



Dengue Hemorrhagic Fever (DHF) Education for Residents of Labuh Baru Timur RT 02/08, Payung Sekaki District, Pekanbaru

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Abstract

This community service is conducted in the form of public health initiatives aimed at combating dengue hemorrhagic fever (DHF) in Indonesia. These initiatives are implemented in Labuh Baru Timur Village, RT 02/08, located in Payung Sekaki District, Pekanbaru City, Riau Province. The target beneficiaries of these activities include toddlers, children, adolescent girls, housewives, and the broader community. The primary objective of this community service endeavor is to enhance the knowledge of the targeted partner communities, particularly mothers who are members of POSYANDU (integrated health post), PUSKESMAS (community health centers), doctors, and village midwives, regarding the causes, consequences, and prevention strategies related to dengue hemorrhagic fever (DHF). The methods employed for executing this community service activity involved conducting household visits and organizing discussions on dengue hemorrhagic fever (DHF). Data about participants' understanding of DHF were collected through pre-test and post-test questionnaires. The anticipated outcome of these efforts is to reduce the incidence of dengue hemorrhagic fever (DHF) and minimize its impact on affected individuals. In instances where residents are diagnosed with DHF and necessitate hospitalization, the objective is to facilitate their prompt and full recovery, thereby enabling them to resume their daily routines, including school attendance.

Keywords: Dengue Hemorrhagic Fever (DHF), Counseling, Socialization, Community Service

Introduction

Labuh Baru Village was established in 1982 within Siak Hulu District of Kampar Regency. Under Government Regulation No. 12/1987, which delineated administrative boundaries in Riau Province, Labuh Baru Village—originally situated in Siak Hulu District—was subsequently incorporated into Tampan District of Pekanbaru City. Following that, based

on the Regional Regulation of 1999, Labuh Baru Village in Tampan District, Pekanbaru City, was divided into two villages: Labuh Baru Timur (English: East Labuh Baru) and Labuh Baru Barat (English: West Labuh Baru).

The current population of Labuh Baru Timur Village amounts to 22,591 individuals, distributed among 9,744 family cards (Indonesian: Kartu Keluarga [KK]). Of this count, 11,002 are male and 11,589 are female. Religious affiliations within this area include 16,719 Muslims, 1,368 Catholics, 1,900 Protestants, 670 Hindus, and 1,930 Buddhists (Source: Labuh Baru Timur Village Office, 2022)

Dengue hemorrhagic fever (DHF) (Naim et al., 2022) is a disease caused by the dengue virus, primarily transmitted by the *Aedes aegypti* mosquito. Addressing dengue hemorrhagic fever (DHF) presents a multifaceted challenge, especially regarding control measures that have yet to produce desired outcomes. The incidence of DHF cases remains frequent and continues to rise significantly. Over 2.8 billion individuals reside in regions vulnerable to DHF exposure, particularly in tropical and subtropical areas where the risk of the disease is high. It is estimated that approximately 50 million people contract DHF annually (Rahmasari et al., 2020).

Dengue hemorrhagic fever (DHF) is a disease that is prevalent in over 100 countries worldwide, including Indonesia. It frequently manifests in urban areas and is also prevalent in rural regions. To date, an effective model for dengue fever control, particularly one that optimizes community involvement, has yet to be established (WHO, 2011). Dengue virus infection can either be asymptomatic or present as an undifferentiated fever or dengue hemorrhagic fever (DHF) (Wang et al., 2020).

Infiltration of plasma may lead to the onset of shock, known as dengue shock syndrome (DSS). Typical cases of dengue hemorrhagic fever (DHF) present with four primary clinical manifestations: high fever, bleeding, frequent liver failure, and circulatory issues. Moderate to severe thrombocytopenia with hemoconcentration is commonly observed in DHF. Children affected by DHF frequently exhibit sudden hyperthermia, accompanied by facial flushing and other symptoms (Safruddin et al., 2023). Additionally, non-specific systemic symptoms resembling influenza, such as anorexia, vomiting, headaches, and muscle or joint pain, are frequently reported. Some patients experience throat discomfort, with physical examination often revealing throat swelling, albeit rhinitis and cough are uncommon. Eye pain may also manifest.

A. Activity Objectives

The objective of this activity is to ensure that the community in Labuh Baru Timur Village (Payung Sekaki District, Pekanbaru City, Riau Province) possesses knowledge regarding dengue hemorrhagic fever (DHF) and its prevention. Hence, the following steps were implemented:

1. Disseminating information about dengue hemorrhagic fever (DHF), and
2. Guiding minimizing the risk of contracting dengue hemorrhagic fever (DHF).

B. Activity Benefits

As previously mentioned, the objective of this activity is to enhance community understanding of dengue hemorrhagic fever (DHF) and its prevention methods. To accomplish this, the activity was focused on:

1. Increasing awareness of dengue hemorrhagic fever (DHF) and its underlying factors, and
2. Enhancing public awareness and knowledge regarding the prevention of dengue hemorrhagic fever (DHF).

Method

The methods in implementing the community service involved socialization and counseling approaches with the community at the Labuh Baru Timur Village Office on January 16, 2024. The event was attended by the Head of Labuh Baru Timur Village, a doctor from the Community Health Center of Labuh Baru Timur, a Village Trustee NCO for Labuh Baru Timur, mothers who are members of the integrated health post in Labuh Baru Timur, community leaders, and the Heads of RT and RW in Labuh Baru Timur.

The steps involved in implementing community service were as follows:

1. Coordinating with the local government of Labuh Baru Timur Village, RT/RW leaders, and residents.
2. Obtaining approval from relevant parties, including the district and village governments of Labuh Baru Timur.
3. Planning the schedule and location of community service implementation.
4. Forming teams for coordinating participants.
5. Providing necessary equipment and materials.
6. Evaluating each activity implementation and preparing activity reports.
7. Developing a journal for the community.

Results and Discussion

Community service was carried out by the family members of lecturers from the Faculty of Civil Engineering and the Faculty of Vocational Education of the Islamic University of Riau, Pekanbaru.

Dengue hemorrhagic fever (DHF) counseling (Bidaya, 2023) at Labuh Baru Timur Village RT 02/08 was attended by mothers who are members of Posyandu Bunga Matahari (Bunga Matahari Integrated Health Post) for RT 02/08. They visited the home of one of the DHF patients.



Figure 1. Participants from the Labuh Baru Timur Community in Labuh Baru Timur Village, Pekanbaru.



Figure 2. Participants in the counseling session: a doctor from the Labuh Baru Timur Community Health Center, the Village Head, a Village Trustee NCO, community leaders, and residents



Figure 3. Examination conducted by the Labuh Baru Timur Community Health Center and Bunga Matahari Integrated Health Post at RT 02/08, Labuh Baru Timur, Pekanbaru



Figure 4. Examination conducted by the Labuh Baru Timur Community Health Center and Bunga Matahari Integrated Health Post at RT 02/08, Labuh Baru Timur, Pekanbaru

The number of residents who participated in the counseling session in Labuh Baru Timur Village totaled 20 individuals. Despite being occupied with their daily routines, they displayed remarkable enthusiasm, making time to attentively listen to the information delivered by the community service team (Onabia et al., 2023). Nonetheless, according to the analysis of the questionnaire results, some residents exhibited a decline in scores in their responses or answers on the questionnaire.

Among the 30 participants present, it was noted that the socialization efforts led by the Labuh Baru Timur Village Government effectively enhanced the community's understanding of dengue hemorrhagic fever (DHF). However, a decline in engagement was observed during the post-counseling questionnaire completion, potentially attributed to residents' lack of focus. Moreover, some participants encountered difficulties comprehending the questionnaire items. Thus, this underscores the importance for the community service team to tailor the questionnaire items to better suit the local conditions and language proficiency of the residents, particularly by utilizing language that corresponds to the community's level of comprehension in Labuh Baru Timur Village, Pekanbaru.

Conclusion

This community service initiative—conducted by the Faculty of Civil Engineering and Vocational Education Department of the Islamic University of Riau in the Labuh Baru Timur Village regarding dengue hemorrhagic fever (DHF), its etiology, preventive measures, and treatment—presents crucial information for the residents. Drawing from the counseling sessions, several key findings emerge, as follows.

1. Payung Sekaki District, characterized by its notably high rainfall, stands out as a susceptible region prone to dengue hemorrhagic fever (DHF), particularly during periods of flooding.
2. Residents exhibit a commendable level of understanding regarding dengue hemorrhagic

fever (DHF), encompassing its transmission dynamics, preventive strategies, and therapeutic approaches.

3. While healthcare services in villages and districts dutifully discharge their responsibilities in healthcare provision, there exists a necessity for enhancing community education initiatives as a proactive measure.

Acknowledgment

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