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RESEARCH ARTICLE

An Assessment of Parents' Knowledge Level Regarding Dengue Hemorrhagic Fever (DHF)

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ABSTRACT

Background: *Dengue Hemorrhagic Fever (DHF) is one of the most common public health problems in Indonesia. Dengue Hemorrhagic Fever is an infectious disease caused by dengue virus. In 2015, there were recorded 126,675 DHF patients in 34 provinces in Indonesia, and 1,229 of them died. The number is higher than the previous year, which is as many as 100,347 people with DHF and as many as 907 patients died in 2014.*

Method: *This research is a descriptive study with a large sample of 95 respondents with the location of research in Merdeka Village, Medan New District, Medan City. The study began on June 22 - July 04, 2017 and data was collected through the distribution that have validation.*

Results: *The results showed that of the 95 respondents, majority 40 people (42.1%), had sufficient knowledge about Dengue Hemorrhagic Fever (DBD), 37 people (42.1%), had good knowledge about DBD and 18 people (18.9%) had less knowledge about DBD.*

Conclusion: *Based on this research, it can be concluded that generally level of parent knowledge about DBD including enough category. Parents who have a good knowledge of the source of information from health workers counseling.*

Keywords: Dengue Hemorrhagic Fever (DBD), Knowledge Level, Parents.

INTRODUCTION

Dengue Hemorrhagic Fever (DHF) is a common public health problem in Indonesia. Since 1968, the number of cases has tended to increase and its spread has become more widespread. This situation is closely related to increased population mobility. 1 Dengue Hemorrhagic Fever is an infectious disease caused by the dengue virus. In DHF, plasma leakage occurs, characterized by hemoconcentration (increased hematocrit), or fluid accumulation in body cavities. 2

Before 1970, only 9 countries experienced dengue fever outbreaks, but now dengue fever is endemic in more than 100 countries, including Africa, the Americas, the Eastern Mediterranean, Southeast Asia, and the Western Pacific. The Americas, Southeast Asia, and the Western Pacific have the highest rates of dengue fever cases. The number of cases in the

Americas, Southeast Asia, and the Western Pacific surpassed 1.2 million in 2008 and exceeded 2.3 million in 2010. In 2013, 2.35 million cases were reported in the Americas, of which 37,687 were severe dengue fever.3
Dengue hemorrhagic fever (DHF) remains a major public health problem in Indonesia. With increasing mobility and population density, the number of cases and the extent of its spread are increasing. In Indonesia, dengue fever was first discovered in Surabaya in 1968, where 58 people were infected and 24 died, with a mortality rate of 41.3%. Since then, the disease has spread widely throughout Indonesia.4
Furthermore, DHF can also cause death in children if not properly treated. The family, as the smallest organization in society, is the spearhead of the success of government programs, with housewives, as family members, playing a crucial role within the family. Lack of maternal attention negatively impacts family health.5
Lack of knowledge can influence actions because knowledge is a supporting factor in behavior.6 Attitudes and practices not based on adequate knowledge will not last long in a person's life, while adequate knowledge, if not balanced by attitudes and practices, will have no meaningful impact on life.
Based on this background, the researcher was interested in conducting a study entitled "Parents' Knowledge Level Regarding Dengue Hemorrhagic Fever (DHF) in Merdeka Village, Medan Baru District, 2017."

METHOD

This research is a descriptive study. The descriptive research method is a research method conducted with the primary objective of describing or photographing health problems and those related to the health of a group of people living in a particular community.7 This study aimed to determine the level of parental knowledge regarding Dengue Fever (DHF) in Merdeka Village, Medan Baru District. This research was conducted in Merdeka Village, Medan Baru District. The study began from June 22 to July 4, 2017.
The sample in this study consisted of all heads of families in 13 neighborhoods in Merdeka Village, registered at the Merdeka Village Office, Medan Baru District, totaling 95 people.
The research process was as follows: (1) The researcher submitted a letter of approval to the Research Ethics Committee of the Faculty of Medicine, Methodist University of Indonesia to obtain ethical clearance. (2) The researcher requested a letter of recommendation from the Faculty to be submitted to Merdeka Village, Medan Baru District. (3) Merdeka Village, Medan Baru District, granted permission for the research. (4) Accompanied by officers from the sub-district, the research began by introducing themselves and explaining the purpose of conducting the research. (5) After that, the researcher explained how to fill out the questionnaire to all heads of families/wives in Merdeka Sub-district who were registered at the Merdeka Sub-district Office, Medan Baru District and asked respondents to fill out the questionnaire. (6) Guided respondents by explaining the questionnaire that was not understood. (7) After the research was completed, the researcher reported the results of the research to Merdeka Sub-district, Medan Baru District to request a letter as proof that the research had been completed which would be submitted to the Faculty.

RESULTSAND DISCUSSION

Characteristics of the Sample in this Study.

Respondent characteristics in this study covered four aspects: age, education, occupation, and information sources. The respondent characteristics are shown in Table 1.

Table 1. Characteristics of the research sample.

Characteristics	Jumlah (n)	Persentase (%)
age		
21-25 year	14	14,7
26-35 year	25	26,3
36-45 year	14	14,7
46-55 year	22	23,2
56-65 year	20	21,1
Gender		
Male	52	38,8
Female	82	61,2
Education		
Elementary School,	16	16,9
Middle School,	14	14,7
High School	37	38,9
University	28	29.5
Occupation		
PNS/TNI/POLRI	30	31,6
Self-employed	37	38,9
Not working	28	29,5

Table 2. Respondent characteristics based on information sources regarding dengue fever.

Resources	Jumlah (n)	Persentase (%)
Electronic	24	25,3
Media,	19	20,0
Print Media,	23	24,2
Health Education Friends/Relatives	29	30,5

Respondents' knowledge of Dengue Hemorrhagic Fever (DHF) was measured using 10 questionnaire items. Based on the summary of respondents' answers to the 10 questionnaire items, respondents' knowledge of Dengue Hemorrhagic Fever (DHF) can be categorized into three categories: good (if they scored 8-10 correct answers or >75%), sufficient (if they scored 5-7 correct answers or 45-75%), and poor (if they scored 1-4 correct answers or <45%). The following is the frequency distribution of 95 respondents: 37 (39.0%) had good knowledge of Dengue Hemorrhagic Fever (DHF), 40 (42.1%) had sufficient knowledge of DHF, and 18 (18.9%) had insufficient knowledge of DHF. In terms of age, the majority of respondents had poor knowledge about dengue fever (9 respondents aged 21-25 years, 9.5%) out of 95), and the majority of respondents had good knowledge about dengue fever (15 respondents aged 56-65 years, 15.8%).

The results of this study align with Tyrsa's 2015 study, "The Relationship Between Individual Characteristics, Knowledge, and Attitudes with Dengue Fever Prevention (PSN) Actions in Malalayang Village, Manado City," which states that the older a person is, the more mature and resilient they are in their thinking and working. Older individuals are 2.663 times more likely (OR) to engage in mosquito nest eradication (PSN) actions than younger individuals.

This is because age influences a person's comprehension. As a person ages, their comprehension and thinking patterns develop, leading to increased knowledge.

The majority of respondents (32 respondents) had a high school education (38.9%), and a minority (14 respondents) had a junior high school education (14.7%). Therefore, in terms of educational background, the majority of respondents had poor knowledge about dengue fever, namely 8 respondents with an elementary school education (8.4%) out of 95 respondents), and the majority of respondents had good knowledge about dengue fever, namely 21

respondents with a college education (22.0%).
Therefore, the results of this study relate to the theory that a person's level of education can influence their knowledge. Education plays a role in determining how easily someone absorbs and understands the knowledge they acquire. In general, the higher a person's education, the easier it is to receive information, resulting in a greater knowledge base.

These results align with Widia's research, entitled "Several Factors Associated with the Incidence of Dengue Hemorrhagic Fever in Ploso Village," which states that education significantly influences a person's knowledge. The higher the level of education, the broader the knowledge gained. Respondents with higher education are more receptive to external information, such as from television, newspapers, and magazines.10
The majority of respondents are self-employed (37 respondents (38.9%), while a minority are unemployed (28 respondents (28.2%). Therefore, it can be concluded that, in terms of occupational background, the majority of respondents have poor knowledge about dengue fever (12 unemployed respondents (12.6%) out of 95), and the majority of respondents have good knowledge about dengue fever (20 respondents working as civil servants/military/police officers (21.1%). This aligns with the explanation that the more parents who work and are highly educated, the easier it is to acquire knowledge.11
Thus, in terms of information sources, the majority of respondents had poor knowledge about dengue fever, namely 12 respondents (12.6%) of the 95 respondents whose information sources were friends/relatives. The majority of respondents had good knowledge about dengue fever, namely 14 respondents (14.7%) of the 95 respondents whose information sources were health education.

The results of this study align with the research conducted by Kusumawardani Erika, entitled "The Effect of Health Education on the Level of Knowledge, Attitudes, and Practices of Mothers in Preventing Dengue Fever in Children." This study, which focuses on health workers providing health education to the community, suggests that the knowledge gained will be enhanced, and health education can change or influence human behavior at the individual, group, and community level.12

CONCLUSION

This research demonstrates the importance of raising awareness about the dangers of dengue fever. All government efforts will be futile without support from all levels of society. For example, the implementation of prevention methods frequently promoted by the government. Knowledge levels and dengue fever prevalence may be correlated, as prevention and treatment will be ineffective without adequate knowledge.

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