

The relationship of knowledge, information, attitude to the handling of febrile seizures toddlers in Cisungsang health center

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ARTICLE INFO

Article history:

Received 19 Nov, 2022

Revised 6 Des, 2022

Accepted 22 Des, 2022

Keywords:

Febrile Seizures in Toddlers
Information
Knowledge
Maternal Attitudes

ABSTRACT

Febrile seizures are seizures caused by a rise in body temperature of more than 38.4°C in the absence of central nervous system infection or acute electrolyte disorders in children over 1 month of age with no prior history of seizures without fever. Effective health education can only be established based on a strong understanding of knowledge, attitudes and sources of information towards action. The Research is an *analytical descriptive* study with a *cross sectional* approach, which is a study in several populations observed at the same time which aims to determine the relationship between knowledge, sources of information and maternal attitudes towards the initial treatment of febrile seizures at the Cisungsang Health Center 2022. The population and sample in this study was all mothers who had toddlers who had experienced febrile seizures in the work area of the Cisungsang Health Center from January to November 2022 which amounted to 49 mothers. The instrument used in this study was a questionnaire. Based on the results of statistical tests using the *chi square test*, the calculation results of $P \text{ value} = 0.000 < \alpha 0.05$ were obtained, which means that there is a relationship between knowledge, information and attitude. There is a significant relationship of knowledge, information, and attitudes with the initial management of febrile seizures in toddlers at UPTD Puskesmas Cisungsang.

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INTRODUCTION

Febrile seizures are seizures caused by a rise in body temperature of more than 38.4°C in the absence of central nervous system infection or acute electrolyte disorders in children over 1 month of age with no prior history of seizures without fever. Febrile seizures are the most frequent neurological disorder in children and usually occur in children aged 6 months – 5 years with a peak of onset approximately at the age of 14-18 months (Marwan, 2017; Novia RMS, Ratih DPU, 2021).

According to the *World Health Organization* (WHO) in Paudel's research (2018) it is estimated that the number of children who have febrile seizures in the world is more than 21.65 million and 216 thousand more children have died. Febrile seizures in America are estimated to increase by 4-5%, while the highest incidence of febrile seizures in Asia is in Guam at 14%, India at 5-10%, and Japan at 6-9%. The percentage of fever incidence under the age of 4 years ranges from 3-4 % and after the age of 4 years, the percentage of fever incidence is around 6-15 % (Dutta et al., 2018; Sirait et al., 2021).

It usually occurs between the age of 3 months and 5 years and occurs in 2%-4% of young children. The typical febrile convulsion is a generalized tonic-clonic seizure lasting between a few seconds and 15 minutes, followed by a period of drowsiness (Alfhaid et al., 2020). Although approximately 15% of children with epilepsy have had febrile seizures, only 2-7% of children who experience febrile seizures proceed to develop epilepsy (Alhashim et al., 2022; S. et al., 2018).

The mother is the first person to provide first aid to the child with a fever attack at home. Proper handling of fever in children can prevent its occurrence. The first treatment a mother can do when a child has a seizure is to keep the temperature calm and don't panic, trying to reduce the child's body temperature, head the child is tilted, placed in a flat place (Fabiana Meijon Fadul, 2018; Utami & Rizqiea, 2021).

According to data from the last 3 years obtained from the *medical record* of the Cisungsang Health Center, in 2020 there were 90 people (5.02%) out of 1,791 children in the working area of the Cisungsang Health Center. In 2021 there were 76 people (6.30%) of the 1,205 children in the Cisungsang Health Center area. And in 2022 from January to October there were 47 cases of febrile seizures in children at the Cisungsang Health Center. As for febrile seizures, it is among the top 3 diseases that are most commonly suffered from the Cisungsang Health Center (Cisungsang, 2022).

Based on the results of a preliminary study that has been carried out from January to October 2022 at the Cisungsang Health Center, data from 20 mothers who have toddlers with good treatment about febrile seizures as many as 16 mothers (80%), then there are 3 (15%) mothers with good sources of information about febrile seizures in toddlers (Cisungsang, 2022).

Effective health education can only be established based on a strong understanding of knowledge, attitudes and sources of information towards action. Based on the description above, researchers are interested in discussing further research with the title "The Relationship of Knowledge, Sources of Information and Mother's Attitude towards the Early Handling of Febrile Seizures in toddlers at the Cisungsang Health Center, Cibeber District, Lebak Regency, Banten Province in 2022.

RESEARCH METHOD

The Research is an *analytical descriptive* study with a *cross sectional* approach, which is a study in several populations observed at the same time which aims to determine the relationship between knowledge, sources of information and maternal attitudes towards the initial treatment of febrile seizures at the Cisungsang Health Center 2022. The independent variables are knowledge, source of information, Attitude and dependent variables are the initial effects of febrile seizures in toddlers. This research has been conducted at the Cisungsang Health Center, Cibeber District, Lebak Regency, Banten Province. This research has been conducted in December 2022.

The population in this study was all mothers who had toddlers who had experienced febrile seizures in the work area of the Cisungsang Health Center from January to November 2022 which amounted to 49 mothers. The sample from this study was mothers who had toddler children with febrile seizures at the Cisungsang Health Center from January to November 2022, totaling 49 mothers. A research instrument is a tool used to measure the variables under study. The instrument used in this study was a questionnaire.

The researcher will present the results of the processing and analysis of the questioning, attitudes and sources of information towards the mother's actions in the form of a frequency

distribution table Univariate analysis used to describe the characteristics of all research variables using statistical SPSS 22. Bivariate analysis is carried out with the aim of analyzing the relationship of independent variables and dependent variables so that their meaning can be known statistically. The statistical test used is the *Chi-Square* test using the SPSS 22 program. Bivariate analysis in this study is to find out the information about the mother's actions in the initial treatment of febrile seizures at the Cisungsang Health Center in 2022. To prove the relationship between three variables, the *Chi-Square test* is used with a probability (α) of 5% or an error degree of 0.05.

RESULTS AND DISCUSSIONS

The characteristics of respondents based on knowledge at the place of study can be seen in table 1 below:

Table 1. Distribution of respondents based on knowledge in DTP Puskesmas Cisungsang

No	Knowledge	Frequency	Percent (%)
1	Good	8	16.3
2	Enough	22	44.9
3	Less	19	38.8
	Total	49	100

Table 1 shows that the distribution of respondents based on knowledge is mostly sufficient, namely 22 people (44.9 %), respondents who are less knowledgeable as many as 19 people (38.8 %), and those with good knowledge are 8 people (16.3 %) out of a total of 49 respondents.

Table 2. Distribution of respondents based on information sources in DTP Puskesmas Cisungsang

No	Sources of Information	Frequency	Percent (%)
1	Good	25	51
2	Enough	24	49
	Total	49	100

Table 2 shows that the distribution of respondents based on information sources is almost the same as well as 25 people (51 %) and those with sufficient sources of information as many as 24 people (49 %) of the total respondents as many as 49 people.

Table 3 Distribution of respondents based on attitudes in DTP Puskesmas Cisungsang

No	Attitude	Frequency	Percent (%)
1	Good	23	46.9
2	Enough	26	53.1
	Total	49	100

Table 3 showed that the distribution of respondents based on attitudes was mostly sufficient as many as 26 people (53.1 %) and those with good attitudes as many as 23 people (46.9 %) out of a total of 49 respondents.

Table 4. Distribution of respondents based on attitudes in DTP Puskesmas Cisungsang

No	Early Treatment of Febrile Seizures	Frequency	Percent (%)
1	Already	25	51
2	Do not	24	49
	Total	49	100

Table 4 showed that the distribution of respondents based on the initial treatment of febrile seizures was almost equally carried out by 25 people (51 %) and those who were not carried out as many as 24 people (49 %) of the total respondents were 49 people.

The Relationship of Knowledge with the Early Treatment of Febrile Seizures in Toddlers

Table 5 Cross-tabulation of the relationship of knowledge with the initial treatment of febrile seizures in toddlers in DTP Puskesmas Cisungsang

Knowledge	Early treatment of febrile seizures				Total	P Value
	Already		Do not			
	N	%	N	%		
Good	8	16.3	0	0	16.3	0.000
Enough	17	34.6	5	10.2	44.8	
Less	0	0	19	38.7	38.7	
Total	25	51.1	24	48.9	100	

Based on table 5, it can be seen that out of 8 respondents, all had good knowledge and carried out initial treatment of febrile seizures 8 (16.3%), as well as sufficient knowledge from 22 respondents who treated initial seizures as many as 17 people (34.6%) and did not treat seizures as many as 5 people (10.2%). While the knowledge of less than 19 respondents, all of them did not carry out initial seizure treatment as many as 19 people (38.7%).

The results of the statistical test using the *chi square test*, obtained the calculation results $P\text{ value} = 0.000 < \alpha 0.05$ which means that there is a relationship of knowledge with the initial treatment of febrile seizures in toddlers in DTP Puskesmas Cisungsang in 2022.

The Relationship of Information Sources to the Early Treatment of Febrile Seizures in Toddlers

Table 6. Cross-tabulations of the relationship of information sources with the initial treatment of febrile seizures in toddlers DTP Puskesmas Cisungsang

Sources of Information	Early treatment of febrile seizures				Total	P Value
	Already		Do not			
	N	%	N	%		
Good	24	49	1	2	51	0.000
Less	1	2	23	47	49	
Total	25	51	24	49	100	

Based on table 6 it can be seen that of the 25 respondents who had good sources of information who carried out the initial treatment of febrile seizures as many as 24 people (49%) and less who carried out the initial treatment of febrile seizures as much as 1 person (2%), while the source of information was less than 24 respondents who did the initial treatment of seizures as many as 1 person (2%) and did not treat seizures as many as 23 people (47%).

The results of the statistical test using the *chi square test*, obtained the calculation results $P\text{ value} = 0.000 < \alpha 0.05$ which means that there is a relationship between the source of information and the initial treatment of febrile seizures in toddlers in DTP Puskesmas Cisungsang in 2022.

The Relationship of Attitude with the Early Treatment of Febrile Seizures in Toddlers

Table 7. Cross-tabulation of attitude relationships with early treatment of febrile seizures in toddlers DTP Puskesmas Cisungsang

Attitude	Early treatment of febrile seizures				Total	P Value
	Already		Do not			
	N	%	N	%		
Good	22	44.9	1	2	46.9	0.000
Less	3	6.1	23	47	53.1	
Total	25	51	24	49	100	

Based on table 7 it can be seen that out of 24 respondents who have good scan who do the initial treatment of febrile seizures as many as 22 people (44.9%) and less who do the initial treatment of seizures fever as many as 1 person (2%), while the attitude of less than 26 respondents who treated the initial seizure was 3 people (6.1%) and did not treat seizures as many as 23 people (47%).

The results of the statistical test using the *chi square test*, obtained the calculation results $P\text{ value} = 0.000 < \alpha 0.05$ which means that there is a relationship of knowledge with the initial treatment of febrile seizures in toddlers in DTP Puskesmas Cisungsang in 2022.

This research is in line with Ami Oetamiati Wiharjo's 2019 research, the relationship between the level of knowledge of parents for first aid for febrile seizures in children under five in the Aster Room of Bogor City Hospital Ami Oetamiati Wiharjo with the results of the $P\text{ value}$ study $0.004 \leq 0.05$ yang means that there is a relationship between parental knowledge and first aid for febrile seizures in toddlers (Wiharjo, 2019). Another research Roly Marwan 2017, with the title Factors related to the first treatment of febrile seizure events in children aged 6 months - 5 years at the Pekauman Health Center, found that there was a significant relationship between the knowledge factor and the first treatment of febrile seizures in children aged 6 months - 5 years at the Pekauman Health Center, $= 0.000 < = 0.05$ with $r = 0.77$ being strong (Marwan, 2017).

Knowledge can also be influenced by age, level of education and work. In line with the research of Asih et al, which states that with increasing age, knowledge will increase, but if it is not supported by factors of information or experience, the increasing age of a person does not guarantee a knowledge level of person (Sugito, 2019).

In this study, researchers did not measure in detail the causes or factors that affect maternal knowledge in handling seizures properly such as education, age, social culture, economics and other knowledge factors such as previous theories. So it is not known exactly which factor is most significantly related to the mother's knowledge about the management of febrile seizures in toddlers. Because this study is a simple study only looking at the relationship of knowledge with the initial treatment carried out by mothers of febrile seizures in toddlers. The study focused solely on knowledge instruments as listed in an appendix shared with 49 mothers who had toddlers and had had seizures. Knowledge is that there is a significant relationship with the initial treatment of febrile seizures in toddlers at the UPTD Puskesmas Cisungsang in 2022. This is probably related to factors that influence the mother's knowledge in handling febrile seizures in toddlers participating in the mother's knowledge, be it maternal education, the mother's age, socio-cultural, economic, and mother's experience in dealing with febrile seizures in toddlers.

Based on the results of statistical tests using the *chi square test*, the calculation results of $P\text{ value} = 0.000 < \alpha 0.05$ were obtained, which means that there is a relationship between information sources and the initial treatment of febrile seizures in toddlers in DTP Puskesmas Cisungsang in 2022.

The results of this study are in line with the 2019 Herlisa Dayman et al research on maternal knowledge and attitudes about first aid for febrile seizures in children found that mothers who had received information related to the treatment of febrile seizures were 56%. The sources of

information obtained are from health services, family workplaces, print media and electronic media. Based on the results obtained that there is a compatibility between facts and theories where people who have received information about first aid when a child has a febrile seizure have a good management of seizures (Dayman et al., 2019). Another study also found that Nuryani et al 2020 found that there was a relationship between health workers' information and the handling of febrile seizures before being taken to the hospital in the children's room Rumah Sakit Umum Muhammadiyah Ponorogo with $P\text{ value} = 0.000 < \alpha 0.05$ (Nuryani et al., 2020)

The information in this study is that more mothers are getting information about the treatment of seizures in toddlers, both information obtained on health workers, print media, electronic media, as well as sources of information obtained from the experiences of family, friends or neighbors, mothers are increasingly aware of the treatment of seizures in toddlers. Therefore, information plays an important role in the management of seizures in toddlers.

Based on the results of statistical tests using the *chi square test*, the calculation results of $P\text{ value} = 0.000 < \alpha 0.05$ were obtained, which means that there is a relationship between attitude and the initial treatment of febrile seizures in toddlers in DTP Puskesmas Cisungsang in 2022.

The results of this study are in line with Ariza et al's 2018 research on the Relationship between Knowledge Level and Mother's Attitude in Conducting First Aid for Febrile Seizures in Children at Pandan Arang Boyolali Hospital found that there was a meaningful relationship between maternal attitudes and the management of febrile seizures in children with a significance level value of 0.004 or < 0.05 (Fachria Ariza, S. Dwi Sulisetyawati, 2018).

Based on Ronsenberg's theory in Budiman and Riyanto, 2018 which explains that a person's knowledge of an object contains two aspects, namely positive aspects and negative aspects. These two aspects will determine a person's attitude, the more positive aspects and known objects, the more positive attitudes towards certain objects (Budiaman & Riyanto, 2018). Mothers have a good knowledge of febrile seizures in children, understand the treatment or actions that must be done when the child has febrile seizures at home, namely preventing them by giving warm compresses to the child and giving febrifuges. The visible positive attitude is the result of the thinking of a person with a good level of knowledge, because he is equipped with rational thinking to take an action. Therefore, between the level of knowledge and attitudes are interrelated to form a person's personality character (Dayman et al., 2019)

The conclusion of the attitude in the study was that the results of the study found that there was a compatibility between facts and theories, where respondents had a positive or good attitude about first aid for febrile seizures in children at home, so that mothers who had a positive attitude must still understand and prepare for what treatment to do when the child has a febrile seizure at home.

CONCLUSION

This study links knowledge, sources of information and attitudes of mothers towards handling febrile seizures in toddlers with the result that there is a significant relationship of knowledge, the source of information, and attitudes mothers with the initial management of febrile seizures in toddlers at UPTD Puskesmas Cisungsang.

ACKNOWLEDGEMENTS

Thanks to the UPTD Cisungsang Health Center for allowing the research to be carried out and Thank you Abdi Nusantara High School of Health Sciences Jakarta for granting research permission.

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