

## ORIGINAL ARTICLE

# Cultural factors affecting stroke rehabilitation: Insights from physiotherapy practitioners in Mansa District, Zambia

Margaret Belemu Nsomeka<sup>1\*</sup>, Lillian Chigali<sup>1</sup>, Fair Banji Mwiinga<sup>1,2</sup>

<sup>1</sup>Ministry of Health, Zambia

<sup>2</sup>Lusaka Apex Medical University, Lusaka Zambia

## ABSTRACT

**Background:** Despite progress in stroke prevention and rehabilitation, stroke continues to rank as the third leading cause of death and a major cause of long-term disability among adults. In Mansa District, only a small proportion of stroke patients access hospital care, largely due to cultural beliefs and perceptions. These cultural factors can greatly impact the delivery and effectiveness of rehabilitation services, as well as patient participation. However, there is limited understanding of how cultural beliefs and practices shape stroke experiences and rehabilitation in Mansa District.

**Objective:** The aim of this study was to explore perceptions of physiotherapy practitioners on cultural influences on rehabilitation of stroke patients in Mansa District in Luapula Province of Zambia.

**Methods:** An exploratory study design was adopted using qualitative methods. The study was conducted

at Mansa General Hospital among eight (8) Physiotherapy Practitioners who were selected purposively. Data were collected through a focus group discussion using a structured focus group discussion guide adapted from related studies. Thematic analysis was used to analyse data, and results have been presented in narrative form. All ethical principles were strictly upheld.

**Results:** The study revealed several features of the Mansa culture that were believed to affect the stroke rehabilitation process. Five themes emerged—cultural beliefs, family involvement, patient-centred factors linked to compliance to physiotherapy treatment, and patient/family knowledge about stroke. To address these cultural issues, patient and caregiver education, and counselling were among the strategies physiotherapy practitioners had put in place. Also allowing fellow patients and stroke survivors to share their experiences with other patients was helpful during the rehabilitation process.

**Conclusion:** The study found that cultural beliefs, limited awareness, and traditional practices hinder stroke rehabilitation in Mansa. Addressing these

**Keywords:** cultural influences, stroke, rehabilitation, perception, physiotherapy practitioners

**\*Corresponding author:**

Margaret Nsomeka Belemu,  
Ministry of Health, Zambia

Email: [nsomeka2016@gmail.com](mailto:nsomeka2016@gmail.com)

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requires culturally sensitive education and interventions, basic counselling training for physiotherapists, community engagement, tailored home programs, and peer support networks among stroke survivors to enhance recovery.

## **INTRODUCTION**

Stroke remains a significant global health concern, affecting millions of individuals each year and placing immense strain on healthcare systems worldwide. Approximately 13.7 million new stroke cases are recorded annually, making it a prevalent condition across various regions and populations. According to the Global Burden of Disease (GBD) report, stroke ranks as the second leading cause of death and the third leading cause of death and disability combined, measured in disability-adjusted life years (DALYs). Low- and lower-middle-income countries (LMICs), in particular, shoulder a disproportionate share of this burden. In Africa, stroke accounts for about 4% of hospital admissions and 4.5% of all deaths, making it one of the most common neurological disorders on the continent. Zambia, a low- and middle-income country (LMIC) in southern Africa, faces a significant stroke burden, ranking it as the eighth leading cause of death nationwide. This is largely surpassed by infectious diseases such as HIV/AIDS and Tuberculosis, along with ischemic heart disease. These figures highlight the country's dual burden of disease, with non-communicable diseases increasingly prevalent alongside persistently high rates of infectious illnesses.

Rehabilitation plays a vital role in minimizing stroke-related impairments, helping individuals regain independence in daily life and reintegrate into their communities. Effective rehabilitation requires a multidisciplinary team approach, with physiotherapists playing a central role in preventing disability across all levels of care, primary, secondary, and tertiary, especially in resource-constrained settings. Despite advancements in stroke prevention and rehabilitation, only about

one-third of stroke survivors in many LMICs seek formal medical care, often due to cultural barriers and misconceptions. This underscores the urgent need for culturally accessible and acceptable rehabilitation services.

Culture has a profound influence on health behaviours, shaping how individuals perceive illness, seek care, and respond to treatment.<sup>1</sup> For physiotherapy practitioners, who often work with diverse populations in both multicultural and international contexts, understanding cultural beliefs and values cannot be overemphasized. As noted by Legg and Penn, cultural perspectives shape interpretations of illness and disability, which directly impact health-seeking behaviours. Therefore, physiotherapists must cultivate not just cultural sensitivity, but also cultural competence: the ability to recognize, understand, and respectfully integrate diverse cultural perspectives into clinical practice.<sup>6</sup>

In Mansa District of Zambia's Luapula Province, cultural misconceptions about stroke are widespread. Mansa District possesses a unique cultural landscape and the existence of deeply rooted traditional beliefs that significantly influence health behaviours. In this region, misconceptions surrounding stroke, such as attributing it to witchcraft or spiritual forces, are particularly common and often lead to the preference for traditional healing practices over biomedical care. This presents a critical challenge to physiotherapy-led rehabilitation efforts. The district's socio-cultural context provides a valuable opportunity to explore how such beliefs impact the delivery and acceptance of physiotherapy services. Moreover, the limited existing research on cultural influences in stroke rehabilitation within Zambia, and particularly in rural or semi-urban settings like Mansa, underscores the need for targeted inquiry to inform culturally responsive care strategies and contribute to improved rehabilitation outcomes.

## **METHODS**

### *Study design:*

An exploratory study design was adopted for this, using qualitative methods.

### *Study site:*

This study was conducted out at Mansa General Hospital, Physiotherapy Department. Mansa General Hospital is a Level II health facility located in Mansa District in the Luapula Province of Zambia. The facility offers Medical, Surgical, Gynaecological/Obstetric, Paediatric, Laboratory, Radiology, Physiotherapy, Dental, and Psychiatry, and Intensive Care services. The facility was selected based on its location and its position as a referral centre for surrounding districts.

### *Study population:*

The study population comprised Physiotherapy Practitioners currently working at Mansa General Hospital in Luapula Province. At the time of the study, there were a total of eight practitioners. Inclusion criteria required participants to hold at least a Diploma in Physiotherapy and have more than two years of clinical experience, as this duration was deemed adequate for gaining familiarity with the local culture.

### *Sample selection:*

Purposive sampling was used to select study participants using personnel registers as the sampling frame.

### *Sample size:*

Eight (8) Physiotherapy Practitioners were successfully recruited and interviewed. This sample size is consistent with the recommendations by Thorogood and Green that a sample size of 5 – 25 is ideal sample size for qualitative studies.

### *Data collection:*

Eligible participants were identified and given adequate information about the study and its purpose. Those who agreed to participate in the

study were asked to sign a consent form. The researchers and participants then agreed on an ideal time to conduct the interview in which privacy of the participant was prioritized.

A focus group discussion was conducted using a guide adapted from related studies.<sup>6,7</sup> The study tool collected sociodemographic data and Physiotherapy Practitioners' attitudes, perceptions, and opinions on culture's impact in stroke rehabilitation. Participant responses were audio-recorded and transcribed verbatim, with additional notes taken during English-language focus group discussions moderated by the researcher.

A pilot study was conducted at Senama First Level Hospital to pre-test the data collection tool, involving five purposively selected physiotherapists. Based on their feedback, minor adjustments were made to improve question clarity. Specifically, two questions were removed: one regarding stroke patients' willingness to participate in home programs, and another inviting additional information about stroke rehabilitation.

### *Data management and analysis:*

Thematic analysis was conducted using a manual approach, consisting of six essential steps to ensure a comprehensive and meaningful interpretation of the data. First, the researchers immersed themselves in the data to achieve an in-depth understanding of its content. Next, the data was systematically organized into five distinct codes, identifying significant segments that captured key aspects of the information. In the third step, patterns were identified across these codes, leading to the development of overarching themes, with each theme potentially encompassing multiple related codes. The fourth step involved a thorough review of these themes to ensure they accurately represented the underlying data, requiring a careful comparison of the data segments associated with each theme. The fifth step entailed naming and defining each theme, providing clear and precise interpretations to enhance the overall understanding

of the data. Finally, the analysis was written up in a narrative format, presenting the findings in a report or dissertation, which allowed for a structured and insightful presentation of the research. This rigorous process facilitated a well-organized and in-depth analysis, ensuring the themes authentically reflected participants' experiences and perspectives.

## RESULTS

### Sociodemographic characteristics of participants

Eight (8) Physiotherapy Practitioners were successfully recruited and interviewed. Two of the participants were male while the remaining six were female. The qualifications of the participants ranged from Diploma in Physiotherapy to master's degree in Physiotherapy. All participants had at least three

years of working experience in stroke rehabilitation. Table 1 below summarizes the sociodemographic characteristics of the study participants:

*Table 1: Sociodemographic characteristics of study participants*

Participant No.	Gender	Age in years	Level of qualification in Physiotherapy	Years of work experience
01	Female	30	Diploma	3
02	Male	35	Bachelor of Science Degree	11
03	Female	33	Diploma	8
04	Male	30	Diploma	7
05	Female	39	Diploma	11
06	Female	30	Diploma	3
07	Female	31	Bachelor of Science Degree	5
08	Female	37	Master's Degree	11

### Generation of themes and sub-themes

Five themes emerged from the focus group discussion as presented in Table 2 below:

*Table 2: Identification of themes and subthemes*

Specific objectives	Themes	Subthemes
To explore how culture influences stroke rehabilitation process through the perception of physiotherapy practitioners	Beliefs	<ul style="list-style-type: none"> <li>▪ Traditional beliefs</li> <li>▪ Religious beliefs</li> </ul>
	Family involvement	<ul style="list-style-type: none"> <li>▪ Extended family support</li> <li>▪ Spouse support</li> <li>▪ Family neglect</li> </ul>
	Patient-centred factors linked with compliance to physiotherapy treatment	<ul style="list-style-type: none"> <li>▪ Age of the patient</li> <li>▪ Loss of hope and depression</li> </ul>
To establish how physiotherapy practitioners have addressed some cultural issues during stroke rehabilitation	Knowledge about stroke	<ul style="list-style-type: none"> <li>▪ Patient knowledge</li> <li>▪ Family knowledge</li> <li>▪ Social stigma</li> </ul>
	Addressing cultural issues	<ul style="list-style-type: none"> <li>▪ Patient and caregiver education linked with counselling</li> <li>▪ Sharing experiences</li> </ul>

### **Cultural beliefs influencing stroke rehabilitation**

Participants reported that in Mansa, stroke was commonly attributed to witchcraft, leading to negative perceptions and resistance to physiotherapy. These cultural beliefs made it difficult to explain the medical basis of stroke, hindering acceptance of treatment and limiting engagement in rehabilitation efforts. One participant said:

*“...you explain to them that this condition is actually is coming from the brain and it's affecting the parts of the body. It's very difficult for them to understand.”* (Participant 05)

Participants noted that patients who believed stroke was caused by witchcraft often turned to traditional healers first, delaying physiotherapy until all traditional options were exhausted, as noted from one participant:

*“They would rather go out there and explore then resort to coming back when they are done trying out everything”* (Participant 08)

Some participants reported that patients in Mansa associated physiotherapy exercises like waist bridging with sexual acts, leading to discomfort—particularly among older patients—and resulting in refusal, modification, or discontinuation of therapy, thereby hindering rehabilitation participation and outcomes.

*“In our treatment programme there are exercises like bridging, which some patients here attribute that to sex...so when instructed to perform such exercises, they feel very uncomfortable, some will start laughing, and others will even stop attending physiotherapy.”* (Participant 04)

In-law dynamics were found to hinder treatment continuity, as cultural norms often prevented daughters-in-law from assisting stroke patients, especially when patients lived with their sons and daughters-in-law:

*“Culture restricts the woman from moving the father in-law around and that also has a negative*

*impact on the rehabilitation”* (Participant 01)

### **Religious beliefs influencing stroke rehabilitation**

Cultural beliefs shaped stroke patients' perceptions and rehabilitation adherence, with some viewing stroke as a divine challenge and relying on prayer for healing instead of attending rehabilitation sessions. Some participants had this to say:

*“...with the trend now of preachers praying for stroke patients, family members of stroke patients prefer the patients for prayers, and become reluctant in doing exercises”* (Participant 03)

The study found that cultural and religious beliefs influenced stroke patients' understanding and preference for the physiotherapist's gender, causing some to forgo rehabilitation if a same-gender practitioner was unavailable.

*“Some patients will say they prefer maybe females to see them, not the males...and the next time they will just refuse to come.”* (Participant 04)

### **Influence of family involvement in stroke rehabilitation**

In Mansa culture, extended families—parents, children, grandparents, and in-laws—commonly live together and actively participate in stroke patient care. This family involvement significantly supports rehabilitation, particularly by aiding adherence to home-based rehabilitation programs, making recovery more effective. Some participants revealed that:

*“Extended family members come in to help the patients when they are sick...which also improves the rehabilitation process.”* (Participant 07)

However, participants also noted that there were some patients who were neglected by their families due to busy work schedules.

*“Patients also face challenges with care givers who are always busy with work. Sometimes, the relatives looking after them become tired and they neglect the patient.”* (Participant 05)

Participants highlighted poor support from men whose wives had strokes, as these men often continued normal activities like work or drinking, leaving caregiving to the wife's relatives. Even without family nearby, men neglected their wives and ignored physiotherapy home programs.

*“The culture around here is such that if a woman is sick the man is expected to go for work, and the relatives to the woman must come and help look after her.”* (Participant 01)

Some participants noted that stroke often led to separation or divorce, as some men abandoned or refused rehabilitation for their wives, viewing illness as unacceptable.

*“Because of someone developing a stroke we have heard of broken homes because of the spouse having a stroke.”* (Participant 04)

### **Patient-centred factors influencing stroke rehabilitation**

Some participants revealed age as having an influence on the stroke rehabilitation process by influencing patients' self-efficacy and motivational for recovery stroke and functional independence.

*“The elderly patients are often not willing to participate in the rehabilitation process because they feel it is over for them”* (Participant 01)

Participants revealed that some stroke patients in Mansa would eventually lose hope of recovering and became depressed, and that this occurred mainly when the patient was not seeing any improvement and/or when recovery delayed.

*“When they see that the recovery process is taking too long, they get into depression; they stop refusing doing anything.”* (Participant 02)

### **Role of knowledge of stroke on rehabilitation**

Participants observed that poor stroke awareness among patients and caregivers led to negative rehabilitation experiences, reduced engagement, missed sessions, and inappropriate home

interventions, while those with better knowledge were more actively involved in recovery efforts.

*“Sometimes you find that family members have been using hot compress on the stroke patients as a way of quickening the treatment or the recovery of that patient.”* (Participant 04)

### **Social stigma in stroke rehabilitation**

Social stigma negatively affected stroke rehabilitation, as some patients avoided seeking medical attention publicly, choosing to stay indoors or seek private care due to fear of being mocked or judged for their condition.

*“They do not want to be involved in social gatherings with families and community thinking they will be laughed at”* (Participant 05)

### **Addressing cultural issues around stroke rehabilitation**

Participants in the study shared their experiences managing cultural issues during stroke rehabilitation in Mansa, highlighting information, education, and communication (IEC) as the primary strategy for addressing such challenges.

*“We explain to them what has gone wrong in the brain and how the brain functions. Once they start to understand, the recovery process improves”* (Participant 07)

Participants highlighted that counselling helped patients and caregivers adapt to daily life, address marital and financial issues, and, when done effectively, brought emotional relief and psychological well-being to both groups.

*“When counselling is done, the stroke may still be there, but psychologically the patient is uplifted.”* (Participant 08)

Participants observed that education and counselling were ineffective for those with strong traditional beliefs. Peer sharing by stroke survivors was used to motivate and improve compliance among sceptical patients.

“When the patients get it from you, they think you're just trying to make them feel better...But when they see other patients coming too and improving, they get motivated to continue coming for physiotherapy” (Participant 04)

## DISCUSSION

The aim of this study was to explore cultural influences on stroke rehabilitation as perceived by physiotherapy practitioners at Mansa General Hospital in Zambia. Most physiotherapy practitioners in this study were female, holding qualifications from Diploma to master's levels. All participants had at least three years of clinical experience in stroke rehabilitation, which, according to Omu and Reynolds<sup>6</sup> significantly influences their approach to cross-cultural care. The extensive experience of participants in this study likely contributed to their nuanced understanding of the cultural context in Mansa. As Tarhini,<sup>12</sup> posits, culture is not innate but learned through shared patterns of thought, behaviour, and emotion developed through prolonged interaction within a social group. Because physiotherapy practitioners' demographics influence therapist–patient interactions, cultural sensitivity is crucial to enhance patient engagement and improve rehabilitation outcomes across all settings.

### *Cultural influences on stroke rehabilitation*

This study found that stroke patients in Mansa District hold diverse culturally rooted beliefs about stroke causes and treatment, with some viewing it as a spiritual punishment or witchcraft. These beliefs, echoed in previous research,<sup>8,9,13</sup> often lead to poor health-seeking behaviour, reduced use of physiotherapy, and scepticism or mistrust in rehabilitation. The significant influence of cultural beliefs on health behaviours and treatment acceptance is well-documented.<sup>9</sup> Ajimsha *et al.* highlight the importance of incorporating cultural considerations into physiotherapy. Physiotherapy practitioners should adopt a holistic, culturally responsive approach to stroke management,

tailoring interventions to patients' cultural backgrounds and actively correcting harmful misconceptions through education.

This study highlighted cultural discomfort experienced by patients during rehabilitation, mainly due to conflicts between cultural beliefs and treatment methods. Patients felt uneasy with certain physiotherapy exercises like pelvic lifts, which some viewed as sexually suggestive. Additional discomfort arose when patients were treated by practitioners of the opposite sex and when women were required to wear trousers, culturally perceived as male clothing. These findings mirror those in a similar Zambian study by Chileshe *et al.*. Culturally sensitive communication, patient education on exercise and attire can foster mutual understanding between providers and patients to improve comfort, build trust, and enhance cooperation for successful rehabilitation outcomes.

This study in Mansa District highlights that cultural norms strongly promote family involvement in stroke rehabilitation, providing crucial emotional support, encouragement, and motivation for patients to engage in physiotherapy. Such family participation plays a vital role in recovery by fostering positive attitudes, reinforcing patient commitment, and aiding adaptation to physical limitations. Similar findings from other studies support the importance of family support in the rehabilitation process.<sup>16,17,18</sup> However, Omu and Reynolds<sup>6</sup> caution that excessive family involvement can sometimes create tension, conflict, or foster patient over-dependence by reinforcing the “sick role”. To optimize rehabilitation outcomes, physiotherapy practitioners should actively involve both patients and their families in setting realistic goals and planning home care.

The study found that cultural norms in Mansa District posed extra challenges for female stroke patients during rehabilitation. Traditional beliefs often assigned caregiving duties to the woman's extended family, while husbands were expected to maintain their daily routines, resulting in limited

spousal support. Similar findings by Mapulanga *et al.*<sup>19</sup> in Livingstone District showed many female stroke survivors faced separation or divorce due to spouses' inability or unwillingness to manage long-term stroke care. The researchers recommend integrating family-focused education and counselling into stroke management enhance caregivers' understanding of rehabilitation challenges and encourage a supportive environment for female patients and their families.

#### *Patient-centred factors influencing stroke rehabilitation*

Study participants highlighted personal factors influencing stroke rehabilitation outcomes, notably age, emotional state, and self-efficacy. Younger patients generally showed higher motivation and stronger belief in their recovery, consistent with Ahuja *et al.*<sup>16</sup> who stressed self-efficacy's vital role in stroke recovery. Patients with low self-efficacy often rely on external motivation and face challenges engaging consistently in rehabilitation. This reduced confidence can lead to poor adherence to treatment and difficulty sustaining therapeutic exercises, as noted by Jack *et al.*<sup>18</sup> Additionally, feelings of hopelessness and depression exacerbate these issues, underscoring the importance of integrating psychosocial support into rehabilitation programs.

Depression significantly affects stroke rehabilitation, often arising from patients losing hope in their recovery. Mirjam's<sup>20</sup> research highlights that diminished hope can cause unrealistic expectations and disappointment, reducing motivation and participation in therapy, and impacting readiness for discharge. This emotional distress can hinder engagement and overall recovery outcomes. Physiotherapists should monitor stroke patients for depression, refer to mental health services, and educate them that exercise improves both physical recovery and mood, highlighting the importance of addressing emotional health alongside physical therapy for optimal rehabilitation.

#### *Knowledge about stroke*

This study reveals a significant lack of stroke-related knowledge among patients and caregivers, often leading to unrealistic recovery expectations, such as anticipating rapid, full recovery. These misconceptions hinder active participation in rehabilitation. In contrast, patients with adequate stroke knowledge were more engaged in prescribed exercises, promoting better recovery outcomes. Supporting these findings, a study by Bukenya *et al.*<sup>20</sup> in Kampala reported that limited awareness of stroke delayed health-seeking behaviour. Similarly, Stroebele *et al.*<sup>21</sup> noted that patients with poor knowledge were more likely to disregard rehabilitation protocols, negatively affecting recovery. Wegner and Rhoda<sup>8</sup> emphasized the importance of educating not only patients but also families and caregivers because informed individuals are more likely to accept the condition, aiding emotional adjustment and reducing the risk of depression linked to denial and misunderstanding. Overall, the findings stress the importance of structured education as a foundational element in effective stroke rehabilitation programs.

#### *Social stigma in stroke rehabilitation*

Culture-related social stigma was found to significantly hinder stroke rehabilitation in Mansa District. Participants reported that societal attitudes often label physical disability as 'abnormal,' leading to public staring, marginalization, and social withdrawal by stroke survivors. This stigma discouraged patients from attending rehabilitation sessions, negatively affecting their recovery. Such discrimination against individuals with visible disabilities is well-documented in existing literature.<sup>22,23,24</sup> Physiotherapists should lead stroke education programs at all levels to challenge myths, reduce stigma, and promote acceptance, thereby improving public understanding, increasing patient participation in rehabilitation, and enhancing recovery outcomes for stroke survivors.

### *Addressing cultural issues in stroke rehabilitation*

Participants in this study identified patient and caregiver education as a key strategy in addressing culturally rooted challenges in stroke rehabilitation. Numerous studies have emphasized the importance of patient education in promoting positive health-seeking behaviours and adherence to treatment plans.<sup>6,8</sup> Specifically, Wegner and Rhoda<sup>8</sup> recommend that education on stroke aetiology and the rehabilitation process should commence during the acute hospital phase and be sustained throughout the recovery journey. Such ongoing education enables patients and their families to better understand the condition, align their expectations, and engage more meaningfully in rehabilitation.

Participants in this study emphasized counselling for patients and caregivers as a key approach to addressing cultural challenges in stroke rehabilitation. Stroke survivors often experience intense emotional distress, including grief, anxiety, and fear, highlighting the need for psychological support. Counselling was noted to assist in managing daily activity difficulties and developing effective coping strategies, as supported by Tawa *et al.* Mwanza further noted that counselling improves understanding of stroke, helps manage personality and mood changes, and facilitates better coping among patients and families. These insights collectively underscore counselling as a vital component of holistic stroke care, especially in culturally diverse settings, where emotional and cultural factors can significantly influence rehabilitation outcomes and patient engagement.

Study participants reported that stroke patients sharing their rehabilitation experiences served as a powerful source of encouragement and motivation for others. Hearing first-hand accounts from individuals who had faced similar or more severe challenges helped patients develop a more positive outlook and increased their commitment to rehabilitation programs. This finding is supported by Ahuja *et al.*,<sup>16</sup> who describe a psychological

phenomenon known as downward comparison, where patients feel better by comparing themselves to others in similar or worse conditions, which can reduce negative emotions and enhance positive mood during recovery.

### **CONCLUSION**

The study highlighted how cultural beliefs, limited stroke awareness, religious views, gender preferences, and family dynamics significantly affect stroke rehabilitation in Mansa. Misconceptions, social stigma, and a strong reliance on traditional healing methods often delay physiotherapy interventions. While educational efforts, counselling, and peer support can help overcome some of these challenges, deep-rooted beliefs remain a major barrier.

*What is already known on this topic:*

Factors affecting stroke rehabilitation.

*What this study adds:*

- This study highlights the influence of cultural beliefs on stroke rehabilitation, and emphasizes effective strategies to mitigate against unfavourable practices
- This study also adds to the body of knowledge on the influence of culture on stroke rehabilitation from physiotherapy practitioners' views

### **Study limitations**

The study identified some limitations:

1. The study's reliance on practitioner-reported data may introduce bias, as it reflects clinicians' perspectives rather than those of patients or caregivers. While valuable, these views may not fully capture the lived experiences of stroke survivors and their families. Future research should include patient and caregiver input for a more comprehensive understanding of cultural influences on rehabilitation.
2. The comparison of the study results to other studies was difficult due to variations in the

methodologies and populations used.

3. To minimize bias, researcher reflexivity was addressed by acknowledging potential biases in the analysis process, including the researcher's professional background and prior assumptions. Strategies such as peer debriefing were used to enhance objectivity and ensure that interpretations were grounded in participants' perspectives.

### **Recommendations**

To improve stroke rehabilitation outcomes, the researchers recommend integration of culturally sensitive stroke education into community health outreach; training of physiotherapy practitioners in basic counselling and cultural mediation; and engagement of community leaders to address traditional misconceptions. Additionally, encouraging family involvement through customized home programs and promoting peer support networks among stroke survivors can enhance motivation, treatment adherence, and overall recovery within culturally diverse communities like Mansa.

### *Policy implications for Zambia's Ministry of Health*

This study highlights the need for Zambia's Ministry of Health to adopt culturally responsive, patient-centred approaches to stroke rehabilitation. Key recommendations include integrating cultural competence training into healthcare education, launching nationwide stroke awareness campaigns, and strengthening psychosocial support through the inclusion of mental health professionals. The Ministry should also promote family-focused rehabilitation models, particularly supporting female stroke survivors, and expand community-based rehabilitation (CBR) services to improve access and continuity of care. Additionally, standardized protocols that address cultural, emotional, and social factors should be implemented and monitored to ensure effective, inclusive, and sustainable stroke rehabilitation outcomes.

### **DECLARATIONS**

#### *Ethics approval*

Ethics approval for the study was granted by the Lusaka Apex Medical University Biomedical Research Ethics Committee (FWA 00029892, IRB 00001131, Ref: 00483-22) and the National Health Research Authority (NHRA0000003/8/12/2022). Institutional permission was granted by Management at Mansa General and Senama First Level Hospitals.

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Authors declared that they have no conflicts of interest

#### *Competing interests*

Authors declared that they have no competing interests

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#### *Authors' contributions*

Margaret Belemu Nsomeka – principal investigator, drafting of results section of manuscript

Lillian Chigali – research supervisor; drafting of methodology section of manuscript

Fair Banji Mwiinga – research co-supervisor, overall conceptualization and editing of manuscript

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