavior, and beliefs are essential components of family heritage culture. The differences between them can make a difference in cultural views. Family culture would support their family perception.

Sub-theme 1: Physical exercise

Almost all stroke survivors are doing combination therapy for stroke rehabilitation. The combinations mean keeping using conventional medicine with other therapies for quick healing. Self-practice exercises arise from their feelings, weaknesses, and thoughts about exercise practice. Various self-practice exercises, such as walking, moving limbs, and moving and shaking their body weakness, such as mouth, legs, or hands.

"I am routine for weight lifting when stroke attacks me. My right side is weak, and because of that, we are more concerned with the upper limb inside my right hand. After doing that, my hands changed little by little to become stronger. It means easier to move better than before without weight lifting." (SS4, Male, 59 years old, partial disability)

Sub-themes 2: Traditional ways

In this study, details of traditional ways consist of massage, herbal oil, sunshine, and miracle water. Half of stroke survivors feel comfortable with massage and become close friends between them. The masseur can call anytime except when they get other patients and then give stroke survivors home. Cheap is another reason why this service becomes optional for stroke rehabilitation, or in exceptional cases, the family and masseur can discuss payment before service.

"I am Java people; we are embedded if the massage can handle all disease. Early in our childhood, my mother always brought me to the masseur when I was sick, proving I was healthy. So, in my condition now, I am going for a caring masseur, except the doctor." (SS16, Male, 59 years old, add moderately severe disability)

To optimize the massage impact of massage on their bodies, some stroke survivors use herbal oil, too. This benefit is for strange muscles and to keep them warm, which comforts the feeling of their paint sigh. Usually, the herbal oil comes from their traditional healer, consisting of herbal herbs or aromatherapy that is useful for painting, relaxing, and reducing muscle tension. During in-depth interviews, a fourth of stroke survivors and a sixth of caregivers used herbal oil for some of the effects of stroke disease.
"I am using oil and massage alone for my stiff muscle; special oil composed of a variety of herbal medicine. This oil makes me comfortable and easier to move because of its content." (SS3, Male, 65 years old, add moderate disability)

Sunshine is expected to dissolve all blockages in the body, including blockages in blood flow caused by stroke disease. Almost all stroke survivors and caregivers believe that. Because of that, they were sunbathing, which is considered to be stroke therapy.
"The effect for my body is fresher and lighter after doing that. I am starting from 7 am to 8 am for sunbathing. In my mind, both of the effects for our threats are similar: destroy my blood plug in my body as a stroke caused so that I can choose one or both of them." (SS11, Female, 54 years old, add partial disability)

The miracle of water was provided for all treatment. Some trust it and use it as a complementary or main therapy. Some stroke survivors use only hot water as their stroke treatments, and others combine it with salt therapy.
"One day, I was watching television and showed the benefits of hot water as a therapy. After that, I tried with my husband, and he told me it was OK for him. Further, I routinely do that once a week, and my husband feels more comfortable and less for his stiff muscle." (CG2, Female, 60 years old)

Sub-theme 3: Electric bed
The other therapy for stroke rehabilitation is using an electric bed. Three years ago, electric bed therapy was booming for all treatments in a fieldwork setting. For the first, the stroke survivors visit a central place in central town for a treat for free. After that, they are more comfortable using it by buying themselves with a payment of 40 million IDR (94.000 baths). In this case, it can be handled for healing. For now, the electric bed has become one of the tools for rent. Participants of this tool must pay 10.000-25.000 IDR (25-60 baths) for one hour.
"After I go home from the hospital because of a stroke attack, I am routine for visiting my uncle's house for use electric bed therapy. My uncle's wife uses it for their rheumatic treatments, and it works, so I am going there for treatment three times a week. As you know, yes, I am feeling good after going there, but it's slowly, so I am routine for exercise every day. The electric bed makes my bone relax." (SS11, Female, 54 years old, add partial disability)
The variants of preventing joint and muscle weakness are based on stroke survivors' signs and symptoms. Trusting and believing are others' support for using variant therapy.

Theme 2: Cooking
"Jamu" is an herbal drink that is boiled in the correct size between herbs and water (cooking). Herbs for stuffing such as ginger, curcumin, lemongrass, moringa leaf, Dayak onion, and other Indonesian herbs. In their mind, "jamu" has fewer side effects except for the taste and

smell. "Jamu" is a common bitter taste that smells like an herb. Some people believe that the strong bitter and herbal smell of "jam" is better for speeding up healing.
"Jamu" is an herbal drink boiled in the correct size between herbs and water; I trust that the strong bitter herbs smell of "jamu" is better for speeding up stroke healing. I am good at eating and have more power for moving and walking after drinking "jamu." (SS3, Male, 65 years old, add moderate disability)

Theme 3: Seeking spiritual support

Spiritual healing is the leader of the Islamic religion and Shaman. Some reasons for using it are caused by their perception and belief that stroke disease is caused by magic power, and other causes are the power of God's hand (Allah) through an elected religious leader or Shaman.
"We are bringing my husband for spiritual healing on Java. We believe that if someone has a bad purpose for their husband when they cross the ocean, the magic power will be left in the last place. My husband's condition is better after crossing the ocean and getting pried by Ustadz Z. (Islamic leader)." (CG24, Female, 43 years old)

Some stroke survivors and families believe that stroke disease does not come alone. It can be caused by their attitudes like "karma" or personal revenge. That way, not only general medicine for curing and caring for stroke disease needs other support for stroke recovery.
"I am bringing him to a shaman to recover his condition after medical treatment not to change their condition after attacking. Not to differ from the last, but after going to the shaman, he is calmer." (CG5, Male, 60 years old)

DISCUSSION

Three themes from this study are preventing joint stiffness and muscle weakness, cooking, and seeking spiritual support. Preventing joint stiffness and muscle weakness correlates with the biggest stroke sequelae in this research. Paralysis is the most significant for stroke survivors, which is the left or right side of the body and a half or all sides bodies. Nine stroke survivors are getting paralysis on the left side of their body, and five on the right side. Based on that, eleven are doing stroke self-rehabilitation at home; from this amount, one stroke survivor is doing rehabilitation with family help, and ten others are doing it alone. More than 50% of stroke survivors are chronically disabled, and the challenges to stand of self-dignity for promoting stroke recovery are essential. The most self-rehabilitation activity for stroke recovery is physical activity29,30. Physical therapy is provided to increase stroke survivors' quality of life31. Not only that, massage therapy is effective for the sequelae of post-stroke survivors 32–35. Additionally, massage therapy is provided to improve the strength of muscles, reducing muscle stiffness. Another massage benefit for stroke survivors, except for physical problems, is decreasing pain and anxiety36,37. Sunbathing or sunlight therapy with UVR (ultraviolet radiation) can boost the body's vitamin D supply and decrease some diseases contributing to DALYs38,39.

Almost all stroke survivors in fieldwork settings are elderly, just only one of them in middle age. This fact does not support their physical activity and sedentary behavior before a stroke attack. Many of them remain hard-working, connected to their responsibility to head the family. Exercise and physical activity after stroke can increase cardiovascular fitness. On the other hand, training promotes cognitive function, quality of life, and memory for stroke survivors after a stroke attack. The self-rehabilitation exercise starts from their hospital of discharge planning, continues based on their feeling and weaknesses, and from their thinking about exercise practice to stroke healing. But they almost do it by their thinking and without

instruction and guidance. Therefore, the existence, source, and instruction for treatments must be from the health professional.

They are cooking as the second theme, which means cooking compounds of herbs with stems. Cultural views, beliefs, and places could be different ingredients for making "jamu." Herb stems could originate from their original herbs or must be combined with several herbs from another place. The biggest participants are from the Javanese tribe, but because of one of the causes, they are moving to stay in East Kalimantan. Seventeen stroke survivors consume "jamu". Some opinions arise from there, for example, based on their belief about fewer side effects of consuming "jamu". Also, because they are embedded when they are Javanese people, "jamu" represents Javanese identity. This situation happens if you get into a stroke accident, too.

"Jamu" is an Indonesian traditional herbal medicine to drink made from botanical ingredients that provide health. "Jamu" is more prevalent in rural areas than in urban areas. Some benefits to use are economic benefit and clinical benefit40. Benefits from herbal medicine have been known and used for 2.500 years, and in 5th BCE, Hippocrates used it for their patients. In 2023, FGD did several Indonesian medical doctor-related herbal medicine perceptions in healthcare facilities, which resulted in legal aspects, lack of knowledge, lack of confidence, lack of evidence, prescription, bad stigma, and obstacles from the medical committee. More than that, their quantitative result shows a lack of knowledge of herbal medicines and scientific evidence of herbal medicine products17,41. Herbal medicine, or most special "jamu" only uses empirical evidence, not scientific evidence. Therefore, research and publish more to recover some health problems, not just for health supplements. More than that, optimizing primary health care (PHC) institutions (Puskesmas) for complementary and traditional health services for the community upgrade knowledge regarding herbal medicine.

The third theme is seeking spiritual support. All participants are Muslim, Islam religion. In the stroke conditions, half of them change habits. Their deep trust in God's destiny and close to God or stroke survivor's denial, and others are in ignore their religious beliefs. Ten stroke survivors are told about sadness, loss, and uselessness. During the interview times, they almost cried, speaking about their experience during the stroke disease. Sometimes with hits, some parts with paralysis, and it is like very hate with side body where paralysis a stroke impact, or sometimes slap their mouth when difficult to speak or reveal some words or sentence in their minds. Based on some signs, nine stroke survivors were delivered with their families for spiritual support. Further, not only Islamic leaders are found or visited, but also Shaman. For all, the final purpose is to strive with stroke conditions with several debility.

The spiritual healers are composed of Islamic leaders and shamans. Regarding Islamic leader options, one essential opinion is all stroke survivors and caregivers are Muslims42,43. In Thailand, *lomammapart* is a person who combines Thai folk medicine for stroke care. Belief and culture are considered when choosing folk medicine for the stroke family 44. The spiritual needs in all parts of stroke survivors' lives are supported by research in Bandung, Indonesia. In contrast, spiritual needs have come to other competence for clinician nurses and community nurses as stroke survivors' unmet needs for concern in the rehabilitation phase45,46. Stroke symptoms correlate with brain damage areas where attacking. Some have muscle problems, and others have cognitive, communication, or emotional problems. Emotional problems based on stroke accidents could be the major impact or accompanying impact. The believing and trusting power comes from spiritual leader to heal their sign. Therefore, spiritual leaders from

several beliefs must consider the right and safe care. The community must improve its knowledge to understand the right and secure care for several health problems.

CONCLUSION

This study's three themes are preventing joint stiffness and muscle weakness, cooking, and seeking spiritual support. Deficit neurologist is stroke reasons, not God's punishment, destiny, or magic; it's a real chronic disease. A stroke is not a misfortune disease or a punishment from God. It's a real chronic disease caused by deficit neurologists. Therefore, managing the first attack with optimized stroke therapy for reducing stroke occurrent is better. Unfortunately, some therapists or stroke caregivers do not have the right guidance or instruction. Some of them only typically do things or hear from others or folktales. It is wise to focus more on how to practice the therapy in a community that controls their activity. Adding more is giving licenses to traditional healers who provide and guarantee that the treatment is safe. The local government and government hospital both must have regulations for it.

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