

KNOWLEDGE AND PERCEPTION ABOUT EPILEPSY IN CHILDREN AMONG SCHOOL TEACHERS

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ABSTRACT: As there are only limited studies on the knowledge and perception about epilepsy, we undertook this study among school teachers with a pilot tested questionnaire 36% had no knowledge and just over half of them (56%) believed that epilepsy can be cured while 40% of them felt that children suffering from epilepsy could be allowed to play without supervision of a responsible adult. A little over a quarter of them still believed in placing a key in the child's palm when having a seizure. Most (82.5%) of the teachers have not yet performed a first aid management for a child having a seizure. A focused health education programme, including workshops for teachers which will not only sensitise them but also change their perspective towards children with epilepsy is the need of the hour.

KEYWORDS: Knowledge, Epilepsy, Teachers.

INTRODUCTION: Epilepsy is a disorder characterized by chronic, recurring seizures and its most disabling aspect is the unpredictability of the next seizure.¹ Nearly 50 million people are affected worldwide. Epilepsy accounts for 1% of the global burden of disease; 80% of which is in the developing countries.¹ Apart from the increased risk of mortality and morbidity that epilepsy bears, it is considered a social stigma throughout the world including India.^{2,3} The social attitude and discrimination of children with epilepsy are often more devastating than the disease itself.⁴ This is mainly due to misconceptions about the disease and fear among the general public about managing a seizure.⁵⁻⁷ Periodic nationwide polls in developed countries like United States and Denmark have showed remarkable improvements in public attitude and knowledge about epilepsy due to strong public awareness and education.⁵⁻⁷ This does not seem to be the scenario with developing countries like India where public education takes a back seat.⁸⁻⁹ School teachers play an important role in the development of attitude towards any disease in a child and the fact that there are only limited studies on the knowledge and perception about epilepsy led to our present study.¹⁰

OBJECTIVES: The present study was designed to assess the knowledge and perception about epilepsy in children among school teachers and to assess whether teaching experience, qualification, gender and age had a bearing on their knowledge.

MATERIALS AND METHODS: This was a cross sectional study conducted between July and September 2014 in schools of Dakshina Kannada district in Karnataka state after obtaining the necessary permission from the Institutional Ethics Committee. Permission was taken from the Principals of schools before approaching the teachers who were actively involved in teaching children of either preschools, primary or secondary schools. The purpose of the study was explained to each teacher and a written consent was obtained before enrolling them.

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All school teachers who had freely consented to participate in this study were included. A total of 250 questionnaires were distributed in schools, out of which 200 responded giving a response rate of 80%. This was a convenient sampling study as the questionnaires were distributed only to English medium schools, located mainly in urban areas of Dakshina Kannada District. The questionnaire contained 20 questions pertaining to awareness, knowledge and attitudes of school teachers towards epilepsy. It included questions with responses -Yes/No/don't know or multiple choice questions. Only few questions had multiple answers.

This questionnaire was initially pilot tested amongst 10 school teachers for the simplicity of language, comprehension and ease of administration. The answers from the questionnaire were scored which generated grades depending on the scores (Grade 1-0 to 4, Grade 2-5 to 9, Grade 3-10 or more). The results were expressed in percentage and proportion, chi square tests were applied to determine the association between demographic data, knowledge and perception scores.

RESULTS: Socio-demographic data (Table 1) showed that about three-fifths of the teachers were in the age group above 36 years. Majority of them (about 84.5%) were females and have been teaching children of preschools, primary and secondary schools. Most of the teachers were mainly from primary and secondary schools. The study also revealed that a vast number of teachers were experienced as they have spent more than 10 years of their lives teaching school children.

Statistical analysis showed that neither age ($p=0.510$), gender ($p=0.215$), years of teaching experience ($p=0.862$), qualification ($p=0.042$) or the school they teach ($p=0.904$) correlate with their aggregate scores which could be limited by the sample size of this study.

		Grade 1 (0-4)	Grade 2 (5-9)	Grade 3 (10-12)	Pearson Chi square	P value**
1.	Age				NA *	0.510
A	21-25 years	1	4	3		
B	26-30 years	7	26	3		
C	31-35 years	6	25	7		
D	>36 years	26	72	20		
2.	Sex				Applicable	0.215
	Males	8	21	2		
	Females	32	106	31		
3.	Years of teaching experience				NA	0.862
A	< 1 year	6	14	2		
B	1-5 years	3	22	6		
C	6-10 years	4	14	5		
D	>10 years	27	77	20		

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4.	Qualification				NA	0.042
A	D.Ed	2	1	0		
B	B.Ed	13	55	10		
C	M.Ed	7	10	4		
D	Others	17	60	16		
E	B.Ed + Other	1	1	3		
5.	Teaching				Applicable	0.904
A	Preschool	6	24	4		
B	Primary school	17	54	15		
C	Secondary school	17	49	14		

Table 1

*NA- > 0 cells have expected count less than 5.

**p value <0.05 is significant.

Majority (90%) of school teachers have heard or read about epilepsy. Most of them obtained their knowledge about epilepsy through mass media like television, newspapers, magazines, internet and from relatives/friends while 18% of the respondents had epileptics in their family, 19% had epileptic students in their classes and 67% teachers believed that the cause of epilepsy was multifactorial (67%). Nearly One third (32%) of teachers disagreed with the fact that children have a higher incidence of mental health disorders including delayed development, while 36% had no knowledge about epilepsy in children. Just over half of them (56%) believed that epilepsy can be cured while 40% of them felt that children suffering from epilepsy could be allowed to play without supervision of a responsible adult. Less than half (43%) of participants felt that not taking antiepileptics as prescribed was the main triggering factor for an attack of seizure while 26.5% still believed in placing a key in the child's palm when having a seizure. Most (82.5%) of the teachers have not yet performed a first aid management for a child having a seizure. One fifth (20%) of the teachers felt that they could wait up to half an hour before calling an ambulance for an actively convulsing child.

Few (10%) of the teachers did not know whether epilepsy can be passed on from one person to another like an infectious disease where as 2% continued to believe that epilepsy is contagious Some (15.5%) of the participants were afraid to have a student with epilepsy in their classrooms while 5.5% of the teachers felt that there was a need to place all students with epilepsy in a special classroom. There was a doubt in 10% of the teachers' minds about allowing their own child to play or sit in the same classroom as a child with epilepsy.

DISCUSSION: Ever since the inception of civilization, teachers have always played a very important role in the physical, emotional and academic development of a child and are looked upon with great respect. As they are the ones who interact and spend a good amount of good quality time with children, we felt the need to find out their knowledge and perception about epilepsy.

A vast majority (90%) of the two hundred that participated in our study were teaching children of preschool, primary and secondary schools and aware about epilepsy. Most of them obtained their knowledge through mass media like television, newspapers, magazines, internet and from

relatives/friends. This clearly reflects the important role that media has played in spreading awareness about epilepsy in the society including teachers. If health care professionals joined hands with media, it would certainly benefit the public at large including teachers and parents as well as dismissing the myths involved in managing a child with epilepsy.

About one-fifth of the teachers had family members as well as children whom they taught with epilepsy. Two thirds (67%) of the teachers believed that the cause of epilepsy is multifactorial, which included congenital brain malformations, genetics and trauma. Hopefully this helped the teachers in better understanding of the aetiology which in turn helped in their dealing of children with epilepsy. Little more than one third (36%) of the teachers had not heard of epilepsy and about half of them believed that epilepsy could be cured. This compared to teachers in the Thailand, Chinese and Korean populations was greater.^{11,12,13}

Nearly half of the participants felt that noncompliance to antiepileptics was the main triggering factor for an attack of seizure. Less than half (40%) of teachers believed that children suffering from epilepsy can be allowed to play without supervision of a responsible adult and 20% of the teachers felt waiting up to half an hour was alright, before calling an ambulance for an actively convulsing child. A vast majority of teachers in our study had not performed a first aid management in a child having a seizure before while little more than quarter of them (26.5%) still believed in placing a key in child's palm when the child has a seizure as compared to the study carried out by Kankirawatana where 45% of Thailand teachers had attempted to perform first aid on a seizing child and used improper and potentially harmful measures.¹¹ This we feel is because of the fear and lack of basic knowledge while encountering a child with a seizure. Hence the need of the hour is to educate the teachers by holding hands on first aid workshops, clarify their misconceptions and thereby inculcate self-confidence so that they can deliver emergency first aid correctly without fear in the event of a seizure.

About one tenth of the teachers did not know whether epilepsy can be passed on from one person to another like an infectious disease while 2% still continued to believe that epilepsy is contagious. This finding was similar to the study done by Anup K Thacker et al where 4.9% believed it to be contagious.¹⁰

Nearly one fifth of the participants were afraid to have a student with epilepsy in their classrooms, 5.5% of the teachers were of the view that all students with epilepsy should be placed in a special classroom while 10% of participants were not sure about allowing their own child to play or sit in the same class as a child with epilepsy. The figures were comparable to a South Indian study.⁸ In the United States the percentage of those who would allow their children to play with a child with epilepsy increased from 59% to 88% between 1949 and 1979.⁵ Similarly in other studies the percentage of such reservations against playing with epileptic child reduced from 29.7% to 15% in a period of 6 years.^{5,14,15}

It is disheartening to note that even in the present day, wrong and negative attitudes towards epilepsy still persist despite the fact that school teachers were aware about epilepsy. Misconceptions and lack of knowledge among school teachers could contribute to discrimination involving children with epilepsy. Studies have shown that a feeling of being stigmatized is associated with psychopathology, anxiety, depression and low self-esteem in children.¹⁶ In conclusion, the attitude and existing bias towards children with epilepsy were influenced by degree of knowledge and can be effectively corrected by a robust education programme. This calls for greater efforts for a better and

focused education, including workshops for teachers which will not only sensitise them but also change their perspective towards children with epilepsy.

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