

## ***Family Experience In Performing Home Emergency First Aid For Children Having A Febrile Seizure***

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### **ABSTRACT**

Home emergency aid for children having a febrile seizure determines the results of health outcomes of the children. The research aimed to obtain the significance and importance of family's experience in home emergency first aid for children having a febrile seizure. The method used in this research is the qualitative descriptive phenomenology method which consists of four stages, namely bracketing, intuiting, analyzing, and describing. Participants in this research were families who have children under five with a history of febrile seizures. The participants consisted of 10 people and the applied sampling technique was the purposive sampling technique. The analysis of the research results applied the Colaizzi method. The results of this research obtained one theme with four sub-themes, namely letting a febrile seizure run its course, observing, putting something in children's mouths, and asking for help from others. The results of this research recommend the importance of health education in families about home first aid to give when children have a febrile seizure.

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## 1. INTRODUCTION

Febrile seizures are the most common type of neurological disorder that are often found in children aged 6 months to 5 years. Febrile seizures are associated with an increase in body temperature of more than 38°C in children, and are not caused by central nervous system infection, metabolic disorders, and without a history of previous seizures (Laino et al., 2018). The World Health Organization (WHO) estimated that there were more than 21.65 million sufferers of febrile seizures and more than 216 thousand of them had died. The prevalence of febrile seizures was estimated to be around 6-15% in children between 6 months and 5 years of age, and about 30% had recurrent seizures. The occurrence of febrile seizures increases in children aged 18 months (Srinivasa et al., 2018).

Febrile seizures in children cause fear of impaired cognitive development and achievement at school (Ateşoğlu et al., 2018). The results of a research conducted by Salehi et al. (2016) show that febrile seizures in children increase the risk of developing hyperactive impulsive (HI) which is a sign and symptom in children with attention deficit hyperactivity disorder (ADHD). The increased risk is due to lack of parents' knowledge, family support and ability to handle febrile seizures in children. The results of other studies indicate that children with simple febrile seizures have an increased risk of developing epilepsy by 2.4%; whereas children with complex febrile seizures will increase the risk of epilepsy by 6-8% (Patel et al., 2015).

Research by Sajadi and Khosravi (2017) show that most parents do not know how to perform emergency aid for febrile seizures in children, resulting in behaviors that can lead to negative consequences from inappropriate treatments to children having a febrile seizure. These behaviors include giving drink when a child has a seizure, which increases the risk of aspiration, providing cold compress to a child, and the absence of thermometer at home. Home emergency aid for children having a febrile seizure determines the results of health outcomes for the children.

The responses and experiences of families in performing home emergency first aid given to children having a febrile seizure are so varied and different, so it is necessary to carry out in-depth assessment and exploration through a qualitative study. The results of the previous studies related to febrile seizures have been mostly done with the quantitative method, but there are still little exploring parents' experiences centered on home emergency first aid for children having a febrile seizure. Based on the description, it is necessary to conduct a qualitative research to deeply probe and explore the families' experiences in performing home emergency first aid for children having a febrile seizure.

## 2. METHODS

The design used in this research is qualitative research. The research was conducted in Solo Raya region from February 2020 to November 2020. This research used the phenomenological approach which aims to explore and explain the significance and importance of family's experience in emergency first aid for children having a febrile seizure. The descriptive phenomenology method consists of four stages, namely bracketing, intuiting, analyzing, and describing (Polit & Beck, 2018). In the bracketing stage, the researchers were expected not to interfere for a moment in the matter regarding the families' experiences being studied by not adding comments, criticism, or input to the data from participants. In the second stage, which was intuiting, the researchers began to immerse themselves in exploring the families' experiences in emergency first aid for children having a febrile seizure. In the third stage, which was analyzing, the researchers identified the essence of the phenomenon under study based on the data obtained from the interviews with the participants. In the last stage, which was describing, the researchers obtained the results of the study in the form of description and narrative that were able to fully describe the families' experiences in home emergency first aid for children having a febrile seizure (Creswell & Poth, 2018).

The sample in a qualitative research refers to participants who are selected by the purposive sampling technique. The participants in this research were 10 families. The inclusion criteria set out in determining participants include families who have children aged under five with a history of febrile seizures, are willing to participate, are able to speak and understand Indonesian, are able to clearly tell their experiences, and are physically and mentally healthy. The exclusion criteria in this study include families with family members who are health workers or pursuing education in health sector, and families with family members who cannot communicate verbally. The data from the participants were retrieved through the technique of in-depth interview about the first aid performed by the families when their children had a febrile seizure. Previously, the researchers conducted a trial interview with 2 families. The data analysis stage used the Colaizzi method (1978) in Creswell and Poth (2018). This research has passed the ethical clearance of Sebelas Maret University number 136/ UN27.06.6.1/ KEPK/EC/2020 dated September 4, 2020.

### 3. RESULTS

#### Characteristics of Participants

The participants in this study were 10 families, all of whom were represented by the mother of each of the children who had experienced a febrile seizure. The characteristic description of the research participants is in table 1.

Table 1. The characteristics of the research participants

No.	Sex	Age		Level of Education	Occupation	History of Febrile Seizures in Children
Participant 1	woman	40 old	years	Diploma 3	housewife	Her child is a boy and he is 25 months old. He had a febrile seizure when he was 10 months old.
Participant 2	woman	37 old	years	Bachelor's degree	food seller	Her child is a boy and he is 23 months old. He had a febrile seizure when he was 16 months old.
Participant 3	woman	35 old	years	Bachelor's degree	housewife	Her child is a girl and she is 8 months old. She had a febrile seizure when she was 6 months old.
Participant 4	woman	36 old	years	High School	housewife	Her child is a girl and she is 5 years old. She had a febrile seizure when she was 24 months old.
Participant 5	woman	38 old	years	Bachelor's degree	housewife	Her child is a girl and she is 24 months old. She had a febrile seizure when she was 16 months old.
Participant 6	woman	27 old	years	High School	housewife	Her child is a girl and she is 10 months old. She had a febrile seizure when she was 7 months old.
Participant 7	woman	32 old	years	High School	housewife	Her child is a boy and he is 54 months old. He had a febrile seizure when he was 6 months old.
Participant 8	woman	38 old	years	Bachelor's degree	housewife	Her child is a boy and he is 48 months old. He had a febrile seizure when he was 24 months old.

Participant 9	woman	35 old	years	High School	housewife	Her child is a boy and he is 35 months old. He had a febrile seizure when he was 10 months old.
Participant 10	woman	25 old	years	High School	housewife	Her child is a boy and he is 18 months old. He had a febrile seizure when he was 13 months old.

The theme obtained from the results of the analysis of this research include letting a febrile seizure run its course, observing, putting something in children's mouths, and asking for help from others. The second participant, the fourth participant, the seventh participant, and the ninth participant stated that the first aid given when a child had a febrile seizure was to let it run its course until the febrile seizure stopped. The statement was shown in the following verbatim quotations:

*"... Well, when I saw my child suddenly had a seizure ... I just let it run until the seizure stopped, Miss ... I watched ... I was scared, Miss ..." (P4)*

*"... I just let it run ... I sat next to my child while waiting for the seizure to stop and then I carried my child ..." (P9)*

*"... I just watched, Miss ... I was afraid to help ..." (P2)*

*"... Well, I sat next to my child, I just watched my child having a seizure ... I was afraid ..." (P7)*

The first participant and the tenth participant stated that the first aid they gave when their children had a febrile seizure was just observing and doing nothing. This can be seen from the following verbatim quotations:

*"... When my child suddenly had a seizure ... I just observed it while looking at my child having the seizure ..." (P1)*

*"... This was just my first experience, Miss, so I just observed it while looking at my child having the seizure ..." (P10)*

In addition to letting a febrile seizure run and observing, some other families put something in the children's mouths as the first aid.

The fifth participant put a spoon in her child's mouth, and the third participant put a towel in her child's mouth.

*"... I immediately took a spoon and put it in my child's mouth, Miss ... People say that if a child has a seizure, a spoon should be put in the child's mouth so that the teeth doesn't bite the tongue ... Surely, I did that when my child had a febrile seizure ..." (P5)*

*"... When my child suddenly had a seizure, I put a towel in his mouth so that he bit it, so that it wasn't the tongue that got bitten ..." (P3)*

The second participant, the sixth participant, the seventh participant, the eighth participant, and the ninth participant performed first aid by asking for help from others closest to them. This statement can be seen in the following verbatim quotations:

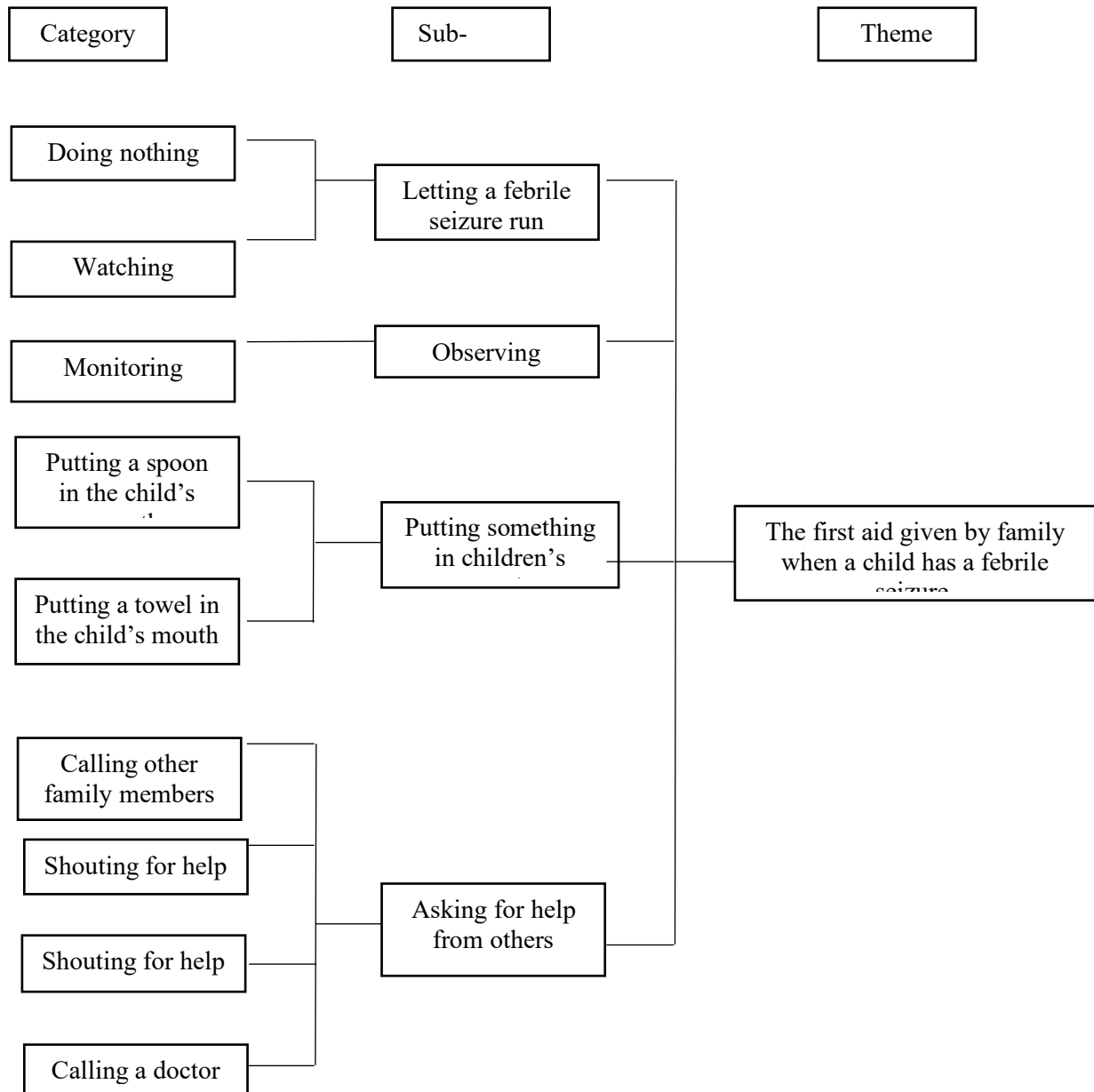
*"... I immediately called my husband, Miss ... My husband happened to be at home ..." (P2)*

*"... I happened to be at home with my mother, so when my child suddenly had a seizure ... I immediately called my mother, who was cooking in the kitchen ..." (P6)*

*"... I panicked and immediately shouted for help, Miss ..." (P9)*

*"... Fortunately, my neighbors were all at home because they didn't go to work ... I immediately shouted, asking for help from my neighbors ..." (P7)*

*"... I immediately called the doctor by phone, Miss ... Fortunately, the next-door neighbor is a doctor so I immediately called the doctor, asking what I should do to help my child ..." (P8)*



Scheme 1. The Results of the Research Analysis

#### 4. DISCUSSION

The results of this study obtained 4 sub-themes, namely letting a febrile seizure run, observing, giving something to children's mouths, and asking for help from others. The four sub-themes were obtained based on

the results of the interviews with the ten participants involved in the research. A similar previous qualitative research entitled "*Mothers' Experience about Febrile Convulsions in Their Children: A Qualitative Study*" was conducted by (Sajadi & Khosravi, 2017). This research is about experiences of mothers in handling children having a febrile seizure. It used the qualitative method and content analysis, and the data collection used semi-structured interviews. The data analysis used Graneheim and Lundman's (2004). The themes obtained were threat acceptance, finding solutions (problem solving), and adaptation.

The first sub-theme of this research is that parents let their children have a febrile seizure. Febrile seizure is a disease that can be controlled, but it causes trauma and anxiety in the elderly. The results showed that there was a relationship between the mothers' level of knowledge and their attitudes in handling children having a febrile seizure (Rofiqoh & Isyti'aroh, 2018). The lack of knowledge will have an impact on improper treatment to children having a febrile seizure. A research by Elmohalem et al. (2020) showed that 91% of parents took their children to the hospital by ambulance or emergency calls without first aid at home. Improvement of the ability of parents focuses on emergency treatment to children at home before being taken to hospital.

The second sub-theme is that parents make observations while a child is having a febrile seizure. A research by Elbilgahy and Abd El Aziz (2017) suggests parents observe the duration of seizures. Laino et al. (2018) stated that a febrile seizure case that requires more attention is when a child shows a complex febrile seizure; there is a meningeal sign (positive Kernig's sign, neck stiffness, positive Brudzinski sign); a seizure accompanied by impaired consciousness occurs after a febrile seizure occurs; there is a rash in the child that is clinically bad; there is increased pulse frequency; and there are signs of respiratory distress including tachypnea, grunting, decreased oxygen, and chest wall retractions.

The third sub-theme is that parents put something such as a spoon or a towel in a child's mouth when the child has a seizure so that the child's tongue does not get bitten. According to another research conducted by Chiabi et al. (2018) parents sometimes provide inappropriate assistance to children while at home. For example, giving drinks when a child has a seizure will increase the risk of aspiration. Positioning the child in the lateral recumbent position (the recovery position) opens the airway and prevents aspiration. Parents must not put objects or things in the child's mouth. When the seizure has stopped, parents can give antipyretic drugs or give tepid sponging to reduce body temperature (Lee & Oh, 2018).

The fourth sub-theme is that parents ask for help from others when a child has a febrile seizure. Parents ask for help from other family members, neighbors, and health workers. A research by Abeysekara et al. (2013) stated that the practices of emergency first aid in handling febrile seizures by taking children to the hospital to get help from health workers were as much as 94%. Osborne et al. (2015) added that in pre-hospital care, it was necessary for parents to know an emergency telephone number such as 119 when a child was in an emergency caused by a febrile seizure.

Aguirre-Velázquez et al. (2019) describe home treatment for febrile seizures as follows: 1) Stay calm; 2) Loosen the child's clothes, especially the neck area. Prevent the child from injuries; 3) Do not put fingers or any objects in the child's mouth. Do not force the child to open his/her mouth; 4) When a seizure is over, place the child in a lateral position to open the airway; 5) Observe the type, duration, and movements during the seizure; 6) When the seizure has stopped, parents can give antipyretic drugs or apply a tepid sponge to reduce body temperature; 7) If the seizure lasts more than five minutes, immediately take the child to a health service center. Knowledge improvement of parents includes the concept of febrile seizures, the relationship between fever and seizure, what should and should not be done in an emergency treatment to a child having a febrile seizure at home. Improvement of parents' ability focuses on the ability of parents to be calm, to measure body temperature with a thermometer, to do tepid sponging, and to administer doses of antipyretic and anticonvulsant drugs (Silverman et al., 2017).

Nurses act as educators in improving the ability of parents in performing emergency treatment to children with febrile seizures at home. The education provides important information for parents including the fact that fever is a sign of infection rather than a disease, the prognosis of febrile seizures, and the risk of developmental delay. Another information is that it is necessary for parents to detect early the occurrence of fever in children, so that it can prevent recurrent seizures in children. Nurses as health workers are the main sources to provide information about febrile seizures for parents. Providing education to improve the ability of parents in performing an emergency treatment to children having a febrile seizure at home can prevent recurrent seizures and the risk of developmental delays in children (Alqahtani, 2019).

This research provides in-depth information for families about home emergency first aid for children having a febrile seizure. This basic information can be used as a basis to provide education for families as

preventive and promotive efforts regarding the treatment for febrile seizures in children. The limitation of this research is that there is no triangulation of the data sources, and therefore further researches with the qualitative method can be carried out by triangulating the data sources such as health cadres or regional health center officers in the working area.

## 5. CONCLUSIONS

The first aid actions done by the families when their children have a febrile seizure include letting the febrile seizure run, observing, putting something in the children's mouth, and asking for help from others. The results of the research are expected to provide input for nurses in providing nursing care to families with children who have a history of febrile seizures and help in performing the emergency first aid at home.

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