

# Assess Knowledge and Attitude of Parents regarding Childhood Seizures in Selected Hospital of Haryana

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**Abstract:** Seizures are the most common pediatric neurological disorder. The incidence of seizures is highest i.e. 5% children experience convulsion during the first 5 years of life, with a decreasing frequency in older age. Seizure in childhood may interfere with familial life, sleep and social life of parents, imposing tremendous stress and anxiety of parents. Seizure control is more in the hands of the patient and the caregiver. **Objectives of the study:** To assess the knowledge and attitude of parents regarding childhood seizures; To find out the relationship between knowledge and attitude of parents; To find out the association of knowledge and attitude of parents regarding childhood seizures with sample characteristics. An exploratory descriptive Survey study was done on 80 parents of Children age 1-15 yr diagnosed with childhood seizures and getting treatment. **Result:** Majority (53.8%) of parent's knowledge regarding childhood seizures was average. Only 6.25% of parents had very good knowledge highest mean percentage of knowledge score was 78.25% in the area 'first aid for seizures' Majority (93.75%) of parents attitude regarding childhood seizures was Favourable. Highest mean percentage of attitude score was 82.38% in the area 'Treatment'. Significant coefficient of correlation between knowledge score and attitude score of parents regarding childhood seizures. **Conclusion:** Study revealed that Parents knowledge regarding childhood seizures was average. Parents had moderately favourable attitude regarding childhood seizures.

**Keywords:** knowledge, Attitude, Parents, Childhood Seizures, Hospital

## 1. Introduction

### Background of the Study

A child is precious not only to the parents, family, community, and Nation but also to the world at large. Children are future citizens of our country. Hence the children should not suffer from any disease. Children are the assets of our country [1]. Diseases of the nervous system are fairly common in pediatric practice. Neurological symptoms are also frequently encountered in a wide variety of systemic illnesses. Almost 20-30 percent of children encounter acute, chronic or recurrent neurological illnesses. These are major contributors to childhood morbidity and disability [2].

Epilepsy is one of the commonest neurological disorders affecting the children. It is derived from the ancient Greek word epilepsia which means "to seize" is a common neurological condition characterized by recurrent unprovoked seizures. These seizures are transient signs and/or symptoms of abnormal, excessive or synchronous neuronal activity in the brain [3]. Seizures are the most common pediatric neurological disorder. The incidence of seizures is highest i.e. 5% children experience convulsion during the first 5 years of life, with a decreasing frequency in older age. **Error! Bookmark not defined.** Most of seizures in children are provoked by somatic disorders originated outside the brain such as high fever, infection, syncope, head trauma, hypoxia, toxins other causes include genetic syndrome and cerebrovascular diseases [4]. Seizures may vary from the briefest lapses of attention or muscle

jerks to severe and prolonged convulsions. They may also vary in frequency, from less than one a year to several per day". [5]

According to the World Health Organization (WHO), of the 50 million people with epilepsy worldwide, 80% reside in developing countries. Epilepsy was estimated to account for 0.5% of the global burden of disease in 2005. [6] Prevalence rate of epilepsy in countries of Asia was increasing. In other country like china it was (4.4), Japan (1.7) in India (4.7) Pakistan (9.85), Sri Lanka (9) and guan (4.9) million. These prevalence rates indicates that prevalence of epilepsy in Asian countries more comparatively higher [7] than worldwide [8] It is estimated that there are more than 10 million persons with epilepsy (PWE) in India. Its prevalence is about 1% in our population [8] The prevalence is higher in the rural (1.9%) compared to urban population (0.6%) In the Bangalore Urban Rural Neuro-epidemiological Survey (BURNS), a prevalence rate of 8.8/1000 population was observed, with the rate in rural communities (11.9) being twice that of urban areas (5.7) [9].

## 2. Need of the study

Parent's knowledge on care of children greatly influences the health status of child by reducing the mortality and morbidity rate. [10] Primary care givers are responsible for meeting the basic needs of the child. In India, other elder members of the family also contribute to childcare. The important components of child rearing are maternal activities that promote the children's physical, intellectual

and psychosocial development so that they may grow up to express their full potentials. The caregiver has to understand the disease process, first aid measures to treat seizures and ways to prevent the recurrence of seizure. [11]

Lama E Zaini, et al. (2013) conducted a study to determine the Parent's Knowledge and Attitudes towards Children with Epilepsy. A total of 117 parents were interviewed, 57% were mothers. The ages of their epileptic child ranged from 1-16 years (median 6.6), mostly (65%) boys. Although most parents (70%) felt informed about epilepsy and recognized various treatment modalities, many believed that epilepsy is a mental disorder (48%), correlates with evil (44%), and affects the child's intelligence (38%). Up to 53% admitted that they treat their epileptic child differently and avoid upsetting or punishing him/her. This behavior was less likely if they achieved college or university education ( $p=0.01$ ). Some parents (29%) admitted to using non-medical treatments, usually traditional herbs and religious practices. Those parents were more likely to believe that epilepsy is a mental disease ( $p=0.002$ ) or correlates with evil ( $p=0.015$ ) [12].

Nurses need to educate the child and family about the nature and causes of the disorder, methods of treatment and prognosis for normal life. The nurses should be advocates for epileptic children so that they are not overly restricted by caretakers who do not understand epilepsy and the damage that can be done by unreasonable and unwarranted overprotection. Nurse can help parents to understand the importance of drug therapy and the environmental or psychological stressor that might make seizure control difficult should be explored with the family. The nurse should emphasize about regular sleeping and exercise habits as well as the avoidance of fatigue, poor diet, anxiety, blood sugar variations and various drugs.

Accordingly, understanding and improving parental knowledge, attitudes toward seizures are essential. Therefore, a quick assessment tool for obtaining information about parental responses to seizures is warranted for educating parents and for use in clinical practice and research. Many studies have investigated the etiology and natural history of seizures and evaluated various management strategies, but very less information is available about parental knowledge, attitude. Various questionnaires about Knowledge, attitude can be found in the literature. However, further studies are required for the application of questionnaires among different cultures. [13]

### 3. Objective

- 1) To assess the knowledge and attitude of parents regarding childhood seizures
- 2) To find out the relationship between knowledge and attitude of parents
- 3) To find out the association of knowledge and attitude of parents regarding childhood seizures with sample characteristics

### 4. Methodology

An Exploratory Descriptive study was conducted on 80 parents whose child having seizures disorder was selected by using convenience sampling technique children aged 1-15 years with seizures disorder MMIMS&R Hospital, Mullana and Kalpana Chawla Government Hospital at Karnal, Sanghi Neurology Clinic Sonapat.

Ethical approval to conduct study was obtained from institutional ethical committee of M.M University, Mullana. Consent form was prepared in Hindi and the consent was taken from the parents of the study subjects regarding their willingness to participate in the research project. The purpose for carrying out research project was explained to the subjects and assurance of confidentiality was given.

**Data Collection Procedure:** Data collection was done from 26 December 2014- 31 January 2015. Data collection interview technique with parents present in the hospital and clinic whose came for follow up. Approximately 3-4 parents of seizures affected children data was collected each day. Rapport was developed with them. Purpose of the study was explained to parents, the confidentiality of their response was assured and written consent was taken prior to the study. The average time taken by parents to complete structured knowledge questionnaire was 20-25 min and 15-20 min for attitude scale and 25-30 min for practice rating scale and the 10-15 min for parents concern rating scale. Inferential and descriptive analysis of data was done using SPSS version 20.0

### 5. Result

More than half of informants were fathers (55%) Less than half of informants (41.3%) belonged to age group of >35 yr. All of the informants (100%) were married and staying together. Majority (82.5%) of informant were Hindu. One third (33%) of informant were educated upto matriculation. Majority (90%) of mothers were homemaker where as 3.8% were private employee. Less than half (42.6%) of fathers were self-employed. About 47.5% of informant had family income between Rs. 5001-10000. Most of informants was from rural setting (67.5%). Majority (95%) of informants were not having any history of seizure disorder in their family. Majority (81.3%) of informant were not having previous knowledge of seizure, only 18.7% were having previous knowledge and source was from family and friends i.e. (13.8%)

Majority of children were male (66.3%), less than one third (28.75%) of children were belonged to age group of 10-12 yr. Majority (51.3%) of children were studying in primary classes. Less than half of children (41.3%) were having first birth order. More than one third (35%) of children age of occurrence 1<sup>st</sup> seizures belonged to 1-3 yr of age group followed by 26% of them belong to 7-9yr of age group. Less than half of children (45%) had frequency of hospitalization were 1 time followed by 26.3% were of 2 times hospitalization associated with seizures. Majority of children (68.8%) were having compliance with drugs

**Table 1:** Range, Mean, Median & Standard Deviation of Knowledge Score of Parents Regarding Childhood Seizures  
N=80

Variable	Range	Mean	Median	S.D
Knowledge score	11-27	17.65	17	3.14

**Maximum score: 30 Minimum score:00**

Table-1 depicts that mean knowledge score of parents was 17.65±3.14 and median was 17 with range of knowledge score between 11-27. It revealed that majority of parents' knowledge is average regarding childhood seizures

**Table 2:** Area wise Mean, Mean Percentage, Standard Deviation of Knowledge Score of Parents Regarding Childhood Seizures, N=80

S. No	Area	Max Score	Mean score	Mean %	Rank	S.D
1	Concept of seizure	05	3.30	66	II	1.09
2	Sign & symptom of seizure	03	1.68	56	III	0.88
3	Types of seizure	04	0.96	24	V	0.83
4	Management of seizures	10	5.49	54.9	IV	1.29
5	First aid	08	6.26	78.25	I	1.23

**Maximum score: 30 Minimum score: 00**

Data present in Table 2 shows that the highest mean percentage of knowledge score was 78.25% in the area 'First Aid For Seizures' followed by 66% in area of 'Concept Of Seizure' and 56% was in area of 'Sign And Symptom Of Seizures', 54.9% was in the area of 'Management Of Seizures' and lowest mean percentage (24%) in the 'Types Of Seizures' area. It reveals that parents had knowledge deficit in the area of 'Types of Seizures'.

**Table 5:** Item Wise Distribution of Parents' Responses Regarding Childhood Seizure to the Negative Statements of Attitude Scale, N=80

S. No.	Statements I believe that	Strongly Agree f(%) (1)	Agree f(%) (2)	Undecided f(%) (3)	Dis-agree f(%) (4)	Strongly Disagree f(%) (5)
1	Seizure is due to possession of evil spirits	-	01(1.3)	23(28.7)	<b>43(53.8)</b>	<b>13(16.3)</b>
2	Seizures occur due to bad thoughts	-	03(3.8)	<b>45(56.3)</b>	24(30)	08(10)
3	Folk healer can treat childhood seizures	-	04(5)	33(41.3)	<b>29(36.3)</b>	<b>14(17.5)</b>
4	Seizures are due to ancestor's sin	-	01(1.3)	36(45.0)	<b>32(40.0)</b>	<b>11(13.8)</b>
5	Child with Seizures takes longer time to learn new things.	-	07(8.8)	<b>54(67.5)</b>	04(5)	15(18.8)
6	Seizures stop by themselves as child grown.	-	02(2.5)	<b>53(66.3)</b>	23(28.7)	02(2.5)
7	Childhood seizures affect the physical growth of child	<b>01(1.3)</b>	<b>37(46.3)</b>	06(7.5)	34(42.5)	02(2.5)
8	Development of child is delayed in comparison to other siblings.	<b>02(2.5)</b>	<b>41(51.2)</b>	06(7.5)	30(37.5)	01(1.3)
9	Child with Seizure disorder are aggressive or violent in nature	01(1.3)	16(20.0)	13(16.3)	<b>43(53.8)</b>	<b>07(8.8)</b>
10	Child with seizure should not ride bicycle	-	24(30)	13(16.3)	<b>34(42.5)</b>	<b>09(11.3)</b>
11	Seizure diagnosis has impact on child employment in future	01(1.3)	24(30)	<b>48(60)</b>	07(8.8)	-
12	Childhood seizures are hindrance to happy family life	<b>08(10)</b>	<b>59(73.8)</b>	04(5)	09(11.3)	-
13	Childhood seizure lead to financial problem for family	<b>14(17.5)</b>	<b>51(63.7)</b>	-	14(17.5)	01(1.3)
14	Child hood seizure is hindrance to education	<b>08(10)</b>	<b>55(68.8)</b>	03(3.8)	13(16.3)	01(1.3)
15	Child with seizure are less capable than other children	<b>01(1.3)</b>	<b>48(60)</b>	07(8.8)	22(27.5)	02(2.5)
16	Childhood seizures decrease the life expectancy of child	-	02(2.5)	<b>50(62.5)</b>	25(31.3)	03(3.8)
17	Seizure cannot be treated by medicine only	-	02(2.5)	14(17.5)	<b>61(76.3)</b>	<b>03(3.8)</b>

Table 15 depicts the item wise frequency and frequency distribution of responses of parents regarding childhood seizures on negative statement in attitude scale. Majority (83.8%) of parents were agreed/strongly agreed that 'Childhood seizures are hindrance to happy family life'.

**Table 3:** Range, Mean, Median & Standard Deviation of Attitude Score of Parents Regarding Childhood Seizures  
N=80

Variable	Range	Mean	Median	S.D
Attitude score	86-130	105.80	105.50	8.39

**Maximum score: 160 Minimum score: 32**

Table-3 depicts that mean attitude score of parents was 105.80±8.39 and median was 105.50 with the range of attitude score between 86-130. It can be inferred that parents were having moderately favourable attitude towards childhood seizures

**Table 4:** Area wise Mean, Mean Percentage Standard Deviation of Attitude Score of Parents regarding Childhood seizures, N=80

S. No	Area	Max Score	Mean	Mean % score	Rank	S.D
1	Concept of seizure	35	24.55	68.57	III	3.00
2	Effect on child	50	26.43	52.86	IV	3.02
3	Effect on family and socialization	40	29.01	72.52	II	4.60
4	Precaution & Treatment	35	25.81	73.74	I	2.18

Table 4 shows that the parents had highest mean percentage of attitude score (73.74%) in the area 'Precaution & Treatment' which was followed by 72.52% in area of 'Effect on family and socialization', 68.57% in area of 'Concept of seizure' and 52.86% in the area of 'Effect on child'. It reveals that parents' attitude in the area of 'Effect on child' was less favourable as compared to the other areas

Most of parents (81.2%) were agreed/strongly agreed that 'Childhood seizure lead to financial problem for family'. About 78.8% of parents were agreed/strongly agreed that 'Childhood seizures are hindrance to education'. Majority (61.3%) of parents were agreed/strongly-agreed that 'Child

with seizure are less capable than other children'. 53.5% parents were agreed/strongly agree that 'Development of child is delayed in comparison to other siblings'. About 47.3% of parents were agreed/strongly-agreed that

'Childhood seizures affect the physical growth of child. Majority (60%) of parents were undecided that 'Seizure diagnosis has impact on child employment in future'.

**Table 17:** Item Wise Distribution of Parents' Responses Regarding Childhood Seizure to the Positive Statements of Attitude Scale, N=80

S. No.	Statements I believe that	Strongly Agree f(%)	Agree f(%)	Undecided f(%)	Dis-agree f(%)	Strongly Disagree
		-5	-4	-3	-2	-1
1	Childhood seizure is not communicable	05(6.3)	34(42.5)	27(33.8)	14(17.5)	-
2	Seizure disorder is a curable/treatable disease	25(31.3)	55(68.8)	-	-	-
3	Child with seizures should not be kept isolated from other children	35(43.8)	41(51.2)	02(2.5)	02(2.5)	-
4	Diagnosis of seizures not affects the attitude of his/her friends towards him/her.	-	28(35)	20(25)	25(31.3)	07(8.8)
5	Diagnosis of seizure has no impact on social life of child and family members	17(21.3)	44(55)	12(15)	07(8.8)	-
6	Childhood seizure is not a stigma for society & family	16(20)	44(55)	19(23.8)	01(1.3)	-
7	Child with seizure can lead independent life	07(8.8)	23(28.7)	31(38.8)	19(23.8)	-
8	Childhood seizures do not affect the child memory	01(1.3)	19(23.8)	20(25)	40(50)	-
9	Childhood seizures cannot lead to mental illness	03(3.8)	35(43.8)	40(50)	01(1.3)	01(1.3)
10	Child with seizure should not be allowed to swim alone	33(41.3)	42(52.5)	05(6.3)	-	-
11	Child with seizure could play active sports with precaution	03(3.8)	19(23.8)	26(32.5)	31(38.8)	01(1.3)
12	Child with seizures cannot participate in strenuous activities	-	11(13.8)	31(38.8)	38(47.5)	-
13	Sometime episodes of seizures is frightening to parents	29(36.3)	46(57.5)	01(1.3)	04(5)	-
14	Seizure diagnosis has no impact married life in future	01(1.3)	02(2.5)	52(65)	25(31.3)	-
15	Drug compliance is necessary for controlling childhood seizure.	34(42.5)	46(57.5)	-	-	-

Table 6 depicts the item wise frequency and frequency distribution of responses of parents regarding childhood seizures on positive statement in attitude scale. All of parents (100%) agreed/strongly agree to the following statements that 'Seizure disorder is a curable/treatable disease'; 'Child with seizures should not be kept isolated from other children'; 'Drug compliance is necessary for controlling childhood seizure'; 'Sometime episodes of seizures is frightening to parents'; 'Child with seizure should not allow to swim alone'. Most of parents (65%) were undecided that 'Seizure diagnosis has no impact married life in future'. Half of(50%) parents were undecided that 'Childhood seizures cannot lead to mental illness'. Half of parents (50%) were dis-agreed that 'Childhood seizures do not affect the child memory'. Less than half of parents (47.5%) were dis agreed that 'Child with seizures could not participate in strenuous activities'. About 40.1% of parents were dis agreed/ strongly disagree that 'Child with seizure can play active sports with precautions'. More than one third of parents (39.1%) were of disagreed/strongly disagreed that 'Diagnosis of seizures not affects the attitude of his/her friends towards him/her'.

**Table 24:** Correlation between Knowledge and Attitude of Parents Regarding Childhood Seizures  
N=80

Variables	r	p value
Knowledge-attitude	0.480**	0.001**

'r'(78)=0.217 \*\*Significant(p≤0.01)

The data presented in Table-24 shows indicates coefficient of correlation between knowledge score and attitude score and practice score of parents regarding childhood seizures. Computed 'r' value was 0.48 suggesting significant moderate positive correlation between knowledge and

attitude and obtained 'r' value was higher than table value (0.217) at 0.05level of significance

**Association of knowledge score and attitude score with sample characteristics**

ANOVA computed between knowledge score with education status of parents (F=6.797;p=0.001), monthly income of family(F=12.28;p=0.001) were found to be statistically significant at 0.05 level of significance ANOVA computed between attitude score and educational status of child (F=3.92; p=0.02), compliance with medication (t=1.47; p=0.042), birth order of child (F=4.28; p=0.001) was found to be statistically significant at 0.05 level of significance, it denotes the association of these three with attitude scores

**6. Discussion**

The result of study revealed that majority (81.3%) of them were not having previous knowledge of seizure, 18.7% werehaving previous knowledge and gain from gain from family friends i.e. (13.8%). The finding of study was in contrast with Azhar Daoud et. al. (2007) conducted. In which Eighty-eight percent had read or knew about epilepsy, and 52.4% had witnessed an epileptic attack at least once in their life. From the people interviewed,84.7% believed that the cause of epilepsy is a neurological disease, and 80.6% believe that the main symptom is brief loss of consciousness. [14]

The result of study revealed that less than half of parents (45%) were undecided i.e. 'Seizures are due to ancestor's sin'; more than half of parents (53.8%) were dis-agreed that 'Seizure is due to possession of evil spirits'. Most of parents (67.5%)were undecided that 'Child with Seizures takes longer time to learn new things the findings were consistent

with descriptive study conducted by M Gourie-Devi(2010) to assess knowledge attitude and practice of patient in Delhi 'Positive attitude was observed with respect to allowing a child with epilepsy to study (80%), not objecting children to play with a child with epilepsy (95%), marriage (89%) and having children (92%). Negative attitude was reflected in the belief that epilepsy is due to supernatural powers (16%) and sins committed by patient or ancestors(21%). [14]

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## 7. Conclusion

The study shows that, Parents knowledge in relation to childhood seizures was not adequate as more than half of parents were having average and below average knowledge. Majority of the Parents had moderately favourable attitude regarding childhood seizures. There was significant moderate positive correlation between knowledge and attitude

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