Sociodemographic Factors Influencing Health Care–Seeking Behavior for Pediatric Epilepsy in Southeast Nigeria

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Abstract

Background Early presentation and initiation of appropriate anticonvulsants help in controlling epilepsy and reducing morbidity and mortality associated with epilepsy.

Objectives This study aimed to assess the health-seeking behavior for pediatric epilepsy among caregivers in Southeast Nigeria and the associated sociodemographic factors.

Methodology This study was a cross-sectional descriptive and questionnaire-based study. The participants were recruited consecutively.

Results Majority of the caregivers were mothers, had some formal education, and were employed. While 50% of these caregivers did not seek any home treatment for seizures, the other half offered various types of unorthodox home treatments. Treatments in primary and secondary levels of care were the most common form of first point of care outside the home. The most common reasons for the choice of care outside the home were advice from relations and belief in the efficacy of care offered. About 45% of the caregivers presented to tertiary level of care within 6 months of seizure onset. The major motivators for seeking care in tertiary level of care were health workers and families of children with epilepsy.

Conclusion There is a need to strengthen the primary and secondary levels of care through continuous medical education of health workers in these levels of care for effective management of epilepsy. This will help in making prompt and correct diagnosis, classification, and initiation of appropriate therapy in epilepsy.

Keywords
- care-seeking
- pediatric epilepsy
- sociodemographic factors

Introduction

Epilepsy is the commonest neurologic disorders with approximately 10.5 million children affected globally.[1] To date, there are still a lot of misconceptions surrounding the disease in the developing countries leading to stigmatization, resulting from poor health-seeking behaviors in epileptics and their caregivers. An episode of convulsion is a life-threatening event that evokes great fear and anxiety among caregivers and relations who, out of ignorance, proffer

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various harmful remedies. It is an illness associated with a lot of social stigma and diverse cultural beliefs regarding its etiology and treatment.[2] A caregiver's belief, perception, social, economic, and cultural background often influence treatment decisions regarding the choice of care. Some of these treatment choices are unorthodox and harmful involving consultation with traditional and spiritual healers. The decision to seek alternative remedies is often influenced by many factors such as traditional belief systems (influence of spirits and witchcrafts as etiologies in epilepsy), ignorance of the illness, and distance to health facility and cost of care.[3]

Caregivers, especially in resource-poor countries, face additional burdens of ignorance, lack of access to quality care, and availability of pediatric formulations of antiepileptic medications.[4] Many people still believe that epilepsy is medically incurable and consequently resort to traditional and spiritual remedies that have no proven efficacy.

We examined the sociodemographic factors influencing care seeking for pediatric epilepsy in Nnewi, Southeast Nigeria.

Patients and Methods

The study was a descriptive cross-sectional study which involved caregivers of children with epilepsy who presented to the pediatric neurology clinic of Nnamdi Azikiwe University Teaching Hospital, a tertiary health institution in Nnewi, Anambra State, Southeast Nigeria. The hospital maintains a pediatric neurology clinic that runs once a week, every Tuesday 8 a.m. to 4 p.m. It is manned by three consultant pediatric neurologists, registrars, and medical officers. A person was considered a caregiver if he/she was directly and consistently responsible for the child's care and treatment. Caregivers who voluntarily agreed to participate in the study were consecutively recruited as they present to the clinic.

All participants were asked to complete a designed questionnaire that sought information about their health care–seeking behavior for epilepsy and their sociodemographic information via face-to-face interview. Other relevant clinical information about the patients was obtained from the medical records.

Data Analysis

Data analysis was done using Statistical Package for Social Sciences (SSPS version 20). Figures were presented as numbers and percentages and results represented in tables.

Results

Ninety-five caregivers of children with epilepsy were recruited for the study. Of these children with epilepsy, 56 (58.9%) were males while 39 (41.1%) were females. More than 70% of the caregivers were mothers. Majority of these caregivers had some form of formal education (97.1%) and were employed (71.6%) as in ►**Table 1**.

Generalized seizure was the commonest factor seen in these children. About 50% of caregivers were passive (choose not to give any form of home treatment) and the rest of them gave various forms of unorthodox remedies (►**Table 2**). However, orthodox care was the most common type of care sought outside the home by the caregivers. Some of the caregivers gave more than one reasons for choosing a particular type of care outside the home. Choice of care outside the home was influenced by advice from relatives and belief on the efficacy of the care offered. Among the caregivers who had formal education, 84.2% preferred orthodox care as the first choice of care outside the home (►**Table 3**).

Only approximately 45% of caregivers presented within 6 months of seizure onset while approximately 26% presented more than 2 years after seizure onset as in ►**Table 2**.

The main motivators of health-seeking behaviors were health workers (48.7%), families, and caregivers of children with epilepsy (33.7%).

Table 1 Sociodemographic characteristics of respondents (patients and their caregivers)

Variable	Frequency	Percentage
Gender		
Male	56	58.9
Female	39	41.1
Family history of seizures		
Yes	18	18.9
No	76	80.0
Unknown	1	1.1
Relationship to patient		
Mother	70	73.7
Father	17	17.9
Others	8	8.4
Educational status		
Uneducated	2	2.1
Primary Education	26	27.4
Secondary Education	28	29.5
Tertiary Education	39	41.1
Occupation		
Unemployed	27	28.4
Self employed	49	51.6
Public servant	19	20.0

Discussion

Pediatric epilepsy in developing countries is surrounded by many myths and prejudices which are based on ignorance of the disease, stigma, and belief system. There are various forms of orthodox and unorthodox practices seen in pediatric epilepsy. Some of these unorthodox practices are harmful and worsens the morbidity and mortality in these patients.

Table 2 Seizure types, treatment seeking behaviors, and their motivators

Variable	Frequency	Percentage
Type of seizure		
Generalized seizures	70.0	73.7
Focal seizures	14.0	14. 7
Mixed	4.0	4.2
Unclassified	7.0	7.4
Treatment-seeking behavior (at home)		
No treatment	48	50.5
Herbal/native concoction	33	34.7
Crude/olive oil	9	9.5
Mother's urine	5	5.3
First point of care outside home		
Unorthodox (traditional/herbal/ spiritual)	15	15.8
Orthodox (private/family physician)	60	63.2
Orthodox (general/mission hospital)	20	21.0
Time gap		
$<$1 month	19	20.0
1–6 months	24	25.3
7–12 months	8	8.4
1–2 years	19	20.0
$>$2 years	25	26.3
Motivators		
Health workers	46.0	48.7
Family/relations	32.0	33.7
Caregiver of child with seizure	8.0	8.4
Self	9.0	9.5

Table 3 Reasons for choice of care

Variable	Unorthodox (traditional/ herbal/spiritual) *n* (%)	Orthodox *n* (%)
Reasons for choice of care		
Proximity	0	17 (17.5)
Cost of care	7 (7.4)	4 (4.2)
Belief on the care	7 (7.4)	44 (46.3)
Advice from people	1 (1.0)	15 (15.8)
Total	15 (15.8)	80(84.2)
Educational status		
Uneducated	2 (2.1)	0
Primary education	5(5.3)	21 (22.1)
Secondary education	6 (6.3)	22 (23.2)
Tertiary education	2 (2.1)	37 (38.9)
Total	15 (15.8)	80 (84.2)

Stigmatization associated with the disease significantly alter their health care–seeking behaviors.[5]

This study reported slight male preponderance of epilepsy in children, with male-to-female ratio of 1.4:1. Some other studies also reported slight male excess.[6–9] The reason for this, though not clear, may be attributed to increased exposure of the brain to insults such as trauma to the brain, alcohol, and drugs, especially in adolescent males. Second, parents are often reluctantly presenting their female children to health facilities for treatment as this may impede their getting married and sometimes reflects badly on their family.[10,11] They will rather prefer taking them to other alternative but unorthodox places where they will be hidden from other children.

Generalized and focal epilepsies were the commonest forms of epilepsy observed in this study. This conforms with the study by Eyong et al.[12] Other studies in Southern Nigeria were also in tandem with this finding.[8,13] Sander also reported the same finding in his study.[14] Alternative medicine practices are common in the management of most chronic illnesses globally, more so, in Nigeria.[15,16]

About 49.5% of the study participants had experienced some forms of unorthodox home therapies. These therapies include herbal concoction (34.7%), crude/olive oil (9.5%), and mothers' urine (5.3%). Ojinnaka et al[9] reported that 39.1% of the participants in their study were using traditional therapies in the management of epilepsies, while Tsigebrhan et al[17] and Sebera et al[18] reported 29.9 and 25% use of traditional medicines in epilepsies, respectively. Most of these home therapies are dangerous to health and neither play a role in the etiopathology pathway nor epilepsy management. High patronage of unorthodox medicine in these studies may be attributed to poverty, ignorance, cultural and religious beliefs, and perception of the cause of the disease.[15] Therefore, efforts should be geared toward education of patients and caregivers and emotional and financial support of children living with epilepsy.

Outside the home, approximately 80% of the study population sought for care from orthodox medicine. Similar findings were also reported by Bhattacharya et al[19] and Pal et al[20] in their studies in India. However, Sinha et al[21] reported a contrast finding in their study. They reported that most of the participants in their study visited quacks as their first choice. Most of the participants in this present study had some level of formal education, and this may have contributed to the high number of parents/caregivers seeking for care from orthodox medical practitioners. Second, some of these families may have had several attempts of failed home and unorthodox therapies and therefore fall back to orthodox medical practitioners as their last resort.

Educational status of the caregivers was directly related to their choice of first point of care outside the home. About 84.2% of the caregivers used in this study had some form of

formal education. This stands to reason because education is one of the determinants of health and health-seeking behaviors. Educated caregivers are more likely ready to seek for care from orthodox practitioners than the uneducated. They are also more likely to be compliant to medications and counseling.

The timing between the onsets of seizure to presentation to specialist care was prolonged. About 45% presented within 6 month, while approximately 26% presented within 2 years. Within this period when patients with seizures have not presented to specialist care, several unorthodox remedies are given at home based on cultural and religious beliefs and also perception of the disease. Prolonged time gap increases morbidity and mortality in these patients. Several other studies have also reported delays in presentation to specialist care.[9,21,22] The cause of the delays may be attributed to the myths surrounding the illness, ignorance, poverty, and belief, that is, epilepsies are spiritual and not treatable by orthodox medicines.[12,23–27] This causal factors probably informed the choice of traditional herbalists by some of our patients prior to presentation. Early presentations to pediatric neurologists will make a world of difference in the management of these patients. The major reason for patronizing the unorthodox medical practitioners were belief on the care and cost of care, while the majority of those who patronized the orthodox medicine did that as a result of belief in care, proximity of care, and advice from people.

The role of health care practitioners and families in our health system cannot be overemphasized. As shown in this study, the health care practitioners and the family members were the major motivators for patients' presentation to specialist care with 48.7 and 33.7%, respectively.

Conclusion

Education of the masses on the pathophysiology and causal factors of epilepsy will help reduce stigmatization and help patients make informed decision and choices concerning their management, enhance their self-esteem, and therefore should be encouraged. Periodic training of health care professionals should also be of immense benefit.

Ethical Approval

The Ethics committee of Nnamdi Azikiwe University Teaching Hospital, Nnewi gave approval for the study. The caregivers were educated on the need and impact of the study to the management of children with epilepsy. Only consented caregivers were recruited. Participation was voluntary and no penalty for children whose caregivers declined.

Authors' Contributions

W.C.I.: conceptual design and implementation of the project, writing, proofreading, and overall revision of the manuscript. E.N.U. and A.O.O.: data collection and revision of the manuscript. S.T.E.: manuscript preparation and proofreading. All the authors read and approved the final manuscript.

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Conflict of Interest

None declared.

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