

KNOWLEDGE OF SCHOOL TEACHERS ABOUT EPILEPSY IN CHILDREN, KERALA

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ABSTRACT

Background of the study: Epilepsy is a disorder of the brain that is characterized by an enduring predisposition to generate seizures and by its neurobiological, cognitive, psychological and social consequences. Epilepsy is a condition that has life consequences that extend well beyond the experience of having seizures. A study shows that seizure control remained unchanged or improved in 92% people with epilepsy. **Methodology:** To identify the knowledge level, descriptive design was selected with quantitative research approach. Convenience sampling technique was used. Sample size of 100 were taken. School teachers from selected schools, Kerala were included in the study. Data collection instruments were included by using demographic proforma and structured knowledge questionnaire to assess the knowledge regarding the first aid management of epilepsy in children, checklist to assess myths regarding epilepsy. **Results:** The finding shows majority of the subjects had average knowledge regarding the first aid management of epilepsy in children. **Conclusion:** Present study suggests the need for education program to improve the knowledge level regarding the first aid management of epilepsy in children among teachers.

KEY WORDS: Assess, Knowledge, Epilepsy, School teachers.

INTRODUCTION

Epilepsy is a disorder of the brain that is characterized by an enduring predisposition to generate seizures and by its neurobiological, cognitive, psychological and social consequences.^[1] Clusters of nerve cells or neurons in the brain sometimes signal abnormally and cause a person to have seizures. Epilepsy affects every child differently depending on age, types of seizures, response to treatment and whether or not the child has other health issues, etc.^[2] For some, the seizures were easily controlled with medicine and eventually outgrown. For others, epilepsy can create physical challenges throughout their lives. It was one of the most frequent chronic disorders of childhood and is a symptom complex arising from disordered brain function that itself may be secondary to variety of pathologic process.^[3]

Knowledge of epilepsy among teachers are still limited. Children will spend most of their day away from home and their parent's watchful eyes. Because children cannot be expected to understand their epilepsy treatment fully until late childhood and early adolescence, some planning is needed to support them at school.^[4] At this age children are under supervision of their parents less often. Due to misinformation or lack of knowledge they

may feel scared or awkward about the seizures.^[5] The teacher may also have some suggestion about how to help and may suggest putting extra support in place to help the child.^[6] The major cause of death in epilepsy is due to the lack of proper knowledge and availability of initial management during the epileptic attack. Knowledge on initial management of epilepsy is therefore essential for the care givers of children with epilepsy.^[7,8] The assistance provided during the first few minutes of epilepsy is vital for the injured, in saving their lives as well as in reducing future complications and disabilities, if the correct first aid measures are taken, life could be saved and disability can be limited.^[9,10]

A large proportion of every child life is spent at school. Along with academic learning children also learn how to communicate and interact socially with their peers. Study support that children with epilepsy are for the most part of normal intelligence. However, depending upon the cause, type and severity of seizures, the social impact of the seizures and side effects of antiepileptic medications, some children may face some challenges with learning and behaviour and require extra help at school.^[11,12]

MATERIALS AND METHODS

Research approach and design

Quantitative research approach with descriptive study design

Research setting

This study was conducted in selected schools in Kerala

Population

The teachers who are taking classes for children from first to seventh standard at selected schools, Kerala.

Sample and sampling technique

100 School teachers from selected schools, Kerala. Sampling technique used for the study was convenience sampling.

Sample selection criteria

Inclusion criteria

The sample includes teachers of primary schools
Teachers who are taking classes for children from 1st to 7th standard

Exclusion criteria

The sample excludes teachers
Teachers who are working in the administrative post

Data collection instruments

Tool consists of three section.
Section I: The first section included the demographic information. The tool I contains age, gender, educational status, religion, marital status, monthly income, year of experience, medium of teaching, standards of teaching,

type of institution, source of information regarding epilepsy and previous experience of managing convulsions.

Section II: Questionnaire on Knowledge regarding first aid management of epilepsy in children among teachers. It consists of 30 items with regards to epilepsy. Each questions have only one correct response. Correct response was awarded 2 marks and zero marks for wrong response. Total score was 60, 41- 60: Good, 21- 40: Average, 1-20: poor.

Section III: Checklist to assess the myths regarding epilepsy, it consists of 18 questions, 1 mark for each correct response, zero for wrong response.

Procedure for data collection

The ethical clearance was obtained from IRB of the institution for conducting the study. Purpose of the study was explained and an informed consent was obtained from each sample. The data were analysed by using descriptive and inferential statistics. Demographic data was analysed using frequency and percentage. Knowledge on epilepsy was analysed by computing range of mean, median and standard deviation. Myths were analysed by frequency and percentage. Association between level of knowledge on epilepsy with selected demographic variables were analysed by chi- square test.

RESULTS AND DISCUSSION

SECTION I

Sample characteristics based on demographic variables

Table: 1 Frequency and percentage distribution of demographic variables according to baseline characteristics.

n=100

SI. NO.	VARIABLES	FREQUENCY(F)	PERCENTAGE(%)
1	Age in years		
	23-10 Years	30	30
	31-40 Years	24	24
	41-50 Years	26	26
2	Gender		
	Male	51	51
	Female	49	49
	3	Educational status	
Graduate		53	53
Postgraduate		20	20
M.Phil.		22	22
4	Ph. D	5	5
	Monthly income(Rs)		
	10,000-20,000	17	17
	20,000-30,000	27	27
	30,000-40,000	32	32
5	40,000-50,000	18	18
	Above 50000	6	6
	Marital status		
	Married	96	96
6	Single	0	0
	Window/widower	3	3
	Divorced/separate	1	1
	Religion		

	Hindu	84	84
	Christian	13	13
	Muslim	3	3
	Others	0	0
7	Years of experience		
	0-5 Years	4	4
	6-10 Years	94	94
	11-20 Years	2	2
	More than 20 Years	0	0
8	Medium of teaching		
	Malayalam	35	35
	English	41	41
	Hindi	21	21
	Others	3	3
9	Which standard of students you are teaching		
	Lower primary	48	48
	Upper primary	52	52
10	What type of institution you are working		
	Government	2	2
	Private	98	98
11	Source of information regarding epilepsy		
	Mass media	55	55
	Self-reading	31	31
	Contact with health personnel	7	7
	Academic education	7	7
12	Previous experience of managing convulsion		
	Yes	82	48
	No	18	52

Analysis on table I shows that, the school teachers 30 (30%) belongs to the age group of 20 to 30 years, 26 (26%) in the age group of 41- 50 years, 24 (24%) in the age group of 31-40 years and 20 (20%) in the age group of 51 years and above. In case of gender 51 (51%) were males and 49% of them were females. On the basis of educational status majority of them 53 (53%) were graduates, 22 (22%) were M.Phil. graduates. 20 (20%) were postgraduates and 5 (5%) were Ph.D. holders. In aspect of marital status results shows that most of them 96 (96%) were married, 3 (3%) of them, widows and 1(1%) was divorced/separated. Regarding religion majority of them 84 (84%) were Hindu, 13 (13%) were Christians and 3(3%) were Muslims. On the basis of monthly income, majority of them 32 (32%) were earning 30000 - 40000, 27(27%) of them were earning 20,000 - 30,000, 18 (18%) were earning 40,000 to 50,000, 17(17%) of them were earning 10,000 - 20,000 and 6 (6%) of them were earning above 50,000 per month. With respect of years of experience, most of them

94 (94%) had 6 - 10 years of working experience, 4 (4%) had 0 to 5 years of experience and 2 (2%) had 11- 20 years of experience. Regarding medium of teaching 41(41%) of them were teaching in English medium, 35 (35%) of them were teaching in Malayalam medium, 21(21%) were Hindi medium and 3 (3%) were belongs to others. Based on standard of teaching 52 (52%) of them were teaching in upper primary and 48(48%) were teaching in lower primary. In the aspect of type of institution, majority 98(98%) of them were working in private institution and 2 (2%) of them were in government institution. Regarding source of information about epilepsy 55 (55%) of them got information through mass media, 31(31%) were got information through self-reading, 7 (7%) source information through contact with health personnel and 7 (7%) of them through academic education. Regarding previous experience of managing convulsions, most of them 82 (82%) had no experience and 18 (18%) had experience of managing convulsions.

SECTION II

Table 2: Distribution of knowledge level regarding epilepsy among teachers.

n=100

LEVEL OF KNOWLEDGE	SCORE	LEVEL OF RESPONDENTS	
		NUMBER	PERCENTAGE
Poor	1 -20	8	8%

Average	21-40	87	87%
Good	41-60	05	5%

Table 2: Depicts the knowledge level regarding epilepsy among teachers. It was evident that majority 87(87%) had average knowledge, 8 (8%) of them had poor knowledge and 5 (5%) of them had good knowledge.

SECTION III

Table: 3 associations between knowledge scores among teachers with demographic variables.

VARIABLE	RANGE	MEAN	STANDARD DEVIATION	MEAN PERCENTAGE
Knowledge level	5-19	12	2.88	48

The data presented on Table 3 shows that the knowledge score of teachers ranged from 5-19. The mean and standard deviation was 12 and 2.88 respectively. The

mean percentage was 48. As per the grading the mean score indicates that the teachers had average knowledge regarding epilepsy in children.

Table: 4 distribution of sample according to the level of myth related to epilepsy among school teachers.

SI NO	LEVEL OF MYTH	SCORE	LEVEL OF RESPONDENTS	
			NUMBER	PERCENTAGE
1	MILD	0- 6	23	23%
2	MODERATE	7-12	77	77%
3	SEVERE	13- 18	0	0%

TABLE 4 shows majority 77 (77%) of them had moderate level of myth, 23(23%) of them had mild level of myth and none of them had severe level of myth related to epilepsy.

present study and supporting studies shows that school teachers have average knowledge about epilepsy and its first aid management.

SECTION 4

Chi square value showing association between knowledge scores with demographic variables

The data shows that there is significant association between the knowledge level with selected demographic variables like educational status and previous experience of managing convulsions. Since the calculated chi square value is more than the table value at 0.01 level of significance. Hence the research hypothesis H3 is accepted. The data shows that there is no significant association between age, gender, marital status, income, religion, years of experience, medium of teaching, standard of teaching, type of institution and source of information.

Myths related to epilepsy in children among school teachers

Most of the participants 77(77%) had moderate level of myth regarding epilepsy which is similar to the study done in Malaysia (Ravi Sharma et al).

DISCUSSION

In order to achieve the objectives of the study, descriptive research design was adopted. The subject was selected by convenience sampling technique. The findings of the study have been discussed in relation to the objectives and other similar studies.

Association between knowledge scores with selected demographic variables

The findings of the present study were supported by a descriptive study conducted to find the level of knowledge regarding epilepsy in children among teachers. The result of reference study revealed that there is an association between knowledge score with selected demographic variables like educational status, type of institution. The present study results along with the supportive study result shows that there is an association between knowledge scores with selected demographic variables.

Knowledge level regarding epilepsy among school teachers

Present study was supported by a similar quantitative study conducted to assess the awareness on epilepsy among school teachers in Thailand. The findings of the reference study revealed about 38% of them have not heard about epilepsy. Around 40% of the had superficial knowledge about epilepsy. Study concluded that schoolteachers had less knowledge about epilepsy. The

The study results along with the supportive studies shows that there was a positive relationship between knowledge scores with selected demographic variables.

CONCLUSION

Epilepsy is one of the neurological disorder causes serious changes in the child growth and development in day to day activities. The study findings revealed that the level of knowledge regarding epilepsy is average among school teachers and they have various misconceptions/myths about epilepsy. The chi-square value shows that there is significant association between knowledge regarding epilepsy among school teachers

with demographic variables like educational status and previous experience of managing convulsion.

Conflict of interest: Nil

Source of funding: Self

Ethical clearance: Permission had taken from the Institutional Review Board of Amrita Institute of Medical Sciences, Kochi. Consent was obtained from each subject prior to the subject.

REFERENCE

1. Kanmani J and S., S., "Effectiveness of nursing educational intervention on knowledge regarding first aid measures of epilepsy among care givers of children with epilepsy", *International journal of Nursing Education*, 2017; 9: 114-119.
2. Anjana A. P., Joseph, G., and A.Valsan, R., "study to assess the seizure severity, depression and quality of life among patients with epilepsy at AIMS,Kochi", *Indian Journal of Public Health Research & Development*, 2018; 9(4).
3. C. Rathore, Baheti, N., Bansal, A. Ram, Jabeen, S. Afshan, Siby Gopinath, Jagtap, S., Patil, S., Suryaprabha, T., Jayalakshmi, S., Ravat, S., Nayak, D. S., Prakash, S., Rana, K., Jaiswal, S. K., Khan, F. R., Murthy, J. Mk, and Radhakrishnan, K., "Impact of COVID-19 pandemic on epilepsy practice in India: A tripartite survey.", *Seizure*, 2021; 86: 60-67.
4. Anila, K.P., & Reghunath, R. Effectiveness of a parent education programme on Knowledge Regarding Home Care Management of Children with Epilepsy. *Indian Journal of Public Health Research & Development*, 2019; 10(10): 132-136.
5. Hickey JV. The clinical practice of neurological and neurosurgical nursing. 3rd ed. Philadelphia: J.B. Lippincott Company; 1992.
6. John Jeya Varghese. Study to assess the effectiveness of planned health teaching on knowledge of mothers related to febrile convulsion among children in selected hospitals of Pune city. *Nursing Journal of India* 2005; 22(18): 68 – 73.
7. World Health Organisation: epilepsy: epidemiology, etiology and prognosis [online]. WHO Factsheet 2001: number 165. Available from: <http://www.who.int/mediacentre/factsheet/fs168/en.htm>
8. Steven C. Schachter. Gregory L. *et al.* "Behaviour aspects of epilepsy. Principles & Practice". Demos Medical Publishing. LLC. 2007: 366-369.
9. Radhakrishnan K. Pandian JD, Santhosh Kuma T. Prevalence, knowledge, attitude and practice of epilepsy in Kerala, South India, *Epilepsy Behaviour* 2011; 20(3): 447-9
10. Duncan D John, Simon D Shoron, Fish R. Clinical epilepsy. 2nd ed. USA: Churchill Livingstone publications; 1998.
11. Hauser SL. Harrison's neurology in clinical medicine. 2nd ed. New York: Mc Graw Hill; 2010.
12. Snell RS. Clinical neurology. 5th ed. USA: Lippincott William and Wilkins publications; 2001.