THE DESCRIPTION OF MOTHER'S KNOWLEDGE ABOUT TODDLER FEVER HANDLING BY GIVING RED UNION WARM COMPRESS

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Abstract. Fever is a disease that is often suffered by children, especially children under the age of 5 years (toddlers). Infants and children under the age of 5 years are vulnerable to various diseases because they are caused by the body systems of children and toddlers that have not been fully formed. Fever is an emergency that can occur in toddlers and is followed by other injuries if the mother gives the wrong treatment. Lack of knowledge of toddler mothers about handling fever in children is caused by many factors, one of which is knowledge. Handling fever that is effectively used is non-pharmacological therapy by giving warm compresses of red onions. The purpose of this study was to describe the mother's knowledge about treating fever by giving warm red onion compresses to children under five. This research is a descriptive research. This research was conducted on 35 mothers of toddlers as samples taken using total sampling technique. This research tool uses a questionnaire that has been tested for validation and reliability. Analysis using descriptive analysis. The results of this study indicate that 6 people (17.1%) have good knowledge about handling fever by giving warm compresses to toddlers with fever, 11 people (37.1%) have sufficient knowledge, and 18 people lack knowledge. (45.7%). The conclusions from the results of this study indicate that the majority of mothers' knowledge about handling fever by giving warm onion compresses to children with fever in Tenggeles Village, Mejobo District, Kudus Regency is in the less category (45.7%). Researchers suggest to learn more about the benefits and how to give red onion warm compresses to children under five who have a fever.

Keywords: Knowledge, Fever, Warm Onion Compress, Mother toddler

INTRODUCTION

Fever occurs when the condition of the body is beyond normal condition as a result of an increasing impact in the temperature control center in the part of the body named hypothalamus. It is a disease that is often suffered by children and toddlers who are aged under 5 years. Infants and toddler who aged under 5 years are vulnerable to various diseases because they are caused by the body systems of children and toddlers that have not been fully formed. "Fever is the natural process of the body to fight against infections that enter the body of human being when the temperature of the body reaches above normal (> 37.5°C)" (Hartini, S. dan Putri, 2015). Children or toddlers who get fever, indicated by the increasing of the temperature in the range of 37.5ºC-38°C (Moh Arip, 2020).

The World Health Organization (WHO) estimates that the number of fever cases that occur in the world reaches 11-21 million people and results in 128-160 thousand people deaths each year. The biggest case occurs in South/Southeast Asia, and Africa (WHO, 2018). The fever occurs per 100,000 population in Indonesia is around 300-810 cases per year, which means 600,000-1,500,000 cases per year. Fever especially occurs at a low level of hygiene. almost 80 percents of those incidents occur in Bangladesh, China, India, Indonesia, Laos, Nepal, Pakistan, and Vietnam, Indonesia has the third highest incidence in the Jakarta area, the capital city of Indonesia, with 160/100,000 cases of fever. 2 Indonesia alone has as many as 465 (91%) of 511 mothers with fever who use touch to assess fever in children. The State of Indonesia in 2017 reported that cases of fever in children reached 52-74%, in 2018 it increased to 387 children. The fever case occurring at the age of 0-4 years was 33.4%, cough 18.7%, and diarrhea 11.4%. In 2015, 112,511 children had fever (Kementerian Kesehatan Republik Indonesia, 2018).

Fever is one example of many health problems that many children occurred, fever occurs when there is an increase in the temperature of a child's body reaching a temperature between 0.8°C -1.1°C or more than normal body temperature, namely 37.5°C. Fever itself is caused by a viral infection, excessive heat exposure, fluid loss (dehydration), allergies, and immune

system disorders are the causes of fever in children (Cahyaningrum, E. D., Anies, & Julianti, 2017). Fever is the most common sign of sickness or disease. The fever becomes the most reason for about 15-25% of patients vi to basic health care facilities or emergency units (Barbi, E, Marzuillo, P, Neri, E, Naviglio, S, Krauss, 2017) If fever is not treated immediately well, seizures can occur in children and endanger the safety of the child. Seizures lasting more than 15 minutes can result in apnea, hypoxia, hypoxemia, acidosis, and hypotension, causing anatomical abnormalities in the brain and epilepsy occur and resulting in impaired growth and development of the child.(Wardiyah, A, Setiawati, Setiawan, 2016). The occurrence of fever in children can cause anxiety in parents which is called fever phobia. The results showed that almost 80% of parents had a fever phobia (Kristiyaningsih, A, Sagita, YD, Suryaningsih, 2019).

Increased body temperature in toddlers greatly affects the physiology of their organs. This happens because the surface area of the body is relatively small compared to adults, causing an imbalance in the body's organs. In addition, in toddlers there is no maturity of the temperature regulation mechanism so that rapid temperature changes can occur in the environment. An emergency this can occur if the fever is not treated quickly the and body temperature rises excessively. May cause dehydration, fatigue, and loss of appetite so that nutritional intake is reduced, and seizures that threaten the child's survival (Moh Arip, 2020).

Treatment of fever is divided into two, namely treatment without drugs (non-pharmacological therapy) and with drugs (pharmacological therapy). Handling without drugs is carried out by giving special treatments that can help reduce body temperature including giving fluids, using compresses, and avoiding the use of clothes that are too thick.

Handling using warm compresses is a method of bathing the body which is done by wiping the whole body which is done by wiping the whole body and compressing certain parts of the body using warm water for a certain period of time. it's hot outside, so the brain will immediately produce cold, and body temperature drops. Warm compresses are done if the temperature is above 38.5ºC and you have consumed antipyretics half an hour before, the water temperature for compresses is between 30º-35ºC, and for implementation, it is done within 15 to 20 minutes in 1 application (Moh Arip, 2020).

Warm compresses are a non-pharmacological treatment that is believed to be effective in lowering body temperature in patients with fever. Warm compresses cause the outside body temperature to become warm, so the body will automatically lower body temperature due to stimulation from the brain. sweat which is expected to reduce body temperature to normal again. Warm compresses can be done using a mixture of natural ingredients such as a combination with shallots (Allium Cape Varietas Ascalonicum). Shallots can be used as a traditional medicine because they can reduce heat and have minimal side effects or even without causing side effects. The use of onion compresses is also easy to do and does not require a lot of money (Cahyaningrum, E. D., Anies, & Julianti, 2017).

Shallots contain florogusin, cycloaliin, methialiin, kaempferol and organic sulfur compounds namely Allylcysteine sulfoxide (Alliin). Crushed or sliced shallots will release the enzyme alliinase which functions as a catalyst for alliin which will react with other compounds, for example, the skin which functions to break down blood clots makes blood circulation smooth which causes heat from the body to be more easily channeled to the peripheral blood vessels and the fever decreases. The content of essential oils in shallots can also improve blood circulation so that blood circulation becomes smooth. Other ingredients of shallots can also lower body temperature, so they can be used for compresses (Utami, 2015).

Based on research (Sarifah, 2019), it was found that giving red onion compresses was effective in reducing the body temperature of children up to the age of 1-5 years with an average temperature, before intervention 37.8°C-39.4°C and after intervention 36.5°C-37.3°C. The research that was conducted by Juniah found that before compressing the shallots in children with hyperthermia, the lowest temperature was 37.5°C and the highest temperature was 40.0°C.

After compressing the shallots, the lowest temperature was 36.0°C and the highest temperature was 40.0°C. The average statistical test results stated that the shallot compress was more effective in dealing with the problem of hyperthermia in children (Juniah., & Siahaan, 2022).

Handling fever in children depends on the role of parents, especially mothers, so knowledge is needed in dealing with fever. However, the level of knowledge of mothers varies greatly which results in differences in the management of fever in children. Lack of knowledge results in inappropriate handling, so that healing becomes less than optimal (Sudibyo, 2020).

Incorrect, slow, and improper handling or handling can stunt a young child's physical growth and development and jeopardize their soul safety. Research conducted by Kurniati 2018 found that 52% of mothers had low knowledge about fever management. In her research, it was found that mothers said they did not know the concept of fever, the causes of fever, and the effects of fever (Kurniati, 2016).

The.level.of.knowledge.of.mothers about fever and management of fever management by mothers in the Mejobo sub-district, especially in Tenggeles village also varies greatly, this is evidenced by an initial survey conducted by researchers. The results of the researcher's interviews with 12 mothers at the Posyandu who brought their children were obtained, 7 out of 12 mothers said that if their child had a fever, the mother never advised their child to drink more water because according to them there was no benefit or use and the mother also said she had never undressed or change into thin clothes when the child has a fever because they think that a child with a fever should be dressed in thick clothes or blankets so that the child sweats a lot so that the fever will go down by itself. The mother also said that when the child has a fever, she never gives warm compresses to her child because the mother still believes that ice water compresses to reduce the body heat of a child with a fever more quickly.

Based on the preliminary survey results above and previous research which discussed a lot about the lack of knowledge about warm compresses, and rarely discussed warm onion compresses, the researcher was interested.in.conducting.research.on "An Overview of Mother's Knowledge About Handling Fever by Giving Onion Warm Compresses in Toddlers".

METHODS

The type of research used in this research is quantitative research with the research design used is a descriptive survey. This type of descriptive research aims to describe or describe events that are happening in the present. The sampling technique in this study used the Total Sampling technique. The sample size in this study was 35 people. The inclusion criteria in this study included being willing to become research respondents, by signing an informed consent sheet, mothers who are members of the Orchid Posyandu who have children aged 1-5 years, and mothers who can read and write. The research instrument used was a questionnaire made by the researcher himself and then tested for validity and reliability before being given to respondents. The data analysis technique used in this study was descriptive statistical analysis technique or univariate analysis which was carried out to determine the knowledge score of each respondent according to the results of filling out the questionnaire.

RESULTS AND DISCUSSION

Results

Description of the characteristics of the respondents in this study are age, history of last education, occupation, and sources of information. Respondents who participated in this study were 35 respondents, while the characteristics of the respondents are described in the following table:

1. General Data
   a. Characteristics of respondents based on age

Table 1. Frequency Distribution of Respondents Based on the Age of Mothers and Toddlers in Posyandu Anggrek

No.	Characteristics of respondents	Result	
		Frequency(f)	Percentage(%)
1	20-35 age	25	71,4
2	>35 age	10	28,6
	Total	35	100

Based on Table 1 it is known that the results of data analysis on the respondents studied, almost all of the respondents came from the age category of 20-35 years with a total of 25 respondents (71.4%).

b. Characteristics of respondents based on recent education

Table 2. Frequency Distribution of Respondents Based on Last Education with Toddlers at Orchid Posyandu

No	Characteristics of respondents	Result	
		Frequency(f)	Percentage(%)
1	SD/MI/Equivalent	4	11,4
2	SMP/MTS/Equivalent	9	25,7
3	SMA/ Equivalent	16	45,7
4	College	6	17,1
	Total	35	100

Based on Table 2 it can be seen that the results of the data analysis of the respondents studied, almost half of the education is in the SMA / equivalent category as many as 16 respondents (45.7%).

c. Characteristics of respondents based on work

Table 3. Frequency Distribution of Respondents Based on Occupation with Toddlers at Orchid Posyandu

No	Characteristics of respondents	Result	
		Frequency (f)	Percentage(%)
1	Farmer	3	8,6
2	Self-employed	10	28,6
3	Housewife	19	54,3
4	Civil Sevant	3	8,6
	Total	35	100

Based on Table 3 it can be seen that the results of data analysis on the respondents studied, almost half of the jobs are housewives as many as 19 respondents (54.3%).

d. Characteristics of respondents based on information sources

Table 4. Frequency Distribution of Respondents Based on Sources of Information with Toddlers at Orchid Posyandu

No	Characteristics of respondents	Result	
		Frequency(f)	Percentage(%)
1	Never received	20	57,1
2	Social media	1	2,9
3	Electronic media	2	5,7
4	Health workers	7	20,0
5	Other	5	14,3
	Total	35	100

Based on Table 4, it can be seen that the results of data analysis on the respondents studied, most of them never received information about treating fever with warm shallot compresses as many as 24 respondents (60%).

2. Special Data

Questionnaires that have been filled in by respondents are collected and processed, and the data obtained will be presented the form of a distribution table that describes the level of knowledge of mothers with toddlers at Posyandu Anggrek.

a. Knowledge Level of Respondents about handling fever with warm compresses

Table 5. Frequency Distribution of Respondents knowledge results

Knowledge	Frequency (f)	Percentage (%)
Good	6	17,1
Enough	11	37,1
Not enough	18	45,7
Total	35	100

Based on the research results, it was found that most of the 18 (45.7%) respondents had a low level of knowledge about treating fever with warm red onion compresses.

Discussion

Warm compresses are a non-pharmacological technique for dealing with children who have fevers. Studies have identified one non-pharmacological means that can be used to reduce body temperature is by means of warm compresses which can be applied with a mixture of natural ingredients such as a combination with shallots (Allium Cape Varietas Ascalonicum). An onion compress is a warm compress that is done using an innovative method using a mixture of shallots which can help lower body temperature (Harnani et al., 2019). When compressed with shallots, sliced shallots will release the enzyme Allinase which meets the skin and will make blood vessels veins change in size regulated by the hypothalamus where the Allinase enzyme breaks down blood clots to become smooth, where blood is redistributed to the peripheral blood vessels to increase heat dissipation resulting in vasodilation which causes enlarged pores and heat dissipation through the skin by evaporation (sweating) which a decrease in body temperature occurs (Cahyaningrum, E. D., Anies, & Julianti, 2017).

Based on the results of the study, the results obtained from 35 respondents (100%), the level of knowledge of mothers about fever management with warm onion compresses, namely 6 (17.1%) respondents had good knowledge, 11 (37.1%) respondents had sufficient knowledge and 18 (45) .7%) most of them have a low level of knowledge, so from these results, it can be concluded that the majority of respondents are less knowledgeable in providing fever treatment with warm shallot compresses on toddlers.

The results showed that the mother's knowledge about treating fever with red onion warm compresses was lacking, namely 45.7%. This is in line with the research conducted by Taribuka who obtained the results of the majority of respondents lacking knowledge of 26 people (59.1%) whereas respondents who had less knowledge had never received information related to giving warm compresses to children with fever but did not go deep to find out the information they had received. from health workers (Nety Taribuka, 2020).

The lack of knowledge of mothers about treating fever with warm red onion compresses was shown at a good category level of only 17.1%, this is in line with the results of research conducted by Hariani where the results obtained were a good minority of 1 mother (3.3%) (Haryani, 2016). Factors that influence the level of good

knowledge are respondents who have received and understood information related to giving warm compresses to children under five who have a fever. Knowledge can also be influenced by several internal and external factors. Internal factors consist of education, age, and occupation while external factors consist of environmental and socio-cultural factors (Notoatmodjo, n.d.).

Coping with fever in children is highly dependent on the role of parents, especially mothers. It is known that the level of knowledge of mothers about handling fever in children varies greatly. This difference in the level of knowledge results in differences in the management of fever in children. Lack of knowledge can result in inappropriate handling which can put children's health at greater risk (Riandita, 2012). By age category, almost all of them came from the 20-35 year age category with a total of 25 respondents (71.4%). This shows that the older a person is, the level of maturity in thinking will be better. The level of one's knowledge will be more mature in thinking and working according to one's age. From this description, a person's age greatly influences knowledge because the older a person's age, the better the thinking process will be (Lubis, 2019).

According to Budiman and Riyanto (2013) stated that one the factors that influence knowledge education where the higher a person's the more able to receive and understand information so the knowledge possessed is also higher. Based on the results of the study, almost half of the education categories were high school/equivalent categories with 16 respondents (45.7%), this shows that the level of education can determine how easily a person absorbs and understands knowledge about fever management. The same opinion was also expressed by Notoatmojo, 2014 who stated that a lack of education could hinder the development of one's attitude toward the values or information introduced (Budiman dan Riyanto., 2013).

Almost all of the respondents have jobs as housewives, that is, almost half of the work is housewives as many as 19 respondents (54.3,%). This shows that the longer a person works, the higher the level of individual knowledge. From this description, mothers of toddlers with work status as housewives spend a lot of time with their children. This opportunity should be used by mothers to seek knowledge through various sources (Lubis, 2019).

According to Mubarak (2012), An information source is data processed in a form that is meaningful to the recipient and has real perceived value in current and future decision-making. To obtain health information, individuals can use various sources of information, both directly from health workers and through print, electronic and social media. Almost all mothers of toddlers in this study could use communication devices such as smartphones, but they did not understand how to find health information via the Internet, besides that some cellphone networks were difficult to find in the area. Information is a technique for collecting, preparing, storing, manipulating, publishing, analyzing, and disseminating information with a specific purpose. Information obtained from formal and non-formal education can have a short-term effect resulting in changes and increased knowledge. The development of technology provides a variety of mass media so that it can influence public knowledge. Information affects a person's knowledge if he often gets information about a lesson it will increase his knowledge and insight, whereas someone who does not often receive information will not add to his knowledge and insight. (Mubarak, 2012).

Based on the results of the study, it was shown that the majority of respondents had never received information regarding fever management with warm shallot compresses as many as 20 respondents (57.1%). The ease of obtaining sources of information or knowledge is not only through formal education, parents can increase their knowledge in various ways, for example by reading on the internet, tabloids, and so on. Getting more and more information, both from the family environment, neighborhood environment, from health workers and the print media will affect one's level of knowledge (Notoatmodjo, n.d.).

From the discussion above regarding general data (age characteristics, education, occupation, and sources of information) and specific data (level of knowledge) shows that most of the results have a low level of knowledge, so from these results it can be concluded that the majority of respondents are less knowledgeable in providing fever treatment with compresses warm shallots in toddlers. This is in accordance with Anggraeni, V's research entitled "Description of the Level of Mother's Knowledge About Handling Fever Convulsions in Children Age Range 1-5 Years at Posyandu Dahlia 30 Work Areas of Kalisat Health Center" with the results Most of the level of knowledge of mothers about handling fever seizures at Posyandu Dahlia 30 Kalisat Health Center Work Area Less Other research (Anggraini, 2022).

Another study by Lase, J showed the same results as the title "Description of Mother's Knowledge About Giving Warm Compresses to Toddlers with Fever in Hiligara Village, South Gunungsitoli District, Gunungsitoli City. The results of his research showed that the mother's knowledge about giving warm compresses to toddlers with fever was in the good category of 5 people (15%), sufficient knowledge of 8 people (23%), and less knowledge of 21 0people (62%). The conclusions from the results of this study indicate that the majority of mothers' knowledge about giving warm compresses to children with fever in Hiligara Village, Gunungsitoli Selatan District, Gunungsitoli City is in the less category (62%) (Lase, 2021).

CONCLUSION

Based.on.the.results.of.the.study with a sample of 35 respondents regarding the description.of.mother's knowledge. about treating fever with warm shallot compresses for toddlers, it.can.be.concluded.that.mother's knowledge about treating fever with warm shallot compresses for toddlers is lacking. Based.on.the.results.of.the study, it can be said that the respondents' knowledge about mother's knowledge about handling fever in toddlers was in.the good category as many as 6 respondents (17.1%), and in the sufficient category as many as 11 respondents (37.1%), and in the less category as many as 18 respondents (45.7 %) it can be concluded that the mother's.knowledge.about fever management with warm onion compresses for toddlers in Tenggeles village, Mejobo sub-district is categorized as lacking.

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