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Anthropological Perspectives on Epilepsy: Exploring Cultural Beliefs and Treatment Practices in Karagwe and Kyerwa Districts, Kagera, Tanzania

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Abstract

This study investigates the cultural beliefs, perceived causes, and treatment practices associated with epilepsy in Karagwe and Kyerwa districts of Kagera Region, Tanzania, through an anthropological lens. Using a qualitative case study design, the research explores how traditional and biomedical systems interact in shaping health-seeking behaviors and treatment outcomes among people with epilepsy (PWE). Data were collected through in-depth interviews with PWE, caregivers, biomedical practitioners, and traditional healers, selected via purposive sampling. Thematic analysis revealed that while biomedical practitioners frame epilepsy as a neurological disorder treatable with anti-epileptic drugs, access to consistent care is hindered by structural limitations such as high costs, drug shortages, and inadequate follow-up. Conversely, traditional healers interpret epilepsy through spiritual and cultural frameworks, attributing it to causes like witchcraft, curses, and ancestral displeasure. Many patients reported turning to traditional medicine due to dissatisfaction with biomedical outcomes, often guided by family and community influence. The findings highlight widespread medical pluralism, whereby patients move between systems based on perceived efficacy, cultural resonance, and social advice. This study underscores the importance of integrating biomedical and traditional health systems through culturally sensitive, collaborative approaches that respect indigenous knowledge while ensuring evidence-based care. It contributes to the broader discourse on epilepsy management in rural African settings and calls for health models that are both inclusive and contextually grounded.

Keywords: Epilepsy, Traditional Healing, Biomedical Treatment, Cultural Beliefs, Medical Pluralism, Rural Tanzania

Introduction

Epilepsy is one of the most common neurological disorders, characterized by recurrent, unprovoked seizures due to abnormal, excessive neuronal activity in the brain. The International League Against Epilepsy (ILAE) defines it as a condition with an enduring predisposition to generate epileptic seizures, accompanied by neurobiological, cognitive, psychological, and social consequences (Sylvia Christine, 2017). Affecting over 50 million people globally, epilepsy disproportionately burdens low-income countries, where 80% of cases are found, and treatment gaps often exceed 75% (Haruna Dika et al., 2021; Mushi et al., 2013). In Tanzania, prevalence rates are notably high, with rural areas like Karagwe in Kagera particularly affected by a combination of medical and sociocultural factors (Sylvia Christine, 2017).

Biomedical treatment of epilepsy primarily involves anti-epileptic drugs (AEDs) aimed at seizure control rather than cure. Common AEDs, including carbamazepine, phenobarbital, and phenytoin, can achieve symptom control in up to 70% of patients if used appropriately. However, access to these treatments is hindered by limited healthcare infrastructure, misdiagnosis, and the cost of medication (Haruna Dika et al., 2021). Neurosurgery and lifestyle modifications are alternative interventions, albeit less accessible in resource-limited settings. Despite these advancements, the persistence of untreated cases underscores the need to address barriers within healthcare systems and community perceptions.

Anthropologically, epilepsy is deeply entwined with cultural beliefs and social norms. In many rural Tanzanian communities, the disorder is attributed to supernatural forces, including witchcraft, curses, or ancestral displeasure, leading to stigma and exclusion (Mushi et al., 2013). Such beliefs often drive patients toward traditional healers rather than biomedical facilities, perpetuating the treatment gap. Understanding these cultural frameworks is crucial for devising effective interventions that respect local traditions while promoting evidence-based care.

This paper explores the anthropological dimensions of epilepsy in Karagwe, Kagera, focusing on the interplay between biomedical and traditional approaches to its causes and treatment. By examining cultural perceptions and their impact on healthcare-seeking behaviors, this study aims to provide insights into bridging the gap between modern medicine and indigenous practices in managing epilepsy.

Epilepsy in Anthropological and Biomedical Contexts

Epilepsy is widely recognized as a neurological disorder, yet its meaning and treatment are shaped by cultural, social, and institutional contexts. Across sub-Saharan Africa, anthropological studies have revealed that epilepsy is often attributed to supernatural forces such as witchcraft, curses, or ancestral spirits, rather than purely biomedical causes (Jilek-Aall & Jilek, 1993; Rwiza et al., 1992). In many societies, these beliefs significantly influence health-seeking behaviors, resulting in a reliance on traditional healers over biomedical practitioners (Preux & Druet-Cabanac, 2005).

Research from Tanzania and other African countries shows a persistent treatment gap, with up to 90% of people with epilepsy (PWE) not receiving appropriate biomedical treatment (Meinardi et al., 2001; Ba-Diop et al., 2014). Even in areas with relatively strong health systems, cultural interpretations often supersede biomedical explanations, suggesting that access alone does not account for the preference for traditional medicine (Mushi et al., 2013).

Anthropological frameworks, particularly Kleinman’s (1980) concept of "explanatory models," help explain how patients and practitioners interpret illness based on culturally informed belief systems. Patients may oscillate between biomedical and traditional systems based on the perceived effectiveness, accessibility, and cultural resonance of each (Good, 1994). This pluralism reflects a form of pragmatic engagement with diverse systems of care rather than a wholesale rejection of biomedical models.

What is often missing from the literature is an integrated approach that respects these diverse worldviews while seeking to improve outcomes. Studies such as Christine (2017) and Dika et al. (2021) emphasize structural limitations but less often engage with the cultural logic of healing choices. This study contributes by situating the lived experiences of PWE in Karagwe and Kyerwa districts within these anthropological debates, aiming to bridge the epistemological divide between traditional and biomedical understandings of epilepsy.

Methods

This study employed a qualitative case study design to explore the cultural beliefs, treatment practices, and health-seeking behaviors associated with epilepsy in Karagwe and Kyerwa districts of Kagera Region, northwestern Tanzania. Although administratively distinct, these two districts share cultural homogeneity rooted in the Haya ethnic group, whose traditional beliefs deeply influence perceptions of health and illness (Ruhinda et al., 2022). This shared cultural framework, coupled with the rural nature of the area and limited biomedical infrastructure, made Karagwe and Kyerwa ideal sites for an anthropological inquiry into epilepsy. The case study approach was particularly suited for capturing the rich, context-dependent experiences of people with epilepsy (PWE), their caregivers, and healthcare providers within both biomedical and traditional systems (Creswell, 2013; Patton, 2015).Data were primarily collected through in-depth interviews with four key categories of respondents: people living with epilepsy, their caregivers, traditional healers, and biomedical practitioners. This diverse range of participants enabled a holistic understanding of the social, emotional, and institutional dimensions of epilepsy. Purposive sampling was used to recruit 30–40 participants with direct experiences of the condition, either personally or professionally, ensuring depth and relevance in the data collected (Palinkas et al., 2015). Traditional healers were especially important in this context, as they are often the first point of contact for epilepsy treatment in rural areas, using herbal remedies, scarification, and ritual practices that reflect the cultural interpretation of the illness (Jilek-Aall & Jilek, 1993; Preux & Druet-Cabanac, 2005). Biomedical practitioners, conversely, provided insights into clinical approaches and the structural barriers affecting epilepsy care, such as the shortage of trained personnel and the cost and availability of anti-epileptic drugs (Ba-Diop et al., 2014; Meinardi et al., 2001).

The interviews were transcribed and analyzed thematically using NVivo software, which supported systematic coding and the identification of recurring themes. Key themes included perceived causes of epilepsy—such as witchcraft, curses, or ancestral displeasure—treatment efficacy, stigma, and the interaction between traditional and biomedical systems (Braun & Clarke, 2006). The thematic approach allowed for an inductive analysis, with patterns emerging organically from participant narratives. The research underscored the persistence of cultural interpretations of epilepsy, which continue to shape treatment choices and perpetuate stigma, often discouraging individuals from seeking biomedical interventions (Rwiza et al., 1992; Mushi et al., 2013).

Ethical approval for the study was obtained from the Open University of Tanzania, along with relevant governmental permissions. Informed consent was sought from all participants, who were assured of confidentiality and the voluntary nature of their participation. Special attention was given to maintaining cultural sensitivity and emotional safety, given the stigma surrounding epilepsy in the region. Interviews were conducted in private settings, and pseudonyms were used in all documentation to protect identities.

In sum, this study contributes to understanding how epilepsy is conceptualized, treated, and experienced within a rural Tanzanian context marked by cultural resilience and systemic healthcare limitations. By illuminating the tensions and overlaps between indigenous and biomedical healing systems, the findings offer valuable insights for designing culturally responsive interventions aimed at bridging the treatment gap and reducing stigma for individuals living with epilepsy.

Biomedical Understanding of Epilepsy

Within the biomedical paradigm, epilepsy is conceptualized as a neurological disorder resulting from abnormal electrical activity in the brain. This medical perspective prioritizes seizure management primarily through pharmacological interventions, particularly the administration of anti-epileptic drugs (AEDs). Biomedical practitioners in the Karagwe and Kyerwa districts endorsed this clinical approach, basing their understanding on scientific and medical evidence. Nevertheless, they also highlighted systemic challenges that hinder effective treatment outcomes, such as delayed diagnoses, inefficient referral mechanisms, and frequent shortages of essential medications. These concerns align with findings by Christine (2017) and Dika et al. (2021), who documented comparable limitations within rural healthcare systems in Tanzania. One medical doctor clarified the biomedical definition succinctly:

> *"Epilepsy is a neurological disorder characterized by abnormal electrical discharges in the brain, resulting in recurrent seizures." (KII/MedicalDoctor/Karagwe/13/02/2024)*

This biomedical framing corresponds with the global medical discourse (Ba-Diop et al., 2014), which underlines epilepsy's physiological basis. Another practitioner emphasized the challenges of ensuring consistent treatment in rural areas:

> *"Epilepsy can often be managed effectively with anti-epileptic drugs, which control seizures in about 70% of cases if administered properly. However, delays in seeking treatment, misdiagnosis, and limited access to healthcare facilities often worsen the condition."(KII/Medical Doctor/Kyerwa/05/02/2024)*

Such perspectives illustrate how biomedical practitioners recognize the limitations of the health system and the importance of early intervention. However, as later findings suggest, patients' dissatisfaction with these biomedical options often drives them toward culturally resonant alternatives.

Traditional Beliefs and Supernatural Causation

In contrast to biomedical interpretations, traditional healers in Karagwe and Kyerwa conceptualized epilepsy as a spiritually influenced condition, deeply rooted in local cultural cosmologies. Their accounts reflect how indigenous explanatory frameworks—centred on ancestral influence, witchcraft, spiritual possession, and the transgression of taboos—continue to inform local perceptions of illness (Kleinman, 1980; Jilek-Aall & Jilek, 1993). While these healers do not dismiss the notion of biological inheritance, they reinterpret it through a spiritual lens, thereby integrating both physical and metaphysical dimensions of causality. One healer, for example, attributed epilepsy to lineage, suggesting that the condition could be transmitted through familial bloodlines.

> *"Epilepsy, which is called 'ensiimbo' locally, is not just a disease but a condition that can be passed down from one generation to another, through the bloodline of either the father or the mother. It may skip*

> *some individuals but resurface in others within the same family." (KII/Traditional Healer/Male/Age 71/Karagwe/15/01/2024)*

This hereditary interpretation, while aligning superficially with genetic principles, is understood within a distinctly spiritual ontology that diverges from biomedical explanations. Instead of attributing epilepsy to genetic mutations or neurological predispositions transmitted through DNA, traditional healers conceptualize it as a spiritually inherited condition, passed through ancestral lines and shaped by familial curses or blessings. According to this worldview, unresolved ancestral conflicts or spiritual essences are believed to manifest physically in descendants. This perspective was further reinforced by another healer, who emphasized the influence of external spiritual forces as key instigators of epileptic episodes.

> *"Beyond inheritance, epilepsy can be caused by witchcraft, where someone has cast a harmful spell on the victim. It may also stem from a curse... perhaps due to unresolved conflicts or harm done to someone who retaliates spiritually." (KII/Traditional Healer/Male/Age 71/Karagwe/15/01/2024)*

Similarly, a female healer provided a detailed account that intricately linked spiritual entities to bodily processes, illustrating the depth of traditional cosmologies in understanding illness. She explained that epilepsy originates not merely from a physical imbalance, but from the presence of a spiritual being identified as echijoka residing in the stomach. According to her, this spirit disrupts internal harmony, eventually triggering convulsions and seizures. This explanation reflects a holistic worldview in which spiritual, emotional, and physiological domains are interconnected, and illness emerges when this delicate balance is disturbed by supernatural influences.

> *"Epilepsy starts in the stomach, where a spirit we call echijoka resides. This spirit disrupts the body's balance, leading to seizures and convulsions." (KII/Traditional Healer/Female/Age 75/Kyerwa/20/01/2024)*

She further elaborated on how environmental elements, particularly lunar cycles, influence the manifestation of epilepsy. According to her, the emergence of the new moon intensifies spiritual activity, making individuals more vulnerable to seizures. These cosmic changes, she claimed, directly affect the body's spiritual balance, increasing the frequency of convulsions.

> *"During the time of the new moon, the victims of epilepsy experience severe seizures and convulsions... It becomes dangerous for them to be near big fires or water bodies because the seizures worsen during this period." (KII/Traditional Healer/Female/Age 75/Kyerwa/20/01/2024)*

These explanations demonstrate how traditional cosmologies incorporate natural phenomena and spiritual logic into health understandings reaffirming observations by Rwiza et al. (1992) that rural Tanzanian beliefs continue to locate illness causality beyond the biological sphere.

Patient Narratives and Medical Pluralism

The lived experiences of people with epilepsy (PWE) reveal the fluid movement between medical systems, often driven by pragmatic needs, familial advice, or dissatisfaction with biomedical care. Many patients reported starting treatment in hospitals but turned to traditional healers after limited improvement. This behavior underscores the prevalence of *medical pluralism* (Good, 1994), where patients pragmatically combine healing systems based on perceived efficacy, accessibility, and cultural coherence. One male respondent explained how he shifted from biomedical to traditional care after prolonged suffering:

> *"I started having seizures about seven years ago. At first, I sought treatment in hospitals and was given medication, but... the seizures kept coming, about twice a day... After visiting the healer, I began to see some changes. The seizures that used to happen daily now occur only once a month." (KII/Patient/Male/Age 32/Kyerwa/16/01/2024)*

He also observed a connection between the timing of his seizures and the lunar phases, particularly during the appearance of the new moon. He believed that these celestial changes heightened his vulnerability, often triggering more frequent or intense epileptic episodes.

> *"I have noticed that my seizures often coincide with the emergence of the new moon... It feels like the risk of having a seizure is higher."(KII/Patient/Male/Age 32/Kyerwa/16/01/2024)*

Another patient, a 45-year-old woman, shared a vivid and emotionally charged account of the conflicting explanations she encountered regarding the cause of her epilepsy. While biomedical professionals attributed it to complications during childbirth, her relatives insisted it stemmed from witchcraft, driven by envy or unresolved interpersonal conflicts within the community.

> *"I encountered this problem after my second delivery. My relatives told me it was caused by witchcraft, from someone who was envious of my fertility. But in the hospital, they told me it was likely a maternal complication during delivery. Honestly, I can't say for sure what caused my problem." (KII/Patient/Female/Age 45/Karagwe/18/01/2024)*

She added that, in her experience, traditional medicine produced more tangible and noticeable results than biomedical treatment, significantly reducing the frequency of her seizures and restoring a sense of hope and well-being in her daily life.

> *"Medical treatments have proven to be a failure for me... Traditional medication has been far better. Since I started it, the frequency of my seizures has reduced to once a year or none at all." (KII/Patient/Female/Age 45/Karagwe/18/01/2024).*

These testimonies reflect how explanatory ambiguity marked by differing interpretations from biomedical professionals, traditional healers, and family members significantly shapes the treatment pathways chosen by people with epilepsy. When patients receive conflicting explanations about the origins of their condition, they are often left to navigate a complex landscape of belief systems. In such situations, practical outcomes such as the perceived effectiveness of a treatment or observable reduction in seizure frequency tend to outweigh scientific rationale. As a result, many patients alternate between or combine biomedical and traditional approaches based on what seems to work best for them.

Family Influence and Cultural Expectations

Family members, especially elders and parents, played pivotal roles in shaping treatment decisions. Even when individual patients were inclined toward biomedical care, family pressure and communal beliefs frequently guided them toward traditional healers. One respondent recalled her mother's initial resistance:

> *"My mother was a Seventh-day Adventist and was initially reluctant to seek help from a traditional healer. It was only after the majority of the family, including uncles and aunts, intervened that she finally agreed."(KII/Patient/Female/Age 51/Karagwe/19/01/2024)*

The treatment she received involved a process of ritual purification and spiritual cleansing, which she described as both intense and transformative. This included specific ceremonies performed by the healer to expel harmful spiritual forces believed to cause her seizures. Through these rituals, she felt her body and spirit were being realigned, ultimately restoring her sense of health and balance.

> *"I vomited two sponge-like pieces of heavy mucus, and the healer told me those were the causes of my epilepsy. After that, I was cured." (KII/Patient/Female/Age 51/Karagwe/19/01/2024)*

Such rituals provided culturally satisfying explanations and emotional closure often missing in clinical settings. These experiences highlight the epistemic gap between scientific models and local health logics.

Caregiving and Parental Resilience

Caregivers, particularly mothers, expressed emotional distress and desperation as they watched their children suffer. One mother caring for a nine-year-old child said:

> *"My child has been prone to epilepsy for two years now... He experiences almost one or two convulsions a day, which has significantly affected his academic performance."(KII/Female/Age 45/Karagwe/22/01/2024)*

Her frustrations with biomedical care and her contemplation of international treatment illustrate both the depth of parental concern and the failure of local systems:

> *"I employed hospital medication for so long, but when there was no improvement, I started thinking about taking him to India for further treatment... I have decided to use both medical treatment and traditional medicine together."(KII/Female/Age 45/Karagwe/22/01/2024)*

This account underscores the pivotal role that caregivers, particularly parents and close family members, play as intermediaries between biomedical and traditional health systems. Faced with the limitations of formal medical care and the persistent symptoms of epilepsy, caregivers are often compelled to explore alternative healing options. In doing so, they navigate between hospitals, clinics, and traditional healers, seeking the most effective and culturally acceptable treatment for their loved ones. Their actions reflect a deep commitment to securing recovery, driven by hope, emotional resilience, and a willingness to engage multiple healing paradigms simultaneously.

Traditional Healing Protocols and Restrictions

Traditional healers described different treatment regimens based on the perceived cause of epilepsy. Hereditary epilepsy was considered easier to treat than witchcraft-induced forms. One healer noted:

> *"Most agree that the causes of epilepsy can range from inheritance to witchcraft. In most cases, epilepsy caused by inheritance can be cured relatively easily... But the kind caused by witchcraft is harder to treat. It requires more time and more care." (KII/Traditional Healer/Male/Age 56/Karagwe/20/01/2024)*

He emphasized that lifestyle restrictions such as avoiding alcohol and refraining from sexual activity were essential components of the healing process, believed to enhance the effectiveness of traditional treatment.

> *"In some cases, the patient is restricted from consuming alcohol and from engaging in any sexual affairs. This is done to ensure that the treatment works effectively and the body remains in a good state to heal." (KII/Traditional Healer/Male/Age 56/Karagwe/20/01/2024)*

These prescriptions reflect holistic healing philosophies that recognize the interconnectedness of physical, moral, and spiritual well-being. In this worldview, illness is not seen merely as a physical ailment but as a disturbance that may stem from moral failings, social conflict, or spiritual imbalance. Healing, therefore, requires restoring harmony across all these domains. Restrictions on behavior such as abstaining from alcohol or sexual activity are believed to support this rebalancing process. Such integrated approaches are a common and foundational principle in many African traditional healing systems (Preux & Druet-Cabanac, 2005), where wellness encompasses the whole person.

Conclusion and Recommendations

The findings of this study indicate several areas where interventions are needed to improve the management and treatment of epilepsy in rural Tanzanian communities, particularly in Karagwe and Kyerwa districts. One of the key challenges identified is the limited access to healthcare facilities and medications, especially in rural areas. Therefore, it is recommended that healthcare infrastructure be strengthened to enhance the availability and accessibility of treatment for epilepsy patients. This could involve expanding access to anti-epileptic drugs, increasing the number of trained healthcare professionals, and addressing logistical challenges that hinder patients from receiving consistent care. Furthermore, there is a need to raise awareness among healthcare providers about the cultural beliefs surrounding epilepsy in these communities, as this could improve patient-provider communication and foster greater trust in biomedical treatment.

Another significant finding was the coexistence of biomedical and traditional healing practices in the management of epilepsy. In light of this, an integrated approach to treatment is strongly recommended. This approach would combine biomedical treatment with traditional healing practices, recognizing the benefits of both systems. Collaboration between biomedical practitioners and traditional healers could lead to a more holistic treatment model, ensuring that patients receive care that is both scientifically sound and culturally appropriate. Such collaboration would help bridge the gap between modern and indigenous healing methods, making epilepsy care more accessible and acceptable to the local population.

Additionally, community education and awareness campaigns are essential to combat the stigma and misconceptions surrounding epilepsy. These programs should aim to educate the public about the scientific causes of epilepsy, its symptoms, and effective treatment options. By promoting a greater understanding of the condition, these campaigns can encourage individuals with epilepsy to seek medical care sooner, potentially improving health outcomes. At the same time, these campaigns should emphasize the importance of traditional healers in the treatment process, recognizing their role in the broader healthcare system and fostering respect for cultural practices. Reducing stigma surrounding epilepsy will help diminish social isolation and encourage more people to seek the care they need.

To further enhance the management of epilepsy, it is crucial to encourage collaboration between medical and traditional practitioners. Establishing formal communication channels between these two groups could help ensure that patients benefit from the full spectrum of available treatments. Training programs that educate both biomedical practitioners and traditional healers about each other's practices would foster mutual understanding and respect, promoting the integration of both systems. By working together, medical and traditional practitioners could better address the treatment gaps identified in this study, providing patients with a broader range of care options.

Supporting families and caregivers is another important recommendation. The study highlighted the crucial role that families play in the management of epilepsy, particularly in rural areas. Therefore, providing families with training and support is essential. This support should include guidance on how to manage seizures, recognize warning signs, and assist with medication adherence. Addressing the emotional and psychological challenges faced by caregivers is equally important, as caring for someone with epilepsy can be a demanding and stressful experience. Offering support to families can help alleviate some of these challenges, improving the overall care of epilepsy patients.

Finally, further research is needed to better understand the effectiveness of integrated treatment approaches and to assess the long-term outcomes of combining biomedical and traditional medicine in the management of epilepsy. Longitudinal studies could provide valuable insights into the success of these integrated models and help identify best practices. Additionally, ongoing monitoring of community education programs and healthcare interventions will ensure that they remain responsive to the evolving needs of the population.

In conclusion, the recommendations derived from this study emphasize the importance of a complex approach to improving epilepsy care. By strengthening healthcare infrastructure, promoting integrated treatment methods, reducing stigma, supporting caregivers, and conducting further research, the management of epilepsy in Karagwe and Kyerwa districts can be significantly improved. An inclusive approach that combines both modern and traditional healing practices will foster better health outcomes and greater trust within the community.

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