KNOWLEDGE, ATTITUDE, AND PRACTICES OF MOTHERS OF CHILDREN WITH FEBRILE SEIZURES

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Abstract

Mother's care towards their children is important especially during childhood. In the world, febrile seizures affect 2 to 4% of children, and 2 to 10% develop subsequent unprovoked seizures. The study assessed the knowledge, attitude, and practices of mothers of children with febrile seizures. The study utilized a quantitative type of research, particularly a correlational type of research design. The respondents in this study are mothers selected through purposive sampling and snowball sampling in the three barangays of Ozamiz City. There are fifty-eight respondents in the study. The study made use of a mixed researcher-made and a standardized questionnaire based on both the questionnaires adopted from Syahida et al. (2016) and Srinivasa et al. (2018) to gather pertinent data. *Average Weighted Mean*, *Pearson's Correlation*, and *Standard Deviation* were the statistical tools used in the study. Results revealed that there is a highly significant relationship between the mothers' level of knowledge and their practices and there is a highly significant relationship between mothers' degree of attitude and their practices. Further, the overall knowledge of mothers about febrile seizure is poor. Thus, to improve the knowledge, attitude, and practice levels of mothers regarding febrile seizures, mothers should be given all the information they require regarding management of febrile illness, either through extensive media campaigns by qualified healthcare professionals or through community-based educational sessions.

Keywords: *children, febrile seizure, mothers*

Introduction

Febrile seizures are the most common neurologic disorder of infants and young children, occurring in 2 to 4 percent of children younger than five years of age (Millichap, 2019). In 2008, the American Academy of Pediatrics (AAP) states that febrile seizures occur in the absence of intracranial infection, metabolic disturbance, or history of afebrile seizures. Mosili et al. (2020) described febrile seizure as an increased of core body temperature during fever which is caused by underlying systemic infection. Such infections trigger the immune system to induce an inflammatory response, which results in macrophages producing cytokines to combat the infection in the localized area before spilling over into the bloodstream. The pathophysiology of febrile seizure is mediated by abnormally elevated cytokine (IL-1 levels), which increase excitatory (glutamatergic) neurotransmission while decreasing inhibitory (GABAergic) neurotransmission. In the absence of any other seizure-causing factors, febrile seizures happen when a fever rises beyond 38°C (100.4°F). Each child has a different temperature threshold, therefore when a febrile event occurs, the temperature that causes them to have a seizure is unique to them (Xixis et al., 2021).

Approximately 50% of all the febrile seizure cases in chidren are diagnosed between the ages of 12 and 30 months, and just 6 to 15% of children encounter their first episode after turning four (Laino et al., 2018). In Great Britain and the United States, 2% to 4% of children get febrile seizures during a fever episode in children older than one month, and 30% of those seizures repeat (Offringa et al., 2021). The seizure affects children in the United States and Western Europe with a peak incidence between 12 and 18 months (Leung et al., 2018).

In the Philippines, Makati Medical Center reports that 4-5% of cases among patients admitted in the emergency room is seen in children (Escape, 2017). In the barangays, where the study was conducted, there were a total of 58 children with febrile seizure. In 2022, the Philippine Department of Health released the omnibus health guidelines for children. The guidelines served as a basis for mothers in taking good care of their children especially when facing with problems like febrile seizures and other (DOH, 2022).

Laino et al. (2018) suggests other disease management such as symptom control and treatment of underlying cause of the fever. Rapid acting drugs, such as antipyretics and antiepileptics, have also been used to treat fever episodes (Offringa et al., 2017). Rescue medication, such as rectal diazepam, should also be taken into consideration for prolonged febrile seizure (Yan et al., 2019). For the nurses, according to El Sayed (2020), the initial nursing assessment and management is towards oxygenation and minimizing the danger of complications. The key responsibilities of nurses should be monitoring the temperature by pharmacological and non-pharmacological methods, ensuring adequate hydration, and assisting in the treatment of the underlying cause.

Although febrile seizures are common in children and are generally thought to be a benign disease with a favorable prognosis, it can be terrifying, traumatizing, and anxiety-causing when witnessed by mothers (Barzegar et al., 2016). Febrile seizure is considered as a medical emergency and a source of concern to mothers (Onyearugha et al., 2019.) Poor understanding of febrile seizure among mothers may contribute to mismanagement of febrile seizure (Syahida et al., 2016).

No previous research has been conducted to assess the knowledge, attitudes, and practices of mothers of children with febrile seizure in Ozamiz City. Therefore, there is a need to assess the level of knowledge, degree of attitude, and practices of mothers of children with febrile seizure. The study helps the mothers in the community determine their strengths and weaknesses in managing febrile seizures in children. The output serves as a basis in determining the need for a health teaching program regarding febrile seizure in children. Furthermore, the study serves as a guidance and a source of knowledge for future researchers.

Materials and Method

Research Design

This study has utilized a quantitative type of research, particularly a correlational type of research design, to determine the relationship between the three variables, the knowledge, attitude, and practices, and if so, to what degree the relationship occurs. The correlational method is non-experimental research in which the researcher measured the variables and assessed the statistical relationship. This particular method was used to evaluate the knowledge, attitude, and practices of mothers of children with febrile seizure.

Research Setting

This study was conducted in selected barangays in Ozamiz City. There were several cases of febrile seizure in children under 6 years old in the said city based on 2015 Census DOH Ozamiz City.

Research Respondents

The respondents in this study are mothers selected through purposive sampling and snowball sampling. The selection of the respondents was under the observance of the following criteria: 1.) a bonafide resident in barangay Baybay San Roque, Baybay Santa Cruz, and Tinago, Ozamiz City 2) with at least a single experience of children aged 3 months to 6 years old having febrile seizure, 3.) willing to participate in the study. The identified respondents referred someone they know who also experienced having children with febrile seizure aside from the list given by the Barangay Health Workers.

Ethical Considerations

The researchers were able to employ all the ethical considerations before the actual data gathering procedure. The researchers underwent the following: (1) A request letter addressed to the College Dean and the Barangay Chairmen (2) IATF approval to conduct the study and practice IATF protocol such as wearing of facemask, wearing of face shield and using disinfectant solution (alcohol/hand sanitizer); (3) the respondents provided their informed consent before the actual distribution of the questionnaire; (4) the respondents were fully informed about the purpose, benefits and potential risks of the study; (5) the respondents were informed that they can withdraw from participating in the study anytime they wanted with assurance of confidentiality of the information they had given. (6) the respondents were encouraged to contact the investigator in case of queries and concerns; and (7) it was a top priority that anonymity and confidentiality were maintained always during the conduct of the study.

Research Instruments

The researcher of this study made use of a mixed researcher-made and a standardized questionnaire based on both the questionnaires adapted from Syahida et al. (2016) and Srinivasa et al. (2018) to gather pertinent data. A permission was obtained from the authors before an actual utilization. The researcher-made questionnaire was validated with a Cronbach's alpha of 0.94. The questionnaires were the primary tools of inquiry and were divided into three parts:

A. Level of Knowledge of Mothers of Children with Febrile Seizure. This part was used to determine the level of maternal knowledge on febrile seizure in children. The scoring for knowledge ranged from 0 to 15 (for each correct answer score is one, for incorrect answer score is zero for all 15 questions).

The continuum presented below was used to interpret gathered data.

Continuum	Interpretation
12-15	Very High(VH)
8-11	High (H)
4-7	Low (L)
0-3	Very Low (VL)

B. Degree of Attitude of Mothers of Children with Febrile Seizure. This part was used to determine the degree of maternal attitude febrile seizure in children.

The continuum presented below was used to interpret gathered data.

Weight	Continuum	Responses	Interpretation
4	3.26 – 4.00	Strongly Agree	Very Good (VG)
3	2.51 – 3.25	Agree	Good (G)
2	1.76 – 2.50	Disagree	Poor (P)
1	1.00 – 1.75	Strongly Disagree	Very Poor (VP)

C. Practices of Mothers of Children with Febrile Seizure. This part was used to determine the frequency of practicing nursing management on children with febrile seizure.

The continuum presented below was used to interpret gathered data.

Weight	Continuum	Responses	Interpretation
4	3.26 – 4.00	Always	Very Good (VG)
3	2.51 – 3.25	Often	Good (G)
2	1.76 – 2.50	Sometimes	Poor (P)
1	1.00 – 1.75	Never	Very Poor (VP)

Data Gathering Procedure

Prior to disseminating the research instruments, the researcher has initially secured permission from the Dean of the College of Nursing, Midwifery, and Radiologic Technology and the Barangay Chairmen to conduct the study. The data used in this study has been gathered using the combined researcher-made and standardized questionnaire.

Upon the approval of the letter request, the researchers asked the coordination of the Barangay Health Workers (BHW) in the respective barangays to help researchers in identifying respondents. The previously identified respondents were asked if they know

someone of the same interest aside from them. The researchers distributed the questionnaire individually to the identified respondents observing IATF standard protocol. The researcher assured the respondents of the study to be thoroughly informed on the terms and conditions of the questionnaire and the confidentiality on the matter. After the entire questionnaires were collected, the data was tabulated and presented to the statistician for the statistical treatment. The researcher analyzed the result and interpreted the research findings.

Results and Discussions

Educational Profile of the Respondents

Table 1 shows the Educational Attainment of the respondents. More than one-half of the respondents are high school graduates (56.90%). There is only 20.69% of the respondents that finished college. It is implied in the data the respondents have low educational attainment.

Table 1. Educational Profile of the Respondents

Educational Attainment	Frequency	Percentage
Elementary Level	4	6.90%
Senior High School Graduate	1	1.17%
High School Graduate	33	56.90%
High School Undergraduate	4	6.90%
College Undergraduate	2	3.44%
College Graduate	12	20.69%
ALS Graduate	1	1.17%
Vocational Graduate	1	1.17%
Total	58	100%

Respondents' Level of Knowledge on Febrile Seizure

Table 2 shows that majority of the respondents have low level of knowledge on febrile seizure (Mean = 4.84 and SD = 0.61).

The findings of the study are consistent with the cross-sectional study aimed at finding out mothers' knowledge and attitude regarding febrile seizure in children from 6 month to 5 years of age attending Pediatric Outpatient Department (OPD) of Chitwan Medical College, Bharatpur, Chitwan (Paudel et al., 2018).

In the study of Ghadi & Chakiri (2020) which aimed to compare the knowledge, beliefs and practices related to immediate home management among 156 mothers of children with febrile seizures which found out that mothers' knowledge is low which is effective in the treatment and recurrence trend of febrile seizure. The result of the study raises the need to educate caretakers, most especially mothers.

In another study of Shibeeb et al. (2019) which aimed to assess the knowledge and practice of 100 mothers regarding febrile seizure among children, their findings revealed that majority of the respondents had poor knowledge resulting to poor home management of the disease. This is in agreement with the findings of a quasi-experimental study conducted to evaluate the effect of implementing an educational module on mothers' knowledge, home management, and attitude about febrile seizure to 107 mothers revealed

that mothers had poor knowledge about the disease before education (Elbilgahy et al., 2018).

Table 2. Level of Knowledge of Mothers of Children with Febrile Seizure

	N	M	SD
Overall Knowledge	58	4.84 - Low	0.61

Legend: 12-15 – Very High (VH); 8-11 – High (H); 4-7 Low (L); 0-3 Very Low (VL)

Respondents' Degree of Attitude on Febrile Seizure

Table 3 shows the respondent's degree of attitude. It shows that the overall respondents'' attitude is good (Mean = 2.84; SD = 0.81).

The present study revealed that mothers have a very positive attitude regarding the importance of periodic temperature checking, administration of antipyretics in managing febrile illness, and sending children with febrile seizure to a hospital facility. In addition, the present study exposed that the mothers also have a positive outlook regarding the occurrence of seizure during high fever, that their child with febrile seizure will be alright although it can re-occur during next febrile occasion.

The finding of the present study consistent with the qualitative study of Sajadi M. & Khosravi, S. (2017) which aimed to explore the experiences of mothers whose children suffer from febrile seizure. They found that the best way to take care of their child and to overcome the situation. They also sought professional help when home management practices did not suffice.

Having good attitude among mothers towards child with febrile seizure is important because it will benefit the child in general. A positive attitude by mothers towards responding to a child with febrile seizure ensures the safety of the child (Jarrett et al., 2015).

Table 3. Degree of Attitude of Mothers of Children with Febrile Seizure

	M	SD	QI
Overall Attitude	**2.84**	**.81**	**Good**

Note: Attitude Scale: 3,26-4.0 (Very Good); 2.51- 3.25 (Good); 1.76-2.50 (Poor); 1.0-1.75 (Very Poor)

Respondents' Practices on Febrile Seizure

This part of research presents the Respondents' Practices. The respondents' practices are presented in Table 4. It shows that respondents have a good practice of caring a child with febrile seizure (Mean = 3.09; SD = 0.73).

According to the finding of the present study revealed that mothers have a good response of rushing the child to a hospital facility in the event of febrile seizures. This agrees with the study conducted in Nigeria, which found that the mothers had good practices on prevention of febrile seizure in that majority reported taking the child to the hospital (Akpan & Ijezie, 2017).

In this study, mothers also have a good stance on lowering body temperature by giving temperature-reducing drugs in an attempt to manage febrile illness to prevent febrile seizure. This finding is consistent to the findings of the study of carried out among 401 care takers in Australia. It revealed that majority of the care takers often checked temperatures administered antipyretic to their feverish children to prevent febrile seizure (Walsh et al., 2015).

Table 4. Practices of Mothers of Children with Febrile Seizure

	M	SD	QI
Overall Practices	**3.09**	**.73**	**Good**

Note: Practices Scale: 3.26-4.0 (Very Good); 2.51- 3.25 (Good); 1.76-2.50 (Poor); 1.0-1.75 (Very Poor)

Significant Relationship between Respondents' Knowledge and Practices

To determine the significant relationship between respondents' knowledge and practices, the regression analysis was used. The result of the test presented in Table 5.

Table 5 shows the significant relationship between the level of knowledge and practices of mothers of children with febrile seizure in which it has a *r value of .80* and a *p value of 0.00* which means that there is very strong and highly significant relationship between the respondents' level of knowledge and practices. This implies that they need to improve their knowledge for they were related to their practice.

According to Syahida et al. (2016), being equipped with accurate knowledge on febrile seizure is imperative to prevent complications although febrile seizures do not last long. Parents must also understand the right time to bring their children to the nearest health facility. Ignorance and poor understanding about the nature and characteristics of febrile seizure, in most cases, will lead to mismanagement of febrile seizure.

Table 5. Relationship Between the Degree of Knowledge and the Practices of Mothers of Children with Febrile Seizure (n=58)

Variables	*r* value	Relationship Strength	*p* value	Remarks
Knowledge and Practices	.80	Very Strong	0.00	Highly Significant

Note: Relationship Strength Scale: 1.00 (Perfect); 0.80-0.99 (Very Strong); 0.60-0.79 (Strong); 0.40-0.59 (Average); 0.20-0.39 (Weak); 0.01-0.19 (Very Weak); 0.00 (No Relationship)

*Probability Value Scale: **p<0.01* (Highly Significant)*; *p<0.05* (Significant)*; p*>0.05 (Not significant)

Significant Relationship between Respondents' Attitude and Practices

To determine the significant relationship between respondents' degree of attitude and practices, the Pearson correlation analysis was used. The result of the test presented in Table 6.

Table 6 shows the significant relationship between the degree of attitude and the practices of mothers of children with febrile seizure in which a *r value of 0.51* and a *p value of 0.00* which means that there is an average and highly significant relationship between the degree of attitude and the practices of mothers of children with febrile seizure. This implies that mothers. This implies that mothers maintain the right approach when incidence occurs. The mothers should be informed to maintain in the tract. Febrile illness in children can become an important cause and unnecessary fears can induce erroneous practices resulting to poor management to the condition (Barutcu, A., & Barutcu S., 2020). Attitudes have a major influence on the health behavior of individuals. It is one of the determinant prognostic factors. When mothers faced with dramatic manifestations of seizures, they tend

to be frightened therefore performing inappropriate management practices which could have detrimental impact on the psychomotor development of the child (Chiabi et al., 2016)

Table 6. Relationship Between the Degree of Attitude and the Practices of Mothers of Children with Febrile Seizure

Variables	*r* value	Relationship Strength	*p* value	Remarks
Attitude and Practices	.51	Average	0.00	Highly Significant

Note: Relationship Strength Scale: 1.00 (Perfect); 0.80-0.99 (Very Strong); 0.60-0.79 (Strong); 0.40-0.59 (Average); 0.20-0.39 (Weak); 0.01-0.19 (Very Weak); 0.00 (No Relationship)
Probability Value Scale: $**p<0.01$ (Highly Significant); $*p<0.05$ (Significant); $p>0.05$ (Not significant)

Conclusion

Although the overall knowledge about febrile seizure is fair among mothers, it can further be increased by providing health education to the mothers in the community. Mothers should be provided with all the necessary information regarding management of febrile illness, either through massive media campaign by qualified healthcare professionals or by community-based educational sessions to enhance the knowledge, attitude, and practice levels of mothers regarding febrile seizures.

Recommendations

From the information collected by the researchers, the following recommendations were made:

1) To the mothers, they may be able to attend any program which is related to febrile seizures for further knowledge their knowledge and to take good care of their children even more;
2) To the Barangay Health Worker, additional seminars for the mothers to strengthen health promotion of children, to raise awareness, and to identify possible interventions;
3) To the Community Health Officer, additional of policies necessary in taking good care of the children must be implemented; and
4) To the future researchers, they may be able to conduct an in-depth study about febrile seizure to generate more knowledge regarding febrile seizure considering the factors that may increase the degree of attitude and improve the practices in response to the condition. A wide number of respondents with age limitations and specific educational attainment must be considered.

Literature Cited

Abraham, C., & Sheeran, P. (2015). The health belief model. *Predicting health behaviour: Research and practice with social cognition models*, *2*, 30-55. Retrieved on January 8, 2021, from https://bit.ly/3CUvI8E

Akpan, M.U. & Ijezie, E. (2017). Knowledge of febrile convulsion among mothers attending the paediatric clinic of university of Uyo teaching hospital, Nigeria. Retrieved on February 18, 2021, from https://bit.ly/2ZFvZOA

Barutcu, A., & Barutcu, S. (2020). Evaluation of knowledge, attitudes and practices of parents presenting to a hospital emergency department with a complaint of fever in a child. *Signa Vitae*, *16*(1), 123-129. Retrieved on March 02, 2022, from https://bit.ly/3IQmaPG

Barzegar, M., Valizadeh, S., Gojazadeh, M., Asghari Jafarabadi, M., Zamanzadeh, V., & Shahbazi, S. (2016). The effects of two educational strategies on knowledge, attitude, concerns, and practices of mothers with febrile convulsive children. *Thrita*, *5*(2). Retrieved on January 17, 2021, from https://bit.ly/3ifZKMb

Boskey, E. (2020). The Health Belief Model. *Behavioral Psychology.* Retrieved on November 27, 2020, from https://bit.ly/3m69mdB

Champion, V. L., & Skinner, C. S. (2008). The health belief model. *Health behavior and health education: Theory, research, and practice*, *4*, 45-65. Retrieved on December 15, 2020, from https://bit.ly/2XSse7t

Chiabi, A., Nguefack, S., Monkam, R., Bogne, J. B., & Nguefack, F. (2016). Knowledge and Attitude of Parents Towards the First Seizure Episode in Children inYaounde, Cameroon. *Pediatr Oncall*, *13*, 1-5. Retrieved on March 2, 2022, from https://bit.ly/3KeIHWz

Conner, M., & Norman, P. (2015). *EBOOK: Predicting and Changing Health Behaviour: Research and Practice with Social Cognition Models*. McGraw-Hill Education (UK). Retrieved on January 4, 2021, from https://bit.ly/2WiHytE

Elbilgahy, A. A., & Abd El Aziz, R. A. E. A. E. S. (2018). Effect of implementing an educational module on improving mothers knowledge, home management and attitude about febrile convulsion. *Journal of Nursing Education and Practice*, *8*(3), 1-11. Retrieved on February 21, 2022, from https://bit.ly/3CfUBg3

El Sayed, H. I. (2020). Recognition of Parent's Knowledge, Attitude and Practice Regarding Febrile Seizures in Children Under-Five. *American Journal of Nursing*, *8*(1), 72-81. Retrieved on May 27, 2021, from https://bit.ly/39GrPrw

Escape, J.R. (2017). Aretrospective study on the demographic profile, clinical course, and management of children. *15th European Pediatrics & Pediatric Neurology Conference,* 2(4). Retrieved on May 26, 2021, from https://bit.ly/3kKZbMc

Ghadi, M. R., & Chakeri, A. (2020). Knowledge, Attitudes and Home Management Practices of Mothers of Children with Febrile Seizures among Aged Less Than 6 Years in Iran, 2014. *Pak. J. Med. Health Sci*, *14*(2), 1339-1344. Retrieved on March 10, 2021, from https://bit.ly/3okBPiN

Janz, N. K., & Becker, M. H. (1984). The health belief model: A decade later. *Health education quarterly*, *11*(1), 1-47. Retrieved on December 3, 2020, from https://bit.ly/3kLChUQ

Kausar, S., Kouser, S., Aziz, Z., & Bibi, F. (2020). The Effect of Educational Interventions on Knowledge, Attitude and Practices of Mothers Regarding Febrile Convulsions in Children. *Saudi Journal of Medical and Pharmaceutical Sciences*, *6*(7), 511-515. Retrieved on March 01, 2022, from https://bit.ly/3CgTVH3

Kelly, M., Sahm, L. J., Shiely, F., O'Sullivan, R., Brenner, M., Larkin, P., & McCarthy, S. (2015). The knowledge, attitudes and beliefs of carers (parents, guardians, healthcare practitioners, crèche workers) around fever and febrile illness in children aged 5 years and under: protocol for a qualitative systematic review. *Systematic reviews*, *4*(1), 1-5. Retrieved on March 10, 2021, from https://bit.ly/3EZ6gRn

Kelly, M., Sahm, L. J., Shiely, F., O'Sullivan, R., de Bont, E. G., Mc Gillicuddy, A., ... & McCarthy, S. (2017). Parental knowledge, attitudes and beliefs on fever: a cross-sectional study in Ireland. *BMJ open*, *7*(7), e015684. Retrieved on March 09, 2021, from https://bit.ly/3uljfrr

Khoramabadi, M., Dolatian, M., Hajian, S., Zamanian, M., Taheripanah, R., Sheikhan, Z., ... & Seyedi-Moghadam, A. (2016). Effects of education based on health belief model on dietary behaviors of Iranian pregnant women. *Global journal of health science*, *8*(2), 230. Retrieved on December 17, 2020, from https://bit.ly/39JIuuf

Laino, D., Mencaroni, E., & Esposito, S. (2018). Management of pediatric febrile seizures. *International journal of environmental research and public health*, *15*(10), 2232. Retrieved on March 16, 2021, from https://bit.ly/2YaDPiF

Leung, A. K., Hon, K. L., & Leung, T. N. (2018). Febrile seizures: an overview. *Drugs in context*, *7*. Retrieved on March 16, 2021, from https://bit.ly/3EXWGya

Loke, A. Y., Davies, L., & Li, S. F. (2015). Factors influencing the decision that women make on their mode of delivery: the Health Belief Model. *BMC health services research*, *15*(1), 1-12. Retrieved on January 15, 2021, from https://bit.ly/3kPjs2Y

Maiman, L. A., & Becker, M. H. (1974). The health belief model: Origins and correlates in psychological theory. *Health education monographs*, *2*(4), 336-353. Retrieved on January 15, 2021, from https://bit.ly/3ojBhcL

McArthur, L. H., Riggs, A., Uribe, F., & Spaulding, T. J. (2018). Health belief model offers opportunities for designing weight management interventions for college students. *Journal of nutrition education and behavior*, *50*(5), 485-493. Retrieved on November 28, 2020, from https://bit.ly/2XVu1IO

Mewasingh, L. D. (2008). Febrile seizures. *BMJ clinical evidence*, *2008*. Retrieved on November 29, 2020, from https://bit.ly/3of7XnV

Millichap, J. J., & Millichap, J. G. (2019). Clinical features and evaluation of febrile seizures. *Up To Date. Waltham, MA Publisher*.Retrieved on November 27, 2020, from https://bit.ly/3uhjcgB

Mosili, P., Maikoo, S., Mabandla, M. V., & Qulu, L. (2020). The Pathogenesis of Fever-Induced Febrile Seizures and Its Current State. *Neuroscience Insights*, *15*, 2633105520956973. Retrieved on December 5, 2020, from https://bit.ly/39H2s8U

Natsume, J., Hamano, S. I., Iyoda, K., Kanemura, H., Kubota, M., Mimaki, M., ... & Sugie, H. (2017). New guidelines for management of febrile seizures in Japan. *Brain and Development*, *39*(1), 2-9. Retrieved on May 5, 2021, from https://bit.ly/3matjA7

Offringa, M., Newton, R., Cozijnsen, M. A., & Nevitt, S. J. (2017). Prophylactic drug management for febrile seizures in children. *Cochrane Database of Systematic Reviews*, (2). Retrieved on May 4, 2021, from https://bit.ly/3CQLzFm

Onyearugha, C. N., Okoronkwo, N. C., & Onyemachi, P. E. N. (2019). Febrile seizures at a tertiary paediatric heath facility in South-East Nigeria. *Acta Scientific Paediatrics*, *2*(9), 47-51. Retrieved on March 17, 2021, from https://bit.ly/39GwfP8

Paudel, B., Rana, G., & Lopchan, M. (2018). Mother's knowledge and attitude regarding febrile convultion in children. Journal of Chitwan Medical College, 8(2), 16-22. Retrieved on February 21, 2022, from https://bit.ly/3CsB4t3

Rofiqoh, S. (2018). Effort to reduce anxiety levels among mothers using febrile convulsions educational package. *Belitung Nursing Journal*, *4*(4), 390-396. Retrieved on February 24, 2022, from https://bit.ly/3MrytUv.

Rosenstock, I. M. (1974). Historical origins of the health belief model. *Health education monographs*, *2*(4), 328-335. Retrieved on November 27, 2020, from https://bit.ly/3EZb2OB

Sajadi, M., & Khosravi, S. (2017). Mothers' experiences about febrile convulsions in their children: a qualitative study. *International journal of community-based nursing and midwifery*, *5*(3), 284. Retrieved on January 28, 2021, from https://bit.ly/3uiHMxq

Shibeeb, N. F., & Altufaily, Y. A. S. (2019). Parental knowledge and practice regarding febrile seizure in their children. *Medical Journal of Babylon*, *16*(1), 58. Retrieved on December 14, 2020, from https://bit.ly/3oeMATr

Srinivasa, S., Syeda, K. A., Patel, S., Harish, S., & Bhavya, G. (2018). Parental knowledge, attitude and practices regarding febrile convulsion. *Int J Contemp Pediatr*, *5*(2), 515-9. Retrieved on March 11, 2022, from https://bit.ly/3uglEo1

Syahida, J. A., Risan, N. A., & Tarawan, V. M. (2016). Knowledge and attitude on febrile seizure among mothers with under-five children. *Althea Medical Journal*, *3*(4), 649-654. Retrieved on May 25, 2021, from https://bit.ly/3kNDLxP

Thena, A. M. (2018). *Parental knowledge attitude and practices Concerning their children presenting with febrile convulsions in Dar Es salaam* (Doctoral dissertation, Hubert Kairuki memorial universty). Retrieved on February 20, 2021, from https://bit.ly/3m3MFqp

Walsh, A., Edwards, H., & Fraser, J. (2015). Parents' childhood fever management: community survey and instrument development. *Journal of advanced nursing*, *63*(4), 376-388. Retrieved on February 27, 2022, from https://bit.ly/3CdSTM4

Xixis, K. L., Samanta, D., Keenaghan, M., & Vernon, N. T. (2021). Febrile Seizure (Nursing). Retrieved on May 25, 2021, from https://bit.ly/2WkFYHR

Yeh, S. B., & Schenck, C. H. (2017). Sporadic nocturnal frontal lobe epilepsy report on two cases and review of the first taiwanese series of 10 cases. *Acta Neurol. Taiwan*, *26*, 55-63. Retrieved on February 20, 2021, from https://bit.ly/3CU7hs1