

# EXPLORATION OF MENTAL HEALTH AND PSYCHOSOCIAL SUPPORT NEEDS OF STROKE CAREGIVERS: A QUALITATIVE APPROACH BASED ON LOCAL CULTURE IN TANA LUWU, SOUTH SULAWESI, INDONESIA

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## Abstract

**Background:** After stroke, patients and their families (caregivers) face significant mental health challenges. The psychological well-being of stroke patients is often threatened by depression, anxiety, and changes in social roles, while caregivers experience mental burdens due to the responsibility of caring. In the context of Tana Luwu culture which is strongly familial, psychosocial, spiritual, and community support approaches play an important role. **Objective:** This study analyzes the mental health of stroke patients and caregivers based on field findings in the Kadatuan Tana Luwu area.

**Method:** Qualitative research with a descriptive phenomenological approach was conducted through in-depth interviews with primary caregivers and traditional figures/communities in the Kadatuan Tana Luwu area. Data analysis used Thematic data analysis using NVIVO 15.

**Results:** Thematic findings consisted of: (1) Mental health of caregivers with 8 sub-themes, namely high anxiety, patience, resignation, sadness, crying, anger, frustration, and fatigue; (2) Efforts to overcome mental health of caregivers which have 2 sub-themes, pouring out one's heart and praying; and (3) Mental health support with 8 sub-themes, namely providing treatment information, visiting and comforting, neighbors providing advice, praying together, material and moral support, family providing advice, family gatherings, and visits from health workers.

**Conclusion:** The mental health of stroke patient caregivers is greatly influenced by the burden of care, limited support, and family social dynamics. Psychological symptoms such as anxiety, fatigue, and frustration require a holistic approach. Adaptive coping strategies such as praying, pouring out one's heart, and support from the surrounding environment have been shown to help maintain the emotional stability of caregivers. Multidimensional interventions based on family, health services, and community are needed to support the psychological well-being of caregivers and accelerate the recovery of stroke patients.

**Keywords:** Mental Health, Caregiver, Stroke, Tana Luwu

## INTRODUCTION

Stroke is a leading cause of long-term disability worldwide. Global data in 2019 recorded 12.2 million new stroke cases with 101 million people living with the consequences of stroke (Kirkevold et al., 2024). Advances in medical management have increased the life expectancy of stroke survivors, but many patients later face mental health

problems. The most common post-stroke psychological disorders are depression and anxiety. Approximately 30% of stroke survivors experience symptoms of depression, and a similar proportion experience anxiety in the first year after stroke (Chun et al., 2022). Post-stroke depression has serious implications: it is associated with slower physical recovery, more severe cognitive deficits, lower quality of life, and increased risk of mortality (Medeiros et al., 2020). Poststroke anxiety is also common (affecting approximately 20–30% of survivors) and can exacerbate fear of recurrent stroke and interfere with rehabilitation (Chun et al., 2022; Kirkevold et al., 2018). Unfortunately, poststroke mood disorders are often underdiagnosed or undertreated. Known risk factors include lack of social support, severe disability, history of mental illness, and poststroke stress (Medeiros et al., 2020).

In addition to patients, caregivers (primary caregivers, often family members) are also psychologically affected (Lolo & Astrid, 2020). The demands of caring for stroke patients with physical limitations can cause excessive stress, burnout, depression, and anxiety in caregivers. A global meta-analysis study showed that the prevalence of depressive symptoms among caregivers of stroke survivors reached around 40%, and anxiety around 21% (Loh et al., 2017). This figure is far above the general population, even reported to be higher than the depression rate in stroke patients themselves (Berg et al., 2005). Heavy burden of care, changes in family roles, financial pressures, and lack of time for self-care are contributors to caregiver mental health problems (Kumar et al., 2019). The condition of caregivers and patients has a reciprocal interaction, caregivers who are depressed or very depressed can affect the care and condition of patients (for example, increasing the risk of depression in patients and mortality in the first 6 months after stroke) (Fang et al., 2022). Thus, stroke rehabilitation efforts should ideally not only focus on the physical recovery of patients, but also pay attention to the mental health of patients and caregivers in an integrated manner.

Psychosocial, spiritual, and community support approaches have great potential in maintaining the mental health of both parties. Psychosocially, emotional support, education, and counseling can help patients and caregivers adapt better to life changes after stroke (Ambrosca et al., 2024; Magwood et al., 2020). Spiritually, religious beliefs or spiritual values can be a source of inner strength, provide meaning to suffering, and increase hope. Research shows that spirituality plays an important role in reducing depression and anxiety and improving the quality of life of stroke patients and caregivers. (Ambrosca et al., 2024). Meanwhile, community support (e.g. support groups, participation in social activities) and strong local culture can provide a network of support and a sense of community that reduces social isolation. The involvement of extended family and neighbors in caring for the sick is deeply rooted in Indonesian culture, including in Tana Luwu. Local wisdom values such as *gotong royong* and *siri' na pacce* (self-esteem and empathy in South Sulawesi culture including Kadatuan Tana Luwu) (Andrianto et al., 2025), have the potential to strengthen the psychological resilience of patients and caregivers. Tana Luwu, located in South Sulawesi, has a community with close kinship ties and a tradition of helping each other. Understanding this local cultural context is important for formulating appropriate mental health interventions. This study seeks to explore the mental health conditions of stroke patients and caregivers in Tana Luwu and the coping strategies used, then discuss them within the framework of current scientific knowledge. Focus is given to psychosocial, spiritual, and community support approaches, according to themes that emerged from field findings. The results of this study are expected to provide insight into the development of an integrated mental health assistance model for stroke patients and caregivers that is sensitive to local culture.

## MATERIAL AND METHOD

This study used a qualitative design with a descriptive phenomenological approach to explore the mental health experiences of stroke patients and caregivers in the Tana Luwu community. The research location included several villages in the Tana Luwu region, South Sulawesi, which were selected purposively because of the characteristics of the community that still upholds traditional and family values.

**Participants:** The research subjects were the main caregivers (family members who are primarily responsible for daily care) and Indigenous Figures/Communities in the Kadatuan Luwu region. The purposive sampling technique was used to ensure diversity in characteristics (gender and kinship of caregivers). A total of 8 participants were interviewed, consisting of 4 main caregivers (all caregivers were spouses of stroke patients) and 4 Indigenous Figures/Communities of the Kadatuan Tana Luwu.

**Data Collection:** Primary data were collected through semi-structured in-depth interviews. Interviews were conducted face-to-face at the participant's home or an agreed location, using Indonesian or local dialects according to the participant's comfort. Interviews lasted for 45–60 minutes. With the participant's permission, all interviews were audio recorded for accuracy. The researcher also conducted non-participant observations during the visits (e.g. observing patient and caregiver interactions in everyday life) and recorded field notes for additional context.

**Data Analysis:** Interview recordings were transcribed verbatim into Indonesian. Qualitative data were analyzed using thematic analysis techniques using the NVIVO 15 application. The process began with repeated reading of the transcripts to understand the overall content (immersive reading). Similar codes were grouped into subthemes, then further organized into main themes that represented patterns of experience or central issues. Images of the theme

findings in the study were beautified using images found on the Canva website accessed using the researcher's premium account. There were several themes found specifically in Mental Health, namely: Theme 1 Caregiver Mental Health; Theme 2 Efforts to Overcome Caregiver Mental Health; and Theme 3 Mental Health Support.

## RESULTS AND DISCUSSION

### Caregiver Mental Health

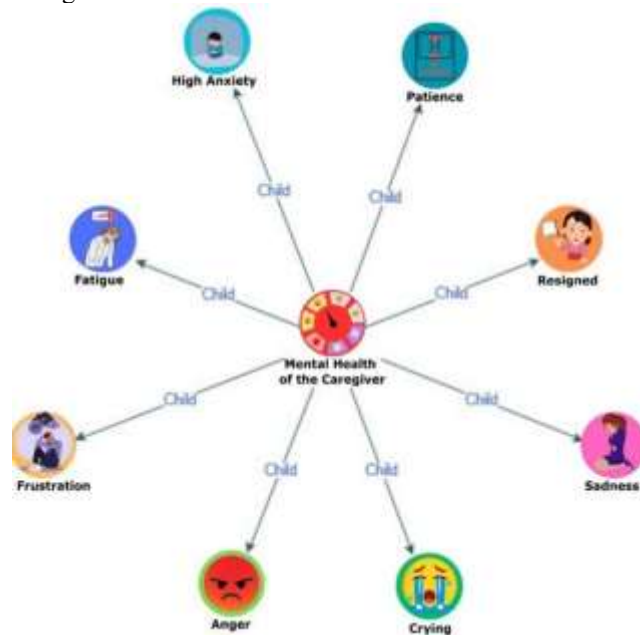


Figure 1 Caregiver Mental Health

#### 1. High anxiety

Caregivers of stroke patients often experience high anxiety due to the heavy physical and emotional burden of long-term care. In the findings based on interviews with traditional figures/communities of Tana Luwu who expressed their opinion that "... In my opinion, anxiety is clearly high. Because stroke is not a mild disease. There are many factors of concern that accompany it. Stroke patients usually experience physical limitations, cannot move much, and eating often has to be strictly monitored. Diet, types of food, everything must be considered ". Which then continues that " Many cases of stroke patients fall from wheelchairs because they try to move on their own without assistance. If they just lie down, maybe the risk is smaller. But if they are already sitting in a wheelchair, the risk is high, because usually they cannot stay still and want to try to move. Therefore, care is very important. And that's where the greatest anxiety is felt by the family ". Long duration of care triggers emotional stress so that the level of anxiety and depression of caregivers increases over time (Tziaka et al., 2024). Intervention strategies such as family training and counseling have been shown to reduce this anxiety. For example, family counseling involving many family members can reduce anxiety and prevent excessive fatigue in one caregiver (Baishya, 2023). Global research shows that the psychological burden of stroke caregivers is very heavy, around 40% of caregivers report symptoms of depression and anxiety when helping stroke patients. These burdens collectively reduce the quality of life and cause loneliness and ongoing stress in caregivers (Tziaka et al., 2024). The high psychological burden of caregivers not only affects themselves but also the patients they care for (Lolo & Astrid, 2020). Factors that cause high stress and depression in stroke caregivers include: (1) Heavy physical care burden (Menon et al., 2017) (2) Financial pressure (Fadhilah & Permanasari, 2020; Zhang et al., 2021) (3) Lack of support and rest time (Jaracz et al., 2024), in Tana Luwu, there are no formal shelters or respite services, so families must share responsibilities. If other family members are less involved, the burden piles on one caregiver. (4) Personality and relationship factors (Kroll & Karakiewicz, 2020; Moore, 2024; Tziaka et al., 2024). In addition, changes in patient behavior (e.g. irritability after stroke due to brain injury) can be an additional stressor for caregivers (Kumar et al., 2019). Research findings indicate that caregivers of stroke patients are a high-risk population for mental health disorders. The prolonged physical and psychological burden of caring for stroke patients is often referred to as *caregiver burden*. Literature reviews show that high caregiver burden is closely related to the emergence of symptoms of depression and anxiety in caregivers (Kazemi et al., 2021). These data are in line with the recognition of many caregivers in Tana Luwu who feel depressed and sad for a long time.

## 2. Be patient

Patience is an important aspect in caring for stroke patients. According to the results of interviews in the field, information was found from one of the figures/communities in the Tana Luwu community who said that " *Meanwhile, from the family side, the reaction can vary depending on each condition. If the family is mentally strong and has a high sense of caring, they will remain patient in caring for the patient* ". This is supported by the statement from one of the caregivers who said that " *... yes, always. I pray and often cry while asking for strength. I am sincere, but it is still hard* ". Caregivers who have a high level of psychological resilience are able to manage stress and maintain patience better in caring for patients (Wang et al., 2022) . For example, a caregiver stated that religious beliefs gave her the strength to be patient in caring for her husband, so that she continued to persevere through the days (Jammal et al., 2024) . Spiritual and adaptive coping strategies are often used to foster patience. Research shows that spiritual coping (e.g. prayer and religious support) has a positive effect on the mental health and quality of life of stroke caregivers (Jammal et al., 2024) . With adequate psychosocial support, caregivers can develop calmness and fortitude (patience) in facing the challenges of long-term care. In the Kadatuan Tana Luwu culture, patience is not only understood as a passive attitude of holding back emotions, but also as a form of *getteng* (steadfastness) and *lempu* (sincerity in intentions and actions). A caregiver who continues to care in difficult situations is considered to be carrying out a noble role that is in line with the principle of *ati macinnong* (a clean and broad heart), namely not complaining and remaining sincere in devotion. Patience in this society is also tied to the value of *siri' na pacce* , namely maintaining self-respect ( *siri'* ) and having deep empathy ( *pacce* ) for the suffering of others, especially family members.

## 3. Resigned

Acceptance (surrender) often appears as a coping strategy for stroke caregivers who experience heavy burdens. As conveyed by one caregiver that " *I can only surrender...* ". which is supported by the statement of another caregiver who stated " *Yes, I have (surrendered). But I consider it God's destiny...* ". And reinforced by the statement of a different caregiver who stated that " *... But I just surrender. The important thing is that my husband is still here, I take care of him as best I can...* ". In a systematic review of stroke caregiver coping, acceptance was recorded as one of the most common strategies used by caregivers (Tsiakiri et al., 2023) . This strategy includes accepting total care responsibilities, which psychologically lightens the mental burden. For example, research shows that male caregivers tend to use the "accepting responsibility" strategy more often when dealing with difficult situations (Kazemi et al., 2021) . Globally, high burdens without psychosocial intervention trigger a decline in caregiver mental health. Therefore, the health system is recommended to provide education and psychosocial support so that caregivers do not get caught up in despair. For example, resilience training and psychosocial support groups can help caregivers manage stress without having to passively "give in." (Tziaka et al., 2024) . In the context of Kadatuan Tana Luwu culture, the attitude of resignation is often understood not as a sign of weakness, but as a form of fortitude and acceptance of destiny, which is in line with religious values and local wisdom in facing life's trials.

## 4. Sad

Feelings of sadness are very common among caregivers of stroke patients, as conveyed by one caregiver who stated that " *.... it's only sad when no one can help. But we're used to living like this...* ". A cohort survey in China reported that around 72.65% of stroke caregivers experienced symptoms of severe depression. (Fang et al., 2022) . This figure illustrates how often feelings of sadness and depression haunt caregivers during the care period. The burden of feelings of sadness has also been reported globally as a major emotional burden that reduces the quality of life of stroke caregivers. (Tziaka et al., 2024) . The impact of prolonged grief on caregivers is very serious, including reduced social functioning and quality of patient care (Berg et al., 2005; Moore, 2024) . Health system support approaches, such as regular counseling and mental strengthening programs, can alleviate the grief that hits stroke caregivers. In the context of Kadatuan Tana Luwu culture, feelings of sadness felt by caregivers are often responded to collectively, where the values of togetherness, a sense of *pacce* (deep empathy), and social solidarity are sources of emotional strength. Even though sadness is present, caregivers continue to try to be strong because they feel they are carrying responsibility not only as individuals, but also as part of a family and indigenous community that upholds the values of fortitude and devotion.

## 5. Cry

Crying is a common emotional expression of pain and frustration in stroke caregivers. The results of the study found a statement from one caregiver who said that " *I pray more, especially during the month of Ramadan, I usually cry during prayer...* ". which was strengthened by a statement from another caregiver who said that " *Yes, sometimes at night I cry alone...* ". One qualitative study described a caregiver who said that even when she cried because of the burden she felt, the patient often did not understand and did not provide a supportive response. (Jammal et al., 2024) . Interventions from the health system, such as stress coping training programs and family counseling, can help reduce this excessive emotional burden. For example, practical skills training during hospitalization and role education for families have been suggested to reduce anxiety and caregiver burden and reduce the tendency for emotional breakdown (Baishya, 2023) . In the Kadatuan Tana Luwu culture, crying is not a sign of weakness, but rather a form



of expressing feelings that is spiritually and socially valid. In this community, the practice of crying in prayer or worship is often considered a way of cleansing the soul and a form of sincerity in facing suffering. Religious and customary values that live in society support this space for emotional expression, even though it is done in silence. Therefore, the expression of crying for stroke caregivers in this area is often combined with spirituality and determination in carrying out the role of caregiving.

#### 6. Angry

Anger also often arises in stroke caregivers as a result of frustration and fatigue from caring. Based on statements made by respondents from traditional leaders or indigenous communities, who shared their experiences when visiting stroke patients and their caregivers, it was found that " *But if the caregiver lacks the ability or patience, or has limitations, anger usually also arises...* ". The intensive burden of long-term, exhausting care can trigger anger when caregivers feel out of control or unsupported. (Tziaka et al., 2024) . Globally, caregiver anger is associated with high levels of stress and low social support. Psychosocial approaches are needed to manage this anger. Resilience training and development of adaptive coping skills have been proposed to help caregivers reduce negative emotional reactions such as anger constructively (Fang et al., 2022) . In the context of Kadatuan Tana Luwu culture, anger is not necessarily considered a moral failure, but rather a form of inner anxiety that indicates high emotional stress. However, indigenous peoples tend to encourage self-control through the values of *siri' na pace* (self-respect and deep empathy) which are guidelines for dealing with difficult emotional situations. Openly expressing anger is often considered inconsistent with cultural etiquette, so caregivers usually suppress or divert their emotions in the form of silence, distancing themselves, or crying silently. This understanding is important so that the health support system can respond to caregivers' emotional needs in a way that is consistent with local cultural values.

#### 7. Frustration

Frustration occurs when caregivers feel that their needs are not being met despite their best efforts. According to findings in statements from respondents of traditional/indigenous community leaders who expressed their experiences in visiting stroke patients and caregivers, " *But if the caregiver lacks the ability or patience, or has limitations, usually a feeling of frustration also arises. That's natural, because caring for stroke patients is not easy.* " Heavy care demands often exceed the caregiver's emotional resources, leading to despair and frustration (Tziaka et al., 2024) . Many studies have found that the higher the burden and negative lifestyle changes, the greater the frustration felt by caregivers (Baishya, 2023) . Research shows that the use of effective coping strategies and social support can improve caregiver mental health and reduce psychological burden (Kazemi et al., 2021) . In the Kadatuan Tana Luwu indigenous community, frustration is often not expressed explicitly because of cultural values that uphold resilience and self-control. As part of social norms, caregivers are encouraged to remain resilient and not show weakness in public, especially when it comes to family matters. However, the emotional distress of frustration is real and can impact emotional well-being. The value of *pacce* (empathy for the suffering of others) encourages caregivers to continue caring even in difficult circumstances. Therefore, a culturally based approach to mental health support is essential so that interventions provided are not only clinically effective but also in line with how local communities understand and manage emotional distress.

#### 8. Tired

Physical and emotional fatigue are very common among caregivers of stroke patients. Referring to statements from respondents who are traditional leaders or members of indigenous communities, who shared their experiences when visiting stroke patients and their companions, it was revealed that " *... usually there is also a feeling of fatigue...* ", which is supported by the statement by the caregiver who stated that " *Tired, very tired. Both physically and mentally. Sometimes I don't get enough sleep because I have to guard my uncle at night too* ". A study in China found that around 83.4% of caregivers reported moderate to severe levels of fatigue (Tu et al., 2025) . This is mainly due to the need for long care times, chronic sleep disorders, and high medical costs . These factors significantly increase caregiver stress and contribute to prolonged fatigue (Baishya, 2023) . Primary health support and service systems need to respond to this fatigue, involving many family members in care and providing caregiver training since in the hospital is said to be able to prevent fatigue to some extent (Baishya, 2023) . For example, family counseling to set realistic goals and improve care coordination can reduce the potential for caregiver burnout . The combination of community support, psychosocial interventions (such as support groups and counseling), and integrated health services are very relevant to help overcome chronic fatigue in stroke caregivers. In the Kadatuan culture of Tana Luwu, fatigue is understood not only as a physical burden, but as part of a clean heart devotion or *ati macinnong* . This concept is closely related to the thinking of *maccae ri Luwu* which emphasizes the values of *ada tongeng* (true words and in line with actions), *lemphu* (honesty in intentions and actions), and *getteng* (steadfastness = in caregivers it is associated with steadfastness in facing trials). A caregiver who continues to care when tired is considered to embody the value of *getteng* , because they remain steadfast in their commitment to care selflessly. They also reflect *lemphu* , because they continue to carry out their duties with sincere intentions and without pretending. Even in silence and without complaint, the care they provide is a real form of *ada tonging* (harmony between intentions, words, and actions).

Therefore, health support for caregivers in this region must not only focus on clinical aspects, but must also respect and strengthen the cultural values that underlie their resilience.

#### Efforts to Address Caregiver Mental Health



Figure 2 Efforts to Address Caregiver Mental Health

##### 1. Pouring out one's heart

Caring for stroke patients often causes severe stress for caregivers, so caregivers need to channel their emotional burden. This study found an expression from a stroke caregiver who said " *Yes, venting...* ". A study in China showed that social support such as talking to family, friends, or support groups can significantly reduce psychological burden and improve the quality of life of stroke caregivers (Xu et al., 2024) . Conversely, the lack of social interaction actually worsens the mental condition of caregivers, even making them "second patients" (Tziaka et al., 2024) . In addition, *expressive writing* has also been shown to be effective in reducing stress symptoms and improving psychological health (Lee et al., 2023) . Emotional support through venting or personal writing is an adaptive coping strategy that is recommended to maintain caregiver mental health. (Kazemi et al., 2021) . In the Kadatuan Tana Luwu community, the practice of pouring out one's heart has a deep meaning that is in line with the collective values of local culture. The phrase " *jaknauru, deceng nauruk* " (in sorrow they are united, in joy they are united) (Yunus & Mukhoyyaroh, 2021) , illustrates the spirit of togetherness that is a pillar in facing the burdens of life. Caregivers are not only considered as individuals who bear personal burdens, but as part of a community that has shared responsibilities in joy and sorrow. Likewise, the value of " *tessicirinnainngi ri silasanae* " (not counting each other) (Yunus & Mukhoyyaroh, 2021) , emphasizes the importance of giving and receiving selfless support, which allows caregivers to feel emotionally safe to open up to those around them.

##### 2. Pray

In addition to emotional support, many stroke caregivers rely on spirituality and prayer as a coping mechanism. In the research findings, the results of interviews showed that one caregiver expressed that " *I pray more...* ". This statement was reinforced by statements from other caregivers who said the same thing, " *Yes, always. I pray and often cry while asking for strength. I am sincere, but it is still hard.* " Systematic studies show that spirituality plays an important role in improving the quality of life and reducing anxiety and depression in stroke survivors and their caregivers. (Kazemi et al., 2021) . A study in Iran also found that caregivers' spiritual health was significantly associated with perceived caregiving burden (Mirhosseini et al., 2024) . Religious activities such as prayer and solat have been shown to be effective coping strategies that help caregivers accept difficult conditions and gain inner peace. Religious-based interventions, such as spiritual guidance or meditation, have been recommended as part of holistic care. (Ambrosca et al., 2024; Oshvandi et al., 2024) , especially in religious communities where religious practices are a real source of mental strength. In the context of the Kadatuan Tana Luwu culture, spiritual practices such as prayer and supplication cannot be separated from philosophical values that have been rooted since ancient times. The local community's belief in the Oneness of God stems from a combination of Islamic teachings and values in the *La Galigo Epic* which recognizes the figures of *Dewataseuwae* (The Almighty), *Datu Palanro* (The Creator), *Aji Patoto* (The Arranger), and *La Puang e* (The Lord) (Yunus & Mukhoyyaroh, 2021) . This philosophy emphasizes that all trials, including caring for the sick, are part of God's will that must be accepted with sincerity and devotion. This belief encourages caregivers to continue praying as a form of asking for grace and strength, as well as a means of getting closer to God Almighty. Thus, spirituality is not only a religious aspect, but also a reflection of cultural identity that provides inner resilience and calm in facing the burden of care. In the Tana Luwu community, praying is part of *lempu* (sincerity), *getteng* (steadfastness), and *ati macinnong* (clean heart) (Yunus & Mukhoyyaroh, 2021) , which form an ethical framework in living life, including when becoming a caregiver for a sick loved one.

#### Mental Health Support

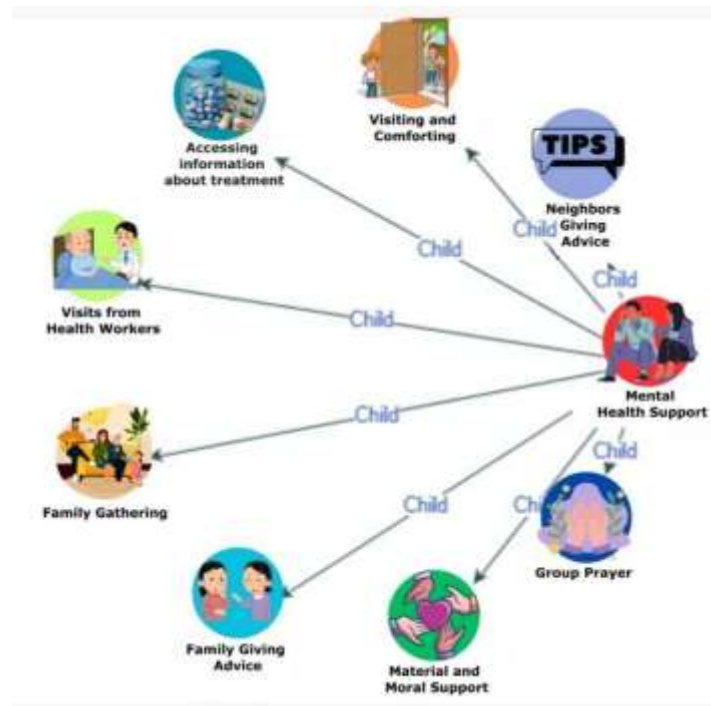


Figure 3 Mental Health Support

### 1. Joint Prayer

Collective prayer or spiritual practice has been shown to be a source of psychological strength for caregivers. One respondent from a traditional figure/community said that “*Yes, it usually is like that. There are miracles that are felt. After praying together and the family gathered, a few days later the patient's condition began to improve. Hope and calmness were indeed felt after the procession was carried out*”. International studies show that spiritual support such as collective prayer plays an important role in reducing anxiety and depression and improving the quality of life of stroke survivors and their caregivers (Ambrosca et al., 2024). This religious coping strategy is also related to increasing the resilience and psychological well-being of caregivers. Participation in collective prayer not only provides inner peace, but also strengthens social ties and a sense of not being alone in caring, thus becoming significant emotional support for the mental health of caregivers. From the perspective of the Kadatuan Tana Luwu culture, the practice of collective prayer is not only a form of worship, but also an expression of collective noble values that are based on spiritual and social unity. The presence of the family in one prayer room reflects the philosophy of “*jaknauru, deceng nauruk*” which means that in sorrow and joy, the community is united. This tradition shows that suffering is not borne alone, but is borne together, in line with the principle of “*tessicirinnainngi ri silasanae*”, which means not calculating profit and loss among each other (Yunus & Mukhoyaroh, 2021). In addition, in the spiritual perspective of the Luwu community, joint prayer is also rooted in the belief in *Dewataseuwae* as the Almighty, who controls fate and gives grace through His will. Furthermore, in the Luwu community, joint prayer is also a form of *mappakurusumange*, which is a spiritual and social process to rekindle the spirit of life for people who are experiencing difficulties or are sick. Through processions such as dhikr, family recitation, or traditional prayers, caregivers and patients gain inner strength, a sense of calm, and moral strengthening from their surroundings. Joint prayer in this culture reflects the values of *lempu* (sincerity), *getteng* (steadfastness), and *ati macinnong* (a clean heart) which are pillars in facing life's trials with dignity and hope. So, in this context, communal prayer not only helps spiritual healing, but also becomes part of a psychological resilience mechanism supported by strong social ties and cultural values.

### 2. Material and moral support

Providing material support (e.g. financial assistance or practical resources) has proven crucial in easing the psychological burden of stroke caregivers. The results of interviews with indigenous leaders/communities found that “*Third, if the patient's condition looks severe and the family is lacking, the community will usually help materially, either in the form of food, direct assistance, or other support*”. This is also supported by the statement of indigenous leaders/communities who said that “*But morally, the movement to help (stroke patients and caregivers) is still alive. Although not yet institutionally organized, the value of mutual cooperation is still carried out individually*”. Lack of financial support contributes to increased stress, decreased quality of life, and the risk of mental disorders in stroke caregivers (Menina et al., 2025; Tziaka et al., 2024). Interventions such as subsidies or insurance assistance can

alleviate economic anxiety and psychological distress. Moral and practical support from family, such as helping with medical administration or household chores, has also been shown to ease caregiver burden. (Maggio et al., 2024) . This kind of practical and emotional assistance reduces the caregiver's physical and mental workload, provides rest time, and shows the family's concern and empathy. In the Kadatuan Tana Luwu culture, material and moral assistance reflects the value of "*jaknauru, deceng nauruk*", where suffering is considered a shared responsibility that is lived with real solidarity. This attitude is reinforced by the philosophy of "*sitereng ribuluk-E, tessinoreng ri lompok-E*" (climbing the mountain together, not lowering each other into the valley), which illustrates the spirit of solidarity and the refusal to let others fall into suffering alone. In practice, local residents help not to be counted for their services, but because of the moral urge to maintain collective self-esteem and dignity, as reflected in the principle of "*siasirik-i*" (maintaining each other's sirik/self-esteem) (Yunus & Mukhoyyaroh, 2021) . These values create a strong social support system, although not always formal. Caregivers feel that they are not alone because support comes from an inner bond and cultural obligation that respects sacrifice. Thus, health care systems and mentoring programs should not only focus on technical assistance, but also embrace and strengthen local mutual cooperation mechanisms as valuable social resources.

### 3. Family gives advice

Advice and guidance from family members also affect the mental health of caregivers. More experienced family members or health professionals in the family can provide guidance on how to care for patients, tips for dealing with problems, and emotional support through conversation. The results of interviews with indigenous figures/communities revealed that ".... *the patient's family who pays attention to it (information or efforts to prevent stroke)*". For example, the family can start a discussion that lightens the emotional burden, such as having a light chat or making jokes to lighten the mood (Muhrodji et al., 2021) . This support helps maintain the psychological condition of caregivers and patients to remain stable. In addition, practical advice such as scheduling medication or solving daily problems is also useful. By sharing experiences and information, families help increase caregivers' self-confidence and reduce feelings of isolation in dealing with the burden of care (Maggio et al., 2024) . In the Luwu cultural tradition, the practice of giving advice or guidance to each other between families is deeply rooted in the *Maccae ri Luwu philosophy* , a collection of wise values that organize the social life of the community. In Maccae, giving advice is not just a verbal intervention, but a form of devotion and concern based on the values of *lempu* (sincerity), *getteng* (steadfastness), and *siri'* (self-esteem) (Yunus & Mukhoyyaroh, 2021) . People who give advice with empathy are seen as carrying out a noble social role because they maintain the dignity of others so that they do not fall into despair or confusion. This practice is also in line with the principle of mutual support, which emphasizes that good advice must be accompanied by real action. Therefore, in Luwu families, advice is usually followed by concrete assistance: taking patients for check-ups, helping with cooking, or temporarily replacing the role of a nurse. Thus, giving advice in the context of Luwu culture is part of a collective support system that strengthens caregiver resilience emotionally, intellectually, and spiritually.

### 4. A family gathering

Regular family gatherings provide important social support for stroke caregivers. In interviews with indigenous leaders/communities, it was found that "*But when it's serious, it's more than just empathy, often family and neighbors even come and spend the night at the patient's house. That is a real form of social concern in our indigenous community. Such a culture is still strongly maintained today*". This is supported by statements from other indigenous leaders/communities that "*Yes, it's usually like that. .... done by family gatherings...*". Gathering in an extended family can build *family resilience* through open communication and togetherness, which helps caregivers adapt better to the burden of care (Maggio et al., 2024) . A supportive family network provides emotional stability and reduces mental fatigue. Strong social support from family, friends, and neighbors has also been shown to reduce levels of anxiety and stress in caregivers (Lu & Yan, 2024; Wang et al., 2022) . Family gatherings are an important moment to share the burden and strengthen caregivers' coping abilities (Lu & Yan, 2024; Xu et al., 2024) . With family gatherings as a moment to share problems and seek help, stroke caregivers can carry out their caregiving role with a lighter spirit and stronger coping abilities. For the Luwu community, the practice of giving advice to each other is inseparable from the values in *Maccae ri Luwu*, a legacy of local wisdom that forms social ethics and communal responsibility. In *Maccae ri Luwu* , living in society must be based on the values of *lempu* (sincerity and honesty), *getteng* (steadfastness), and *siri'* (self-esteem) (Yunus & Mukhoyyaroh, 2021) . Giving advice with good intentions to family members who are caring for the sick is a real manifestation of the values of *lempu* and *getteng* , namely helping selflessly and remaining steadfast in dealing with it. These values function as an unwritten ethical system that encourages family involvement in caring for sick members, not only physically but also psychosocially and spiritually. Thus, advice in Luwu culture is not just words, but a manifestation of a sense of collective responsibility and respect for family relationships. The health care system and caregiver assistance need to recognize this social power and make it the basis for developing a family-based approach and local culture.



## 5. Visit from Health Officer

Regular visits from health workers (such as nurses, physiotherapists, or doctors) to the home or care facility can contribute greatly to the mental health of caregivers. Findings obtained from a caregiver revealed that " *There used to be officers from the health center who came when my father first came home from the hospital. They taught me how to do exercise, and asked me to watch my diet. But now it's rare .* " Visits from health workers who provide regular education and support have been shown to help caregivers feel more prepared and less alone in caring for their loved ones. Their direct presence can reduce anxiety and mental fatigue. Studies show that caregivers who receive post-discharge home-care support experience a decrease in psychological burden compared to those who do not receive assistance (Farahani et al., 2021) . In the Kadatuan Tana Luwu culture, the presence of health workers is also interpreted as a form of social concern, in line with the values of *sipatokkong* and the philosophy of "*sitereng ribuluk-E, tessinoreng ri lompok-E*", namely supporting each other in difficulties and not letting one party fall alone. (Yunus & Mukhoyyaroh, 2021) .. In this case, health workers are positioned as part of a social network that climbs together with the patient's family to face the challenges of the disease, not as passive outsiders. Therefore, strengthening the home visit system in health services in Tana Luwu is not only a medically strategic step, but also in line with the socio-cultural principles of the community that uphold the values of togetherness, moral responsibility, and spiritual solidarity.

## 6. Get treatment information

Providing clear and accurate information about stroke treatment and care is very helpful for caregivers' mental health. As expressed by one of the traditional figures who said that " *Second, seek information or refer to someone who is known to be able to treat, such as Pa' Jampi or other traditional medicine. At least there is information: "Try bringing them here," or "there is someone there who can help .* " Lack of knowledge about how to care for stroke patients often triggers feelings of anxiety and inadequacy in caregivers. Studies show that a lack of medical understanding can increase stress and insecurity (Lu & Yan, 2024) . On the other hand, adequate information such as prescriptions, therapies, and signs of complications helps caregivers feel more confident and independent. Caregivers who receive complete education tend to experience lower stress and anxiety. Therefore, access to treatment information is an important form of support for their mental health. In the Kadatuan Tana Luwu culture, access to treatment information does not always come from formal medical institutions, but also from traditional social networks that are rich in local knowledge. The practice of referring to *Pa' Jampi* (traditional healer) or spiritual figures who are known to have healing knowledge is part of an informal referral system that still lives today. This tradition is not merely a reflection of the limitations of modern medical services, but also a manifestation from *maccae*—local wisdom that combines spiritual, empirical, and social experiences in healing efforts. Providing information in the form of “wise words” or non-medical references such as “take them there because someone has been cured” is a real form of community solidarity that keeps the caregiver’s hope alive. This kind of information contains *lempu* (sincerity), because it is given with the intention of helping, and reflects the principle of mutual support, where the community does not leave one party confused without direction.

## 7. Visiting and entertaining

Visits from family and friends to visit stroke patients and at the same time comfort caregivers emotionally have a very positive impact. The results of the study found from one of the figures/communities who found that " *First, of course being visited is a form of attention and empathy* ", and continued that " *People will try to care for, comfort, and even look for traditional and medical methods simultaneously to help heal* ". The presence of the closest person at home or in the hospital can reduce the psychological burden and provide encouragement for caregivers. Activities such as chatting, telling light stories, or simply giving hugs have been shown to relieve tension and provide emotional rest (Muhrodji et al., 2021) . This kind of active social support is also associated with reduced emotional exhaustion and anxiety in caregivers (Zhong et al., 2020) . Thus, empathetic visits from family or friends are a significant source of calm and mental reinforcement for stroke caregivers. In the Kadatuan Tana Luwu culture, the tradition of visiting the sick and comforting the family who cares for them is not just a social formality, but rather a manifestation of noble values such as *jaknauru* , *deceng nauruk* (united in joy and sorrow) and *siasirik-i* (maintaining each other's dignity). The presence of relatives when someone is sick is considered part of maintaining the honor of the family so that they do not feel alone in facing the burden of suffering. The act of visiting does not only contain prayers or wishes for a speedy recovery, but also a real form of concern and moral involvement that strengthens the caregiver emotionally. In the Kadatuan Tana Luwu community, visiting is often accompanied by bringing snacks, small logistical assistance, funny stories, or an invitation to pray in congregation at home. All of this reflects *lempu* (sincerity of intention) and *getteng* (social steadfastness) in maintaining family and community cohesion in times of crisis.

## 8. Neighbors give advice

Informal advice and support from neighbors or the surrounding community also affect the mental health of caregivers. In the findings of interviews with indigenous leaders/communities, it was obtained that " *But interestingly, .... neighbors also help maintain. For example, if they know that patients are not allowed to eat salty food, they will not bring salty food. That is a form of social solidarity in our environment* ". Interaction with neighbors who have similar

experiences can help caregivers find practical and innovative solutions in caring for patients. Studies show that informal support from fellow caregivers, such as advice on the use of assistive devices or care strategies, is effective in reducing psychological burden. Advice and views from the surrounding environment also strengthen the sense of social connectedness, making caregivers feel heard and supported. Thus, community support plays an important role in maintaining the mental health of stroke caregivers. (Tyagi et al., 2021) . In the Kadatuan Tana Luwu community, the practice of helping each other both between families and between residents is deeply rooted in the collective philosophy that forms the social ethics of the community. The phrase "*climbing the mountain together, not bringing each other down to the valley*" ( *sitereng ribuluk-E, tessinoreng ri lompok-E* ) reflects the spirit of togetherness that encourages every member of society to strengthen each other, without leaving anyone behind in difficulties. This spirit is reinforced by the principle of "*not counting each other among each other*" ( *tessicirinnainngi ri silasanae* ), which emphasizes that assistance is given selflessly and without expecting anything in return. This behavioral pattern is based on the principle of *pasanre' ri adee', pattuppu ri sarae'* , namely the belief that social actions must be in line with customary rules and norms ( *ade'* ) that are upheld by society. Values such as *adele'* (fair), *lempu'* (honest), and *getteng* (steadfast) are the basis for acting and treating others (Yunus & Mukhoyyaroh, 2021) . In the context of caring for patients and accompanying stroke caregivers, these three principles are transformed into real support, both emotionally, practically, and morally. Thus, the social support system in Luwu is not merely a spontaneous reaction, but rather a reflection of a deep-rooted collective value structure that is consistently implemented in daily life.

## CONCLUSION

Based on the findings of this study, it can be concluded that caregivers of stroke patients in the Kadatuan Tana Luwu area experience various psychological pressures such as high anxiety, fatigue, sadness, and frustration, which are influenced by the burden of long-term care, limited support, and family social dynamics. Coping strategies such as praying, pouring out one's heart, and support from family, neighbors, and the community have been shown to play an important role in maintaining the mental health of caregivers. Local cultural values such as *lempu* (sincerity), *getteng* (steadfastness), and *siri'* (self-esteem) strengthen the psychological resilience of caregivers in facing the challenges of care. Therefore, a holistic and culturally sensitive health service approach is needed to accompany caregivers emotionally, spiritually, and socially in order to support the success of stroke patients' recovery as a whole.

## IMPLICATIONS

The results of this study indicate that mental health assistance for stroke caregivers needs to be an integral part of the health care system, not only focusing on patients. Caregivers experience severe emotional stress such as anxiety, depression, frustration, and fatigue which have been shown to have a negative impact on the quality of patient care and their recovery process. Therefore, health systems in areas such as Kadatuan Tana Luwu need to develop home-based and community-based psychosocial support services, which include regular visits by health workers, education on stroke patient care, and counseling or psychological therapy for caregivers. In addition, local spiritual and cultural approaches such as joint prayer, involvement of the extended family, and the use of religious coping strategies also need to be facilitated by health workers so that interventions are more acceptable and effective contextually. With the integration of medical, psychosocial, and cultural approaches, health services will be better able to maintain the emotional stability of caregivers and support the success of stroke patient rehabilitation as a whole.

## Research Limitations

This study has several limitations that need to be considered in interpreting the results. First, the qualitative design with a limited number of participants does not allow for generalization of the results to the entire population of stroke caregivers. Second, the use of self-report methods through open-ended interviews may lead to limitations in exploring symptoms of psychological disorders clinically due to limited knowledge or reluctance of participants to fully disclose themselves. Future studies are recommended to use mixed-methods with standardized psychological assessments, and involve more sites and cultural settings to expand the scope and external validity of the findings.

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