ORIGINAL ARTICLE

Determinant Factor of Knowledge to Fever Management in Preschool Children in the Bambu Apus Area, Pamulang District, Jakarta, Indonesia

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ABSTRACT

Introduction: Fever or febrile is an increase in temperature/body temperature above 37.5ºC. The World Health Organization (WHO) put forward the number of cases of fever worldwide reaching 18-34 million. Handling fever in children is very dependent on the role of parents, especially mothers. The level of knowledge is one of the important roles in managing fever in children. The purpose of this study is to determine the relationship between maternal knowledge about fever and the management of fever in preschool children. **Methods:** This research method uses cross-sectional analysis. The respondents of this study were 109 mothers who had preschool children. Data is collected by filling out the questionnaire sheet. **Results:** Results showed that 68 respondents (62.4%) having poor knowledge and obtained 80 respondents (73.4%) had pretty good fever management. Based on the Chi-Square test results obtained P-value=0.003, Which Means the P-Value of p<0.05 and the Alternative Hypothesis (Ho) is rejected. **Conclusion:** It can be concluded that there is a relationship between the level of maternal knowledge about fever with the management of fever in preschool children.

Keywords: Knowledge, Fever management, Preschool children

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INTRODUCTION

Children are a very important part of national life. Children are human resources for the development of a nation, determining future and successor generations. At present children under five years old in the world reach 2.1 billion. While the number of children under five in Indonesia reached 40.7 million in 2017, representing 13.6% of the total population of Indonesia. A large number of children under the age of five when they are sick will affect the development of the nation (Ismoedijanto, 2002 in Ardi 2013).

The World Health Organization (WHO) put forward the number of cases of fever worldwide reaching 18-34 million. Children are susceptible to fever, although the symptoms experienced are lighter than adults. In almost all endemic areas, the incidence of fever occurs mostly in children aged 5-19 years.

Fever caused by a viral or bacterial infection can cause high fever and can be a contributing factor to febrile seizures. The incidence of febrile seizures varies in different countries. Western European and American areas account for 2-4% of the number of febrile seizures per year. While in India it is 5-10% and Japan is 8.8%. The incidence of febrile seizures in Indonesia alone reaches 2-4% and occurs in children between the ages of 6 months and 7 years, and half of them occur between ages 1 and 2 years, 80% are caused by respiratory infections.

The results of previous interviews have been conducted by researchers on 10 mothers in the area of the Bambu Apus Area RT 04 RW 01 Pamulang District found that 7 out of 10 mothers are still not quite right to mention the normal temperature in children, still blanket children using a thick blanket, do not have a thermometer, only touch forehead or neck only when the child has a fever, and some mothers immediately give medicine if the child has a fever.

MATERIALS AND METHODS

Samples
Respondents who have children aged 3-6 years in the the Bambu Apus Area RT 04 RW 01 Pamulang District.

The sampling method in this study uses Non-probability sampling with purposive sampling technique, which is a method of selecting samples that are based on the specific purpose or goal determined by the researcher. Exclusion criteria on this research are mother's job as a medical / paramedic personnel and the mother who has beliefs regarding the management of fever or illness in children.

Research Design

The type and design of the research are descriptive-analytic namely research by approaching, observing, or collecting data which is carried out at once at a time where the research subjects are only observing once and measuring the status of the characters or subject variables at the time of examination. The data collection tool used in this study was in the form of a closed questionnaire, to measure the mother's knowledge of fever with fever management in preschool children. The questionnaire about maternal knowledge about fever consisted of 16 questions. Ethical approval for this study was obtained from the Widya Dharma Husada Ethics Committee (Ref No: KE/129/01/2019).

Research Location and Time

This research was conducted in the the Bambu Apus Area RT 04 RW 01 Pamulang District. Researchers will examine mothers who have preschool children. The research will be carried out in April-May 2019.

Data analysis

Univariate analysis is explained or describes the characteristics of respondents. The Univariate analysis in this study aims to describe the results of respondent data collection based on age, education level, occupation, and mother's knowledge about fever in the Bambu Apus Area RT 04 RW 01.

RESULTS

Based on Table I, it shows that almost half of the respondents, namely 45.9%, have an age range of 29-34 years, 30.3% of respondents have an age range of 35-40 years, and the rest have an age range of 23-28 years, which is 23.9% of respondents.

Most of the respondents obtained high school/equivalent education level (78%), while the rest is middle school level (12.8%), elementary school level (2.8%), and higher education/college (6.4%).

As for employment, majority are housewives (77.1%), general employees were (15.6%), civil servants (2.8%) and others like those who are not working as many as 5 respondents (4.6%).

Table II shows a description of mothers who hava good knowledge of as many as 23 respondents (21.1%), 18 respondents (16.5%) had enough knowledge, and 68

Table I: Socio-demographic characteristic of the respondents (N=109)

Variables	Frequency	Percentage (%)
Gender		
23-28 years	26	23.9 %
29-34 years old	50	45.9%
35-40 years	33	30.3 %
Education		
Elementary school	3	2.8 %
Middle School	14	12.8 %
High school	85	78%
College	7	6.4%
Occupation		
Housewife	84	77.1 %
General employees	17	1 5.6 %
Civil servants	3	2.8 %
Etc.	5	4.6 %

Table II: Characteristics of Respondents Based on Their Level of Knowledge about Fever (n = 109)

Knowledge Level	Frequency	Percentage (%)
Well	2 3	2 1.1 %
Enough	18	16.5 %
Less	68	62.4 %
Total	**8 5**	**100%**

respondents (62.4%) had less knowledge about fever.

Mothers who have a good fever management are 3 respondents (2.8%), 80 respondents are enough (16.5%), and 26 respondents is less (23.9%) (Table III).

Based on Table IV, shows that 59 respondents who have knowledge and management of fever in the "poor" category (80.8%). Respondents who have knowledge in the "not good" category but the management of fever in the "good" category are 14 respondents (19.2%). Respondents who have knowledge in the "good" category but management of fever in the "not good" category are 19 respondents (52.8%). Respondents who have knowledge and the management of fever in the "good" category are 17 respondents (47.2%). Based on the Chi-Square statistical test with a value of P-Value = 0.003.

Table III: Distribusi Frequency Based on Fever Management (n = 109)

Fever Management	Frequency	Percentage (%)
Well	3	2.8 %
Enough	80	73.4%
less	26	23.9 %
Total	**109**	**100%**

DISCUSSION

Respondents who live in the Bambu Apus area mostly aged 29-34 years old. The results of Putra's study (2012) explain that older mothers tend to understand more about the problem of fever in children compared to mothers of young age, this is influenced by the number of children they have so that knowledge about fever is influenced

Table IV: Chi-Square Test between Fever Management and Mother's Knowledge

Mother's Knowledge	Fever Management				Total		OR (95% CI)	p-value
	Not Good		Good					
	n	%	n	%	n	%		
Not Good	59	80,8	14	19,2	73	100	04,636 (1,593-13,494)	0,003
Good	19	52,8	17	47,2	36	100		
Total	78	71.6	31	28,4	109	100		

by the experience of caring for children during a fever.

The results of the analysis obtained respondents of high school education level /equivalent which is 85 respondents (78%). This shows that almost all respondents have a sufficient level of education. The higher level of education will have implications for knowledge and attitudes. This is following research conducted by Amarila that the majority of knowledge of fever in poor children is carried out by mothers with low education levels. The level of education will affect one's knowledge to behave in health problems. Higher education will be able to guarantee a person's knowledge better than someone who has less knowledge, and the higher the knowledge the better in health behavior.

Most of the mother who had preschool children in Bambu Apus area are housewives. Status of housewives because of the background of the role of mothers who care for children, while the husband as head of the family works. Working status as a housewife in terms of time has more time in caring for children, including in maintaining the health of toddlers, including handling fever. According to work in a broad sense is the main activity carried out by humans. In the narrow sense, the term job is used for a task or work that makes money for someone. Thus respodent as housewives categorized as mothers who do not work. This includes the financial ability of mothers in the care of toddlers with fever.

Most respondents in the Bambu Apus area have less knowledge about the knowledge and management of fever. Good or bad knowledge is influenced by several factors including, level of education, age, information, experience, economic and socio-cultural status. Factors that can affect a person's knowledge are information factors. The lack of information obtained can result in differences in respondents' knowledge with other respondents. Sufficient category knowledge in this study shows that the respondents were partially not correct in answering questions about preventing febrile seizures.

Based on the data obtained it was found that 80 respondents (73.4) had adequate fever management. Some respondents do not understand when they should start giving antipyretics. Respondents tend to give fever-lowering drugs too quickly for fear that their child's fever will get higher. Respondents with a category of

less behavior treating a toddler with fever are caused by a lack of understanding correctly how to treat fever in children. Treatment of child fever can be done as respondents give drugs to children. Based on the results of research it is known that mothers in giving drugs often do not read the rules of drug use, both drug dosage and time taking heat-lowering medication.

According to Health Care Law No. 36 1999, article 32, paragraph 3, that in the administration of safe drugs it is necessary to pay attention to the five rights which came to be known as the five true. The five right terms are the correct patient, the right medicine, the correct dosage, the correct method/route of administration and the correct time.

Based on the Chi-Square statistical test with a value of P Value = 0.003, therefore Ha is accepted so that it can be concluded that there is a significant relationship between the mother's knowledge level of fever and fever management in preschool children in the Bambu Apus Area RT 04 RW 01.

The results of the correlation test also show that there is a significant relationship between the two research variables. The probability value (significant) obtained is p-value = 0.003, where p <0.05 (0.003 <0.05), then Ho is rejected and Ha is accepted. Because the OR value = 4.636, it can be concluded that respondents with poor knowledge have a four times chance of showing poor knowledge of fever management compared to respondents who have good knowledge of fever management (95% OR CI: 1.593-13,494).

CONCLUSION

The conclusion of our research about the level of knowledge of mothers who have the most categories are less as many as 68 respondents (62.4%). The results of the statistical analysis of the management of fever in children in the Bamboo Apus area the most good is quite good category of 80 respondents (73.4%). The determinant factor of knowledge to fever management in preschool children in the Bambu Apus area, Pamulang district are age, education, and occupation. The results of hypothesis testing using the chi-square test concluded that Ho was rejected and Ha was accepted so that there was a significant relationship between the level of

maternal knowledge about fever and the management of fever in preschool children in the the Bambu Apus area RT 04 RW 01.

ACKNOWLEDGEMENTS

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