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Assessment of knowledge of school teachers regarding epilepsy

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Abstract

The unpredictable nature of epilepsy means that teachers may unexpectedly, without warning, have to react to a seizure as school children with seizure disorder spend most of their daytime socializing and interacting with their teachers. The present study aimed to assess the knowledge on Epilepsy among 97 school teachers working in selected schools of Panchkula, Haryana using a structured knowledge questionnaire. The findings show that, majority (88.7%) of the school teachers had ever heard of epilepsy; none of the teacher had attended any training programme on Epilepsy. All the teachers were having poor level of knowledge (0-24) i.e below 50%. About 28.9% were not aware of any symptom of the Epilepsy and 15.5% answered that something (alcohol, ether, leather) should be given to smell during a seizure. Only 45.4% school teachers were aware that a person with seizure disorder/epilepsy should seek treatment from a neurologist. It can be concluded that knowledge is inadequate among the school teachers on concept, symptoms and management of epilepsy. There is an urgent need to train school teachers regarding Epilepsy and its management.

Keywords: Epilepsy, school teachers, Knowledge

1. Introduction

Epilepsy accounts for one per cent of the global burden of disease; however, 80% of the burden of epilepsy is in the developing countries^[1]. Epilepsy is the second most common chronic neurological condition seen by neurologists.

Most people can achieve excellent seizure control; however, people living with epilepsy continue to suffer from enacted or perceived stigma that is based on myths, misconceptions and misunderstandings that have persisted for thousands of years.

People with epilepsy are often wrongly viewed as having mental health and antisocial issues and as being potentially violent toward others. Significant negative attitudes prevail in the adolescent and adult public worldwide leading to loneliness and social avoidance both in school and in the workplace.

For a student with epilepsy, his or her sense of safety, acceptance, and opportunity is influenced by others' understanding of the disorder, their response to seizures, and their expectations of the student. The social discrimination against epilepsy mainly affects school children as they are in their growing age with interactions at multiple levels. The school teachers play a vital role in the development of attitude towards any disease of the school child with a strong bearing on their mind.

Children with seizure disorder face social discrimination and stigma due to negative perception, lack of knowledge, and understanding of the condition^[2, 3]. There are many superstitious beliefs concerning the cause of seizure disorder which cut across all social strata. It has been linked to witchcraft, spiritual attacks, and punishment for sins by traditional healers and even university students^[4, 5].

The basis of including schoolteachers is their exceptional role in Indian society with their larger interaction among the segment of population most affected by epilepsy. Clearly, attitude and knowledge about epilepsy amongst schoolteachers reflects the real magnitude of social problems against epilepsy. Community-based studies have reported that better-educated individuals offer more favorable opinions and display positive attitude^[6-10].

As school children with seizure disorder spend most of their daytime socializing and interacting with their teachers as well as with their schoolmates, these teachers therefore play an important role in public health education. They can hand on the knowledge to their pupils and by extension, to the community^[11].

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The unpredictable nature of epilepsy means that teachers - indeed all school personnel - and other students may suddenly, without warning, have to respond to a seizure at school. The student who has a seizure at school may face a range of consequences and reactions to the episode, including embarrassment, fear, rejection, and interference with the learning process.

In India, school teachers have a pivotal role in dissemination of knowledge among school children towards any disease. They can, and indeed should, play a key role in first-aid management of seizures (fits) suffered by any school child. There is, thus, a definite need for the assessment of knowledge of school teachers to identify the misconceptions regarding Epilepsy.

Therefore, the present study was conducted to assess the knowledge of school teachers regarding epilepsy.

2. Methods and Material

A descriptive survey was conducted on 97 school teachers working in selected five schools of Panchkula, Haryana in 2014 and 2015. The school teachers were selected by using convenience sampling technique. Ethical approval to conduct study was obtained from institutional ethical committee of M.M University, Mullana.

Formal permission was taken from the principals of selected schools. School teachers willing to participate in the study and present on the day of data collection were included in the study. The purpose and nature of the research project was explained to the subjects and assurance of confidentiality of their responses was given. School teachers were required to answer a series of questions on awareness and knowledge of epilepsy.

Assessment of the knowledge of school teachers regarding Epilepsy was ascertained using a Structured Knowledge Questionnaire consisting of 50 multiple choice questions. The Structured Knowledge Questionnaire (SKQ) consisted of three sections. The section 1 consisted of 07 items i.e. age, gender, religion, total years of teaching experience, name of the school, type of school, level of school. The Section 2 was consisted of 06 items i.e. ever heard of epilepsy; attended any training programme related to epilepsy; know anyone who has epilepsy; ever seen an episode of epilepsy; ever had a child with epilepsy in classroom; ever provided first aid to a child with epilepsy in school. Section 3 was consisted of 50 Multiple choice questions (MCQs) including case /critical incident based questions to elicit the knowledge of school teachers regarding Epilepsy in the area of concept, types of seizures, clinical manifestations and management of seizures. There was an option of 'Don't know' in the section 3 to avoid the guess work. There was only one correct response and minimum score was 00 and maximum was 50.

Content validity of the SKQ was established from nine experts: one from the department of Neurology, three from the department of Medicine, one from psychology, and four nurse educators. Content validity index (S-CVI/Ave) was found to be 0.89. Internal consistency of SKQ was established by KR-20 formula. It was found to be 0.9.

Self-report was the technique for data collection. The school teachers filled the structured knowledge questionnaire on Epilepsy. It took about 20-25 minutes to fill the questionnaire.

The data was entered in Microsoft excel sheet. Data was analyzed and interpreted by employing descriptive statistics. SPSS version 20.0 was used to analyze the data.

3. Results

This study aimed to get some ideas about the knowledge of school teachers who form an important sector of the community that frequently deal with children, some of whom may have epilepsy. The results of the present study shows that majority of the school teachers were from private schools (80.4%) and only 19.6% were from government schools. 15 teachers were from primary school; 32 from middle and majority i.e. 50 school teachers were from secondary and higher level of school. Mean age of the school teachers under study was 35.2 ± 9.95 years. Age varied from 21 to 55 years. Majority of the school teachers i.e 36.1% were in the age group of 20-30yrs followed by 29.9% in the age group of 30-40 yrs; 18.6% belonged to 40-50 yrs and 15.5% in 50-60 yrs of age. Majority of the teachers were female (88.7%) and belonged to Hindu religion (90.7%).

Out of 97 teachers, majority (88.7%) had ever heard of epilepsy; none of the teacher had attended any training programme on Epilepsy. About one fourth of school teachers (26.8%) knew somebody with seizure disorder/epilepsy and nearly same (24.75%) had ever seen an episode of seizure. About 5 teachers reported that they ever had a child with seizure disorder/epilepsy in classroom and 2 had ever provided first aid to a child with seizure disorder/epilepsy in school.

The mean knowledge score of school teachers was 9.74 ± 5.9 . The knowledge score varied from 0 to 24. All the teachers were having poor level of knowledge (0-24) i.e below 50%.

Majority of the school teachers i.e 78.4% knew that Epilepsy is a disease of brain; 55.7% correctly answered that is neurological in nature. More than half knew that the characteristic feature of epilepsy is Seizures due to excessive discharge of neurons whereas, nearly one third answered wrongly that 'Uncontrollable musculature and hemorrhage' are the features. Majority of school teachers (60.8%) answered incorrectly that prevalence of seizure disorder/epilepsy is high in poor people. Only 28.9% answered correctly that epilepsy is diagnosed by Electro encephalogram.

28.9% answered incorrectly that an epileptic fit can be terminated by smelling a shoe. Nearly half of them knew that a person with seizure disorder/epilepsy should seek treatment from neurologist. Nearly one fourth (23.7%) answered correctly that during a seizure, the school teacher should stay with child and remain calm. 41.2% did not know what to do during an episode of tonic clonic seizure.

An object between the teeth should not be put during a seizure was correctly answered by 31% school teachers. During an episode of seizure, majority of school teachers answered incorrectly that pull out tongue (3.1%); Throw some water on patient's face (19.6%); Give something for patient's to smell (15.5%); Put something into patient's mouth (12.45%); Restrain patient's movements (8.2%); Gather public around the patient (5.2%).

The mean knowledge score of male school teachers was 7.82 ± 4.75 whereas 9.9 ± 6.12 for female teachers. The difference was found to be non-significant ($t=1.13$, $p=.261$). Therefore, it can be concluded that male and female teachers had similar level of knowledge.

A negative but non-significant correlation was found between knowledge score and age of school teachers ($r = -0.131$, $p=.200$). A significant negative correlation was found with experience in months with knowledge score ($r = -0.217^*$

$p = .033$) which shows that knowledge regarding epilepsy decreases as the experience increases.

4. Discussion

In the present study, majority (88.7%) of the school teachers had ever heard of epilepsy which is consistent with the other study findings^[12, 13] in which majority of the teachers were aware of epilepsy.

None of the teacher had attended any training programmer on epilepsy which is consistent with the findings of other study^[14] which reported that almost all recruited teachers had no previous training on epilepsy.

About 5.2% teachers reported that they ever had a child with seizure disorder/epilepsy in classroom which is nearly consistent with the findings of Thacker^[13] in which 12.1% school teachers agreed to have students with epilepsy in their classroom.

In the present study, only 2 teachers had ever provided first aid to a child with seizure disorder/epilepsy in school whereas Thacker^[13] reported about 25% teachers amongst Indian population had ever attempted a first aid measure for a seizing child. The difference may be due to different settings.

Majority of the school teachers' i.e. 78.4% knew that Epilepsy is a disease of brain; 55.7% correctly answered that it is neurological in nature which is consistent with the findings of SonuGoel^[12] who reported that nearly half of the teachers (49%) considered epilepsy to be a neurological disease

In the present study, all the teachers were having poor level of knowledge (0-24) i.e below 50% which is consistent with most of these studies too in which the knowledge about causes, types and management of epilepsy was poor^[15-17].

During a seizure, give something (alcohol, ether, leather) for patient's to smell was reported by 15.5% which is similar to 13.9% reported by Thacker^[13] in his study. In the present study, only 16.5% answered correct first aid measure during a seizure which is lower than 47% teachers reported in another study^[14].

In the present study, one fourth of teachers were aware of the symptoms of seizure as 25.8% answered correctly the question and about 6.2% reported only convulsions as symptom of epilepsy. 28.9% were not aware of any symptom of the Epilepsy and rest 71.1% were aware of one or another symptoms which is consistent with the finding of Sonu Goel^[12] who reported that majority of the teachers were aware of symptoms of epilepsy, e.g., rhythmic, jerky movements (72%) and falling down (78%).

Only 45.4% school teachers were aware that a person with seizure disorder/epilepsy should seek treatment from a neurologist; 11.4% answered faith healers/witch craft; 27.8% selected 'don't know' option; 15.5% answered 'psychologist'. This shows that school teachers lack knowledge about the treatment of epilepsy.

Epileptic children are academically vulnerable group and the education staff needs to be aware of the additional support that children may require in studies. Awareness of school teachers on epilepsy is of great importance in helping the epileptic children. The findings of the study indicate poor knowledge of school teachers regarding Epilepsy and its management. Therefore, it is recommended to develop teaching aids for the school teachers and to organize workshops/seminar/ training programmes for school teachers on Epilepsy.

The present study has been conducted on a small number of teachers, therefore, it is further recommended to conduct large scale studies on awareness regarding Epilepsy to find out the real magnitude of the knowledge among school teachers. Studies assessing attitude of school teachers on Epilepsy can also be conducted.

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