

Increasing Knowledge Through Health Education About 3m To Prevent DHF (Dengue Haemorrhagic Fever)

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ARTICLE INFO

Keywords:

Dengue fever, Dengue Haemorrhagic Fever, Knowledge Level, Community Service

ABSTRACT

Dengue fever is a disease transmitted by mosquitoes and occurs in tropical and subtropical regions worldwide. Mild dengue fever causes high fever and flu-like symptoms. Prevention of dengue fever can be done by providing knowledge about its prevention, namely through the 3M approach. This community service implementation aims to educate about the prevention of dengue fever. The method used is by providing health education through pre-tests and post-tests to families and patients. This activity was carried out during March 2023 in Room Azzahra 1, Jemursari Hospital, Surabaya. The research results show that the activity has achieved the intended objectives, which include participants actively participating in the activity, a significant difference between pre-tests and post-tests, and participants providing feedback during the counseling session. The conclusion of this research is that providing education on the 3M approach effectively enhances participants' knowledge in the prevention of dengue fever.

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1. INTRODUCTION

Dengue fever is a disease transmitted by mosquitoes that occurs in tropical and subtropical regions worldwide. Mild dengue fever causes high fever and flu-like symptoms. Severe dengue fever, also known as dengue hemorrhagic fever, can lead to serious bleeding, sudden drop in blood pressure (shock), and death [1]. Millions of dengue infections occur worldwide each year. Dengue fever is characterized by high fever 3-14 days after being bitten by an infected mosquito. Symptoms include frontal headache, retro-orbital pain, myalgia, arthralgia, hemorrhagic manifestations, rash, and low white blood cell count. Patients may also complain of anorexia and nausea [2][11].

Based on records from the Directorate of Prevention and Control of Communicable Diseases (P2PM) until Week 36, the cumulative number of confirmed dengue fever cases from January 2022 was reported as 87,501 cases (IR 31.38/100,000 population) with 816 deaths (CFR 0.93%) [3]. Overall, there has been an increase in dengue cases. The highest number of cases occurred in the age group of 14-44 years, accounting for 38.96%, followed by the age group of 5-14 years with 35.61%. Districts/cities with the highest number of dengue fever cases include Bandung City with 4,196 cases, Bandung District with approximately 2,777 cases, Bekasi City with 2,059 cases, Sumedang District with approximately 1,647 cases, and Tasikmalaya City with 1,542 cases [2][13].

After being bitten by an infectious mosquito, the virus undergoes an incubation period of 3 to 14 days (average 4 to 7 days), after which the person may experience acute fever accompanied by various nonspecific signs and symptoms [4]. During this acute fever period, which can last as short as 2 days and up to 10 days, the dengue virus can circulate in the peripheral blood [5]. If another *Aedes aegypti* mosquito bites the person during this viremic fever stage, the mosquito can become infected and subsequently transmit the virus to uninfected individuals after an extrinsic incubation period of 8 to 12 days [6][9][10].

Therefore, dengue hemorrhagic fever needs to be prevented, and one of the prevention methods is by practicing the 3M approach. According to the Ministry of Health, the 3M approach involves

draining, covering, and burying. The implementation of the 3M approach is considered effective in reducing the incidence of dengue fever in the community. This is supported by a study conducted by [7][12][14], which found a relationship between the 3M approach and the occurrence of dengue fever in Puyoh Village.

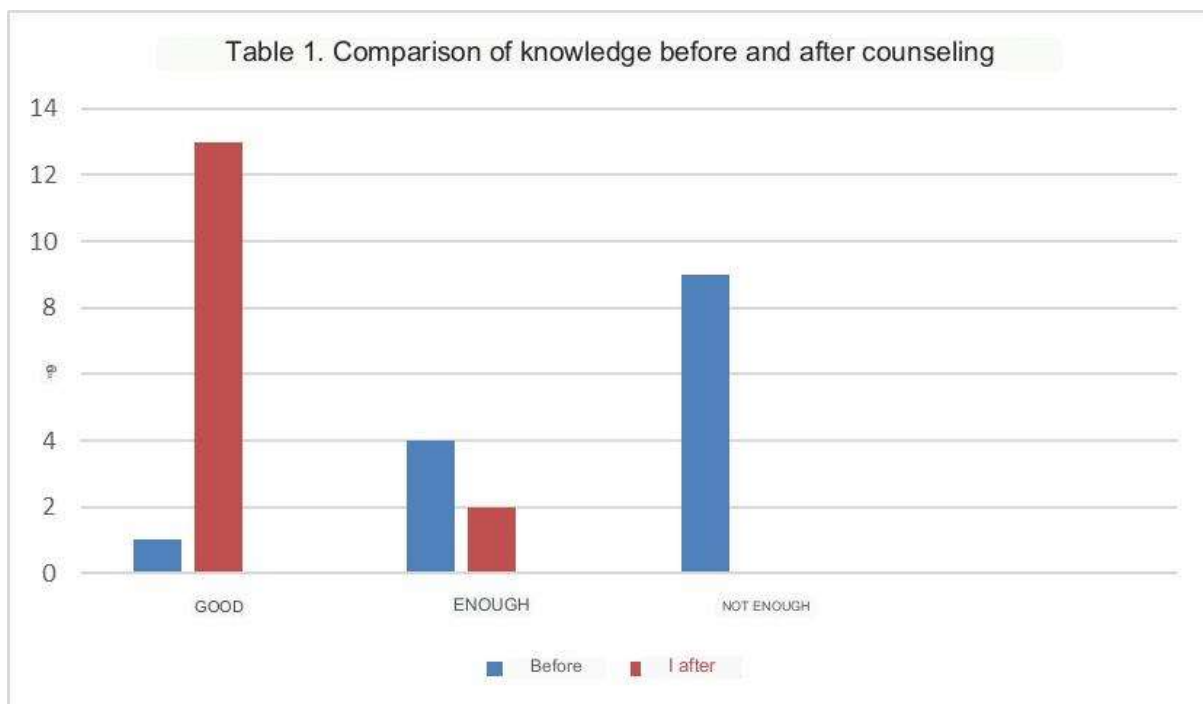
2. METHOD

Community service is conducted in the form of socialization and education about the importance of the 3M approach, along with video demonstrations, aiming to increase the participants' knowledge. The population in this study consists of 15 patients and families receiving outpatient care for dengue hemorrhagic fever (DHF) at RSI Jemursari Surabaya. Purposive sampling was used for this research. The activity began with a pre-test on the 3M approach, followed by the presentation of materials and video demonstrations, and concluded with a post-test. This activity took place at RSI Jemursari Surabaya and lasted for 2 hours.

3. RESULTS AND DISCUSSION

Knowledge Before Education

Based on the table 1 below, the results of the pre-test show that the participants and their families have some knowledge about the 3M approach. However, their understanding of the importance of the 3M approach is still not fully comprehended. Prior to the education, a small portion (10%) of the patients and their families had good knowledge about the 3M approach.



Knowledge After Education

In the above table 1, there is a difference between before and after the socialization. The results of the pre-test and post-test show a significant improvement in the understanding of the patients and their families. The patients and their families were very enthusiastic while completing the pre-test and post-test, as it indirectly affected their self-confidence.

Discussion

Based on the above findings, it is evident that there is an improvement in knowledge after providing education on the 3M approach. Providing educational information about the 3M approach enhances the knowledge of patients and their families and can be independently practiced by anyone. In other words, this educational intervention is highly beneficial for both families and patients. The educational method is very useful and helpful in changing community behavior. This is consistent

with a study conducted by Maghfira in 2019, which states that lecture-based educational methods are more effective than audiovisual methods. The advantages of lecture-based methods are that the presenter can easily engage with the participants, it can be attended by a larger audience, and the participants tend to provide positive feedback to the speaker. During the education session, the presenter can provide real-life examples and experiences [5][8]. This can serve as a source of knowledge by reinforcing the acquired knowledge in solving past problems.

4. CONCLUSION

The community service activity aimed at preventing dengue hemorrhagic fever (DHF) by providing education in Room Azzahra 1 at RSI Jemursari Surabaya was carried out successfully and was enthusiastically received by the participants. This activity serves as a solution to the existing problem.

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