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# **FULL-LENGTH ORIGINAL RESEARCH**

# Seizures in Namibia: A study of traditional health practitioners

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Epilepsia Open, 3(3):374–382, 2018 doi: 10.1002/epi4.12240

#### SUMMARY

Objective: Countries in sub-Saharan Africa are plagued by poor healthcare facilities, lack of specialist care, and limited financial resources. People with seizures often rely on the help of traditional health practitioners (THPs). Traditional health practices are not acknowledged in Namibia and remain unregulated and open to exploitation. We conducted a qualitative study to gain an understanding of THPs' perceptions and experiences in delivering seizure care in Namibia.

<u>Methods</u>: This study formed part of a larger mixed-method study that explored seizure care among healthcare providers (HCPs) in Namibia. Semi-structured interviews were conducted with 11 THPs in Namibia. Thematic analysis was used to identify themes and subthemes in the data. Themes were interpreted using the different levels of Bronfenbrenner's Ecological Systems Theory to illustrate the perceptions and experiences of THPs in the management of seizures.

Results: THPs distinguish between seizures with physical causes and those caused by witchcraft, evil spirits, and supernatural forces. THPs acknowledge the role of Western medicine in the treatment of medically explained seizures (physical causes). Seizures as a result of medically unexplained symptoms (spiritual) are deemed best treated by traditional medicine (TM). Diagnostic and treatment practices are person-specific and are guided by divination and the use of plant and animal material. Treatment success is measured by the complete absence of seizures. Biomedical treatment is seen as lacking due to its focus on seizure control and failure to provide a permanent cure.

Significance: In countries with limited healthcare resources, the untapped potential of THPs may play a valuable role in bridging the treatment gap for seizures. Incorporating THPs into the healthcare system depends on proper regulation and clear demarcation of roles between service providers. Improved referral practices and collaboration between service providers will be of benefit for people with seizures who are often exposed to stigma and discrimination.

KEY WORDS: Namibia, Sub-Saharan Africa, Epilepsy, Traditional healers, Seizures, Qualitative.



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Accepted May 26, 2018.

Anywhere between 65 and 70 million people worldwide live with epilepsy as an everyday reality. About 80–90% of these affected persons live in developing countries.<sup>1,2</sup> In sub-Saharan Africa (SSA), Epilepsy is the single most common, chronic, and severe neurologic disorder. It holds enormous costs, mortality, stigma, seizure-related disability, and comorbidities that the systems in these countries have to address.<sup>3,4</sup> Many of the SSA countries fall into the World Bank's classification of low and lower middle income countries (LMICs) based on gross national income per capita. As such, these countries do not have the resources to handle the

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# **KEY POINTS**

- Traditional health practitioners (THPs) distinguish between medically explained and medically unexplained seizures
- There is a strong belief that medically unexplained seizures are caused by witchcraft, evil spirits, and supernatural causes
- Diagnostic and treatment practices for seizures are individualized and unique to each person
- THPs recognize the role of Western medicine in the treatment of seizures originating from physical causes (medically explained seizures)
- There is a need to acknowledge and regulate traditional health practices in Namibia

immense economic, medical, and social burden that epilepsy brings.<sup>5</sup> Resource-poor countries often have inefficient healthcare systems, widespread poverty, and unevenly distributed material resources.<sup>5</sup> The sparse financial resources serve as a stumbling block to accessing specialists and specialized equipment. People with seizures often have to seek care from distant and underresourced state medical facilities.<sup>6,7</sup>

Traditional medicine (TM) is actively used to address the healthcare needs of approximately 80% of the population in Africa, partly because medical care is so problematic. The accessibility of traditional health practitioners (THPs) in Africa makes them an alluring option in places where there is a lack of skilled medical doctors. In addition, the THPs ascribe to a healthcare model that is closer to that of the communities they serve. Most healthcare providers (HCPs) are trained in biomedicine, which is based on the dominant model of disease in Western culture. In Namibia, many people with seizures may first seek treatment from a biomedical HCP, although a diagnosis of an incurable but controllable disease is often deemed unacceptable and prompts people to seek treatment from a THP.

An overview of the TM situation in the African region reports that 39 of 46 countries in Africa have National TM offices and 24 have TM programs in their Ministries of Health. 11 Namibia, Botswana, and Algeria are the only countries in this region for which no information is available. 11 At the moment, THPs in Namibia, many of whom hail from other African countries, have no legally defined status. Prior to Namibia's independence, TM was outlawed in the country.<sup>12</sup> Since its legalization in 1990, several attempts have been made to regulate and formalize the practice of TM. One such an attempt was the establishment of the Namibia Eagle Traditional Healers Association (NETHA) in 1990 with the aim to professionalize and organize THPs. 10,12,13 However, this organization and others of its kind seem to have gone to rack and ruin, and no recent information on its activities are available. The Traditional

Health Practitioners Bill, which was tabled in the National Assembly in 2014, is yet to be promulgated, and the status of THPs in the country remains unclear and unregulated.

Notwithstanding these challenges, the practice of TM seems widespread throughout the country, with last known estimates putting the number of active THPs at 2,400.<sup>14</sup> A pilot study conducted in Windhoek and neighboring Katutura found that THPs play a major role in primary health care and social welfare among the disadvantaged population in Namibia. 13 In Namibia, very little is known about THPs' knowledge regarding the management of seizures, save for 2 studies performed by anthropologists approximately 2 decades ago. This study is a first for Namibia and provides some information about THP practices and the ways in which they diagnose and treat people with seizures. This study may also contribute to some of the objectives of the World Health Organization's Traditional Medicine Strategy<sup>15</sup> by providing insight into the current state of TM in Namibia.

# **Methods**

#### **Data Collection**

This study forms part of a larger study that investigated the perceptions and frustrations of biomedical healthcare providers regarding the management of psychogenic nonepileptic seizures<sup>16</sup> and the diagnostic and treatment practices for psychogenic nonepileptic and epileptic seizures in Namibia. 17 There is currently no official regulating body for traditional healers in Namibia, but it does seem that 2 informal organizations in Namibia, namely the Namibian Traditional and Spiritual Healers Association (NTSHA) and NETHA have attempted to play some regulatory role among THPs. However, they do not seem to be in existence anymore and the researchers could not succeed in contacting them for participation in this study. <sup>13,18</sup> Snowball sampling was therefore used to identify possible THPs who would be prepared to participate in the study. The Stellenbosch University Health Research Ethics Committee granted ethical approval for this study (protocol number: REC-050411-032). Data collection took place between June and August 2017.

The first lead on a healer came via an Oshivambo friend. This healer supplied a telephone number of one other healer, who in turn supplied the researchers with a list of other healers and telephone numbers. Many of the numbers were unreachable, but some worked and we were able to arrange meetings with some of them. These healers again provided names of other THPs who was contacted with varying degrees of success. Some agreed to participate subsequent to a telephone call, whereas others were skeptical and suspicious and appointments were often not kept or the THP could not be reached on the day of the appointment. Possible participants were invited telephonically and the purpose of the study was explained verbally. During this

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process, 36 THPs were identified as possible participants. Telephonic contact was made with 21, appointments were scheduled with 16, and successful interviews conducted with 11. See Table 1 for demographic information on participants.

If the THP agreed to take part in the study, a meeting was arranged at a time and place that suited the THP. All the participants were met at their homes. In some cases, we were accompanied by a healer who had good command of the English language and who was able to assist in clarifying some of the terms used during the interviews. Semi-structured interviews consisted of broad, open-ended questions that explored how seizures are customarily diagnosed and treated by THPs, as well as local beliefs regarding the cause of seizures (Table 2). The total number of interviews depended ultimately on theoretical saturation, and by the 11th interview, various themes started repeating themselves and no new information was emerging. <sup>19</sup> Interviews lasted 30 minutes in some cases and up to 2 hours or more in others.

### Data analysis

The same analytical strategies and measures to ensure trustworthiness were used as described in a study by du Toit and Pretorius. 16 Qualitative data from the semi-structured interviews were evaluated using thematic analysis (Table S1).<sup>20</sup> The worthiness of qualitative research is often evaluated using criteria such as validity and reliability applicable to quantitative research.<sup>21</sup> As an alternative, the concept of "trustworthiness" is used by qualitative researchers to describe the virtues of a study outside of the parameters that are ordinarily used in quantitative research. 22 Toward this end, Guba<sup>23</sup> proposes 4 criteria that should be considered in a trustworthy study, namely, credibility, transferability, dependability, and confirmability. Peer debriefing, peer examination, and member checks were used to ensure that the data were represented fairly and truthfully. 21,24 To ensure that the study truly reflects the informants' perceptions and excludes the beliefs and biases of the researcher, reflexivity and triangulation were used.<sup>25,26</sup> See Table S2 for the processes used in maintaining trustworthiness.

#### Theoretical framework

Bronfenbrenner's Ecological Systems Theory (EST)<sup>27</sup> was combined with a mixed inductive approach to describe the perceptions and experiences of THPs in a holistic manner by interpreting the ideas and understanding they have of seizures, themselves, and their environments. According to Bronfenbrenner's EST, 28 human behavior can be considered in terms of a hierarchy of related systems with interactional patterns between and within the systems.<sup>29</sup> Bronfenbrenner describes it as "a nested arrangement of structures, each contained within the next."<sup>27</sup> The EST is used in the present study as it enables one to describe how the perceptions of THPs could influence the various interrelated systems that form part of the diagnosis and treatment of seizures. Four levels of interaction are outlined in the EST,<sup>27</sup> namely the micro-, meso-, exo-, and macrosystems. The microsystem can be described as the pattern of the activities and the interpersonal relationships of a person who assumes a specific role in a particular place, with another person in a face-toface setting. 27,30,31 The mesosystem refers to the linkages between the various microsystems in which the THP participates and can be described as a system of microsystems.<sup>28</sup> The exosystem can be seen as an extension of the mesosystem and includes both formal and informal social structures that influence and delimit the person, even though these structures do not directly contain the person. 27,31 The macrosystem refers to the wider societal and cultural norms, such as policies regarding health and economic standards, legal and political systems, attitudes and belief systems, as well as cultural values. 27,31

# RESULTS

Results and direct quotes from the thematic analysis are illustrated in Figure 1 and Table 3. Main themes identified during thematic analyses center on diagnosis, treatment,

P	Age	Gender	Ethnicity	Type of healer	Years in practic
ī	69	F	Damara/Nama	Traditional	39
2	72	F	Oshivambo	Traditional	51
3	59	F	Afrikaans	Religious	7
4	66	F	Herero	Traditional	39
5	73	M	Oshivambo	Herbalist/Spiritualist	26
6	42	M	Herero	Spiritualist	21
7	40	M	Herero	Traditional	30
8	46	M	Herero	Traditional	27
9	50	M	Herero	Traditional	35
10	30	M	Nyanja	Diviner	8
П	65	F	Afrikaans	Spiritualist/Diviner	12
	Mean 55.6	M: 55%	6B;2M;7W	·	Median 27

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Table 2. Questions that were used to guide the interviews				
Number	Questions			
I	What do you classify as a seizure and what do you think are the possible causes?			
2	How do you explain the seizures to the patient and what is their reaction?			
3	How do you treat seizures? How successful is it?			
4	What kind of contact do you have with Western doctors or hospitals and do you think Western medicine can work for seizures?			
5	In your opinion, what problems do people with seizures experience?			

patients, and knowledge. Subthemes are reported according to the 4 levels of the EST.

### Theme 1: Diagnosis

#### Microsystem

Person-specific diagnosis guided by divination. Ten of the THPs indicated that supernatural forces guide them in determining the cause of a person's illness. The instructions received from divination are combined with the information that the person provides on other illnesses, family history, and an explanation of the seizures in order to arrive at a diagnosis (Q1). In 6 instances, participants mentioned that even when an initial diagnosis was provided at a hospital, the spirit would provide guidance on the specific cause of the seizure in this person.

# Mesosystem

Distinguish between spiritual/medical causes. THPs clearly distinguish between medical and spiritual causes for seizures (Q2). Medical causes can be treated at the hospital as described by one THP (Q3). However, if seizures originate as a result of spiritual causes such as witchcraft, evil spirits, or inheritance, it is believed that they can only be treated by THPs (Q4).

#### Exosystem

Role of family history in causation. Six of the THPs mentioned that seizures can be inherited from the forefathers and can be "passed down from generation to generation." Although some described it as a "gene disease," others indicated that participation in witchcraft and demonic activity can lead to seizures among family members (Q5).

#### Macrosystem

Ineffectual diagnosis by the Western medical system. THPs stated that HCPs often fail to understand the underlying cause of the seizures and this prevents them from successfully treating the person (Q6). THPs recognize HCPs' efforts; however, they are seen as fruitless when seizures occur as a result of spiritual causes (Q7).

#### Theme 2: Treatment

#### Microsystem

Person-specific treatment guided by divination. Treatment for seizures is unique to each person and is always guided by what the spirits reveal about the person and the cause of the illness (Q8). Each THP employs different rituals and herbal preparations during treatment as advised by the spirit (Q9). Other practices include the use of plant materials, insects, healing prayers, and laying of hands. Four of the THPs distinguish between treatments for children, elders, and types of seizures (Q10).

#### Mesosystem

Outcomes-based measure of success. All the healers claimed that once they treated a person, seizures are completely healed. Success is measured by the complete absence of seizures as reported by the person themselves (Q11). Nine of the THPs stated that the person is healed immediately, whereas 2 indicated that successful healing depends on how long the person has been sick (Q12).

#### Exosystem

Bi-directional referrals between the state and THPs. THPs explained that they have an open and collaborative relationship with the state hospitals and will refer a person to the hospital if they are unable to treat the seizures (Q13, Q14). At the same time, THPs stated that they regularly receive people with seizures, either by direct- or self-referral from the hospital. In some cases, doctors informed the person that they cannot be helped or people feel that the medical treatment failed to cure the seizures.

### Macrosystem

Western medicine treats symptoms but does not focus on cure. The perception that seizures are cured only when completely absent is reflected in THPs' statements that Western medicine can only control the seizures, but does not offer a cure (Q15, Q16).

# **Theme 3: Patients**

### Microsystem

Accommodating the patient's explanatory model of illness. THPs indicated that they rely on the person's narrative and explanation of how and why the seizures may have started (Q17, Q18).

#### Mesosystem

Attribution grounded in family and community belief system. Seizures are attributed mainly to witchcraft, evil spirits, and demonic activity. It is believed that seizures can be contracted through food and drinks that were contaminated by magic powers. Other, less magical causes are also

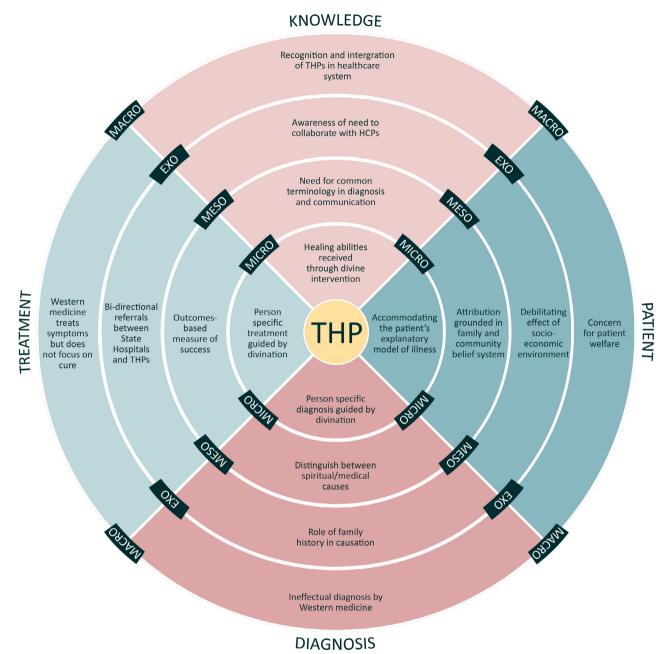


Figure 1.

A graphical illustration of the main themes and subthemes according to the different levels of the Ecological Systems Theory.

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considered, such as infections, traumatic brain injury, and various psychological factors (Q19). All the THPs regard mass hysteria, where groups of people experience seizure-like symptoms when exposed to a common stressor to be the work of evil spirits, demons, and witchcraft.

# Exosystem

Debilitating effect of socioeconomic environment. Poor socioeconomic conditions are described as a contributing factor in seizure manifestation (Q20). THPs mentioned that

lack of access to food, poor maternal habits during pregnancy, and alcohol abuse negatively affect the well-being of people with seizures.

#### Macrosystem

Concern for patient welfare. THPs expressed concern that people with seizures often encounter unique challenges that affect their quality of life (Q21). Apart from the inability to secure gainful employment, the person may also require constant care from family members (Q22).

	Table 3. Emergent main themes and illustrative quotes					
Main theme	Illustrative quote					
Diagnosis	"I ask for their medical history and I also look to the Bible for guidance. Once it has been revealed that it is epilepsy I tell them the revelations given to me by the Holy Spirit. I explain to them what it is and that it is an evil spirit not sent from God and how I will be treating them." (Q1)					
	"It can be spiritual or it can be medical. If it is medical, it means that the individual is able to go for treatment and then the doctors are able to heal the person through medication. By spiritual I mean, it's a demonic occurrence depending on a person's background."  (Q2)					
	"If the epilepsy is from a car accident it is treated by the medical doctors." (Q3) "If the epilepsy is from the witchcraft it is not for Western medicine." (Q4)					
	"Some people come from families where there is deep demonic involvement like witchcraft, where somebody is maybe jealous of a person and they get bewitched." (Q5)					
	"The doctors can't see any problem with them, so they've been lying in a hospital for such a long time without having been helped because doctors can only treat people when they know what exactly happened with this person. If the doctor doesn't know exactly					
T	what happened they evict them from the hospital and then they tell them to go to the traditional healer." (Q6) "Doctors are doing their best, but there are some cases which are beyond medical science which now becomes spiritual." (Q7) "The transfer of the print of					
Treatment	"The treatment is not purely for each and every person the same, it depends on the guidance of the spirit." (Q8)  "Steaming with some herbs that I put in the water or I normally induce vomiting by giving them some herbs from the field." (Q9)  "Whether it is the one where it is biting the tongue, or for one that was nearby the fire, or for children up to 10 years." (Q10)  "Oh yes it really, really works. I know because the patients come back to tell me that the treatment worked and they normally stop					
	having seizures. All of those that I treated do come back and tell me." (Q11) "Treatment depends on how long this sickness took to get into the body. Up to 2 weeks or 2 months, depending on the person." (Q12)					
	"If it is difficult for the epilepsy to be removed by us, then hospital is a priority or for proper verification that a person is really healed." (Q13)					
	"Doctors and the traditional healers work in conjunction. We work together so the patient will tell the doctor that I am coming from a traditional healer or that I am going to go to a traditional healer. It is no secret." (Q14)					
	"This of witchcraft and inherited cannot be treated by hospital medicines because the hospital gives tablets and medicines, but they don't help 100 per cent and the tablets are not for curing. It's just to make it better." (Q15)					
D	"The medication they get usually just subsides the symptoms, but they don't totally heal the disease." (Q16)					
Patients	"The person is the only one that will know how he got that epilepsy. Maybe it is an inherited disease from ancestors." (Q17) Disobeying of the commandments, so the person is punished by God, thinking too much or magic powers passed from people." (Q18)					
	"Epilepsy comes from witchcraft, to be bewitched. Or when the baby falls down from the bed, swelling in the brain. The other sort come from depression. Once you have overloaded with many problems. Boyfriends, girlfriends, lifestyle and these type of things, so you become depressed. The other type comes from the environment like evil spirits. When we face years of drought or rain, those years you can get more people that has epilepsy during a particular year." (Q19)					
	"The black community are not living in a conducive environment in terms of food and the water that we are drinking and sanitation. It is something that people should avoid for them to get rid of the disease. If people are hungry or thirsty, or if they drink too much it also brings the epilepsy." (Q20)					
	"I think it does affect their progress in life. People are not able to get job interviews and are not able to work for a long time because of such seizures." (Q21)					
	"When they get this attack during the night when they are sleeping and they are maybe alone, they may die due to respiratory problems." (Q22)					
Knowledge	"I got it at birth because I came out feet first and I was wrapped up in the placenta, but it was not my placenta. It was just a cover. So it was a special birth because I came out feet first, I was protected and I have a twin. So in our tribe that is a very strong spiritual kind					
	of birth. Once a person is born like that that it is obvious that he is a healer, that he has a spiritual gift." (Q23)  "A seizure is like a fit which a person can get and it can become so bad that the person even urinates and falls down. They don't know where they are and what happened. There is crying and they make a noise and one can see it in the eyes." (Q24)					
	"Such as ones that occur when you are sleeping, others occur when you are hungry and thirsty. Some occur while you are walking down the street and you fall down and have a fit. Another one is when the person is under heat (fever) or finally, a person is born with it." (Q25)					
	"There must be a kind of referral system from the healer to the hospital because sometimes this disease is for the medical doctors.  The healers also need to be trained and told that they refer them back to the hospital if it is difficult to treat the epilepsy." (Q26)					
	"Some of the medicine from the Western doctors also work for epilepsy because the spirit says so." (Q27) "Your doctor has to tell you to stop the medicine" and "We encourage them to go to the doctor for the follow-ups." (Q28) "The only thing that can rectify this epilepsy from the community is if the hospital or the hygienic medical doctors can acknowledge					
	that here in the black communities, our people can heal the disease and then refer those people to the black healers. It will most probably help." (Q29) "They don't have papers. They scramble the people's heads and they ask a lot of money. They take everything that the people own					
	like TVs and furniture. It's a robbing business that." (Q30)  "Some of these healers are not entirely honest and sometimes they hurt the people. Some are really bad. It's a money problem but					
	there are lot of impostors." (Q31)					

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### Theme 4: Knowledge

#### Microsystem

Healing abilities received through divine intervention. None of the THPs interviewed mentioned that they received formal training or apprenticeship in their field of expertise. Instead, the THPs indicated that they received the gift of healing through divine intervention, which in some cases included extraordinary events during their births or being selected through the spirit of God or inheritance from their family (Q23).

#### Mesosystem

Need for common terminology for diagnosis and communication. THPs described the most common signs of seizures as tongue biting, loss of bladder control, and falling down (Q24). A distinction is also made between various types of seizures based on presentation or perceived cause (Q25).

#### Exosystem

Awareness of need to collaborate with HCPs. THPs acknowledged that there is a need to collaborate with doctors at the hospital (Q26, Q27). THPs further indicated that they advise people to continue taking medicine prescribed by the hospital (Q28).

#### Macrosystem

Recognition and integration of THPs in the healthcare system. THPs expressed the desire that their role in providing services to especially the black community, should be recognized by Western doctors (Q29). Probably the biggest concern for 8 of the healers stemmed from the lack of official regulation of THPs in Namibia. Participants frequently mentioned that healers from other countries mislead the public and demand exorbitant fees for their services (Q30). THPs also raised the concern that impostors may hurt people (Q31).

# Discussion

More than 60% of the total Namibian population of 2,459,000 rely on public health care provided by the Namibian government. However, economic limitations prevent already underresourced state healthcare facilities from coping with healthcare demands. Given the vastness of the country and its low population density, healthcare facilities are often located in more populated areas, which results in long traveling and waiting times to reach clinics. For this reason, THPs play an important role in healthcare provision to the poor rural communities of Namibia. This is consistent with findings from other studies in Africa that highlight the important role of THPs in rendering culturally inclusive services to local communities. 6,34,35

Healthcare providers in Namibia recognize that more collaboration is needed with THPs in the treatment of seizure disorders. 16 This comes with the realization that modern medical treatments sometimes fall short in addressing the healthcare needs of people with seizures in Africa. This is consistent with findings from other studies conducted in African countries that describe the role of THPs in the treatment of epilepsy and mental disorders. 36,37 In this context, it is clear why people with seizures may seek help from THPs who are familiar with local cultural beliefs and who are often more physically and conceptually accessible. Studies in Africa have shown that THPs play an integral role in the treatment of epilepsy. 6,34,38–40 Despite this evidence, THPs' role in the treatment of seizures in Namibia remains unrecognized and their practices unregulated. This leaves an opportunity for THPs from other countries to exploit an already vulnerable population, as people with seizures in Africa are often exposed to stigma, poverty, food insecurity, physical vulnerability, and various forms of abuse. 41-44

The THPs who participated in this study all believed that seizures can be attributed to the work of evil spirits, witchcraft, and supernatural forces, which is consistent with findings from other studies conducted in South Africa, Zambia, Tanzania, and Kenya. 4,6,34,38 They do, however, make a distinction between medical seizures, which can be treated by Western medicine, and spiritual seizures that can be treated only by THPs. A study among healers in South Africa reported similar findings where participants provided diverse biomedical and local cultural explanations as to the causes of epilepsy.<sup>38</sup> A distinction is therefore made between seizures as a result of identifiable physical causes and seizures that originate as a result of psychological or spiritual causes. This understanding corresponds to the biomedical view of seizures as either medically explained (MES), such as epilepsy, or medically unexplained (MUS), such as psychogenic nonepileptic seizures (PNES). This raises the question of whether THPs, in their own way, can distinguish between epilepsy and PNES. Should this be the case, it is not surprising that THPs can successfully treat people with seizures when the origin is grounded in spiritual beliefs and where the treatment approach is more culturally appropriate. This is because, according to biomedicine, the treatment for MES seems relatively straightforward with pharmacology in the form of antiepileptic drugs (AEDs) the preferred choice of action in the case of epileptic seizures.<sup>1,45</sup> However, the most preferred and effective treatment for MUS, such as PNES, is found in various forms of psychotherapy. 46 However, psychotherapy in a Western medical sense may not appeal to cultures where talking about the inner self is avoided. 16 Toward this end, HCPs in the larger study indicated that they believed THPs can play a supportive role in the treatment of seizures.<sup>17</sup>

As in other African countries, THP practices focus on the person as an individual with a unique diagnosis and treatment plan guided by divination.<sup>38,39</sup> A typical "treatment session" for THPs does not correspond to the Western concept of 1-hour psychotherapeutic sessions. Participants in

this study explained that even when a healer states that the person was healed "immediately," it is often after treatment that lasted many continuous hours spent on divination, preparations, and performing rituals. These treatments can sometimes last up to a week and are seen as a single intervention. The use of plant and animal material in seizure treatment is never standardized and is often adjusted and applied depending on the person's needs and the perceived cause of the seizures. This corresponds to findings from studies performed in other African countries that reported the use of herbs, animal products, and insects during treatment. 6,38,39 Success is measured by the complete absence of seizures, which is again entirely possible if the THP is treating the person for what is known as PNES according to Western definitions. Some of the THPs in this study stated that they can completely "cure" people with seizures. A study conducted in South Africa reported similar findings, with 47% of the participating healers believing that they can successfully treat adults with seizures.<sup>36</sup>

At the same time, THPs indicated that they have an open and reciprocal relationship with HCPs at the state hospitals and that people with perceived medical seizures are frequently advised to seek help from Western doctors. This willingness of THPs to refer patients to Western medical facilities was also apparent in other studies conducted in Africa.40 THPs also admitted that they seldom interfere in the treatment that was prescribed by the hospital and would even encourage the person to return to the hospital for follow-ups. Even though the THPs stated that they regularly receive people who sought help at the hospital, they did indicate that HCPs sometimes take too long to realize that a person may benefit from THP intervention. Despite these positive renditions of collaboration between THPs and the state hospitals, no formal referral system is in place. Consistent with previous research in Africa and the positive renditions of collaboration between THPs and the state hospitals in this study, the lack of a formalized referral system remains a concern among participants. 33,43 Lack of collaboration between healthcare systems leaves much scope for misunderstandings and unnecessary rotation of people between various service points. Until such time when THPs are formally recognized as legitimate service providers and their role in the treatment of seizures acknowledged, their contribution to health care will not be utilized to the fullest extent in Namibia. Especially in SSA, where the seizure treatment gap is significant and access to healthcare facilities is severely limited, the THPs can play a major role in addressing these shortcomings. 6,35,38 Regulation of this industry and the introduction of formal training opportunities for THPs may address some of the misgivings of HCPs about the role of THPs in health care. This goes hand-in-hand with the clear demarcation of roles and responsibilities and the introduction of proper guidelines for the management of people with seizures.

# LIMITATIONS

This study required that snowball sampling be used to identify possible participants. This leaves the possibility that the sampling method could have led to bias in the sample, as THPs may have identified their peers for participation. The findings of this study are therefore not representative of THPs across the country and cannot be generalized. However, despite these shortcomings and the small sample size of the study, the purpose was to generate depth rather than breadth and the study focused on generating information-rich findings on the perceptions and experiences of THPs in the management of seizures. 47,48

# ACKNOWLEDGMENTS

The authors thank all the THPs for their willingness to participate in the interviews and without whom this study would not have been possible. We are grateful to Ms Liseli Kamona for her assistance in contacting the healers and explaining some of the practices. We also thank Christien Terblanche of Cum Laude Language Practitioners for her services as language editor and Ida at Innovative Design Arts for the graphical illustration.

# DISCLOSURE

None of the authors has any conflict of interest to disclose. This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors. We confirm that we have read the Journal's position on issues involved in ethical publication and affirm that this report is consistent with those guidelines.

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# SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section at the end of the article:

Table S1. Stages of thematic analysis.

**Table S2.** Process of maintaining trustworthiness.