Croat Nurs J. 2024; 8(1): 37-46

Professional paper

Parents' Perception of Febrile Seizures in Children

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Article received: 14.11.2023.

Article accepted: 09.01.2024.

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https://doi.org/10.24141/2/8/1/4

Keywords: febrile seizures, perception, parents

Abstract

Aim. To examine the perception of parents of children suffering from febrile seizures in relation to management procedures for febrile seizures, parents' gender, and their opinion regarding the need for additional education.

Methods. The cross-sectional study was conducted at the Department of Pediatrics, Osijek Clinical Hospital Centre, in February and March 2023. The respondents were 32 parents of children hospitalized for febrile seizures. A questionnaire on parents' perception of febrile seizures was used.

Results. There were 32 respondents, 15 (47%) male and 17 (53%) female. A total of 20 (62%) respondents were not aware that their child was having a febrile seizure attack, 6 (19%) respondents thought their child was dying, and 4 (13%) respondents thought their child was losing consciousness. During seizure, a significant number of respondents, 16 (50%), of them, felt fear as the dominant emotion, and 13 (41%) respondents felt panic. A total of 9 (28%) respondents felt ready for recurrent febrile seizure, while 6 (19%) respondents were not or could not assess their readiness. A total of 29 (91%) respondents believed that they needed additional education.

Conclusion. Parents are mostly unaware that their child is having a febrile seizure and feel fear and panic. Male parents call emergency medical services significantly more often than female parents. Parents are not sufficiently prepared for the recurrent seizures, and most of them believe that they need additional education.

Introduction

Febrile seizures (FS) are a form of cerebral attacks which occur in young children, usually between 6 months and 5 years of age, most often due to high fever (1). Although febrile seizures can be frightening, they usually do not cause serious medical conditions and do not leave long-term adverse effects (2). However, parents need to be educated to recognize the symptoms and signs of febrile seizures in time and seek medical help.

Etiology and epidemiology

The exact cause of febrile seizures is still unknown, although some studies indicate a possible connection with environmental and genetic factors (2). Several studies identified some of the risk factors: male gender, family history of febrile seizures, high body temperature, prenatal complications, low serum calcium level, low blood sugar level, microcytic hypochromic anemia, and zinc and iron deficiency (3-5).

Febrile seizures are the most common cerebral seizures in childhood, with an incidence of 2 to 5% in Europeans and Americans (3). A higher incidence was recorded in Japan (7-10%). The highest incidence is during the winter period as it is associated with various infectious and respiratory diseases (6).

Clinical presentation

The typical clinical picture of a febrile seizure includes loss of consciousness, disorientation, difficulty breathing, cyanosis, foaming at the mouth, eye rolling, fixed gaze, and generalized twitching of the arms and legs (3). After an attack, a child may become irritable, confused, or sleepy, but they fully recover and come to their senses after about 30 minutes (4). Febrile seizures are classified as either simple, which generally do not have long-term neurodevelopmental disorders and constitute 70% of all FS, or complex febrile seizures (3). Simple febrile seizure is a generalized seizure without focal features, without pre-existing neurological abnormalities, lasts less than 15 minutes, and there is no recurrence within 24 hours (7, 8). Complex febrile seizures are generalized seizures with focal features, usually with pre-existing neurological abnormalities, recurrences within 24 hours, lasting longer than 15 minutes, and require anticonvulsant therapy (7, 8).

Diagnosis and treatment

When establishing a diagnosis of febrile seizures, it is most important to take a detailed medical history and perform a physical examination (8). Key items when taking medical history include description and duration of seizure, family history of seizures or possible predisposition to epilepsy, recent illness, antibiotic use, and vaccination and immunization status for Haemophilus influenzae type B and Streptococcus pneumoniae (9, 10). Physical examination should look for signs of meningitis such as drowsiness, irritability, bulging fontanelle, occipital rigidity, and decreased muscle tone. Routine laboratory tests in children with simple febrile seizures are usually unnecessary because abnormalities in electrolytes are very rare (11). Further laboratory tests should be individualized and only prescribed after taking a detailed medical history and performing a physical examination (8). Electroencephalography has no role in the acute treatment of simple febrile seizures, and it cannot predict recurrence. It should be performed exclusively on children who experienced complex febrile seizures, have a positive family history of epilepsy or some other neurological diseases (10, 11). Any child with febrile seizures who exhibits symptoms and signs of meningitis should undergo a lumbar puncture (9).

According to the latest guidelines by Radić Nišević et al., children with simple febrile seizures should not be hospitalized at all if they are in good general condition and if the cause of fever is clear (11). The child can be discharged home after a short period of observation in a day hospital (11, 12). Seizures are mostly short-lived and stop spontaneously, not requiring prolonged treatment with antiepileptic therapy. Hospitalization is necessary if the seizure lasted longer than 15 minutes and was a complex one, if neurological abnormalities are present, serious infection is suspected or has unknown source, the child is under 18 months of age, and the parents or the caregivers are unable to provide quality monitoring of the child's condition at home (11, 12). In the acute phase, treatment is aimed at determining the cause of fever and symptomatic therapy. It is important to ensure adequate hydration of the child and to reduce body temperature with recommended combination of paracetamol and ibuprofen (4, 5). During the seizure itself, the first step is to

place the child on their side and to ensure an open airway and oxygen administration. The drug of choice in most cases is diazepam administered at the dose of 0.2 to 0.3 mg/kg intravenously. An alternative method is the use of rectal enema at a dose of 0.5 mg/kg. Rectal absorption of diazepam is very effective, occurring within a few minutes after proper application (11, 13). Benzodiazepines such as rectal diazepam or buccal midazolam may be prescribed for use at home as adjunctive therapy to stop seizures. They are useful for children with frequent seizures or for febrile seizures which last longer than 15 minutes and do not resolve spontaneously (11, 13).

Specifics in caring for children with febrile seizures and the importance of educating parents

The care of a child with febrile seizures is focused on identifying and treating the underlying cause of febrility and ensuring the child's safety during and after the seizure (13, 14). Nursing interventions include 24-hour monitoring of the child (observing the appearance and consciousness, monitoring vital functions, especially body temperature), and administering antipyretics as prescribed by the pediatrician if needed. During febrile seizure episodes, the most important aspect is to ensure the child's safety by placing them in a lateral position to maintain airway patency, then summoning a pediatrician, administering oxygen therapy, and prescribed anticonvulsant therapy (11, 13-15).

Parents often lack sufficient knowledge about high fever and the potential risk of febrile seizures (16). Studies conducted in the United States showed that 77% of parents with child experiencing their first seizure think the child is dying, while 15% think the child is choking or has meningitis. Parents who have had previous encounters with febrile seizures, in an alarming 21% of cases, place the child in the correct position during the seizure (12). Nurses are an important link in educating parents as they should explain to parents that febrile seizures are usually caused by high body temperature and are not indicative of epilepsy or other neurological diseases (12). Nurses should explain to parents the possible symptoms and signs of febrile seizures so that they can recognize them in time and react appropriately and educate them on the importance of applying antipyretic measures (11, 15). It is also important to educate parents about the rectal administration of diazepam or buccal administration of midazolam in the event of a recurrent seizure. Furthermore, teaching parents how to place the child in an appropriate position that ensures the patency of the airway and prevents the aspiration of vomited contents or accumulated saliva is crucial (16). Moreover, nurses should urge parents to contact emergency medical services in a case of recurrent seizure or take the child to the pediatric emergency room. Finally, nurses should provide emotional support to parents trying to alleviate anxiety, fear, and concern (11, 17).

The review of related literature found many studies on this topic. However, in the Republic of Croatia, a similar study on parents' perception of febrile seizures in children has not yet been conducted. Therefore, we decided to fill this gap.

Aim

To examine parents' perception of management procedures during febrile seizure in their children, explore parents' perceptions in relation to gender, and investigate opinions about the need for additional education.

Methods

The cross-sectional study was conducted at the Departments of Pediatrics, Pediatric Neurology, Genetics, Endocrinology, Metabolic Diseases and Rheumatology at Osijek Clinical Hospital Centre, in February and March 2023. The respondents were parents of children hospitalized for febrile seizures. A total of 32 respondents agreed to participate by completing the questionnaire in the given period. The questionnaire was completed at the time of discharge from hospital by only one parent.

The inclusion criteria were: a signed informed consent to participate in the study, stay at the Depart-

ment of Pediatrics due to child's hospitalization for febrile seizures, age 20 to 55 years, understanding and speaking Croatian language.

The exclusion criteria were: age less than 20 or greater than 55 years, unsigned informed consent to participate in the study, child's hospitalization for other illnesses and conditions, parents of children under one month of age.

Data protection

The personal data provided is processed in accordance with the General Data Protection Regulation (EU Regulation 2016/679) using appropriate physical, technical, and security measures. At any time, respondents have the right to request access, review, supplement, remove child's private information, and the right to restrict processing, data portability, as well as the right to withdraw consent.

Ethics

The research was conducted in accordance with all applicable guidelines aimed at ensuring proper implementation and safety of individuals participating in the study, including the basics of good clinical practice, the Helsinki Declaration, the Health Insurance Act of the Republic of Croatia, and the Patients' Right Protection Act of the Republic of Croatia. The study obtained approval from the Nursing Ethics Committee at Osijek Clinical Hospital Centre (R1-15971-2/2022) and the Ethics Committee at the Faculty of Dental Medicine and Health Osijek (602-01/23-12/05).

Instrument

The respondents were thoroughly explained the study in a comprehensible manner, and if they agreed to participate in the study, they received an informed consent form to sign. Once they signed the informed consent, the respondents independently completed the questionnaire. The respondents were informed that the questionnaire data and medical records data would be used in the study. They were also informed about the general and specific benefits of the study, its duration and type of procedures, the confidentiality of obtained data, privacy protection, voluntary participation, and the right to withdraw from participating during the study, noting that the mere refusal to participate has no impact on the medical care provided. The instrument which was used was a questionnaire based on the Febrile Seizures: Perceptions and Knowledge of Parents of Affected and Unaffected Children questionnaire (18). With obtained author's permission, the questionnaire was translated into the Croatian language and the section on perception was used in our questionnaire with minor adjustments. There were three sections of the questionnaire. The first section referred to the sociodemographic data of the respondents, including age, gender, level of education, and parents' occupation, as well as the child's age, gender, and number of febrile seizures. The second section of the questionnaire included objective questions on theoretical part about febrile seizures, body temperature, and parents' actions during febrile seizure attacks. The third part of the questionnaire referred to the parents' perception of febrile seizures. The perception section consisted of three parts. In the first part, the respondents had to assess their awareness during febrile seizure, determine the emotions (fear, panic, sadness) which dominated them, and assess those emotions on a scale from 0 to 10 (where 0 indicated the complete absence of the said emotion, while 10 denoted the maximum expression of the said emotion). Also, they were supposed to indicate who informed them that their child had a febrile seizure and at what body temperature value they started applying antipyretic measures. In the second part, they were given yes/no statements, while the third part of the section examined the parents' readiness for the next seizure and whether they needed additional education on febrile seizures.

Data Analysis

Categorical data were presented by absolute and relative frequencies. Numerical data were described by median and the limits of the interquartile range. Differences in categorical variables were tested with the $\chi 2$ test. All P values are two-sided. The significance level was set at α=0.05. The SPSS statistical program (version 22.0, SPSS Inc., Chicago, IL, USA) was used for statistical analysis.

Results

Table 1. **Sociodemographic data**

		Number (%) of respondents
Parent's gender	Male	15 (47)
	Female	17 (53)
Parent's age	20-25	3 (9)
	26-35	15 (47)
	36-45	11 (34)
	46-55	3 (9)
Parent's level of education	Elementary school	1 (3)
	High school	19 (54)
	Bachelor's degree	2 (6)
	Master's degree	10 (31)
	Doctor of Philosophy	0 (0)
Total	32 (100)	

The study included 32 respondents, among which 15 (47%) were male and 17 (53%) were female. Most respondents, 15 (47%), belonged to the age group of 26-35 years. When it comes to the level of education, most respondents, 19 (54%) of them, completed secondary education, while 10 (32%) respondents completed higher education (Table 1).

Table 2. **Data on child**

		Number (%) of respondents
Child's age	1-6 months	3 (9)
	6-12 months	3 (9)
	1-2 years	12 (38)
	2-3 years	4 (13)
	More than 3 years	10 (31)
Child's gender	Male	21 (66)
	Female	11 (34)
Number of febrile seizures	1	19 (59)
	2-3	12 (38)
	4-5	1 (3)
Total	32 (100)	

In relation to child's age, most children, 12 (38%), were in the age group of 1 to 2 years of age, while 10 (31%) children were older than 3 years. When it comes to gender, there were more male children, 21 (66%). Out of total of 32 children, 19 (59%) experienced febrile seizure once, and one child had 4-5 seizures (Table 2).

Table 3. **Parents' perception of febrile seizures in children (1st part)**

Question	Answer	Number (%) of respondents
Were you aware that your child was having a febrile seizure?	Yes	12 (38)
	No	20 (62)
If not, what did you think was happening?	I knew	13 (41)
	Allergic reaction	1 (3)
	Loss of consciousness	4 (13)
	Rise in body temperature	3 (9)
	Choking	3 (9)
	Dying	6 (19)
	Epileptic seizure	1 (3)
	Cessation of breathing	1 (3)
Which emotion was dominant in you during the febrile seizure?	Panic	13 (41)
	Fear	16 (50)
	Sadness	3 (9)
On a scale of 0 to 10, how would you asses that emotion?	5	1 (3)
	6	1 (3)
	7	4 (13)
	8	5 (16)
	9	4 (13)
	10	17 (53)
Who told you that your child had a febrile seizure?	Physician	25 (78)
	Nurse	4 (13)
	Nobody	1 (3)
	I don't remember	2 (6)
At what value do you start reducing your child's body temperature?	37.8 °C auricularly	3 (9)
	38 °C axillary	14 (44)
	38 °C auricularly	7 (22)
	38.5 °C axillary	4 (13)
	38.5 °C auricularly	3 (9)
	38.7 °C axillary	1 (3)
Total	32 (100)	

A total 20 (62%) respondents were not aware that their child was having a febrile seizure. During seizures, most respondents, 16 (50%), felt fear as the dominant emotion. A total of 17 (53%) respondents assessed the intensity of the emotion as 10 on the scale from 0 to 10. Most respondents, 14 (44%), of them began to reduce the body temperature when it was 38°C measured axillary (Table 3).

Table 4. **Parent's perception of (N=32) febrile seizures in children (2nd part)**

Actions taken in the care of the child during febrile seizure	Number (%) of respondents	
	Yes	No
I made the surrounding safe for the child.	32 (100)	0 (0)
I tried to restrain the child during seizure.	11 (34)	21 (66)
I applied anticonvulsant medication.	8 (25)	24 (75)
I called emergency medical services.	27 (84)	5 (16)
I applied an antipyretic to reduce body temperature.	19 (59)	13 (41)
I placed a hard object in the child's mouth.	2 (6)	30 (94)
I placed the child on the right or left side and directed the head towards the surface.	22 (69)	10 (31)
I placed the child on their back and tilted their head back.	2 (6)	30 (94)
I placed the child on a soft and safe surface.	26 (81)	6 (19)

Among the actions taken by the parents in caring for the child during febrile seizures, the statement "I made the surrounding safe for the child" stands out, to which all 32 (100%) respondents answered affirmatively (Table 4). In relation to gender, significantly more male respondents called emergency medical services ($\chi 2$ test=5.229; p=0.02).

Out of 32 respondents, 9 (28%) felt ready for recurrent febrile seizures. A total of 29 (91%) respondents believed that they need additional education, mostly in the form of oral and written instructions (Table 5).

Table 5. **The parents' perception of febrile seizures in children (3rd part)**

Question	Answer	Number (%) of respondents
Do you feel ready for recurrent febrile seizures?	Definitely yes	9 (28)
	Partially	11 (34)
	Definitely not	6 (19)
	I cannot judge whether I am ready or not	6 (19)
Do you consider you need additional information and education about febrile seizures?	I consider	29 (91)
	I don't consider	3 (9)
Written instructions (longer instructions)	Yes	18 (56)
	No	14 (44)
Brochures (short instructions)	Yes	25 (78)
	No	7 (22)
Oral instructions	Yes	21 (66)
	No	11 (34)
Online education	Yes	5 (16)
	No	27 (84)
Total	32 (100)	

Discussion

The study examined parents' perceptions of febrile seizures in children and their opinions on the need for additional education. The results indicated insufficient readiness of parents for recurrent febrile seizures. Most parents also believed they were not adequately educated about the management procedures to follow in the case of a recurring episode. A total of 32 parents participated in the study. Most respondents were between 26 and 35 years of age. When it comes to child's age, most children were between 1 and 2 years of age, while a few children were older than 3 years. The study by Gunawan et al. revealed that 29% of 63 children in the sample

experienced first febrile seizure between 6 and 12 months of age. The authors believe that the cause for the occurrence of febrile seizures during that period is child's brain which has not yet reached its full maturity (19). When it comes to gender, there were more male than female children in the aforementioned study. The fact that male children are more prone to febrile seizures is supported by other studies. In the study by Gunawan et al., there were 63% male children in the sample of 63 children. However, in the study conducted in Saudi Arabia there were 52 (59.8%) female children in the sample of 87 children, out of which 37% had more than one episode of febrile seizure (20). The findings of that study contradict those of this one and other studies.

Most parents were not aware that their child was having a febrile seizure. Six respondents believed that their child was in a life-threatening situation, four of them thought their child was losing consciousness, three believed their child's temperature was rising or that they were choking. Additionally, one respondent each considered it an allergic reaction, an epileptic seizure, or cessation of breathing. Half of the respondents felt fear as the dominant emotion, thirteen respondents felt panic, and three respondents felt sadness. Over half of the respondents assessed their emotions as highly expressive. In the study by Kanemura et al. in 2013, a total of 41% of parents stated that they were afraid because they thought their child would die during the seizure, while 29% of them believed that the child had serious difficulties (21). During a febrile seizure, the paralyzing fear experienced by most parents often hinders them from acting appropriately and administering timely first aid to the child. In this study, most respondents indicated that their child's febrile seizure was communicated to them by a physician. A significant proportion of respondents (44%) began reducing their child's body temperature only when it reached 38 °C or higher when measured axillary. In children who have already had febrile seizures, reducing body temperature should be initiated at axillary temperature of 37.5 ˚C, i.e., rectal or auricular temperature of 38 ˚C. The second part of the questionnaire consisted of yes/no question about actions taken during febrile seizure. The statement "I made the surrounding safe for the child" stands out for being answered affirmatively by all respondents. The statement "I placed the child on a soft and safe surface", was answered affirmatively by most respondents. Only eleven respondents answered affirmatively to the statement "I tried to restrain a child in spasm", which is a devastating finding. In the study conducted in 2020 by Sayed, all parents placed their child on a soft and safe surface. Most respondents (86.7%) noticed the symptoms and followed the duration of the seizure, and 93.3% of them did not try to restrain the child during the seizure (22). During a seizure, the child should be restrained, i.e., involuntary movements of the extremities should be prevented to avoid self-harm and mitigate the risk of injury to others in the immediate surrounding. Most respondents answered affirmatively to the statement "I called emergency medical services". Significantly more male respondents called emergency medical services. In conversation with parents during this study, it was found that mostly mothers were first to help the child, while fathers were the ones who called emergency medical services. In several studies, 100% of the respondents called for emergency medical services (22, 23). The statement "I put a hard object in child's mouth" is also noteworthy as it was answered negatively by all but two respondents. The results of the study conducted in Nigeria and Turkey indicate that 61.2% of parents would put a hand or a spoon in their child's mouth to prevent choking, while 39.3% of parents would put any hard object in their child's mouth (24, 25). The results of this study showed that only two respondents tried to put a hard object in the child's mouth during a seizure. The results of the study by Kanemura et al. showed that 3% of parents patted or hit the child's back or tried to remove a foreign body from the throat during a seizure because they suspected that the child was choking on something. As many as 9% of them tried to separate the child's clenched teeth, while 7.7% of the parents shook the child violently. Only 4% of parents completely undressed the child, and none attempted mouth-to-mouth resuscitation (21). According to the study by Elbilgahy in Egypt, mostly mothers (71%) gave mouth-to-mouth resuscitation, while in the study by Kayserili in Turkey, only 10.7% of mothers gave mouth-to-mouth resuscitation (26).

First aid for seizures includes providing a safe surrounding to avoid injury, calling emergency medical services, placing the child on the left or right side with the head facing the floor, removing excess clothing, especially around the neck, placing a soft pillow under the head, avoiding putting any objects in the oral cavity, applying anticonvulsant therapy, and monitor-

ing the duration of seizure. This study identified key moments in which parents did not respond effectively during a seizure. One was putting a hard object in the oral cavity during an attack, and the other, extremely important one, was not preventing self-harm of the child by restraining the body in a spasm.

The third part of the questionnaire examined parents' opinion on their readiness for a recurrent seizure and their need for additional information and education about febrile seizures. Among 32 respondents, nine felt ready for a recurrent seizure, eleven felt partially ready, and six respondents were not ready or could not assess their readiness. In a study by Westin et al. conducted in 2018, most parents of children with recurrent seizures reported that the experience from the first seizure, along with the information received from healthcare professionals, significantly enhanced their readiness and confidence in dealing with subsequent seizures (27). The results of this study indicated that most respondents felt much more confident after receiving information from healthcare professionals. Almost all respondents believed that they need additional education about febrile seizure, mostly in the form of oral and written instructions. Given that febrile seizures are very stressful events, it would be helpful if detailed information about them became part of anticipatory guidance provided by pediatricians and pediatric nurses to all new patients. Children with febrile seizures require a holistic approach and their nurses should possess specialized skills and knowledge required for their roles. Educating parents on home care for their child in the case of recurrent seizure is among the crucial responsibilities of nurses. Before the child's discharge from hospital, parents should receive information through both oral communication and informative written materials such as leaflets and brochures. These written materials will serve as a helpful reference, allowing them to review details provided verbally during the hospitalization once they had the opportunity to calm down and the initial shock subsided (28). Additionally, online instructional videos and educational resources about febrile seizures can be made available to enhance understanding. It is very important to offer parents the opportunity to compile a list of important contact numbers of professionals who can assist them at any moment. Healthcare professionals at the Department of Neuropediatric should continuously improve their knowledge and skills to deliver the utmost care to young patients and their parents.

The limitations of this study are that it was conducted in one institution, on a small number of respondents and in a short period. A worrisome fact is that so many children were hospitalized for febrile seizures in such a short period.

Conclusion

The results of the study show that parents are not sufficiently prepared for recurrent seizures. Also, most parents believe that they need additional education about recurrent seizures. There is no significant difference in parents' perception of febrile seizures in children in relation to their gender, except for the question of calling emergency medical services because significantly more male parents called emergency medical services. Most parents were in fear and not aware that their child was having a febrile seizure. All parents acted correctly by providing a safe surrounding for their child during seizure. This study can provide a basis for further research on the topic.

References

1. Rimac M, Marušić Della MB. Febrilne konvulzije. Paediatr Croat. 2004;48:85-8. Croatian.
2. Mustafić N, Tahirović H, Trnovcević J. Učestalost recidiva konvulzija poslije prvoga febrilnog napadaja: rezultati dvogodišnjeg promatranja. Lijec Vjesn. 2010;132(7-8):227-31. Croatian.
3. Sawires R, Buttery J, Fahey M. A Review of Febrile Seizures: Recent advances in understanding of febrile seizure pathophysiology and commonly implicated viral triggers. Front Pediatr. 2022;9:801321. https://doi.org/10.3389/fped.2021.801321
4. Laino D, Mencaroni E, Esposito S. Management of Pediatric Febrile Seizures. Int J Environ Res Public Health. 2018;15(10):2232. https://doi.org/10.3390/ijerph15102232
5. Millar JS. Evaluation and treatment of the child with febrile seizure. Am Fam Physician. 2006;73(10):1761-4.
6. Radić Nišević J, Prpić I, Kolić I. Fever-induced seizures: where are we today? Med Flum. 2016;52.(4.). https://doi.org/10.21860/medflum2016_4ramr
7. Tiwari A, Meshram RJ, Kumar Singh R. Febrile seizures in children: A review. Cureus. 2022;14(11):e31509. https://doi.org/10.7759/cureus.31509
8. Eilbert W, Chan C. Febrile seizures: A review. J Am Coll Emerg Physicians Open. 2022;3(4): e12769. https://doi.org/10.1002/emp2.12769
9. Smith DK, Sadler KP, Benedum M. Febrile seizures: risks, evaluation, and prognosis. Am Fam Physician. 2019;99(7):445-50.
10. NHS. Febrile seizures. nhs. uk; 2017. Available from: https://www.nhs.uk/conditions/febrile-seizures/. Accessed: 26.10.2023.
11. Radić Nišević J, Kolić I, Prpić I. New guidelines for diagnosis and treatment of febrile seizures in Croatia. Lijec Vjesn. 2023;145(Supp 1):236-40. https://doi.org/10.26800/LV-145-supl1-34. Croatian.
12. Paučić Kirinčić E, Sasso A, Sindičić N, Prpić I. Febrilne konvulzije : postupnik u djeteta sa prvim konvulzijama u febrilitetu. Pedijatrija danas. 2006;2(1):1-10. https://urn.nsk.hr/urn:nbn:hr:184:625123 Croatian.
13. Bindler RM, Howry LB. Nursing care of children with febrile seizures. MCN Am J Matern Child Nurs. 1978;3(5):270-3. https://doi.org/10.1097/00005721-197809000-00005
14. Xixis KL, Samanta D, Smith T, et al. Febrile Seizure. In: StatPearls. Treasure Island (FL): StatPearls Publishing; 2024. https://www.ncbi.nlm.nih.gov/books/NBK448123/
15. Belleza M. Febrile Seizures. Nursing care planning and management: Study Guide; 2021. Available from: https://nurseslabs.com/febrile-seizure/. Accessed: 28.10.2023.
16. Azizah N, Roni F, Wijaya HA, Fatoni HI, Wahdi A. Nursing care of children with febrile convulsion with hyperthermiy nursing problems in srikandi room jombang hospital. JQWH. 2023;6(1):72-4. Available from: https://jqwh.org/index.php/JQWH/article/view/210 Accessed: 03.11.2023.
17. Ma L, McCauley SO. Management of pediatric febrile seizures. J Nurse Pract. 2018;14:74-80. https://doi.org/10.1016/j.nurpra.2017.09.021
18. Rice SA, Müller RM, Jeschke S, Herziger B, Bertsche T, Neininger MP, et al. Febrile seizures: perceptions and knowledge of parents of affected and unaffected children. Eur J Pediatr. 2022;181(4):1487-95. https://doi.org/10.1007/s00431-021-04335-1
19. Gunawan W, Kari K, Soetjiningsih S. Knowledge, attitude, and practices of parents with children of first time and recurrent febrile seizures. PI. 2008;48(4):193. https://paediatricaindonesiana.org/index.php/paediatrica-indonesiana/article/view/556
20. Alhashim LA, Zakaria OM, Alrubayii MA, Alkhofi AS, Alateeq SK, Almaghlouth MK, et al. Perspectives of febrile convulsions among parents: a local cross-sectional study. Gaz Egypt Paediatr Assoc. 2022;70(1). https://doi.org/10.1186/s43054-022-00100-7
21. Kanemura H, Sano F, Mizorogi S, Tando T, Sugita K, Aihara M. Parental thoughts and actions regarding their child's first febrile seizure. Pediatr Int. 2013;55(3):315-9. https://doi.org/10.1111/ped.12058
22. Sayed H. Recognition of Parent's Knowledge, Attitude and Practice Regarding Febrile Seizures in Children Under-Five. Am. J Nurs Res. 2020;8(1):72-81.
23. Kelly M, Sahm LJ, Shiely F, O'Sullivan R, McGillicuddy A, McCarthy S. Parental knowledge, attitudes, and beliefs regarding fever in children: an interview study. BMC Public Health. 2016; 16:540. https://doi.org/10.1186/s12889-016-3224-5
24. Oche OM, Onankpa OB. Using women advocacy groups to enhance knowledge and home management of febrile convulsion amongst mothers in a rural community of Sokoto State, Nigeria. Pan Afr Med J. 2013;14:49. https://doi.org/10.11604/pamj.2013.14.49.1703
25. Anigilaje EA, Anigilaje OO. Childhood convulsion: inquiry about the concerns and home management among mothers in Tegbesun, a Periurban Community in Ilorin, Nigeria. ISRN Pediatr. 2012;2012:209609. https://doi.org/10.5402/2012/209609
26. Elbilgahy AA, Sayed A, Aziz RAE. Effect of implementing an educational module on improving mothers' knowledge, home management, and attitude about febrile convulsion. J Nurs Educ Pract. 2018;8(3):1-11. https://doi.org/10.5430/jnep.v8n3p1
27. Westin E, Sund Levander M. Parent's experiences of their children suffering febrile seizures. J Pediatr Nurs. 2018;38:68-73. https://doi.org/10.1016/j.pedn.2017.11.001
28. Chiappini E, Parretti A, Becherucci P, Pierattelli M, Bonsignori F, Galli L, et al. Parental and medical knowledge and management of fever in Italian preschool children. BMC Pediatr. 2012;12:97. https://doi.org/10.1186/1471-2431-12-97

PERCEPCIJA RODITELJA O FEBRILNIM KONVULZIJAMA U DJECE

Sažetak

Cilj. Ispitati percepciju roditelja djece oboljele od febrilnih konvulzija (FK) o postupcima tijekom napadaja FK-a, percepciju roditelja u odnosu na spol te mišljenje o potrebnoj dodatnoj edukaciji.

Metode. Presječno istraživanje provedeno je u Kliničkom bolničkom centru Osijek na Klinici za pedijatriju tijekom veljače i ožujka 2023. Ispitanici su bili 32 roditelja djece hospitalizirane zbog febrilnih konvulzija. Primijenjen je upitnik o percepciji roditelja o febrilnim konvulzijama.

Rezultati. Ispitano je 32 roditelja, od kojih su 15 (47 %) muškarci i 17 (53 %) žene. Ukupno 20 (62 %) roditelja nije bilo svjesno da im dijete ima napadaj FK-a te ih je šest (19 %) mislilo da im dijete umire, a četvero (13 %) ispitanika mislilo je da im dijete gubi svijest. Za vrijeme konvulzija čak 16 (50 %) ispitanika osjećalo je strah kao dominantnu emociju, a 13 (41 %) ispitanika osjećalo je paniku. Definitivno spremnima za ponovne napadaje FK-a osjeća se devet (28 %) roditelja, dok po šest (19 %) ispitanika navodi da definitivno nisu spremni ili da ne mogu procijeniti jesu li spremni. Ukupno 29 (91 %) ispitanika smatra da su im potrebne dodatne edukacije.

Zaključak. Roditelji većinom nisu svjesni da dijete ima napadaj FK-a te osjećaju strah i paniku, muškarci su znatno više puta pozvali hitnu medicinsku pomoć od žena. Roditelji nisu dovoljno spremni za idući napadaj te većina smatra da su im potrebne dodatne edukacije.

Ključne riječi: febrilne konvulzije, percepcija, roditelji