ORIGINAL ARTICLE

Parental Knowledge, Attitudes, and Concerns Regarding Childhood Febrile Seizures.

Siew Pien Lee[1*], Nur Syahirah Dzulkaftah[1], Wan Solihatul Hafidzah Wan Mohd Annuar[1], Umi Solikhah[2]

[1]Kulliyyah (Faculty) of Nursing, International Islamic University Malaysia, Bandar Indera Mahkota, Kuantan, Pahang, Malaysia.
[2]Faculty of Health Sciences, Universitas Muhammadiyah Purwokerto, Banyumas, Jawa Tengah, Indonesia.

Corresponding Author
Lee Siew Pien,
Department of Special Care Nursing,
Kulliyyah (Faculty) of Nursing, International Islamic University Malaysia,
Jalan Sultan Ahmad Shah, Bandar Indera Mahkota, 25200 Kuantan, Pahang, Malaysia.
Email: siewpien@iium.edu.my

Submitted: 20/05/2025. Revised edition: 12/08/2025. Accepted: 19/09/2025. Published online: 01/11/2025.

Abstract

Background: Febrile seizures are the most common seizure disorder among young children, often leading to parental anxiety and unnecessary medical interventions. Despite their prevalence, limited research has explored parental knowledge, attitudes, and concerns in Malaysia. **Objective:** This study aimed to assess parental knowledge, attitudes, and concerns regarding febrile seizures among parents in Pahang, Malaysia. **Methods:** A cross-sectional study was conducted among 235 parents of children under five years old in selected kindergartens. Data were collected using a structured questionnaire covering sociodemographic characteristics, knowledge, attitudes, and concerns. Descriptive statistics and chi-square tests were applied. **Results:** The findings revealed that 55.3% of parents had moderate knowledge, with 53.6% believed recurrent febrile seizures could cause brain damage, and 43.8% incorrectly identified them as epilepsy. While 74% demonstrated a positive attitude, a similar proportion (74%) reported high levels of concern, particularly about potential brain damage (mean = 3.54, SD = 0.8) and subsequent epilepsy (mean = 3.38, SD = 0.8). Higher education level ($p < 0.001$) and prior experience with febrile seizures ($p < 0.001$) were significantly associated with better knowledge and attitudes. **Conclusion:** This study highlights persistent misconceptions and significant parental anxiety regarding febrile seizures. Targeted educational interventions are needed to improve parental understanding, alleviate fears, and enhance seizure management at home. Healthcare professionals should implement structured counselling and culturally sensitive communication strategies to support parents effectively.

Keywords: *Febrile seizures, Malaysia, paediatric emergency, parental knowledge.*

Introduction

Febrile seizures are the most prevalent convulsive disorder in young children, primarily affecting those between 6 months and 5 years of age [1]. Fever is one of the most common signs of illness and is the reason for 15-25% of visits to primary health care facilities or emergency departments [1]. In some cases, fever can be managed without medical intervention, but a high fever (temperature exceeding 38 °C), can result in febrile seizures [2].

The prevalence of febrile seizures varies globally and is influenced by a combination of social, economic, environmental, and genetic factors. It is estimated that febrile seizures occur in approximately 4% to 10% of children under the age of six [3]. Roughly one in every 25 children will experience at least one febrile seizure in their lifetime [4]. To date, no published studies in Malaysia have specifically reported the prevalence of febrile seizures. However, existing local data indicate that the average age of affected children is approximately 21 months, with the majority presenting with characteristics typical of simple febrile seizures [5].

Although generally benign and self-limiting, their sudden onset often causes significant distress among parents, frequently leading to misconceptions and undue fear regarding potential long-term neurological consequences [5,6]. These misconceptions contribute to heightened parental anxiety and inappropriate seizure management strategies, resulting in unnecessary emergency department visits and medical interventions, further exacerbating parental anxiety [7-8].

A recent study by Othman et al. [6] assessed the psychological impact of febrile seizures on parents in Malaysia. It indicated that 58.2% of parents experienced anxiety, 29% reported stress, and 23.6% exhibited symptoms of depression. The findings highlight the need for targeted interventions to reduce parental anxiety through education, counselling, and structured support strategies.

Despite the widespread occurrence of febrile seizures, limited research has explored parental knowledge, attitudes, and concerns in Malaysia. Understanding the extent of parental awareness and identifying knowledge gaps is essential for developing targeted educational programs that can empower caregivers with accurate information. By addressing misconceptions and alleviating fears, healthcare professionals can improve parental confidence in managing febrile seizures at home, can ultimately lead to better health outcomes for children. Studies suggest that increased parental education and awareness can lead to better coping mechanisms and reduced anxiety when dealing with febrile seizures [6,8].

Therefore, parental understanding of febrile seizures plays a critical role in shaping their response and management strategies. This study aims to assess the level of knowledge, attitudes, and concerns among parents in Pahang, Malaysia, regarding febrile seizures. By identifying factors influencing parental perceptions, the findings will help inform healthcare professionals on how to structure effective educational interventions that reduce anxiety and enhance parental preparedness in managing febrile seizures.

Materials and methods

This study employed a cross-sectional descriptive design to assess parental knowledge, attitudes, and concerns regarding febrile seizures in children. The study was conducted in selected kindergartens across Pahang, Malaysia, from February to August 2024. The target population was parents of children below five years of age. A total of 235 parents were selected using a simple random sampling method to ensure representativeness. First, a list of registered kindergartens in the selected districts was obtained from the local education department. Several kindergartens were randomly selected, and within each kindergarten, participating parents were chosen through a randomized list provided by the school administrators based on the inclusion criteria.

The study utilized a structured questionnaire consisting of four sections: (i) Sociodemographic

information which collected data on parental age, gender, education level, and employment status, (ii) Parental knowledge, assessing the understanding of febrile seizures, their causes, management, and long-term effects; (iii) Parental attitudes, evaluating perceptions and beliefs regarding febrile seizures, and (iv) Parental concerns, measuring levels of anxiety and worry about seizure episodes and their consequences. The questionnaire was translated into Malay and underwent both reliability and validity assessment. Reliability, measured using Cronbach's alpha, ranged from 0.74 to 0.84 across the sections. Content validity was established through expert evaluation, with a Content Validity Index (CVI) of 0.89, indicating good content relevance and clarity.

Descriptive statistics (mean, standard deviation, frequency, and percentage) were used to analyse sociodemographic characteristics and responses to knowledge, attitude, and concern-related questions. Prior to inferential analysis, the normality of continuous variables was assessed using the Shapiro-Wilk test. Since the data did not meet the assumptions for parametric testing, the chi-square test was used to evaluate associations between sociodemographic factors and levels of parental knowledge, attitudes, and concerns. Statistical significance was set at $p < 0.05$.

Ethical approval was obtained from the International Islamic University Malaysia (IIUM) Research Ethics Committee (IREC), ID number: IREC 2024-130. Participants were informed about the study objectives, assured of confidentiality, and provided written informed consent before participation.

Results

Profile of the parents

Table 1 presents the profile of the parent participants. The study sample consisted of 235 parents, with a higher proportion of mothers (57.0%) compared to fathers (43.0%). A significant majority (75.3%) had attained tertiary education, while 24.7% had secondary education. More than half of the participants (52.8%) were employed in the public sector, 28.9% worked in the private sector, and 18.3% were housewives or unemployed. Regarding past experiences with febrile seizures, 41.7% of parents reported that their child had experienced at least one febrile seizure. However, only 40% of parents were present during the seizure episode, potentially influencing their level of knowledge and concern.

Parents' knowledge on childhood febrile seizure

Table 2 highlights varying levels of understanding and misconceptions among parents regarding the management and implications of febrile seizures in children. The findings revealed a mixed level of knowledge. Although all parents correctly identified that anticonvulsant drugs are not required for every child with febrile seizures, 50.2% were uncertain about this fact. A significant misconception observed was that 53.6% of parents believed recurrent febrile seizures could cause brain damage, while 37.9% were unsure. Similarly, 43.8% of parents incorrectly classified febrile seizures as epilepsy. Additionally, nearly half of the parents (49.4%) were unsure whether children with febrile seizures could receive immunizations on schedule. These findings indicate substantial gaps in knowledge, emphasizing the need for targeted educational interventions to address misconceptions.

Parents' attitudes towards childhood febrile seizure

Overall, parents demonstrated moderate to positive attitudes toward febrile seizures. Parents strongly agreed that children with febrile seizures require extra attention and care (mean = 3.16, ±0.7) and believed that febrile seizures could be outgrown (mean = 3.1, ±0.6). However, concerns persisted regarding the potential for brain damage (mean = 3.2, ±0.7) and the risk of febrile seizures developing into epilepsy (mean = 2.84, ±0.6). Interestingly, traditional beliefs, such as febrile seizures being caused by spirits (mean = 1.22, ±0.8), were largely rejected. However, moderate

reliance on traditional medicine was observed (mean = 3.26, ±0.8), suggesting the importance of culturally sensitive health education to dispel misconceptions while respecting cultural beliefs.

Parents' concerns regarding childhood febrile seizure

Parental concerns in this study were assessed using 10 specific items (as detailed in Table 4). The most frequently cited concerns included fear of potential brain damage (mean = 3.54, ±0.8) and the possibility of subsequent epilepsy (mean = 3.38, ±0.8). Concerns about recognizing seizure attacks early (mean = 3.14, ±0.8) and managing seizures effectively (mean = 3.3, ±0.7) were also significant. Interestingly, parents showed less concern about febrile seizures occurring at night (mean = 1.51, ±1.1) or frequent fever episodes (mean = 1.9, ±0.6).

Level of knowledge, attitude, and concern of parents regarding febrile seizure in children

Figure 1 illustrates the overall distribution of parental knowledge, attitudes, and concerns regarding febrile seizures. To categorize these levels, cut-off scores were used as follows: knowledge was classified as good (scores ≥5) and poor (scores <5); attitude as positive (≥80% of total score) and negative (<80%); concern as high (≥80%) and low (<80%), based on the total concern score.

The findings showed that while a majority of parents demonstrated moderate knowledge (55.3%), misconceptions remain prevalent, particularly concerning the risks and long-term effects of febrile seizures. Attitude scores generally reflect a positive outlook, with parents expressing concern and a willingness to learn more about managing febrile seizures. However, high levels of concern persist (74%), particularly regarding fears of brain damage and epilepsy, highlighting the need for targeted health education initiatives to enhance parental confidence and reduce anxiety.

Association between sociodemographic profile with knowledge, attitude and concern of parents regarding febrile seizure among children

Table 5 presents the associations between selected sociodemographic profile and parental knowledge, attitudes, and concerns regarding febrile seizures. The analysis demonstrated significant associations between certain sociodemographic profile and parental knowledge and attitudes regarding febrile seizures.

Mothers showed significantly better knowledge and more positive attitudes compared to fathers ($p < 0.05$; $X^2 = 10.49$, df = 1). Educational level also played a key role, with parents holding tertiary education showing higher knowledge and attitude scores ($p < 0.001$; $X^2 = 14.53$, df = 2). Similarly, employment in the public sector was associated with better knowledge ($p < 0.001$; $X^2 = 37.26$, df = 2). Prior experience with febrile seizures either through one's own child or another sibling was significantly associated with improved knowledge and attitudes ($p < 0.001$; $X^2 = 40.70$, df = 2). While concern levels were not significantly influenced by most sociodemographic variables, parents who had another child with a history of febrile seizures reported significantly higher levels of concern ($p < 0.05$; $X^2 = 9.30$, df = 1).

Discussion

Parents' knowledge on febrile seizure in children

This study found that while parents demonstrated moderate knowledge about febrile seizures, significant misconceptions persist. A substantial proportion of parents correctly identified that febrile seizures do not necessarily require anticonvulsant drugs, and they recognized that not all children with febrile seizures will experience recurrent episodes. Notably, 53.6% of participants believed that recurrent febrile seizures could cause brain damage, and 43.8% incorrectly classified them as epilepsy. These misconceptions suggest specific educational gaps, particularly in differentiating febrile seizures

from epilepsy and understanding their generally benign prognosis. Some of these gaps may stem from limited access to accurate health information and the persistence of culturally influenced beliefs that associate seizures with severe neurological damage or chronic illness. In certain communities, seizure-related stigma and reliance on anecdotal experiences can reinforce such misconceptions, particularly when medical advice is inconsistent or inaccessible. These findings emphasize the need for targeted educational interventions that not only provide accurate medical facts but also address prevailing cultural narratives. For example, community-based awareness campaigns could integrate culturally sensitive explanations, using local languages and trusted community figures, to counter misconceptions without dismissing cultural contexts.

Similar trends have been reported in earlier studies, for instance, Abd-Almuhsen [9] found that 74.4% of mothers in Baghdad demonstrated only fair knowledge about febrile convulsions, suggesting a need for broader awareness initiatives. Similarly, Othman et al. [6] observed that limited parental knowledge contributed to increased anxiety and maladaptive management practices during febrile seizures [6]. The findings of El Sayed [10] further verify this concern, revealing that fewer than half of parents possessed basic monitoring tools such as thermometers, and only a small fraction (13.3%) performed appropriate first aid before seeking medical attention. Collectively, these data suggest that despite the prevalence of febrile seizures and their generally benign nature, parental misconceptions remain widespread and may lead to unnecessary fear, delayed intervention, or inappropriate care-seeking behaviour.

Parents' attitude towards febrile seizure in children

The findings from this study reveal that while many parents hold generally positive attitudes towards febrile seizures, several misconceptions and culturally rooted beliefs persist. The overall score indicated a moderately favourable disposition towards understanding and managing febrile seizures. Parents expressed strong agreement with the importance of monitoring their child's temperature and acknowledged that febrile seizures can be outgrown. However, a substantial proportion of parents still moderately agreed with inaccurate beliefs, such as the idea that febrile seizures can cause brain damage or inevitably lead to epilepsy. These misconceptions, though common, are not typically supported by clinical evidence and may contribute to unnecessary fear and inappropriate responses during seizure events. Recent studies confirm these findings. For instance, a cross-sectional study in Saudi Arabia reported that 46.6% of parents mistakenly believed febrile seizures are synonymous with epilepsy, and 62.2% perceived them as life-threatening events [11]. These misconceptions were associated with heightened parental anxiety and inappropriate management strategies, such as attempting to forcefully open the child's mouth during a seizure. Similarly, another study assessing parents' knowledge and attitudes toward paediatric fever found that many exhibited malpractices in fever management, underscoring the need for targeted educational interventions [12].

Parents' concern regarding febrile seizure in children

This study revealed a generally high level of concern among parents, particularly related to the potential for brain damage and the perceived risk of future epilepsy. These specific concerns were among the highest-rated items on the concern scale, reflecting significant parental anxiety about the consequences of febrile seizures. This finding aligns with prior research highlighting the emotional distress febrile seizures often cause, which can lead to overreactions such as unnecessary emergency visits and hospital admissions [13,14]. Consistent with previous studies, many parents also expressed uncertainty about their ability to manage a seizure episode, especially when not present during the initial

event. This supports the observation that lack of firsthand experience contributes to heightened anxiety and a lack of preparedness [6,13]. However, the concern about nocturnal seizures and frequent fever episodes was comparatively lower, suggesting that parents are more focused on immediate seizure management rather than long-term or situational risks.

Association between sociodemographic characteristics with knowledge, attitude and concern of parents regarding febrile seizure among children

This study found that certain sociodemographic characteristics were significantly associated with parental knowledge and attitudes regarding febrile seizures, while levels of concern were less consistently influenced. Specifically, mothers demonstrated significantly better knowledge and more positive attitudes than fathers ($p = 0.001$), highlighting the greater caregiving involvement and health-seeking behaviour typically seen among mothers. Educational attainment also showed a strong association, with parents who attained tertiary education exhibiting significantly higher knowledge and more positive attitudes ($p < 0.001$), reinforcing existing evidence linking education with improved health literacy and caregiving competence [14]. However, these findings differ from those of Eta and Gaelle [15], and Antar Hussien et al. [16], who reported no significant relationship between education and parental knowledge or attitudes, suggesting that cultural and regional differences may influence these outcomes.

Additionally, prior exposure to febrile seizures, either through the respondent's own child or another sibling, was strongly associated with better knowledge and attitudes ($p < 0.001$). These findings are consistent with previous research indicating that parents with firsthand experience demonstrate greater confidence in recognizing and managing seizures [8,17]. Notably, concern levels were generally not influenced by sociodemographic factors, except among parents with a child who had previously experienced febrile seizures, who reported significantly higher concern levels ($p < 0.05$). This may reflect increased vigilance or emotional distress stemming from repeated or severe episodes.

At the national level, these findings highlight an opportunity to strengthen Malaysia's health education strategies by incorporating febrile seizure awareness into existing maternal and child health initiatives. The Ministry of Health could integrate concise, evidence-based febrile seizure education into routine paediatric visits, maternal and child health clinics, and public health campaigns. School-based health education programs and community outreach, especially in rural areas, can be leveraged to ensure parents across diverse backgrounds have access to accurate information. Aligning these interventions with existing national strategies would promote consistent messaging, improve parental confidence, and reduce unnecessary healthcare utilization.

These results also emphasize the combined value of formal education and experiential learning in shaping parental understanding and responses. Targeted, demographically tailored interventions can both improve knowledge and reduce anxiety, fostering more confident and appropriate seizure management at home.

Implications for Practice

The findings of this study have significant implications for healthcare professionals and policymakers. Given the persistent misconceptions and high levels of concern among parents, targeted educational interventions should be developed to improve parental knowledge and confidence in managing febrile seizures. Healthcare providers should incorporate structured counselling sessions as part of routine paediatric care, emphasizing evidence-based seizure management strategies. In the short term, simple yet effective measures such as distributing brief educational leaflets or displaying short informational videos in paediatric clinic waiting rooms can be implemented with minimal resources. These materials should focus on

correcting common misconceptions (e.g., febrile seizures causing brain damage or evolving into epilepsy) and provide clear first-aid steps. Additionally, public health campaigns should leverage digital platforms and community outreach programs to disseminate accurate information in accessible formats. Integrating these efforts into the healthcare routine can enhance parental preparedness and reduce unnecessary fear or emergency visits.

Conclusion

This study highlights the need for improved parental education on febrile seizures to address prevalent misconceptions and alleviate unnecessary concerns. While parents exhibit moderate knowledge and generally positive attitudes, persistent fears about brain damage and epilepsy remain key areas of concern. Targeted educational interventions, culturally sensitive communication strategies, and structured counselling by healthcare professionals are essential to empower parents with accurate knowledge and appropriate management skills. Future research should explore the long-term impact of parental education programs on seizure management and healthcare-seeking behaviours.

Limitations of study

This study has several limitations that should be considered when interpreting the findings. Firstly, as a cross-sectional study, it only provides a snapshot of parental knowledge, attitudes, and concerns at a single point in time, limiting the ability to infer causal relationships. Secondly, self-reported data may be subject to response bias, as parents might provide socially desirable answers rather than accurate reflections of their knowledge and concerns. Thirdly, the study was conducted in a single state in Malaysia, which may limit the generalizability of the findings to other regions with different cultural and healthcare contexts. Lastly, while efforts were made to ensure a representative sample, there is a possibility that the study did not capture the full spectrum of parental experiences, particularly among those with limited healthcare access. Future research should consider longitudinal studies to assess changes in parental knowledge and attitudes over time and explore the effectiveness of educational interventions in improving seizure management at home.

Acknowledgement

We are sincerely grateful to all participants who took part in this study. This research would not have been possible without their cooperation. We also extend our thanks to the kindergartens and staff who facilitated data collection.

Source of financial/funding

No external funding was received for this study.

Conflict of interest

All authors declare no conflicts of interest.

Authors' contributions

LSP: Contributed to the conception and design of the study, supervised all stages of the research, guided the analysis and interpretation, and led the writing and critical revision of the manuscript. NSD: Involved in data collection, initial data entry, and drafting of the manuscript, especially the results and discussion sections. WSHWMA: Contributed to study design, data analysis, and critical revision of the manuscript for intellectual content. US: Provided expertise in comparative analysis, literature contextualization, and critical review of the final draft.

Table 1. Profile of parents (n=235)

Variables	n	%
Parents		
Father	101	43.0
Mother	134	57.0
Educational Level		
Primary	0	0
Secondary	58	24.7
Tertiary	177	75.3
Occupation		
Public sector	124	52.8
Private sector	68	28.9
Housewife/unemployed	43	18.3
Previous febrile seizures		
Yes	98	41.7
No	137	58.3
Other child with history febrile seizures		
Yes	39	16.6
No	196	83.4
Presence of respondent at seizure		
Yes	94	40
No	141	60

Table 2. Parent's knowledge on childhood febrile seizures

Statement	Responses, n (%)		
	True	False	I don't know
[a]Anticonvulsant drugs are required for every child with febrile seizures.	116 (100)	0 (0)	119 (50.2)
[a]Recurrent febrile seizures will cause brain damage.	126 (53.6)	20 (8.5)	89 (37.9)
[b]Children with febrile seizures can receive immunizations on schedule	25 (10.6)	94 (40)	116 (49.4)
[a]Febrile seizures are epilepsy	103 (43.8)	124 (52.8)	8 (3.4)
[a]It is necessary to restrain the child during seizures	76 (32.3)	141 (60)	18 (7.7)
[a]Every child with febrile will have another febrile seizure in the future	187 (8.1)	30 (12.7)	17 (7.2)
[a]It is necessary to put a protective device into the mouth to prevent the child from biting the tongue	6 (2.6)	132 (56.2)	197 (41.3)
[b]Risk of subsequent epilepsy in febrile seizure is rare	29 (12.3)	114 (48.5)	92 (39.1)
[b]Febrile seizure is rare after age of 5.	180 (76.6)	31 (13.2)	24 (10.2)

[a]False statement, questions not in order presented to caregivers; [b]True statement

Table 3. Parental attitudes towards childhood febrile seizures

Attitude item	**Item, Mean (±SD)**
More attention and care are needed for a child with febrile seizure	3.16 (±0.7)
Febrile seizure can be outgrown	3.1 (±0.6)
Parents should take their children's temperature frequently	3.23 (±0.8)
Febrile seizure can cause brain damage	3.2 (±0.7)
If necessary, lumbar puncture is acceptable	3.2 (±0.7)
A febrile seizure attack is a life-threatening event	3.1 (±0.7)
Febrile seizure will become epilepsy	2.84 (±0.6)
It is shameful to have a child with febrile seizure	3.26 (±0.8)
Traditional medicine is also necessary	1.6 (±0.8)
Febrile seizure is due to possession by spirits	1.22 (±0.8)
Total attitudes score (TAS) (10 item score)	**24.8 (±0.7)**

Reverse coding questions: strongly agree = 1, moderately agree = 2, mildly agree = 3, moderately disagree = 4 and strongly disagree = 5.
Positive (correct attitude) questions: strongly agree = 5, moderately agree = 4, mildly agree = 3, moderately disagree = 2 and strongly disagree = 1.

Table 4. Parental concerns of childhood febrile seizures

Concern item	**Item, Mean (±SD)**
Siblings will have febrile seizures too	3.34 (±0.7)
Potential brain damage	3.54 (±0.8)
Delayed treatment at the next febrile seizure episode	3.32 (±0.7)
Subsequent epilepsy	3.38 (±0.8)
Don't know how to manage my child during the febrile seizure episode	3.3 (±0.7)
Cannot recognize the seizure attack earlier	3.14 (±0.8)
Further seizure attacks	2.81 (±0.9)
Febrile seizure attack is life threatening	3.2 (±0.8)
Apt to get fever	1.9 (±0.6)
Seizure in the night	1.51 (±1.1)
Total concern score (TCS) (10 item score)	26.5 (±6.0)

All questions positively coded; strongly agree = 5, moderately agree = 4, mildly agree = 3, moderately disagree = 2 and strongly disagree = 1.

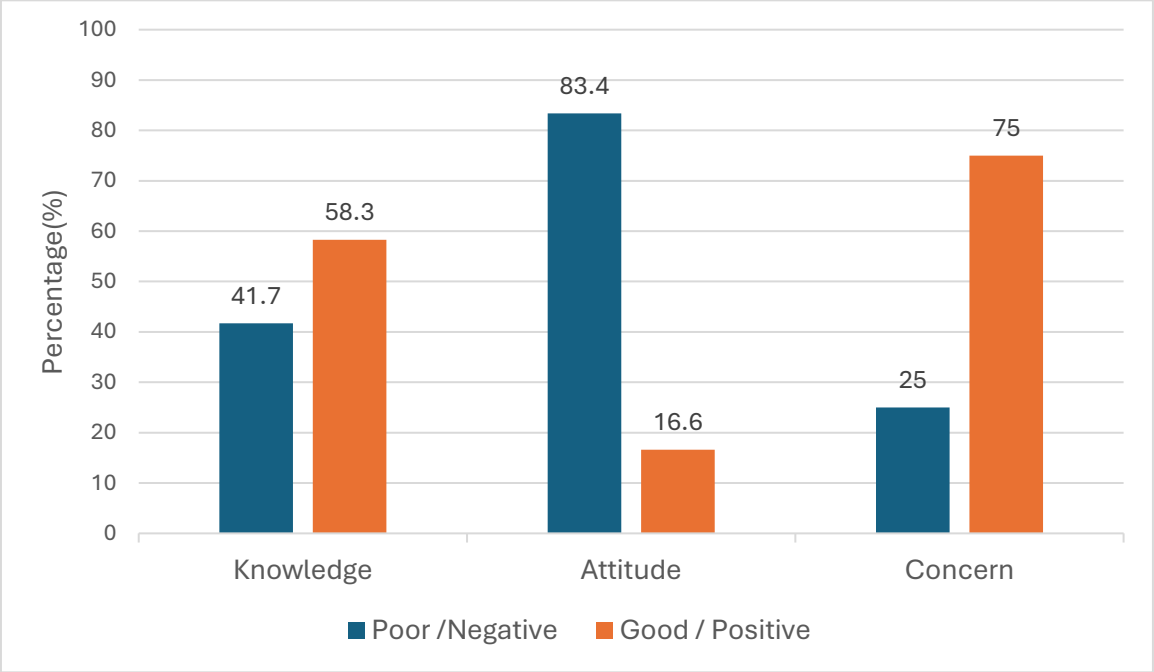

Figure 1. Level of knowledge, attitudes, and concerns of parents regarding childhood febrile seizures.

Table 5. Association between sociodemographic characteristics with the knowledge, attitude and concerns of parents towards febrile seizures

Variables	Knowledge, n (%)		$X^2(df)$	Attitude, n (%)		X^2	Concern, n (%)		X^2
	Poor	Good	*P*-value	Negative	Positive	*P*-value	Low	High	*P*-value
Parents									
Father	30(29.7)	71(70.3)	10.49(1)	30(29.7)	71(70.3)	10.49(1)	0(0)	101(100)	1.12(1)
Mother	68(50.7)	66(49.3)	0.001*	68(50.7)	66(49.3)	0.001*	1(0.7)	133(99.3)	0.28
Educational Level									
Primary	0(0)	0(0)		0(0)	0(0)		0(0)	0(0)	
Secondary	48(82.8)	10(17.2)	14.53(2)	19(32.8)	39(67.2)	14.53(2)	0(0)	58(100)	0.32(2)
Tertiary	50(28.2)	127(71.8)	0.001*	20(11.3)	157(88.7)	0.001*	1(0.6)	176(99.4)	0.84
Occupation									
Public sector	50(40.3)	74(59.7)		21(16.9)	103(83.1)		0(0)	124(100)	
Private sector	14(20.6)	54(79.4)	11.47(2)	63(92.6)	5(7.4)	9.98(2)	1(1.5)	67(98.5)	2.39(2)
Housewife/ Unemployed	34(79.1)	9(20.9)	0.003*	13(30.2)	30(69.8)	0.007*	0(0)	43(100)	0.30
Previous febrile seizures									
Yes	0(0)	98(100)	40.7(1)	2(2.0)	96(98.0)	25.72(1)	0(0)	98(100)	0.71(1)
No	98(71.5)	39(28.5)	0.001*	37(27.0)	100(73.0)	0.001*	1(0.7)	136(99.3)	0.39
Siblings with history febrile seizures									
Yes	0(0)	39(100)	16.26(1)	0(0)	39(100)	9.30(1)	0(0)	39(100)	9.30(1)
No	98(50.0)	98(50.0)	0.001*	39(19.9)	157(80.1)	0.002*	39(19.9)	157(80.1)	0.002*

**Chi-square test/Fisher's Exact test, P*-value < 0.05

References

[1]. Permana I, Meyrisa NS, Brajadenta GS. The effect of family history of seizures as a risk factor for the incidence of recurrent febrile seizures and types of febrile seizures in children at Waled Cirebon Hospital. Eduvest J Univ Stud. 2025 May 2;5(4):4124–31.

[2]. Ray S. The impact of fever and its treatment in critically ill children [dissertation]. London: University College London; [no date].

[3]. Varghese R, Rodrigues TJ, Thomas SM, Joseph A. Pattern of febrile seizures in pediatric patients: A comprehensive case series analysis. Natl J Pharmacol Ther. 2025 Jan 1;3(1):47–51.

[4]. Kantamalee W, Katanyuwong K, Louthrenoo O. Clinical characteristics of febrile seizures and risk factors of its recurrence in Chiang Mai University Hospital. Neurol Asia. 2017 Sep 1;22(3):203–8.

[5]. Othman A, Razak SA, Nasir A, Ghazali AK, Mohd Radzi MA. Depressive, anxiety, and stress symptoms in parents of children being admitted for febrile seizures in a tertiary hospital in the east coast of Malaysia. Eur J Investig Health Psychol Educ. 2023 Jun 9;13(6):1015–25.

[6]. Choi YJ, Jung JY, Kim JH, Kwon H, Park JW, Kwak YH, et al. Febrile seizures: Are they truly benign? Longitudinal analysis of risk factors and future risk of afebrile epileptic seizure based on the national sample cohort in South Korea, 2002–2013. Seizure. 2019;64:77–83.

[7]. Klotz KA, Özcan J, Sag Y, Schönberger J, Kaier K, Jacobs J. Anxiety of families after first unprovoked or first febrile seizure: A prospective, randomized pilot study. Epilepsy Behav. 2021;122:108120.

[8]. Alotaibi N, Abukhaled M, Aldehaim FM, Alfarhan A, Alhamoud A, Alruways A, et al. Knowledge, attitude, and practices regarding febrile convulsions among Saudi parents: A cross-sectional study. Pharmacophore. 2023;14(S1):e723-8793.

[9]. Abd-Almuhsen DA, Yassin BA. Knowledge of mothers about febrile convulsion in children, Children Welfare Teaching Hospital, Medical City Complex, Baghdad, 2024. Iraqi J Community Med. 2025 Jan 1;38(1):63–7.

[10]. El Sayed HI. Recognition of parent's knowledge, attitude, and practice regarding febrile seizures in children under-five. Am J Nurs Res. 2020;8(1):72–81.

[11]. Mohammed KA, Salih EM, Alghamdi RA, Alghamdi MA, Alghamdi AA. Knowledge, attitudes, and practices of parents regarding febrile seizures in Al-Baha Region, Saudi

Arabia: A cross-sectional study. Int J Health Sci Res. 2024;27(4S):10798–805.

[12]. Tohme F, Nasser S, Assi M, Wattar J, Dabbous M, Kenaan S, et al. Parental perspectives on childhood fever and antipyretics: A cross-sectional study on knowledge, attitudes, and beliefs in Bekaa Valley. Open Public Health J. 2024 Nov 29;17(1).

[13]. Hakizimana O, Kalimba E, Arnold L, Cartledge P. The assessment of parents' knowledge, attitudes and concerns about febrile seizures in children at tertiary hospitals in Rwanda—a descriptive study. J Trop Pediatr. 2021 Feb 1;67(1):fmab003.

[14]. Alawwadh A, Alzahrani DA, Almallah AM, Alshabeeb MS, Alshahrani WA, Alshehri SA, et al. The knowledge, concerns, and beliefs of mothers towards febrile convulsions and its management in Aseer, Saudi Arabia. Cureus. 2024 Oct 13;16(10).

[15]. Eta EV, Gaelle AN. Knowledge, attitudes and practices of parents regarding convulsion in children under five years in Muea Community, Cameroon. Pediatr Neonatal Nurs Open J. 2021;7(1):13–20.

[16]. Antar Hussien AA, El-aty A, Saad N, Mohammed AA. Knowledge and attitudes of mothers regarding febrile convulsions among children under five years at Assiut City. Assiut Sci Nurs J. 2025 Jan 1;13(48):18–31.

[17]. Almousa A, Alshahrani D, Almubarak MS, Alothman A, Alrashoudi AM, Alsharif A, et al. Parents' knowledge, attitude, and practice regarding febrile convulsion in children in Riyadh, Saudi Arabia. Cureus. 2023 Oct 19;15(10):e.