

KNOWLEDGE ATTITUDE AND PRACTICES AMONG PARENTS OF CHILDREN WITH FIRST EPISODE OF FEBRILE SEIZURE ADMITTED AT A TERTIARY CARE HOSPITAL

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Abstract

Background: The majority of febrile seizures occur in children under the age of five. Witnessing a child throwing a seizure is a traumatising event for a parent. The majority of the parents become anxious after witnessing an episode of seizure in their child and this attitude is greatly influenced by the level of knowledge about febrile seizures. The aim is to evaluate the parent's Knowledge, Attitude and practices about febrile seizures among children who experienced their first episode. **Materials and Methods:** The current survey was done from June 2021 to May 2022 and is a questionnaire based Prospective study at Niloufer Hospital for Women and Child Health, Hyderabad, a tertiary care pediatric hospital. The research comprised 182 parents of consecutive kids between the ages 6 to 60 months who were hospitalized after their first attack of a febrile seizure. The parents informed written consent was obtained. The data about Knowledge, Attitude and Practices about febrile seizures was collected by using a predesigned structured questionnaire that was read out to the parents. The data was entered into a Microsoft excel sheet and results were computed using SSPS 20. The significance was computed using the chisquare test. **Result:** 182 pairs of parents and kids in all took part in the study. 142 parents (78.2%) could not recognise the seizures. Only 41 (22.6%) parents were aware that a child's high temperature might trigger seizures and the remaining 141 (77.4%) parents were not aware of such relationship between fever and seizure onset. 9(15.1%) of the 58 parents who had thermometers in their homes understood how to use them appropriately. The parents were unaware of what a normal temperature was. When parents were inquired about their worries about the effects of seizures on their affected kid, 138(76.1%) had fear of death, 131(72%) parents mentioned fear of recurrent attacks, 125(69%) parents had fear of future epilepsy, 124(68.2%) parents had fear of brain damage, 120(66%) parents had fear of another child to have the seizure and remaining 51(28%) were not concerned about this. **Conclusion:** Parental anxiety over febrile seizures is a significant issue with detrimental effects on the quality of life. The method of handling a convulsing child and the clinical signs febrile seizures must be explained to the parents.

INTRODUCTION

Children between the ages 6 months to 60 months are considered to have febrile seizures if they have fever of 38 degrees Celsius/ 101.4 degree farheit or higher, are not due to the consequence of any CNS illness or metabolic disorder, and do not have a history of prior afebrile seizures.^[1] Around 4% of children less than 60 months had at least one episode of febrile seizure.^[2] It is of two types; a) A generalised tonic clonic seizure known as simple febrile seizure is accompanied by fever, lasts for 15 min or less and does not occur again within 24-

hours period. b) Complex febrile seizures are focal, persistent last for more than 15 minutes, and may occur again within 24-hours.^[3] Simple febrile seizure do not increase the risk of mortality whereas Complex febrile seizures are linked to an increased risk of death, but simple febrile seizures do not.^[4] Recurrence risk of febrile seizures is around 30% in individuals who have had their first episode, 50% after 2 or more episodes and 50% in infants at the time of beginning of febrile seizures.^[5,6] Parents who see the first episode of a seizure experience anxiety and mental agony, and most of them have fever fear, which makes each incidence of fever in

their kid a night mare.^[2] Majority of them are concerned not only about the prognosis but also the safety of that child and the risk of other children being affected.^[8] Proper counseling and educating the parents about the febrile seizures, their relation with fever, and the prognosis would reduce this parental apprehension and anxiety. A review of literature revealed that there have been few articles on the Attitudes, Knowledge, and Practices of parents of children who had febrile seizures. To learn more about the Attitudes, knowledge, and Practices among parents of children who were hospitalized in a tertiary care hospital with their first episode of febrile seizure, the current research was carried out.

MATERIALS AND METHODS

The current research was done from June 2021 to May 2022 for a period of one year and is a questionnaire based Prospective study done at Niolufer Hospital for Women and Child Health, Hyderabad, a tertiary care pediatric hospital. The approval from institutional ethics committee was obtained. The study comprised of 182 parents of consecutive kids between the ages 6 months to 60 months who were hospitalised after their first attack of febrile seizure. The parent's informed written consent was obtained. The parents were interviewed based on a predesigned structured closed- end questionnaire which comprised of yes/no/don't know variety of answers. Parents were made aware of the study's objective and its non- intervention nature.

Inclusion Criteria

All the kids between the ages of 6 months to 60 months who were hospitalized with first episode of febrile seizures.

Exclusion Criteria

1. Children age less than 6 months and above 60 months.
2. Children who had afebrile seizures or other type of seizures.
3. Children with unusual manifestations and in whom the diagnosis was in question.
4. Children with congenital abnormalities, comorbidities, preexisting neurological and other systemic illnesses.
5. Parents who did not give consent.

Personal data of parents like name, age, sex, education, occupation was collected. The Kuppusswamy scale was used to identify the socioeconomic class^[9]. Age, developmental history, past seizure history, any recent immunization, medications and demographic information about the kid were gathered and documented in the proforma. Parents were questioned about their knowledge of convulsions, their understanding of the issues

associated with them, from where they learned about the seizures and how they first identified and handled the seizures in their kids. They were also asked whether the temperature was taken or if the diagnosis of fever made at random, about the availability of thermometers, their understanding of the normal range of temperature, how to utilize the thermometer properly, and their anxieties and concerns for their child and other siblings.

Parents were also questioned about any first aid intervention done at home, any home-based interventions done at the time of seizure. After the interview, parent's questions concerning febrile seizures, their course and at home preventive measures were sought out and clarified. Proper education was given on how to manage seizures, how to measure temperature (holding the bulb of thermometer in roof of dry axilla for at least 5 minutes) and how to check the temperature using the touch technique. Microsoft excel was used to enter the findings and SSPS 20 was used to analyse them. The significance was assessed by using the Chi-square test.

RESULTS

182 parents in all took part in this survey. Questions were on the details of parents and children. Among 182 children, 118(65%)were boys and 64(35%) were girls. The children aged 1 -3 years had the largest percentage of febrile seizures i.e 121 (67%).The mean age of febrile seizures was 26 months. [Table 1]

Mothers were questioned for 157(86.5%) children while fathers were for 25(13.5%) children. There was no significant correlation between the research participant's gender (whether they were mothers or fathers) ($P > 0.05$). Only 58(32%) parents reported having thermometer at home where as 124 (68%) reported having none. Only 9(15.1%) of these 58 parents were aware of the site, technique and duration correct thermometer usage.[Table 2]. These 9 parents were more qualified in terms of education than the 49 parents who had thermometers but were not aware of how to use them correctly ($p < 0.05$).

41 (22.6%) parents were already aware of febrile seizure. The source of knowledge among these 41 parents was stated as occurrence of febrile seizure in other children by 12 (29.2%) parents, from a health care professional was cited by 18(43.9%) parents, and from family and friends was stated by 11(26.8 %) parents. [Table 3]. When their children had febrile seizures, parents who were aware of them were more likely to take them to the hospital. When their kid had febrile seizure for the first time 148 (78.2%) parents were unable to identify them and of these 148 parents ,67.8% interpreted seizures as shivering,5.8% as loss of consciousness/fainting episode, altered sensorium($n=7,20.5%$) lethargy($n=2,5.8%$). [Table 4]

41(22.6%) parents linked seizure activity to a high temperature whereas the other 141(77.4%) were unsure about the reason for the seizures. Before taking their kid to the hospital, 162(89%) did not do any at-home interventions, while the remaining 22 (11%) utilized techniques including shaking and sponging the child. None of the parents were aware of the possibility of aspiration of vomitus or any preventive methods such as positioning the kid to one side to reduce the risk of aspiration. Fear of

death (n= 76.1%) was the primary immediate worry for parents of children who had febrile seizures followed by worries about recurrence (n=131, 72%), future development of epilepsy (n=125,69%), and brain damage(n-124,68.2%). [Table 5].

Further enquiry revealed that 51(28%) of the parents were not concerned about their other unaffected child, while the remaining 120(66%) were most concerned about the possibility of epilepsy in the affected child's healthy sibling.

Table 1: Demographic characteristics of children.

Age	< 1 year	1 – 3 years	4 – 6 years	Total
Male	20	86	12	118
Female	18	35	11	64
Total	38	121	23	182

Table 2: Utility of thermometer by parents.

1.	Thermometer availability	58 (32 %)
2.	Knowledge to use the thermometer properly	9 (15.1 %)

Table 3: Source of knowledge

Previous seizures in another child	12(29.2%)
Health care professional	18(43.9%)
Information from relatives	11(26.8%)
Self-study	None

Table 4: Interpretation of seizures by parents

Don't know	148(81.3%)
Shivering	23(67.6%)
Fainting / loss of consciousness	2(5.8%)
Altered sensorium	7(20.5%)
Lethargy	2(5.8%)

Table 5: Parental Concern

Fear of death	138(76.1%)
Recurrence	131(72%)
Brain Damage	124(68.2%)
Epilepsy	125(69%)
Concern of parents about occurrence of febrile seizures in other child	120(66%)
No concern of parents about occurrence of febrile seizures in other child	51(28 %)

DISCUSSION

Although febrile seizures are the most usual kind of seizures in children under the age of 60 months, they are terrifying and upsetting for parents to witness. Parents strong psychological response their child's febrile seizures are different from a doctor's opinion of febrile seizure as a benign occurrence. Research on the Knowledge and attitudes of the parents concerning febrile seizure are few in comparison to studies on the causes, prognosis and the treatment of febrile seizures. This survey aims to assess the knowledge, attitudes and actions of parents of children between the ages of 6 months to 60 months admitted at a tertiary care hospital with the first episode of seizure over one year. 182 parents and their children participated in this survey, of these 65% of children were boys and 35% of children were girls similar findings were found by Sadiquez et al study and Parma et al study.^[9,10] The current study discovered that when their child experienced their first episode of febrile convulsions

78.2% of the parents knowledge of had no knowledge of febrile seizures and mistook the convulsions as shivering (68.2%), loss of consciousness/ altered sensorium (65%) fainting spell (22.5%), lethargy (7.5%). These findings were interpreted by only a few parents as observed by Sadiquez et al,^[10] Shandil et al,^[11] probably due to small sample size in these studies. In this survey, only 58(32%)parents had a thermometer available in their home and 124 (68%) parents did not have a thermometer at home. Among these 58 parents, only 9(15.1%) knew how to use thermometer properly about the site, technique and duration. These findings are similar to studies by Sadiquez et al,^[10] Shandil et al.^[11] In the current study,162(89%) used no home remedies before bringing their kid to the hospital where as the remaining 22 (11%) parents utilized the techniques including shaking and sponging the baby. None of the parents knew that there was a chance that their kid would aspirate the vomit nor were they aware of any protective precautions such as putting the child to one side to

avoid aspiration. These findings are comparable to the study by Shandil et al,^[11] who observed that 87.5% parents did not do any intervention at home at the time of seizure suggesting that vast majority of parents are not aware about first aid methods during seizures. In the current study, the greatest immediate worry among parents of children with seizures was fear of mortality (n= 76.1%) followed by fear of recurrence (n=131, 72%), fear of future epilepsy development (n=125,69%), and fear of brain injury(n=124,68.2%). Similar results were observed by Van Stuijvenberg et al,^[12] Shandil et al,^[11] Sadiquez et al,^[10] who reported that fear of their kid dying was a worry in 47%, 78.1%, 50.8% respectively during the first seizure episode. The reason is probably due to the socioeconomic status of the population and illiteracy.

CONCLUSION

Parental anxiety over febrile seizures is a significant issue with detrimental effects on the quality of life. Proper Education and counseling of parents about the nature of febrile seizure, its relation to fever and resolving their fears about recurrence, will aid in lowering their anxiety. It is imperative to educate the parents of children with febrile seizures about basic life-saving interventions during a seizure episode, Knowledge about measurement, interpretation of temperature, administering antipyretics and sponging their kid with tepid water when they have fever.

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