

Teachers' perspective on epilepsy: examining their knowledge and attitudes in three selected schools in Rivers State, Nigeria

Kininyiruchi Nelson Wobo, Nneka Gabriel-Job

Department of Paediatrics, University of Port Harcourt Teaching Hospital, Port Harcourt, Rivers State.

Abstract

Background: Epilepsy is a common brain disease known for its high risk of discrimination and social stigmatisation. The unpredictable nature of the disease makes a child prone to seizure episodes in school. Teachers can play a vital role by providing the required support and prompt intervention. This study examined the knowledge and attitudes of teachers towards epilepsy.

Methods: A cross-sectional study carried out among classroom teachers in Rivers State. Data were collected through a semi-structured self-administered questionnaire. SPSS version 25 was used for analysis, while descriptive and inferential statistics were conducted.

Results: Subjects were 132 teachers; 91 (68.9%) were females. The majority, 96 (72.7%), teach in public schools and had first degree as the highest level of education. Most, 128(97%), were aware of epilepsy; 18 (13.6%) believed it was caused by witchcraft; 34 (25.8%) responded that it is contagious; while 66 (50.0%) reported that traditional drugs are used for treatment. Fifty-seven (43.3%) of the teachers opined that children with epilepsy should attend a special school, and 33 (25.0%) believe that having a child with epilepsy would disrupt the class's educational activities. Fifty-five (41.7%) of the teachers had poor attitude towards children with epilepsy, and 53 (36.4%) had poor knowledge of immediate care for a convulsing child. An increase in knowledge was associated with a corresponding increase in positive attitude.

Conclusion: Most teachers had moderate to good knowledge of epilepsy, but their attitude and practices towards children with epilepsy were poor. Well-structured training programmes are needed to equip teachers to provide seizure first aid in schools.

Keywords: Epilepsy, classroom, teachers, perception, knowledge, attitude, Rivers State

Address for correspondence: Dr. Nneka Gabriel-Job, Department of Paediatrics, University of Port Harcourt Teaching Hospital, Port Harcourt, Rivers State.

Email: ngabrieljob2014@gmail.com

Phone: +2348030950800

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INTRODUCTION

Epilepsy is among the leading neurological disorders prevalent among children in Nigeria and the sub-Saharan African region.¹ There are diverse psychosocial, medical and educational problems faced by children living with

Epilepsy which need to be tackled by concerted efforts of a multidisciplinary team, which also includes the school teacher.² The role of a well-informed school teacher ranges from prompt identification and reportage of a first-time seizure at school and other seizure related events, encouraging anti-seizure

medication adherence especially among students in boarding in collaboration with other members of the school health team, to fostering a conducive environment which is inclusive and devoid of stigmatization and overprotection of various kinds.²

Appropriate knowledge and experiences about epilepsy are related to favorable attitudes of teachers towards students with epilepsy.³ However, research done locally and worldwide shows mixed results on this subject of the perception of epilepsy among school teachers.^{2,4,5} Some common misconceptions among school teachers about epilepsy include perceptions of it being a mental illness with spiritual significance, harmful practices like putting an object in the mouth as an appropriate first aid measure have been reported as well as overprotective practices such as hesitancy on supervising students on outdoor activities and discouraging their participation in sporting activities.^{3,5}

Previous studies on the teacher's perception of epilepsy among school children in both rural and urban schools in Nigeria demonstrated consistently that there was a paucity of good knowledge of epilepsy, and in some cases, this was associated with a negative attitude towards children living with epilepsy.^{4,5} Over a decade ago, reports from Port Harcourt observed poor knowledge of epilepsy and first aid in seizure management among school teachers.⁵ With advances in time and information, this present study was done to identify the current status of the perception, knowledge, and attitudes of primary and secondary school teachers towards epilepsy among children in Port Harcourt, Southern Nigeria.⁶

MATERIALS AND METHODS

Study design

A descriptive cross-sectional study was done.

Setting of study

This study spanned from the 26th of March 2024 to the 29th of March 2024 in selected primary and secondary schools in Obio/Akpor Local Government Area (LGA), Rivers state. This study was carried out during the 2024 Purple Day for epilepsy. Three schools were

purposively selected- two public and one private school.

Study participants

Participants were male and female teachers from the three selected schools who gave verbal consent for the study. Permission was obtained from the school principals and head teachers for the distribution of the questionnaires. Verbal consent was obtained from teachers, and participation was voluntary.

Sample size calculation

The sample size was calculated using the sample size formula for simple proportion. Using a prevalence of 59.2%,⁴ which is the proportion of teachers with good knowledge of epilepsy from a previous study, with an absolute precision of 8.5% at a confidence interval of 95% a minimum sample size of 132 was obtained.

Sampling method

The teachers who gave verbal consent were consecutively recruited until the desired sample size was obtained.

Study tool

Semi-structured questionnaires containing three sections: on teachers' knowledge of epilepsy, their beliefs and attitudes towards a child with epilepsy, and actions that can be taken during an episode of convulsion in school.

Questionnaire distribution

This was distributed to the teachers who gave consent for the study in their various schools, and was retrieved upon completion the same day. Each teacher required 30 - 45 minutes to complete the questionnaire.

Knowledge of epilepsy

The overall level of knowledge was obtained by attaching a score for every question asked in the knowledge section of the study (which contained 19 questions). Every correct response attracted 1 point, and every incorrect response attracted 0 points. The total points obtained by each individual were summed to get a composite score, with the highest score being 19 points. Each participant was then grouped into poor (0-9 correct responses),

moderate (10-13 points) and good knowledge (14-19 points) based on the score they obtained. These categories were used to make a bar chart.

Attitude of teachers

Overall attitude was obtained by attaching a score for every question asked in the attitude section of the study, which contained a total of 9 questions. Each correct response on attitude attracted 1 point, and each wrong response attracted 0 points. The total point is obtained by summing all correct responses, with the highest score being 9 points. Each participant was grouped into positive and negative attitudes (0-5 = negative attitudes, 6-9 = positive attitudes), respectively.

School management of seizure episode

A similar principle was applied in the management of epilepsy by the school teachers section. There was a total of 7 questions. Those who obtained 0-4 points were classified as poor management, and those who obtained 5-7 points were classified as good management.

Data analysis

Analysis was conducted with a significance level set at 0.05 using IBM SPSS Statistics software (version 25.0) (International Business Machines corporation, Armonk, New York, United States of America). Descriptive statistic was performed, and the relationship between teachers' knowledge and categorical variables (age, sex, type of school, level of education, and years of teaching) was examined using Pearson's chi-square test (χ^2), while the association between attitude and level of knowledge was analysed with Pearson's correlation coefficient. Results were presented as frequency tables in simple proportions and graphs.

RESULTS

A total of 132 questionnaires were distributed to the teachers, and the same number was retrieved, giving a response rate of 100%.

Table 1 gives a descriptive summary of the demographic characteristics of the study participants. Their ages ranged from 23 years to 51 years, with a mean age of 35.6 ± 8.4 years. There were more females, 91(68.9%),

and 96 (72.7%) of the teachers taught in the public schools. Concerning the level of education, 96 teachers (72.7%) had a bachelor's degree, 22 (16.7%) had a master's degree, and 14 (10.6) had a doctorate. More than half, 70 (53.0%) of the teachers have taught for more than 10 years.

Table 2 shows the response of teachers to questions regarding their level of knowledge of epilepsy. Most of the teachers, 128 (97%), have heard about epilepsy. About 18(13.6%) responded that epilepsy can be caused by witchcraft, 34 (25.8%) believe it is contagious, and 37(28%) reported it can be transmitted by physical contact with an epileptic person. Half of the participants, 66 (50%), indicated that epilepsy can be treated with traditional medicine, and 21(15.9%) of the teachers believe that those with epilepsy have an intelligence below average.

The chart below reveals that only 42 teachers (31.8%) had good knowledge of epilepsy. Those with moderate were 68 (51.5%), which was more than half of the study population. Twenty-two teachers (16.7%) had poor knowledge of epilepsy (Figure 1).

Table 3 shows the response of the teachers to questions regarding their attitudes towards epilepsy and children with epilepsy. They all agreed that pupils with epilepsy should be allowed to attend school. However, 57 (43.3%) indicated that the children with epilepsy should be placed in a special school separate from the general school that the non-epileptic children attend. About 38 (28.8%) of the teachers had no problem with epileptic children being allowed to participate in school sports. Thirty-three of the teachers (25.0%) indicated that having a child with epilepsy would disrupt the class educational activities.

Figure 2 is a bar chart showing the attitude of teachers towards persons with epilepsy. The chart reveals that 77 teachers (58.3%) had a positive attitude towards epilepsy, while 55 (41.7%) had a negative attitude towards epilepsy.

Table 4 describes the teachers' response in the school management of children with epilepsy, what to do during a seizure episode and what to do after the episode. About 110 (83.3%) of the teachers agreed to remove objects that could harm the child during a seizure episode,

while 33 (25.0%) teachers indicated that they would restrain the child by tying the child's legs and hands to reduce the jerky movements. About 37(28.0%) revealed they would put a spoon in the mouth of a convulsing child, while 103(78.0%) of the teachers responded that the child will be kept on his or her side until the convulsion is over.

Figure 3 is a pie chart which reveals that 84 (63.3%) of the teachers had good management practices towards a child having a convulsive episode in the school environment, while 48 (36.4%) had poor management practices.

Table 5 shows the relationship between teachers' knowledge and their age, sex, type of school, level of education and years of teaching. The results revealed that the age of the participant did not have a significant relationship with the level of knowledge of epilepsy ($\chi^2=1.449$; $p=0.484$). The females had better knowledge of epilepsy compared to their male counterparts. This sex difference in knowledge is significant ($\chi^2=7.209$; $p=0.027$). The school type also had no significant relationship with knowledge. Based on duration of teaching, amongst those with good knowledge, more were in the >5 years category (greater than 5 years of experience in teaching) ($\chi^2=9.203$; $p=0.010$).

Figure 4 is a scatter plot that shows the association between the levels of knowledge and the attitude displayed by the teachers. There is a positive correlation between the

variables (as the level of knowledge increases, so does the attitude) (Pearson's correlation coefficient=0.748, p value=0.0001) (Figure 4).

Table 1: Demographics of study participants

Variables		Frequency (N=132)	Percentage
Age	<25 years	7	5.3
	25-35 years	44	33.3
	36-45 years	44	33.3
	>45 years	37	28.0
Sex	Female	91	68.9
	Male	41	31.1
Type of school	Private	36	27.3
	Public	96	72.7
Level of education	First Degree	96	72.7
	Master's degree	22	16.7
	Doctorate Degree	14	10.6
Duration of teaching	<5 years	33	25.0
	5-10years	29	22.0
	>10 years	70	53.0

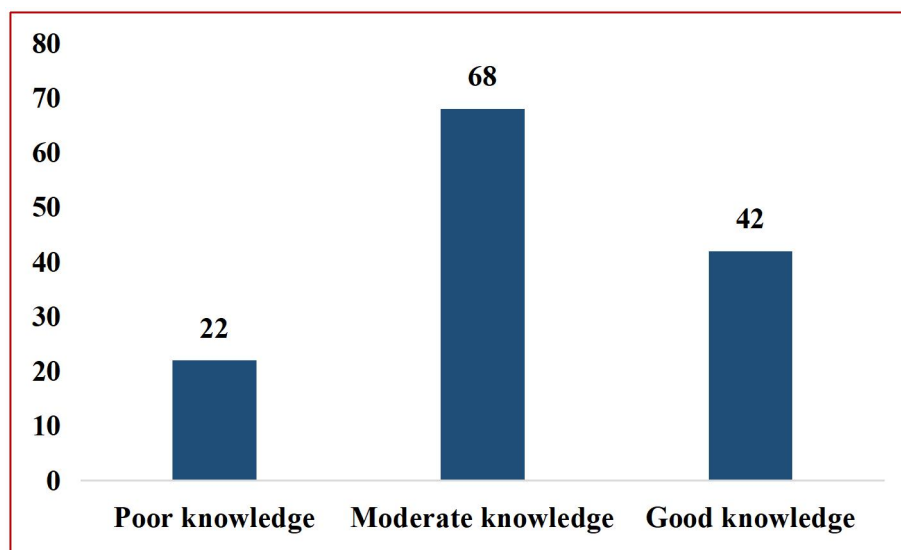


Figure 1: Bar chart showing the level of knowledge of epilepsy by the teachers in the study

Table 2: Teachers' level of knowledge of epilepsy

Variables	Knowledge		
	Yes n(%)	No n(%)	I don't know n(%)
1. Have you heard or read about epilepsy	128 (97.0)	4 (3.0)	0 (0.0)
2. All children who have convulsions have epilepsy	11 (8.3)	85 (64.4)	36 (27.3)
3. Has any group ever talked to you about epilepsy	25 (18.9)	107 (81.1)	0 (0.0)
4. Do you think epilepsy is a chronic brain disease	80 (60.6)	34 (25.8)	18 (13.6)
5. Do you think head trauma or brain infection can cause epilepsy	67 (50.8)	47 (35.6)	18 (35.6)
6. Do you think it is a psychiatric disorder	48 (36.4)	66 (50.0)	18 (13.6)
7. Do you think all students with epilepsy have mental retardation	7 (5.3)	118 (89.4)	7 (5.3)
8. Do you think it can be caused by witchcraft?	18 (13.6)	96 (72.7)	18 (13.6)
9. Do you think heredity is the main cause?	42 (31.8)	54 (40.9)	36 (27.3)
10. Do you think epilepsy is a contagious disease?	34 (25.8)	98 (74.2)	0 (0.0)
11. Do you think epilepsy is transmitted by physical contact with an epileptic person	37 (28.0)	88 (66.7)	7 (5.3)
12. Do you think contact with the saliva or the place where the person fell during seizures can transmit epilepsy?	11 (8.3)	103 (78.0)	18 (13.6)
13. Do you think epilepsy can be controlled	99 (75.0)	33 (25.0)	0 (0.0)
14. Do you think a student with epilepsy has an intelligence below average	21 (15.9)	100 (75.8)	11 (8.3)
15. Do you think a student with epilepsy can be intelligent?	96 (72.7)	22 (16.7)	14 (10.6)
16. Do you think a student with epilepsy has a high risk of developing insanity?	23 (17.4)	88 (66.7)	21 (15.9)
17. Do you think a student with epilepsy will do poorly in school?	47 (35.6)	78 (59.1)	7 (5.3)
18. Can traditional medicine be used for treatment of epilepsy?	66 (50.0)	48 (36.4)	18 (13.6)
19. Can epilepsy be treated in the hospital?	97 (73.5)	7 (5.3)	28 (21.2)

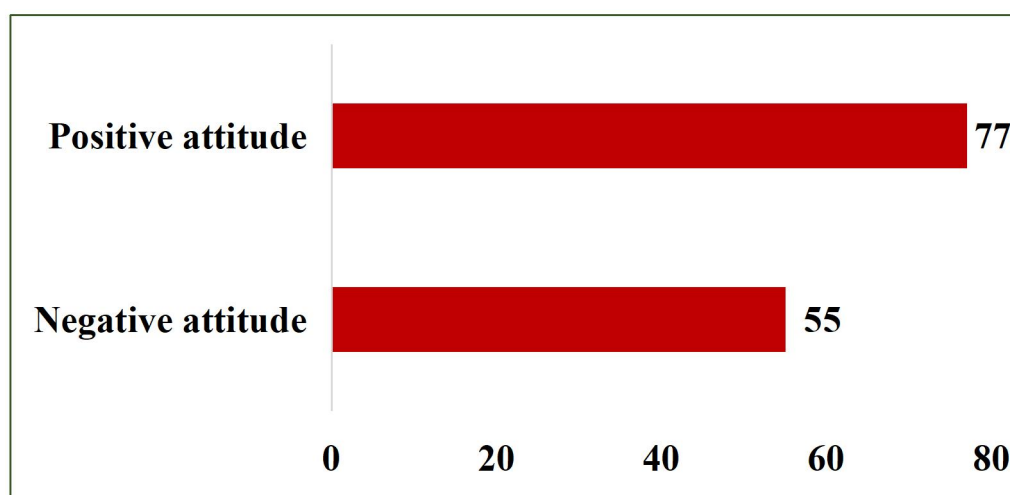
**Figure 2: Attitude of teachers towards persons with epilepsy**

Table 3: Attitudes of teachers towards children with epilepsy

Variables	Attitude		
	Yes n(%)	No n(%)	I don't know n(%)
1. Should students with epilepsy be allowed to attend school	132 (100.0)	0 (0.0)	0 (0.0)
2. Should students with epilepsy be allowed to practice school sports	38 (28.8)	76 (57.6)	18 (13.6)
3. Will having a student with epilepsy in your class disrupt the class educational activities	33 (25.0)	99 (75.0)	0 (0.0)
4. Do you think a child whose seizure is controlled with medication is as normal as other children without epilepsy	113 (85.6)	12 (9.1)	7 (5.3)
5. Do you think children with epilepsy should be placed in a special school	57 (43.3)	75 (56.8)	0 (0.0)
6. Do you think if a child with epilepsy has an attack in school, he can transmit it to others	22 (16.7)	110 (83.3)	0 (0.0)
7. Would you allow your child to play or sit with a student with epilepsy?	95 (72.0)	37 (28.0)	0 (0.0)
8. Would you allow any of your relatives to marry someone with epilepsy?	19(14.4)	106(80.3)	7(5.3)
9. Would you allow any of your relatives to marry from a family who has a child with epilepsy?	40(30.3)	78 (59.1)	14 (10.6)

Table 4: Management of epilepsy in school by teachers

Variables	Knowledge		
	Yes n(%)	No (%)	I don't know n(%)
1. Remove chairs / tables or objects that can hurt the child until convulsion stops.	110 (83.3)	22 (16.7)	0 (0.0)
2. Restrain the jerky movement by tying the child's legs and hands	33 (25.0)	70 (53.0)	29 (22.0)
3. Put spoon in his or her mouth to help the child breath	37 (28.0)	80 (60.6)	15 (11.4)
4. Maintain the child on the side until the crisis passes	103 (78.0)	7 (5.3)	22 (16.7)
5. Clean the mouth and nose if you notice secretions and the child is not breathing well?	96 (72.7)	21 (15.9)	15 (11.4)
6. The parents of the child should be called and the child should be sent home immediately after the convulsion	37 (28.0)	80 (60.6)	15 (11.4)
7. Should be rushed to the hospital immediately convulsion starts.	77 (58.3)	37 (28.0)	18 (13.6)

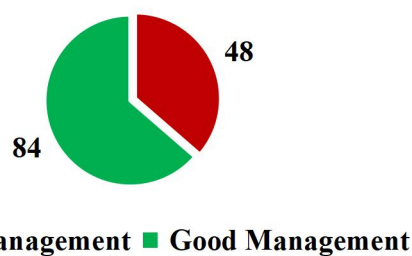
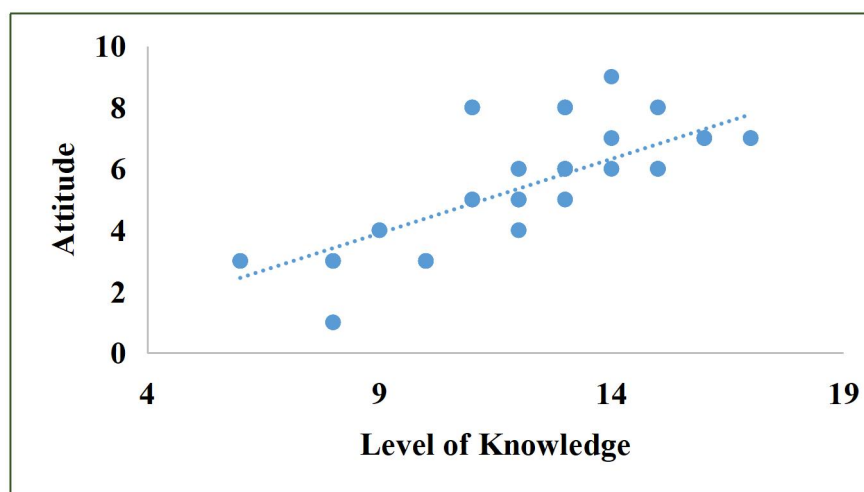

Figure 3: A pie chart showing the overall level of management of a child with epilepsy by teachers

Table 5: Socio-demographic factors associated with level of knowledge of epilepsy amongst teachers

Variables	Level of knowledge			Statistics	P value
	Poor	Moderate	Good		
Age					
≤35 years	11 (50.0)	25 (36.8)	15 (35.7)	$\chi^2=1.449$	0.484
>35 years	11 (50.0)	43 (63.2)	27 (64.3)		
Sex					
Female	13 (59.1)	54 (79.4)	24 (57.1)	$\chi^2=7.209$	0.027*
Male	9 (40.9)	14 (20.6)	18 (42.9)		
Type of school					
Private	6 (27.3)	21 (30.9)	9 (21.4)	$\chi^2=1.170$	0.557
Public	16 (72.7)	47 (69.1)	33 (78.6)		
Level of education					
First degree	15 (68.2)	39 (57.4)	42 (100.0)	$\chi^2=24.083$	<0.001
Postgraduate	7 (31.8)	29 (42.6)	0 (0.0)		
Duration of teaching					
<5 years	11 (50.0)	15 (22.1)	7 (16.7)	$\chi^2=9.203$	0.010*
≥5years	11 (50.0)	53 (77.9)	35 (83.3)		

**Figure 4: Scatter plot showing an association between the level of knowledge and attitude of teachers towards epilepsy**

DISCUSSION

This study revealed that majority of teachers (97%) were aware of epilepsy and correctly identified it as a chronic brain disorder (80%). Similar to recent regional studies,^{7,8} a fair proportion of teachers have strong misconceptions such as linking epilepsy to witchcraft/ spiritual causes (13.6%) with a higher proportion considering it to be a psychiatric disorder (36.4%). Findings from this study suggest an improvement from a

previous work among teachers in the same location, which indicated that about 85% of them considered epilepsy to be of spiritual origin. Surprisingly, the notion that traditional medicines can be used for epilepsy treatment was popular among teachers; however, local studies have also shown that parents and caregivers of children with epilepsy in the region share similar ideologies.^{9,10} Hence, more work and targeted efforts need to be done to address these misconceptions, especially as this study also demonstrates that

81% of teachers denied receiving any collective health educational instructions on the subject of epilepsy and its related care among children.

Overall, the composite scores of the teacher's perceptions on epilepsy demonstrated that majority had moderate (51.5%) to good (31.8%) levels of knowledge, while 16.7% had poor knowledge. Comparing these findings with the previous works by Alikor and Essien⁶ and Frank-Briggs⁵ in Port Harcourt, there appears to be some improvement in the level of knowledge among school teachers which may be related to better access to information over time. However, the proportion (16.7%) of teachers with poor level of knowledge obtained in this present report remains unacceptable. Teachers being the custodians of knowledge, coupled with the fact that children spend a significant amount of time at school, makes it imperative that appropriate information and practices are passed on from the school teacher to students.^{4,5}

In terms of the attitude of teachers towards epilepsy, there was a higher proportion of teachers with a positive attitude (58.3%) compared to those with a negative attitude (41.7%). The poor attitude of teachers in this study is in keeping with previous reports, and the expected outcomes from such a teacher-student relationship have been shown in other studies to have negative impacts on the child's learning and development.^{3,6} A notable finding in this study was that about two-thirds (57.6%) of teachers feel that children with epilepsy should not be allowed to undertake any form of sporting activities in school; this could be attributed to overprotection and anxiety that the child may have an epileptic paroxysmal event during sports. Such an attitude is deleterious and can deprive children of all the benefits of sports and social interaction which come with it.^{11,12}

This study showed that the approach to management of a seizure event at school is suboptimal among 36.4% of school teachers. The common misconceptions about seizure first aid include restraining the child or applying a spoon to the child's mouth. These practices are harmful and have also been described among members of the general population.^{5,9,10} This goes on to emphasize the

need for focused and targeted health education and instructions by qualified health care providers and specialists in epilepsy care.

Poor attitudes towards epilepsy were linked to low levels of knowledge in this study, which confirms findings from other research¹³. A strong connection was observed between years of experience, being a female teacher, and the level of knowledge about epilepsy. As expected, more experienced teachers demonstrated better knowledge, possibly because of the high prevalence of the condition, which increases the likelihood of their contact with children and adults with epilepsy. The level of education did not seem to enhance their knowledge on this topic, perhaps due to the lack of formal education on epilepsy within the curriculum of teachers at higher educational levels¹⁴. This highlights the importance of incorporating educational components into the school health program to address these gaps.

CONCLUSION

This study has demonstrated improvements in the knowledge of epilepsy among school teachers in Port Harcourt compared to previous local studies; however, there are important gaps in knowledge and negative attitudes towards epilepsy among teachers, which can negatively affect children living with epilepsy. We recommend continuous targeted health education in school health programs and other avenues to appropriately enlighten teachers at all educational levels and their students on the subject of epilepsy.

Limitation of this study

Conducting this research within a single LGA may limit the extent to which the findings can be generalised to the entire state.

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Conflicts of interest

There are no conflicts of interest.

REFERENCES

1. Biset G, Abebaw N, Gebeyehu NA, Estifanos N, Birrie E, Tegegne KD. Prevalence, incidence, and trends of

- epilepsy among children and adolescents in Africa: a systematic review and meta-analysis. *BMC Public Health* 2024; 24(1):771.
2. Epilepsy Foundation. Epilepsy in children: the teacher's role. Epilepsy Foundation of America, Inc., 2009. Available from: www.EpilepsyFoundation.org. Accessed 22nd June 2025.
3. Kulawiak PR, Poltz N, Bosch J, Dreesmann M. Understanding teachers' perspectives on students with epilepsy in Germany: a survey examining knowledge, experience, and affective, cognitive, and behavioral attitudes to inform teacher training. *Epilepsy Behav* 2025;163:110157.
4. Ojinnaka NC. Teachers' perception of epilepsy in Nigeria: a community-based study. *Seizure* 2002;11(6):386–391.
5. Frank-Briggs A. Perceptions of epilepsy among school teachers in Southern Nigeria. *Neurology* 2013; 80 (7 Supplement):P05.097.
6. Alikor EA, Essien AA. Childhood epilepsy: knowledge and attitude of primary school teachers in Port Harcourt, Nigeria. *Niger J Med* 2005;14 (3):299-303.
7. Assadeck H, Toudou-Daouda M, Mamadou Z, Moussa-Konate M, Douma-Maiga D, Sanoussi S. Knowledge, attitudes, and practices with respect to epilepsy among nurses in the city of Niamey, Niger. *J Neurosci Rural Pract* 2020;11(3):454–458.
8. Toudou-Daouda M, Ibrahim-Mamadou AK. Teachers' knowledge about epilepsy and their attitudes toward students with epilepsy: a cross-sectional survey in the city of Tahoua (Niger). *Neuropsychiatr Dis Treat* 2020 ;16:2327–2333.
9. Wobo KN, Gabriel-Job N. Prevalence and determinants of complementary and alternative medicine use among children living with epilepsy in Port Harcourt, Nigeria. *J Complement Altern Med Res* 2024; 25(11): 158–168.
10. Wonodi W, Onubogu UC. Childhood seizures: assessment of the knowledge, attitude and home interventions among patients attending a paediatric outpatient clinic in Nigeria. *Niger Health J* 2023 ; 23(3):780-789.
11. Howard GM, Radloff M, Sevier TL. Epilepsy and sports participation. *Curr Sports Med Rep* 2004;3(1):15-19.
12. Aydemir N, Sakman ÖK, Delil Ş, Özkara Ç. Determinants of felt-stigma in adolescents with epilepsy: is it the same story? *Seizure* 2023;113:34–40.
13. Eren F, Aydogmus S, Oral F, Saka MA, Kocatas A, Esmer MM, et al. Knowledge and attitudes of preclinical and clinical medical students toward epilepsy: a cross-sectional study from Turkey. *Epilepsy Behav* 2025 ;163:110242.
14. Mustapha AF, Odu OO, Akande O. Knowledge, attitudes and perceptions of epilepsy among secondary school teachers in Osogbo South-West Nigeria: a community based study. *Niger J Clin Pract* 2013;16(1):12-18.

