

Knowledge, Attitude and Practice About Epilepsy among Elementary School teachers in Taif City, Saudi Arabia

Wardah M. Alharthi (1)

Shrouq R. Almalki (1)

Ameenah A. Alkhaldi (1)

Nouf M. Althobati (1)

Naif Edah Alomairi (2)

Ayman Abdelbaky Atalah (3)

(1) Intern, Ministry of Health Hospitals at Taif city, Saudi Arabia.

(2) Assistant Professor, Consultant Neurology, Epilepsy, Electroencephalography and Functional Neuroimaging, Faculty of Medicine, Al-Taif University, Saudi Arabia.

(3) Assistant Professor of Family Medicine, Faculty of medicine , Al-Taif University, Saudi Arabia

Corresponding author:

Dr. Nouf Mohammed Althobaiti

Affiliation: Intern at Ministry of Health Hospitals at Taif city, Saudi Arabia.

Address: Shehar street, Taif, Saudi Arabia.

Tel. No.: +966555703979; Fax No.: +966555703979

Email: nofmohd@hotmail.com

Received: October 2019; Accepted: November 2019; Published: December 1, 2019.

Citation: Wardah M. Alharthi et al. Knowledge, Attitude and Practice About Epilepsy among Elementary School teachers in Taif City, Saudi Arabia. World Family Medicine. 2019; 17(12): 73-81. DOI: 10.5742MEWFM.2019.93716

Abstract

Introduction: Epilepsy is a chronic brain disorder that has a major impact on children's development, mental health and social life. Teachers' knowledge and views on epilepsy can help or harm children with epilepsy as they spend a considerable time in school.

Objectives: We aimed to assess elementary school teachers' knowledge, attitude and practice towards epilepsy in Taif city, Saudi Arabia.

Methods: A cross sectional study was carried out on 400 elementary school teachers from 16 schools in Taif city using convenience sampling technique and data was collected between February and March 2017 using a 16-question questionnaire.

Results: 223 and 177 of the participants were males and females, respectively and the mean age was 37 ±8.21. (95%) of participants have heard of epilepsy and their source of knowledge was mostly public media (43%). (58.8%) believed that epilepsy is a result of multiple causes like head trauma, brain tumor and even spiritual illness. (15.5%) think that epilepsy can't be cured or controlled and (17.3%) think children with epilepsy can't practice their life

normally. The majority of them (79%) will allow their children to play with an epileptic child but only (19%) will allow them to marry an epileptic patient in the future. If a child is having a seizure at school (40.3%) of the teachers chose to open their mouth forcefully to prevent tongue swallowing.

Conclusion: There is a gap in teachers' knowledge regarding epilepsy which necessitates the presence of education programs about dealing with epileptic children properly.

Key words: epilepsy, children, knowledge, practice, attitude, Saudi Arabia

Introduction

Among common non-communicable diseases, epilepsy is a chronic complex disorder of brain electrical activity that occurs worldwide and affects people of all age groups (1).

It is characterized by a recurrent, unprovoked, paroxysmal and transitory disturbance of brain function in which the patient presents with somatic (motor or sensory), autonomic or psychological disturbances and may be associated with disturbance of consciousness. Epilepsy is sudden in onset and ceases spontaneously and is commonly associated with electroencephalographic (EEG) changes (2).

It is a very common disease worldwide and incidence rates vary from country to country but generally about 50 million people live with epilepsy (3).

In the Kingdom of Saudi Arabia, the prevalence is 6.54 per 1000 (4).

Public attitude toward epilepsy in Saudi Arabia is influenced by level of education, cultural beliefs and social taboos, poor knowledge and lack of awareness which has a negative effect on both epileptic children and their families (5).

Schools are one of the social situations where epileptic children face the consequences of societal misunderstanding of epilepsy and how to deal with it, causing distress for the patient more than the disease itself as it may affect their mental health, learning abilities and social interactions (6).

Also, there are no training programs instructing school teachers proper first aid management to deal with a child having an epileptic seizure, leading to different practices that can be harmful (7).

Knowledge, awareness and attitude of school teachers about epilepsy and how to deal with it has a strong impact on the scholastic achievement of epileptic students and can improve their life quality to some extent.

Hence, the aim of this study is to evaluate knowledge, attitude and practice about epilepsy among elementary schoolteachers in Taif City, Saudi Arabia.

Methods

This study was approved by the Ethical Committee of Taif University.

It is a cross sectional study using the Arabic version of a modified questionnaire. 8 Questionnaires with 16 questions were distributed to 400 schoolteachers using convenience sampling in 16 randomly selected schools at elementary level of education, 8 were public schools (4 female schools and 4 male schools) and the others 8 were private schools (4 female schools and 4 male schools) in Taif, SA. The data was collected between February and March 2017. All

of the schoolteachers responded. We discussed 4 issues, namely: (1) Demographic information; (2) Knowledge; (3) Attitude and (4) Practice of schoolteachers about Epilepsy. Schoolteachers who were not working at the chosen schools were excluded.

Data entry and statistical analysis was performed using SPSS V22 package. Frequencies, mean and standard deviation were analyzed as descriptive statistics. The research was self-funded.

Results

Table 1 shows that age of the participants ranged from 23 to 62 years old, and the mean of age was 37 ± 8.21 year. Most were of Saudi nationality and their experience of teaching ranged from 13 to 37 years, with a mean of 13 years.

Table 2 shows the total number of teachers who participated in our study which was 400. Of 223 (55.8%) of them were male and 177 (44.3%) were female.

Table 3 shows that 380 (95%) of the teachers knew about presence of a disease called epilepsy, whereas 20 (5%) of them never heard or read about it.

There was 44 (11%) of the teachers who had a family member with a history of seizure at least once, and there were 356 (89%) of them without.

Table 4 shows that (99%) of the study sample believe that epilepsy is not a contagious disease, (64.5%) think that the epilepsy can be cured or controlled, (78%) of the teachers think an epileptic child can practice her/his life normally, (66%) don't believe that an epileptic child can have a higher incidence of insanity.

There were (57%) of the teachers afraid of having a student with epilepsy in their class, and (83.5%) prefer to have a controlled epileptic student before entering their class but only (21%) prefer all epileptic students should be placed in a special classroom.

There were (79%) of the participants who would allow their children to play with epileptic child but (54%) would not allow their children to marry an epileptic in the future.

A (29.8%) of the teachers have at least one student who has been exposed to an epileptic seizure in their classroom but (77.5%) of all teachers have never performed first aid seizure management before.

Table 5 shows the majority of teachers believed that epilepsy can be caused by more than one reason 235(58.5%) including genetic abnormality, insanity, infection, head trauma or tumour, while others think that epilepsy is caused by one factor: 75(18.8%) think that the cause is head trauma, 36(9%) genetic disorders, 10 (2.5%) brain tumour, 4 (1%) think it's from possession of an evil spirit and 40 (10%) don't know the cause.

Table 6 shows how the teachers will deal with the epileptic child during a fit; 40% of them will open the epileptic child's mouth and try to prevent tongue swallowing, 33% will call

a doctor, 10% will put the child on left side and give breath and 5% decided that restriction of child movement is the best choice.

Table 1: Demographic Data

	Mean	Maximum	Minimum
Age	37	62 y	23 y
Years of experience	13	37 y	6 months

Table 2: Gender Data

	Frequency	Percent
male	223	55.8%
female	177	44.3 %
Total	400	100%

Table 3: Epilepsy Knowledge among teachers

Questions 1 on knowledge toward epilepsy	Yes N (%)	No N (%)
Heard or read about epilepsy	380 (95%)	20 (5%)
Has any family member ever had a seizure?	44 (11%)	356 (89%)

Figure 1: shows that the majority of teachers knew about the disease from public media, and only few of them knew from the parents of the epileptic students or from the doctors (5.8% and 2.8% respectively)

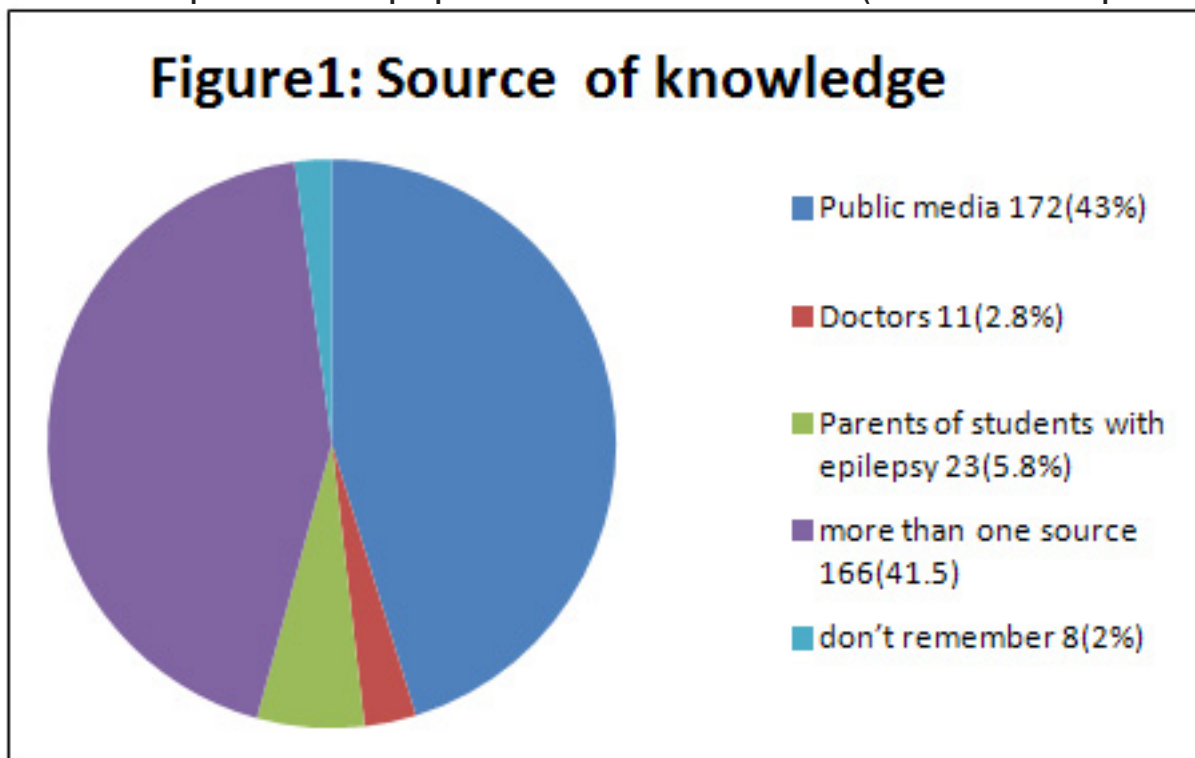


Figure 2: shows 78 % of the teachers thought that students with epilepsy have normal intelligence but 17% of the teachers felt that epileptic child's intelligence below the average and 5% thought that, it is above the average

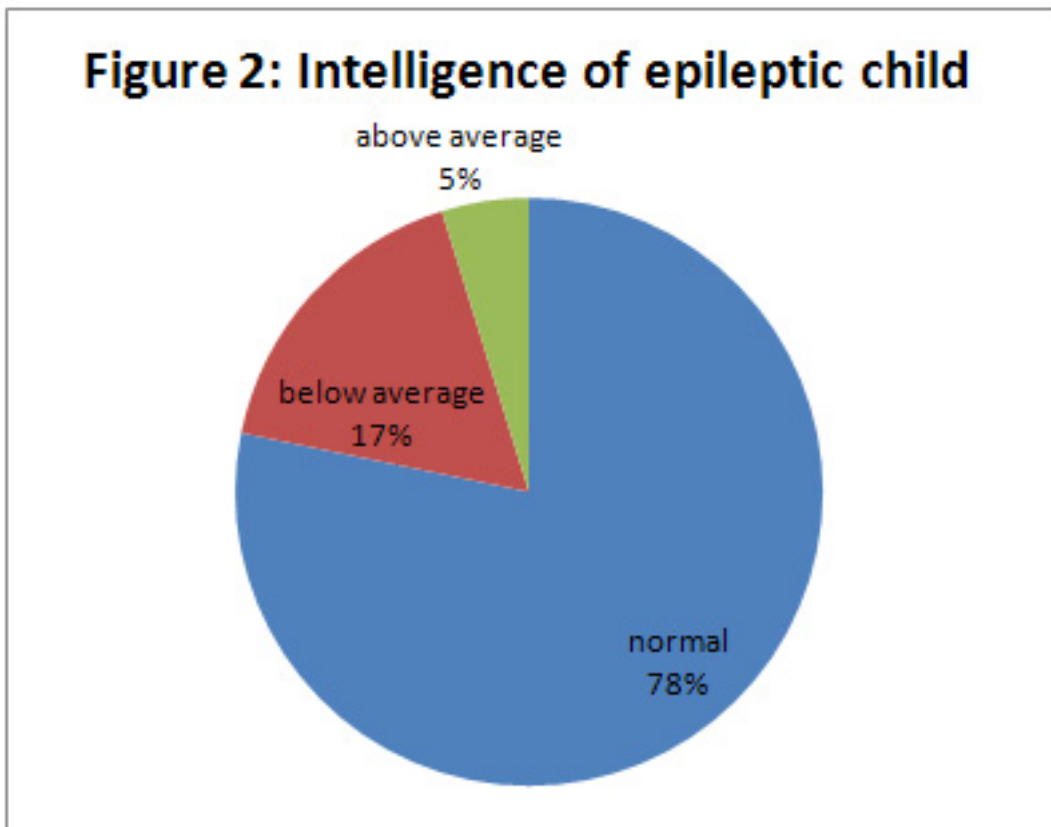


Table 4: Attitude about epilepsy

Questions on attitude about epilepsy	Yes N (%)	No N (%)	I do not know N (%)
Epilepsy is a contagious disease	4 (1%)	396 (99%)	
Epilepsy cannot be cured or controlled	62 (15.5%)	258 (64.5%)	80 (20%)
An epileptic child cannot practice her/his life normally	69 (17.3)	312 (78%)	19 (4.8%)
Epileptic child has a higher incidence of insanity	46 (11.5%)	264 (66%)	
I am afraid of having a student with epilepsy in my class	228 (57%)	165 (41%)	7 (1.8%)
I prefer to have a controlled epileptic student before entering my class	334 (83.5%)	45 (11.8%)	19 (4.8%)
I prefer all epileptic students to be placed in special classroom	84 (21%)	302 (75.5%)	14 (3.5%)
I will allow my child to play with an epileptic child	316 (79%)	63 (15.8%)	21 (5.3%)
I will allow my child to marry an epileptic child	76 (19%)	216 (54%)	108 (27%)
One of my students has been exposed to an epileptic seizure	119 (29.8%)	281 (70.3%)	
I performed first aid seizure management before	90 (22.5%)	310 (77.5%)	

Table 5: Causes of epilepsy

Causes of epilepsy	N (%)
Genetics	36 (9%)
Trauma	75 (18.8%)
Tumour	10 (2.5%)
Spiritual illness	4 (1%)
More than one reason	235 (58.8%)
I don't know	40 (10%)

Table 6:- Practices toward epilepsy

Teachers' Performance of first aid in case of epilepsy	N (%)
Calling doctor	132 (33%)
Open the mouth and prevent tongue swallowing	161 (40.3%)
Restriction of child movement	20 (5%)
Put the child on left side and give breath	43 (10.8%)
More than one	44 (11%)

Discussion

Epilepsy is a very common disease in the pediatric age group in Saudi Arabia with a frequency of 4-8 cases per 1,000 children (9).

Therefore it has an impact on children's educational achievement and learning process. It may also affect their self-esteem and affect their social life. It is quite difficult to deal with epileptic children without a full awareness of this disease and since they are an inseparable part of society, people might be prone to encounter epileptic fits, especially teachers who spend a long period of time with children.

The knowledge and attitudes conducted by teachers regarding epilepsy influences student's performance, social skills development, and even future employment making it a lot easier to overcome difficulties.

Our study was conducted in Saudi Arabia specifically in Taif city with a sample of 400 male/female teachers who were working in public and private schools and who were included with ages ranging between 23 and 62 years (mean 37), Their years of experience ranged from 6 months to 37 years (mean 13 years).

In our study we found that 380 (95%) of schoolteachers had heard or read about epilepsy from more than one source, mostly from public media 172 (43%), Doctors 11 (2.8%), parents of students with epilepsy 23(5.8%), more than one 166 (41.5%) and some of them don't remember 8 (2%). While there was a study about Knowledge and Attitudes toward Students with Epilepsy among Middle and High School Teachers in Kuwait 2016, it showed that most of them (60.5%) had their information from public media, followed by the Internet (41.3%), education (25.4%), parents of students with epilepsy (19.2%), and health care professionals (19.3%) (10).

In comparison with a recent study done in Riyadh 2017 they found that 99.4% of school teachers had heard about epilepsy and 38% of them know epilepsy from media, 22.1% from friends, 19.4% from relatives, 12% from affected members in their families and 8.4% from other sources (11).

A study was done about awareness and attitude of teachers on epilepsy in Istanbul, Turkey, 2004 and showed only 69.3% of the participating teachers had either read or heard about epilepsy (12) In n 2001 in Brazil however , a study conducted about knowledge and attitudes toward epilepsy among primary, secondary and tertiary level teachers they found 98% of primary school teachers have heard or read about epilepsy (13). In a study from Khartoum State, Sudan in 2016, Knowledge, Attitude, and Practice about Epilepsy among Secondary School Teachers found (92.7%) teachers had heard about epilepsy (7). In Karachi, Pakistan in 2014 there was study about Knowledge, attitude and practices of school teachers towards epileptic school children which showed that 90.9% of them

had heard about epilepsy, with print media (60.9%) being the commonest source of information, followed by friends and family (50.9%) electronic media (25.5%) and doctors (13.6%). Only 8.2% of respondents had no knowledge of the disorder at the time (1).

Also a study done in India in 2008 which was about Knowledge awareness and attitudes about epilepsy among schoolteachers found most of the school teachers knew about epilepsy from public media or parents of the students with epilepsy (37.9% and 35.7%, respectively). Only 4.9% of the responders got information from the doctors (8).

In studying the teachers' familiarity with epilepsy, it was found that 44(13%) of the teachers have a relative with epilepsy, and 356 (89%) do not.

In Khamis Mushate, Southern Saudi Arabia in 2015, a study was done about Knowledge and practice of schoolteachers towards students with epilepsy which found that 13% of the teachers had a relative with epilepsy (6).

In Pakistan, 31.8% knew someone with epilepsy.

In Brazil , 88% of them know someone with epilepsy.

In Indian, only 7.9% admitted that they had seizures in their family.

There are different beliefs among people in the society regarding the cause of the disease; we found that the majority of teachers reported that it could be more than one reason 235 (58.5%) including genetic abnormality, insanity, infection, head trauma or tumour ,while others think that epilepsy is caused by one factor. Seventy five(18.8%) think that the cause is head trauma, 36 (9%) genetic disorders, 10 (2.5%) brain tumour, 4 (1%) think it's from possession by an evil spirit and 40 (10%) don't know the cause.

In comparison with other research that was conducted in different cities in Saudi Arabia, it indicated that 70.3% of teachers in Riyadh think that epilepsy has one cause which is abnormal electrical activity in the brain, 23.8% think it's due to brain trauma, 21.6% due to brain infections, 14.4% due to genetic defect, 14.1 due to anxiety and stress, 7.8% due to birth defect, 4.1% due to brain cancer and about 12% don't know the cause. Also they found most teachers think that epilepsy is a neurological disease (84%), 6.9% think it's a psychiatric disease, 5% think it's a hereditary disease and 4.4% think it's from evil spirit or spell. While in Jeddah, in 2013 up to 27% continued to believe that spirit possession or evil eye are causes of epilepsy (16).

In Khamis Mushate in 2015 the study revealed that most schoolteachers (82.2%) believed that epilepsy was not infectious. Some schoolteachers believed epilepsy to be hereditary (34.3%), whereas others thought it was an acquired disease (36.5%), and 46.0% believed that epilepsy was caused by electrical discharges. The Kuwait study showed causes of epilepsy as reported by teachers were:

(73.0%) genetic disorders, 47.4% head trauma, 47.3% brain disease, 24.0% possession of evil spirit, 14.7% insanity, 10.1% punishment from God, and 1.3% brain electricity.

The study in Sudan showed that most of the teachers, 245 (77.3%), believe in the neurological etiology as a cause of epilepsy; however, 68 (21.5%) reported the devil and superstitious causalities and 136 (42.9%) related the cause to other organic diseases.

In an Indian study the majority (44.4%) think it is a brain disease and only a minority (5.5%) think it a supernatural possession. The other causes attributed to it were genetic (10.4%), trauma (8.5%), infection (3.3%), tumour (3.5%) and insanity (1.5%).

Regarding teachers' thoughts on if epilepsy is a contagious disease or not, we found that 396 (99%) correctly answered "epilepsy is not a contagious disease," and this result is similar to what was found in the Kuwait study, where 82.4% answered epilepsy is not a contagious disease, in Istanbul 97.6% of the responders thought that epilepsy is not a contagious disease, also in India only 4.9% of the teachers think epilepsy is a contagious disease and in Brazil, 2% .

In our study the majority of the school teachers think that epilepsy can be cured or controlled 258 (64%) while 62 (15.5%) think that it can't be cured or controlled and 80 (20%) don't know.

In the Istanbul study (80.4%) think that it is a treatable disease.

In the India study the majority felt that it can be cured or controlled (62%).

There was a study in 2013 about Primary School Managers' Knowledge of and Attitude towards Epilepsy among Children in Erbil City, Iraq which showed that over half of the respondents (53.75%) stated that epilepsy cannot be treated or prevented (15).

A total of 312 (78%) think that an epileptic child can have a normal life while 69 (17.3%) think they can't and 19 (4.8%) don't know.

In the Sudan study (35.6%) would prevent their children from playing football if they had the disease, (53.3%) would prevent them from swimming, and (46.4%) would prevent them from riding bicycles.

In a Riyadh study, regarding the impact of the disorder on social behavior of epileptic children most of the teachers didn't notice any behavioral issues.

In the Khamis Mushate study, overprotection and feelings of fear, worry, and insecurity can interfere with the epileptic child's personal relationships and academic life but (50.5%) chose 'prevented from participating in sporting activities'.

In the study from Iraq, (92.5%) of the school managers' think that children who have epilepsy cannot perform any physical exercises.

When teachers were asked about the average intelligence of epileptic children, more than half of the study sample think that epileptic students have normal intelligence 313 (78.3%), but 68 (17%) felt that their intelligence is below average and 19 (4.8%) think that it is above the average which was also found in a study in Brazil where they found that 83% of school teachers think that a student with epilepsy is as intelligent as others. While in the Indian study, (47.7%) opined that epileptics have a normal intelligence but 31.7% of teachers felt that their intelligence is below average. In the Iraq study, more than half of the respondents thought that children with epilepsy are mentally under developed. In the Jeddah study, 25% of the teachers felt that the intelligence of children with epilepsy is below average.

We also found that more than half of the respondents think that an epileptic child is not at a higher risk of insanity 264(66%), only 46(11.5%) think the epileptic students may have a higher incidence of insanity and 90 (22.5%) don't know.

This result is similar to the Indian study where they found that only 13.7% think that children with epilepsy have a high incidence of insanity.

228 (57%) of teachers stated that they are afraid when asked about their feeling of presence of an epileptic student in their classrooms while 165 (41.3%) were not; 7(1.8%) don't know and 334(83.5%) prefer to have student's epilepsy under control before entering their classrooms; 47(11.8%) don't prefer that and 19 (4.8%) don't know.

32.2% of the teachers in the Indian study were afraid of having epileptic students in their classroom, but only 20.8% felt that they need a special classroom. In the study from Brazil, 93% of the teachers were afraid of having epileptic students in their classroom.

12.1% agreed to have students with epilepsy in their classroom.

When we asked about their opinion regarding placing epileptic children in a special classroom, 84(21%) opined that they need a special classroom room while 302 (75.5%) think that there is no need for doing that; 14(3.5%) don't know.

In the Jeddah study, 28% of teachers thought that children with epilepsy should be placed in a special classroom. In the KhamisMushate study, 79.7% of the schoolteachers did not believe that these children should be taught in separate classes.

This can be compared to 55.0% of Iraq teacher participants who thought that children who have epilepsy should be taught separately and in a different classroom from non-epileptic children. And in the Indian study, 20.8% of Indian teachers felt a need for a special classroom for epileptics.

Regarding teacher's children, more than two thirds of the teachers choose "to allow to their children to play with an epileptic child" 316 (79%), while 63(15.8%) choose not to allow them and 21(5.3%) don't know.

But 216 (54%) don't want their children marrying a person with epilepsy in the future, 76 (19%) opined that there is no problem and 108 (27%) don't know.

In comparison with other studies which were done outside Saudi Arabia, such as in Istanbul, (93.7%) stated that they will let their children play with epileptic children but 26.2% seemed less willing to approve of their children marrying a person with epilepsy.

However only half of Indian teachers (55.3%) preferred their children to play or sit in the same class with a child with epilepsy but on epilepsy and marriage, a clear no was obvious (86.8%) with regards to marriage with epileptics. Only 6.9% approved their children marrying a person with epilepsy.

We found that 119 (29.8%) of teachers have witnessed an epileptic fit in their classes and 281 (70.3%) have not been. 90 (22.5%) of them had performed first aid seizure management before while 310 (77.5%) had not.

When we asked about how they would perform the first aid in managing a child who is seizing, 161(40.3%) chose to open the mouth strongly and put something in their mouth to prevent tongue swallowing; 132 (33%) chose calling doctors for help; 43 (10.8%) would put the child on the left side and give breath if he/she cannot breathe, 20 (5%) choose to restrict the child's movement and 44 (11%) of them chose more than one answer.

In comparison with the previous studies which were done inside Saudi Arabia they found in a Riyadh study that 55.2% of teachers have witnessed an epileptic fit in their classes and 44.8% had not. 43% of teachers' first reaction to an epileptic fit was trying to help, 10.5% felt afraid and stepped back, 19.8% called for help and stood by and about 27% didn't know what to do. 59% of teachers knew the first aid in an epileptic fit, 41.4% didn't know.

In a Jeddah study, 58% of the teachers did not know what to do and the majority felt that putting something in the student's mouth to prevent tongue swallowing was a proper maneuver.

In the Khamis Mushate study, 31.7% had seen a student having a seizure; of those teachers who had witnessed an epileptic seizure, 64.1% were unable to give first aid treatment. About 84% of teachers needed some information on epilepsy, and 86.7% needed some instruction on giving first aid to someone who is having an epileptic seizure.

While in the previous studies which were done outside KSA, they found that in Pakistan, 26.4% of the teachers had witnessed a student in class having a seizure.

In a Kuwait study, 29.3 % of the respondents had dealt with a person having epilepsy, but surprisingly only 8.5% of participants thought that they had sufficient training in first-aid management of seizures.

In the study from Sudan, the majority of the teachers witnessed an epileptic seizure (83.5%). But their knowledge about the etiology and treatment was generally poor, (48%). Only 19 (6%) of the teachers had received first aid training regarding an epileptic seizure episode but the majority of the teachers would do the following to the patient with a seizure: (76.3%) would put them on the ground carefully, (78.2%) would remove any harmful surroundings, (55.8%) would put a soft pillow under the seizing patient's head, and (62.1%) would remove any tight clothes. There is also a high level of negative practice that can harm patients like tying them, 12.9% and putting a spoon in their mouths 47.6%.

In India the majority of the teachers (68.2%) disclosed that they have not performed any first aid measure during the fit. Only 27.8% of the respondents confirmed that they had performed first aid seizure management and the most prompt answer to this was calling the doctor immediately (44.7%). However, only 16.3% could give some proper first aid.

Our study showed in many ways that most schoolteachers have poor knowledge regarding dealing with a seizure attack in regards to first aid. This problem may result in a very serious situation such as head injury. What we really need is to provide courses on how teachers can perfectly manage such situations in a way that will minimize the risks.

Acknowledgments

The authors would like to extend their sincere gratitude to all the schoolteachers for participating in this paper, schools principals and to ministry of education. Another special thanks to Dr. Ayman Abdelbaky Attala and Dr. Naif Alomairi for helping, supporting and teaching us.

Lastly we would like to express our limitless appreciation to Taif University and its college of medicine.

References

- [1] Bhesania, N. H., Rehman, A., Savul, I. S., & Zehra, N. Knowledge, attitude and practices of school teachers towards epileptic school children in Karachi, Pakistan. *Pakistan Journal of Medical Sciences*. 2014; 30.1: 220.
- [2] Stafstrom, Carl E., and Lionel Carmant. "Seizures and epilepsy: an overview for neuroscientists." *Cold Spring Harbor perspectives in medicine* .2015;5.6 :a022426
- [3] Organización Mundial de la Salud. Programme for Neurological Diseases, et al. Atlas: epilepsy care in the world. World Health Organization, 2005; https://www.who.int/mental_health/publications/atlas_epilepsy_care_2005/en/ .

- [4] Al Rajeh S, Awada A, Bademosi O, Ogunniyi A. The prevalence of epilepsy and other seizure disorders in an Arab population: a community-based study. *Seizure*. 2001;10:410–414.
- [5] Obeid, Tahir. "Stigma. An aspect of epilepsy not to be ignored." *Saudi medical journal*. 2008;29.4: 489-497.†
- [6] Alqahtani, Jobran M. "Knowledge and practice of schoolteachers towards students with epilepsy in Khamis Mushate, Southern Saudi Arabia." *Journal of family & community medicine*. 2015; 22.3: 163.†
- [7] Elhassan, Mohamed A., et al. "Epilepsy: Knowledge, Attitude, and Practice among Secondary School Teachers in Khartoum State." *Neurology and therapy* .2017;6.2: 225-235.†
- [8] Thacker, A. K., Verma, A. M., Ji, R., Thacker, P., & Mishra, P. Knowledge awareness and attitude about epilepsy among schoolteachers in India. *Seizure*. 2008 ;17.8: 684-690.†
- [9] Jan , M.M. Clinical review of pediatric epilepsy. *Neurosciences*.2005;10.4: 255-64.†
- [10] Al-Hashemi, E., Ashkanani, A., Al-Qattan, H., Mahmoud, A., Al-Kabbani, M., Al-Juhaidli, A., & Al-Hashemi, Z . Knowledge about Epilepsy and Attitudes toward Students with Epilepsy among Middle and High School Teachers in Kuwait. *International Journal of Pediatrics*, Volume 2016, Article ID 5138952, 15 pages.
- [11] Alkahil H, Falatah Y, Abdulbaki M et al., Awareness About Epilepsy in Children Among Schoolteachers in Riyadh, KSA: 2017: *Int. J. of Adv. Res.* 5 (2):654-662 :2320-5407.
- [12] Bekiroğlu, N., Özkan, R., Gürses, C., Arpacı, B., & Dervent, A. A study on awareness and attitude of teachers on epilepsy in Istanbul. *Seizure*.2004 ;13.7: 517-522.†
- [13] Dantas, F. G., Cariri, G. A., Cariri, G. A., & Ribeiro Filho, A. R. V. Knowledge and attitudes toward epilepsy among primary, secondary and tertiary level teachers. *Arquivos de Neuro-Psiquiatria*. 2001; 59.3: 712-716.†
- [14] Abulhamail A, Al-Sulami F, Alnouri M. Primary school teacher's knowledge and attitudes toward children with epilepsy. *Jeddah, KSA. Seizure* 2014 ;23: 280-283 .
- [15] Abdullah Salih A. Primary School Managers' Knowledge of and Attitude towards Epilepsy among Children in Erbil City, Iraq. *Sultan Qaboos University Medical Journal*. 2014; 14.2: e218.†