

Primary school teachers' knowledge, attitude, and practice toward students with epilepsy in Ha'il region, Saudi Arabia

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Abstract

Background: Several studies found that despite improvements in perception and attitude towards epilepsy, there are still misconceptions and deficient knowledge and practice among teachers.

Objectives: to assess knowledge, attitude and practice toward children with epilepsy among primary school teachers in Ha'il region, Saudi Arabia.

Methods: a cross-sectional study on 459 primary school teachers. A questionnaire was used to collect data about their demographics, knowledge, attitudes and practice towards epilepsy.

Results: 99.6% of teachers had heard of epilepsy, and 39.4% assumed it was a mental illness. In terms of attitude, 28.7%, 48%, and 23.8% of instructors disagreed that epilepsy interferes with marriage, having children, or working full-time, respectively. Furthermore, 5.5%, 30.8%, and 38.2% of respondents disagreed that epilepsy affects driving, sports, leisure activities, and learning. Only 7% indicated they can adequately handle an epileptic seizure in a child. Teachers with poor, fair, and good knowledge levels were discovered in 63.4%, 35.7%, and 0.9%, respectively. In terms of attitude, 59%, 30.1%, and 10.9% had a bad, fair, or good attitude, respectively. When it came to adolescent epilepsy, the vast majority (92.8%) had poor practice, whereas 7.2%

had fair practice. Teachers with a fair practice were significantly 35-44 years old, married, or did not have a child with epilepsy in their classroom. There was also a significant positive correlation between knowledge and practice scores.

Conclusion: Teachers' knowledge and practice of epilepsy in children is inadequate. Health education programs and training sessions for Saudi teachers are needed.

Keywords: teachers, knowledge, attitude, practice, epilepsy, Ha'il

Introduction

Seizures are one of the most common medical problems affecting children, and epilepsy is the most common chronic neurological condition in children (1). According to the International League Against Epilepsy (ILAE) one of three inclusion criteria to diagnose epilepsy, is the presence of at least two unprovoked seizures occurring >24 hours apart (2). One seizure does not signify epilepsy (up to 10% of people worldwide have one seizure during their lifetime) (3).

A seizure provoked by a reversible insult (e.g., fever, hypoglycemia) does not fall under the definition of epilepsy because it is a short-lived secondary condition, not a chronic state (4). Epilepsy affects around 50 million people worldwide. Three quarters of people with epilepsy living in low-income countries do not get the treatment they need (2). The prevalence of epilepsy in Saudi Arabia is 6.54 per 1000 (5).

Epilepsy has multiple psychological and social consequences due to the ignorance and misconceptions regarding epilepsy among the population. In many cultures stigma cause a limitation and discomfort for people with epilepsy (4,5).

Some studies have mentioned most teachers have wrong beliefs that epilepsy is caused, for example, by "jinn" or "devil" and can be managed either spirituality by the Quran or traditional medicine (6,7,8). Consequently, these beliefs must be corrected in the child's interests and for society as a whole. Moreover, children with epilepsy need to practice their life normally at school and be treated like other classmates (6,7). This can reflect positively on the child's health status and raise the awareness level towards epilepsy and especially among teachers (7,8).

Schools are one of the social situations where epileptic children face the consequences of societal misunderstanding of epilepsy and how to deal with it, as the teacher will be the source of the first health care provided in this situation (1,3,5). The present study aimed to assess knowledge, attitude and practice toward children with epilepsy among primary school teachers in Ha'il region, Saudi Arabia.

Subjects and Methods

Ha'il University Ethics Committee approved the project. The study was conducted in the Ha'il region of north-western Saudi Arabia, with a population of approximately 413,000. A descriptive cross-sectional study was conducted from October 2022 to November 2022. Raosoft online sample size calculator was used with a (95%) confidence level to calculate the sample size. The minimum meaningful sample size was 384 and we were able to obtain 459 responses. Data collection was performed using a self-administered online questionnaire distributed to target groups meeting the inclusion criteria. The questionnaire consisted of 23 questions. We covered four topics: (1) demographic

information; (2) Knowledge. (3) teacher attitudes towards epilepsy and (4) practice.

Knowledge was assessed with eight questions. For 7 questions only one answer was correct and was given a score of "1". And for the incorrect answers a score of "0" was given. For causes of epilepsy, every correct answer was given a score of "1" leaving a total knowledge score ranging from 0-12. The attitude questions were ten questions and for the correct answer, a score of "1" was given leaving a score ranging from 0-10. The practice was assessed by four questions, and for the correct answer a score of "1" was given, and for the question of epilepsy management in classroom two answers were correct leaving a total score of 0-5. The participant was categorized as having a low knowledge level if they answered less than 50% correctly, a fair knowledge level if they answered between 50% and 75% correctly, and a strong knowledge level if they answered more than 75% correctly. The attitude scoring was conducted in the same manner (9).

Data analysis: data were analyzed statistically using (SPSS) version 26. To assess the relationship between variables, qualitative data was expressed as numbers and percentages, and the Chi-squared test (χ^2) was used. Quantitative data was expressed as mean and standard deviation (Mean \pm SD). Correlation analysis was performed using the Spearman's test and a p-value of less than 0.05 was considered statistically significant.

Results

(Table 1) shows that 46.2% of studied teachers had an age ranging from 35-44 years, 86.3% were females, 83.4% were married and 50.1% had teaching experience \leq 20 years. The majority (81.3%) had no child with epilepsy in their classroom and 42% had never been informed by parents of the form of epilepsy their child had. Most teachers (67.8%) saw a seizure either in classroom, home, public place or phone/TV/movies. About 75% (75.4%) of teachers reported that classmates try to help a child with epilepsy.

Table 1. Distribution of studied teachers according to their demographics and their experience with a child with epilepsy (No.: 459)

Variable	No. (%)
Age (years)	
<35	51 (11.1)
35-44	212 (46.2)
45-54	175 (38.1)
≥55	21 (4.6)
Gender	
Female	396 (86.3)
Male	63 (13.7)
Marital status	
Widow	8 (1.7)
Single	43 (9.4)
Married	383 (83.4)
Divorced	25 (5.4)
Years of teaching experience	
≤20	230 (50.1)
>20	229 (49.9)
Have you ever had children with epilepsy in your classroom?	
Three students	2 (0.4)
Two students	12 (2.6)
One student	72 (15.7)
None	373 (81.3)
Have you been informed by parents of the form of epilepsy their child has?	
Never	193 (42)
Yes, sometimes	145 (31.6)
Yes, always	121 (26.4)
Have you ever seen a seizure	
No	148 (32.2)
Yes, Classroom	92 (20)
Yes, Home	86 (18.7)
Yes, Public place	73 (15.9)
Yes, Phone/TV/movies	60 (13.1)
Based on your experience, how do classmates behave toward a child with epilepsy?	
Tend to marginalize	14 (3.1)
Don't know	99 (21.6)
Try to help	346 (75.4)

The most common sources of information about epilepsy were friends/acquaintances (63.6%) and social media (35%) (Figure 1).

Figure 1. Percentage distribution of studied teachers according to sources of information about epilepsy (No.: 457)

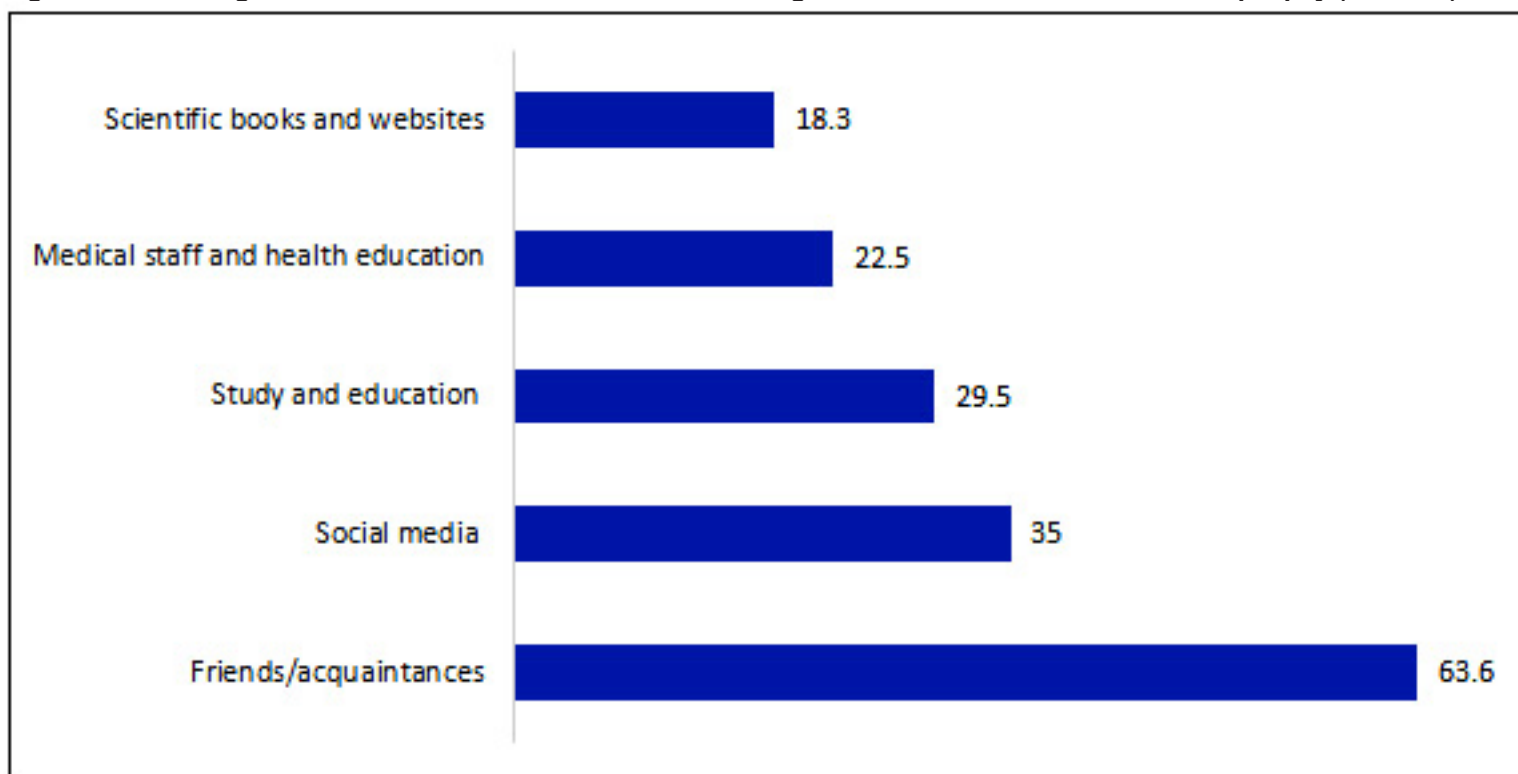


Table 2 shows that 99.6% of teachers had heard about epilepsy. Of them, 45.3%, 34.4%, 12.9%, 11.5% and 6.3% reported that hereditary disease, head injury, brain tumor, birth defect and viral infection are causes of epilepsy, respectively. About 58% (58.6%) correctly knew that all ages could be the age of onset of epilepsy. Of them, 39.4% disagreed that epilepsy is a psychiatric disease and 55.1% and 68% correctly knew that epilepsy is treatable with specific drugs and neurosurgery respectively. The majority (73.4%) knew that epilepsy is a curable illness, and 41.2% knew that recreational and sports activity of the child with epilepsy must be normal. Only 18.5% reported that all sports are safe for a child with epilepsy.

Table 2. Teachers' responses to knowledge items related to epilepsy (No.: 459)

Variable	No. (%)
Previously heard about epilepsy	
No	2 (0.4)
Yes	457 (99.6)
What do you think causes epilepsy?	
Hereditary disease*	208 (45.3)
Psychological disease	71 (15.5)
Head injury*	158 (34.4)
Jinn	55 (12)
Viral infection*	29 (6.3)
Brain tumor*	59 (12.9)
Birth defect*	53 (11.5)
Don't know	118 (25.7)
What is the age of onset of epilepsy?	
Childhood	110 (24)
Adult	18 (3.9)
All ages*	269 (58.6)
Don't know	62 (13.5)
Do you think epilepsy is a form of psychiatric disease?	
No*	181 (39.4)
Don't know	102 (22.2)
Yes	176 (38.3)
Do you think epilepsy is treatable with?	
Specific drugs*	253 (55.1)
Ruqia and Quran	93 (20.3)
Cupping	1 (0.2)
Neurosurgery*	31 (6.8)
Don't know	81 (17.6)
Do you think epilepsy is a curable illness?	
No	43 (9.4)
Don't know	79 (17.2)
Yes*	337 (73.4)
In your experience, recreational and sports activity of the child with epilepsy must be	
Normal**	189 (41.2)
Don't know	67 (14.6)
Limited	203 (44.2)
Which of the following sports do you think should absolutely not be recommended for a child with epilepsy?	
Athletics	16 (3.5)
Skiing	8 (1.7)
Tennis	4 (0.9)
Swimming	105 (22.9)
Boxing	115 (25.1)
All sports activities	90 (19.6)
Cycling	14 (3.1)
Football	22 (4.8)
Nothing, they are all safe*	85 (18.5)

(Table 3) show that 28.7%, 48% and 23.8% disagreed that epilepsy affects marriage, having children or regular employment. Of them, 5.5% and 30.8% disagreed that epilepsy affects driving or sports and leisure activities respectively. About 38% (38.2%) disagreed that epilepsy impairs learning and 49% disagreed that children with epilepsy have mental and/or behavior alterations. Only 27.9% disagreed that anti-epileptic drugs affect learning and behavior and 33% disagreed that children with epilepsy have relationship problems with other children. The majority (83.6%) agreed that children with epilepsy require support in school.

Table 3. Teachers' responses to attitude items related to epilepsy (No.: 459)

Variable	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)
Epilepsy affects marriage	72 (15.7)	146 (31.8)	109 (23.7)	108 (23.5)	24 (5.2)
Epilepsy affects having children	42 (9.2)	84 (18.3)	113 (24.6)	178 (38.8)	42 (9.2)
Epilepsy affects regular employment	66 (14.4)	190 (41.4)	94 (20.5)	95 (20.7)	14 (3.1)
Epilepsy affects driving	208 (45.3)	170 (37)	56 (12.2)	20 (4.4)	5 (1.1)
Epilepsy affects sports and leisure activities	58 (12.6)	155 (33.8)	105 (22.9)	121 (26.4)	20 (4.4)
Epilepsy impairs learning in children	50 (10.9)	103 (22.4)	131 (28.5)	149 (32.5)	26 (5.7)
Children with epilepsy require support in school	193 (42)	191 (41.6)	57 (12.4)	16 (3.5)	2 (0.4)
Children with epilepsy have mental and/or behavior alterations	56 (12.2)	127 (27.7)	136 (29.6)	117 (25.5)	23 (5)
Anti-epileptic drugs affect learning and behavior	52 (11.3)	115 (25.1)	164 (35.7)	112 (24.4)	16 (3.5)
Children with epilepsy have relationship problems with other children:	46 (10)	119 (25.9)	145 (31.6)	126 (27.5)	23 (5)

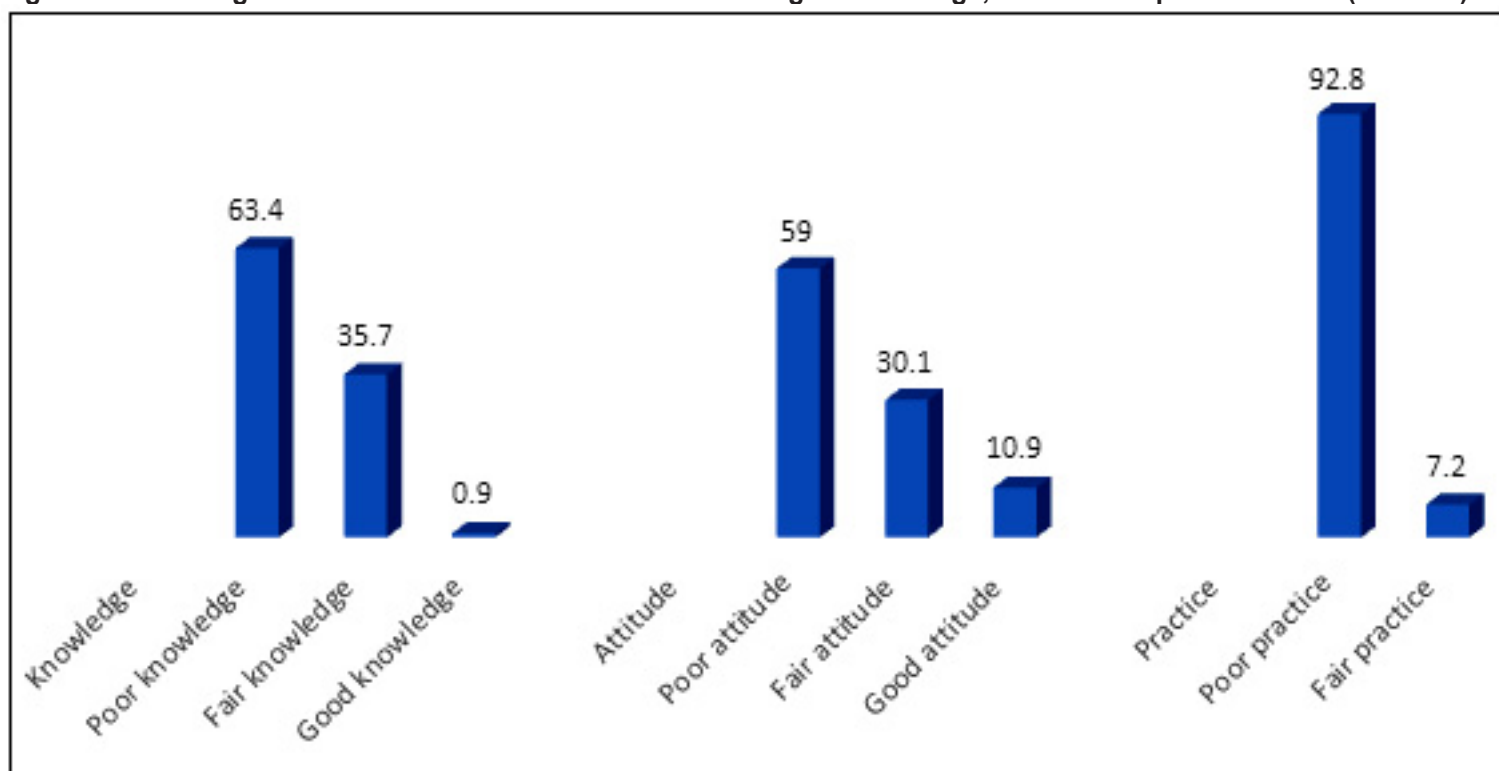
Table 4 shows that only 7% reported that they can manage a child experiencing an epileptic attack in an excellent way. Of them, 35.1% reported that in the case of a seizure in class they will call an ambulance and 9.6% reported they would have the person lie down on the ground and wait until the end of the attack. Only 22% of teachers reported having difficulties in administering anti-epileptic drugs during school hours. About 40% (40.5%) reported that compared with their healthy classmates, children with epilepsy should be treated the same with respect to attitudes and demands.

The mean knowledge, attitude and practice scores were 5.03 ± 1.61 , 4.05 ± 2.32 and 1.14 ± 0.88 respectively. The prevalence of poor, fair and good knowledge levels among teachers was 63.4%, 35.7% and 0.9% respectively. Regarding attitude, 59%, 30.1% and 10.9% had poor, fair and good attitude respectively. the majority (92.8%) had poor practice, while 7.2% had fair practice regarding child epilepsy.

Table 4. Teachers' responses to practice items related to epilepsy (No.: 459)

Variable	No. (%)
Do you know how to manage a child experiencing an epileptic attack?	
Don't know	225 (49)
Yes, poorly	70 (15.3)
Yes, moderately	132 (28.8)
Yes, excellent*	32 (7)
In the case of a seizure in class (with loss of consciousness, drop, and spasms of the whole body) what would you do?	
Call an ambulance*	161 (35.1)
Have the person lie down on the ground and wait until the end of the attack*	44 (9.6)
Place something in the child's mouth	169 (36.8)
Block the spasms of the limbs	17 (3.7)
Administer medications	1 (0.2)
Would not know what to do	67 (14.6)
In your school are there difficulties in administering anti-epileptic drugs during school hours?	
No*	101 (22)
Don't know	231 (50.3)
Yes	127 (27.7)
Compared with their healthy classmates, how should children with epilepsy be treated with respect to attitudes and demands?	
Differently	226 (49.2)
Don't know	47 (10.2)
The same*	186 (40.5)

Figure 2. Percentage distribution of studied teachers according to knowledge, attitude and practice levels (No.: 459)



Tables 5 and 6 show that a non-significant relationship was found between teachers' knowledge or attitude level towards epilepsy and their demographics, and their experience with a child with epilepsy ($p > 0.05$).

Table 5. Relationship between teachers' knowledge level regarding epilepsy and their demographics and their experience with a child with epilepsy (No.: 459)

Variable	Knowledge level			χ^2	p-value
	Poor No. (%)	Fair No. (%)	Good No. (%)		
Age (years)					
<35	32 (11)	18 (11)	1 (25)	2.37	0.882
35-44	139 (47.8)	72 (43.9)	1 (25)		
45-54	106 (36.4)	67 (40.9)	2 (50)		
≥ 55	14 (4.8)	7 (4.3)	0 (0.0)		
Gender					
Female	251 (86.3)	142 (86.6)	3 (75)	0.44	0.801
Male	40 (13.7)	22 (13.4)	1 (25)		
Marital status					
Single	54 (18.6)	22 (13.4)	0 (0.0)	2.8	0.246
Married	237 (81.4)	142 (86.6)	4 (100)		
Years of teaching experience					
≤ 20	145 (49.8)	84 (51.2)	1 (25)	1.09	0.577
> 20	146 (50.2)	80 (48.8)	3 (75)		
Have you ever had children with epilepsy in your classroom?					
Three students	1 (50)	1 (0.6)	0 (0.0)	0.71	0.994
Two students	8 (2.7)	4 (2.4)	0 (0.0)		
One student	44 (15.1)	27 (16.5)	1 (25)		
None	238 (81.8)	132 (80.5)	3 (75)		
Have you been informed by parents of the form of epilepsy their child has?					
Never	131 (45)	61 (37.2)	1 (25)	4.57	0.333
Yes, sometimes	91 (31.3)	53 (32.3)	1 (25)		
Yes, always	69 (23.7)	50 (30.5)	2 (50)		
Have you ever seen a seizure					
Yes (in classroom, home, public place or phone/TV/movies)	190 (65.3)	118 (72)	3 (75)	1.22	0.329
No	101 (34.7)	46 (28)	1 (25)		
Based on your experience, how do classmates behave toward a child with epilepsy?					
Tend to marginalize	8 (2.7)	6 (3.7)	0 (0.0)	13.02	0.121
Don't know	76 (26.1)	21 (12.8)	2 (50)		
Try to help	207 (71.1)	137 (83.5)	2 (50)		

Table 6. Relationship between teachers' attitude level towards epilepsy and their demographics and their experience with a child with epilepsy (No.: 459)

Variable	Attitude level			χ^2	p-value
	Poor No. (%)	Fair No. (%)	Good No. (%)		
Age (years)					
<35	130 (48)	62 (44.9)	20 (40)	3.24	0.778
35-44	99 (36.5)	55 (39.9)	21 (42)		
45-54	10 (3.7)	7 (5.1)	4 (8)		
≥55	32 (11.8)	14 (10.1)	5 (10)		
Gender					
Female	236 (87.1)	115 (83.3)	45 (90)	1.74	0.418
Male	35 (12.9)	23 (16.7)	5 (10)		
Marital status					
Single	48 (17.7)	20 (14.5)	8 (16)	0.69	0.705
Married	223 (82.3)	118 (85.5)	42 (84)		
Years of teaching experience					
≤20	139 (51.3)	69 (50)	22 (44)	0.69	0.638
>20	132 (48.7)	69 (50)	28 (56)		
Have you ever had children with epilepsy in your classroom?					
Three students	1 (0.4)	1 (0.7)	0 (0.0)	1.93	0.925
Two students	7 (2.6)	4 (2.9)	1 (2)		
One student	41 (15.1)	25 (18.1)	6 (12)		
None	222 (81.9)	108 (78.3)	43 (86)		
Have you been informed by parents of the form of epilepsy their child has?					
Never	114 (42.1)	58 (42)	21 (42)	3.92	0.417
Yes, sometimes	89 (32.8)	37 (26.8)	19 (38)		
Yes, always	68 (25.1)	43 (31.2)	10 (20)		
Have you ever seen a seizure					
Yes (in classroom, home, public place or phone/TV/movies)	188 (69.4)	95 (68.8)	28 (56)	3.56	0.169
No	83 (30.6)	43 (31.2)	22 (44)		
Based on your experience, how do classmates behave toward a child with epilepsy?					
Tend to marginalize	7 (2.6)	6 (4.3)	1 (2)	6.94	0.139
Don't know	69 (25.5)	21 (15.2)	9 (18)		
Try to help	195 (72)	111 (80.4)	40 (80)		

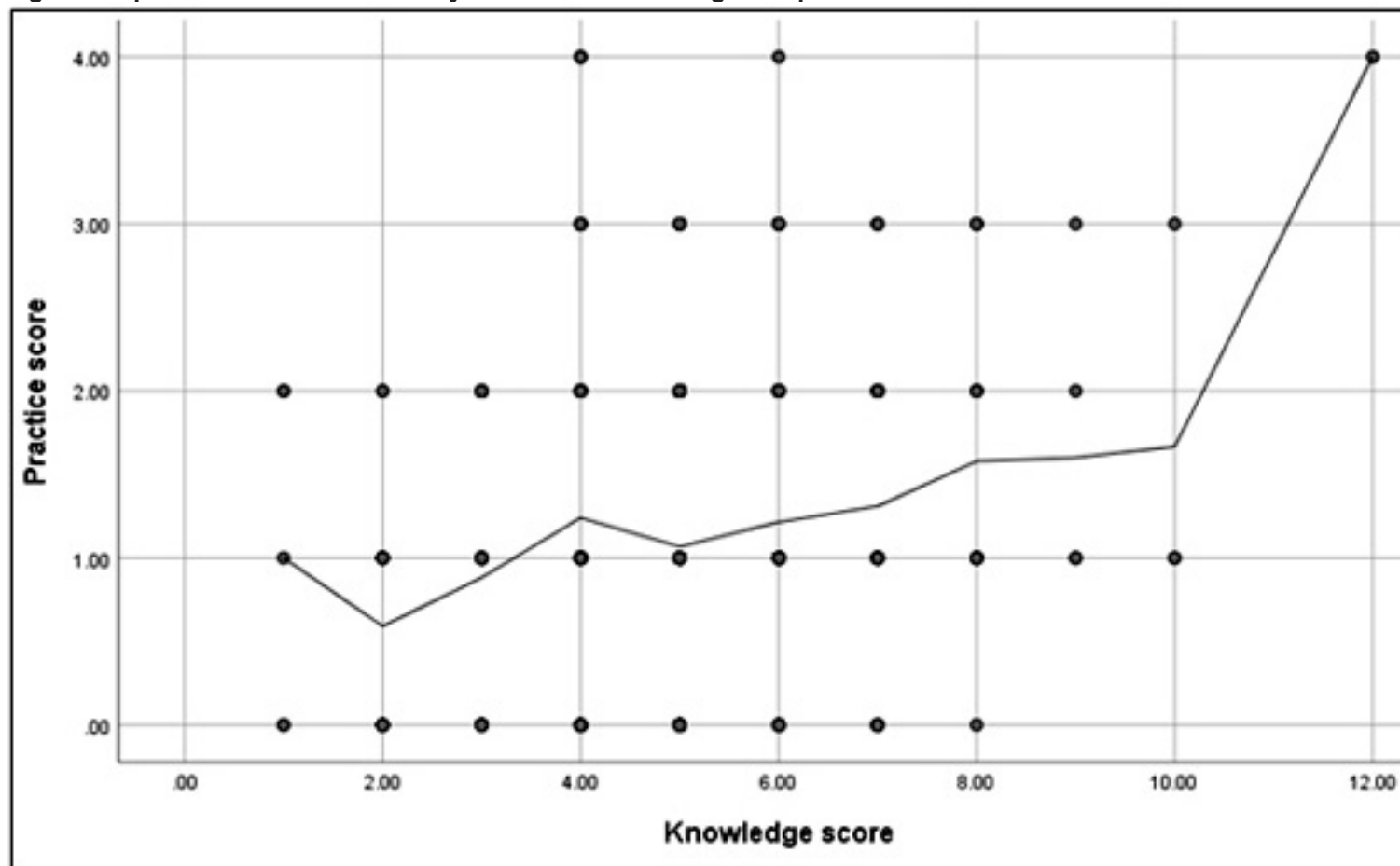
Regarding practice, Table 7 shows that teachers who had a fair practice significantly had an age ranging from 35-44 years, were married or had no child with epilepsy in their classroom ($p < 0.05$).

Table 7. Relationship between teachers' practice level regarding epilepsy and their demographics and their experience with a child with epilepsy (No.: 459)

Variable	Practice level		χ^2	p-value
	Poor No. (%)	Fair No. (%)		
Age (years)				
<35	43 (10.1)	8 (24.2)	8.41	0.038
35-44	200 (46.9)	12 (36.4)		
45-54	165 (38.7)	10 (30.3)		
≥ 55	18 (4.2)	3 (9.1)		
Gender				
Female	369 (86.6)	27 (81.8)	0.59	0.44
Male	57 (13.4)	6 (18.2)		
Marital status				
Single	66 (15.5)	10 (30.3)	4.86	0.027
Married	360 (84.5)	23 (69.7)		
Years of teaching experience				
≤ 20	212 (49.8)	18 (54.5)	0.28	0.597
> 20	214 (50.2)	15 (45.5)		
Have you ever had children with epilepsy in your classroom?				
Three students	0 (0.0)	2 (6.1)	33.57	<0.001
Two students	9 (2.1)	3 (9.1)		
One student	65 (15.3)	7 (21.2)		
None	352 (82.6)	21 (63.6)		
Have you been informed by parents of the form of epilepsy their child has?				
Never	183 (43)	10 (30.3)	2.55	0.279
Yes, sometimes	134 (31.5)	11 (33.3)		
Yes, always	109 (25.6)	12 (36.4)		
Have you ever seen a seizure				
Yes (in classroom, home, public place or phone/TV/movies)	187 (67.4)	24 (72.7)	0.4	0.526
No	139 (32.6)	9 (27.3)		
Based on your experience, how do classmates behave toward a child with epilepsy?				
Tend to marginalize	13 (3.1)	1 (3)	1.89	0.388
Don't know	95 (22.3)	4 (12.1)		
Try to help	318 (74.6)	28 (84.8)		

A significant positive correlation was found between knowledge and practice scores ($r = 0.18$, $p\text{-value} = < 0.001$) (Figure 3).

Figure 3. Spearman's correlation analysis between knowledge and practice scores



N.B.: ($r = 0.18$, $p\text{-value} = < 0.001$)

Discussion

This study was done to determine primary school teachers' knowledge, attitude, and practice toward children with epilepsy in Ha'il region, Saudi Arabia. Almost all teachers (99.6%) had heard about epilepsy from many sources. Approximately more than half of the respondents (63.6%) reported friends/acquaintances as their source of information and (35%) from social media. These findings are similar to a study conducted in Arar, Saudi Arabia, that reported (99%) of teachers knew of a disease called epilepsy. According to source of information, relatives and friends of teachers represent the main source of their information (49.1%). Whereas social media was found to be only (4.9%) (10). Another study done in Taif, Saudi Arabia, found (95%) of teachers had heard about epilepsy and (43%) of them know epilepsy from social media (11). Moreover, (45.4%) answered social media, when a study was done in Addis Ababa, Ethiopia (12).

In the present survey, more than half of participants (63.4%) reported poor knowledge levels of epilepsy. Regarding causes of epilepsy, (45.3%) believed hereditary disease is a cause of epilepsy, some of them (34.4%) believed it was due to a head injury, whereas (12.9%), (11.5%) and (6.3%) reported brain tumor, birth defect and viral infection respectively. Similarly,

recent studies conducted in different regions in Saudi Arabia, demonstrated significant changes and improvement in understanding of epilepsy causes (13,14). In addition, in this survey, only (12%) believed that 'Jinn' can cause epilepsy. This is converse to a study carried out in 2012, in Saudi Arabia, which suggested (40%) of teachers thought that epilepsy is caused by jinn (15).

When teachers investigated if epilepsy is a form of psychiatric disease, (39%) of teachers disagreed. Likewise, a study carried out in Niamey, Niger, revealed around (42.1%) considered epilepsy as a brain illness instead of (15.9%) as a form of psychiatric illness (16). Conversely to studies done in Tabuk and Taif, (56.4%) (59%) proposed epilepsy to be a psychiatric disease, respectively (11,17). However, (73.4%) knew that epilepsy is a curable illness. Accordingly, (55.1%) and (68%) knew it is treatable with specific drugs and neurosurgery, respectively. Additionally, when compared to a study in 2012, (67.5%) answered Ruqia, while (10.4%) answered cupping (15). These beliefs have been dramatically changed in the present study which showed approximately (20.3%) with Ruqia and (0.2%) with cupping.

With respect to attitude, it was found that more than half of the participants have a poor attitude towards epilepsy. The majority of our participants agreed that epilepsy affects marriage 47.5

employment 55.8%, and sports and leisure activities 46.4%. In accordance with another study conducted in Italy, 33%, 40%, and 33% of the teachers believed that epilepsy is a limitation for marriage, employment, and sports respectively (18). This negative attitude is the result of inadequate knowledge and can be a factor leading to problems related to these aspects and increase the burden of this disease on affected individuals (19).

Driving is dangerous for epileptic patients for two reasons: 1) Anti-epileptic drug (AED) side effects and/or the underlying pathology causing the individual's seizures may impair general driving ability, resulting in interictal cognitive or sensorimotor deficits; and 2) there is an intermittent risk of loss of consciousness or motor control due to a seizure while driving (20).

Nearly all of our participants 82.3% admitted that epilepsy is an obstacle to driving. Similar results have been found in Alshahrani, et al. study 48.38% (21). However, contradictory results were found in a study conducted in Taif city where only 18% of them considered epilepsy as a limitation to driving (11). This represents a positive attitude by our participants. In accordance with the rules and requirements of other countries, it would be safer for patients and the community if the seizures were under control (in seizure free remission) for about 12 months prior to obtaining a driving license (22).

Regarding education and cognitive function, 38.2% of the teachers agreed that epilepsy doesn't impair learning in children, which is supported by other Saudi studies where participants believed that epileptic children are capable of academic achievement (13). Another Saudi study found that 51.4% of the participants did not anticipate a lower level of learning from children with epilepsy (23).

Apart from this, 39.9% of our participants said that children with epilepsy have mental and/or behavior alterations, while 36.4% believed that Anti-epileptic drugs affect learning and behavior. This is consistent with a study done in Italy where 41.4% reported mental and/or behavior alterations because of anti-epileptic drugs (18).

Executive dysfunction is a common cognitive side effect of AEDs, and a Korean study concluded that any AED can cause cognitive impairment if used for a long enough period of time (24). Accordingly, an AED treatment can have a positive or negative impact on cognition (25). Because increased seizure frequency, duration, and severity are associated with impaired cognition, AED use can reduce cognitive dysfunction by controlling seizures. However, while the cognitive effects of AEDs are typically moderate when used as monotherapy at blood concentrations within the standard therapeutic ranges, significant impacts such as decreased quality of life or neuropsychological deficits can occur (24,25). On the other hand, 83.6% of our population agreed children with epilepsy require support in school. A similar result was shown in a study done in Italy where 55.8% believed that children with epilepsy require personal support at school (18).

Of the participants, 35.9% agreed that children with epilepsy have relationship problems with other children. Moreover, a study conducted in Khartoum thought that epileptic patients were not socially separated by their colleagues 71.7% (26). A similar question was asked by Alamri S, et al. if society discriminates against people with epilepsy. The majority of respondents (77%) said no (12). We concluded that all teachers who had an epileptic child in their class to be supportive and to learn about their conditions from the children's families, to know how to administer the medication if needed, and to educate other classmates about the disease to prevent discrimination or social stigma (27). The correct method of providing first aid to a child facing seizure remains not fully understood by teachers. This highlights the importance of training programs and awareness, particularly in epilepsy first aid (28).

In this survey we suggested the vast majority of teachers are not well qualified to provide first aid to a child facing seizure in school. Therefore, our results illustrated poor practice of teachers in about 92.8 percent. When teachers were asked "in case of a seizure in class, what would you do?", the majority (36.8%) wrongly said they would place something in the child's mouth. The remaining respondents (35.1%) correctly would call an ambulance and less than expected (9.6%), correctly would lie the person down on the ground and wait until the end of the attack. These results were also observed in a study applied in Makkah on female teachers, which highlighted that about (55%) answered to put an object in mouth (28). Another study reported in Jeddah, proposed around (36.2%) of teachers would open the mouth and place something in it (29). These wrong beliefs and practice haven't corrected until this time, even with public awareness by Saudi Ministry of Health. Accordingly, we suggest first aid training programs for teachers, since they are the first care provider at school.

Limitations

A limitation of the present study was the use of a self-reporting questionnaire that could have a recall bias.

Conclusion

According to this study, 99.6% of teachers had heard of epilepsy and 39.4% thought it was a psychiatric disorder. In terms of attitude, 28.7%, 48%, and 23.8% of teachers, respectively, disputed that epilepsy interferes with marriage, having children, or working full-time. Furthermore, 5.5%, 30.8%, and 38.2% disputed that epilepsy has an impact on driving, sports, leisure activities, and learning. Only 7% said they can effectively manage a youngster who is having an epileptic seizure. Poor, fair, and good knowledge levels were found in 63.4%, 35.7%, and 0.9% of teachers, respectively. In terms of attitude, 59%, 30.1%, and 10.9%, respectively, had a poor, fair, and good attitude. Concerning juvenile epilepsy, the majority (92.8%) had poor practice, whereas 7.2% had fair practice. Teachers with a fair practice had an age range of 35-44 years, were married, or had no child with epilepsy in their classroom. There was also a substantial positive

association between knowledge and practice scores. There are gaps in teachers' knowledge and practice when it comes to children with epilepsy. This involves health education programs and training sessions to teach people how to enhance their awareness, attitude, and practice.

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