Treatment Seeking Patterns among Dengue Fever Patients: A Qualitative Study

Tharani Krisnian,[1] Bachti Alisjahbana,[2] Irvan Afriandi[3]
[1]Faculty of Medicine Universitas Padjadjaran, [2]Department of Internal Medicine Faculty of Medicine Universitas Padjadjaran/Dr. Hasan Sadikin General Hospital Bandung, [3]Department of Public Health Faculty of Medicine Universitas Padjadjaran

Abstract

Background: Incidence of dengue fever is increasing drastically and has become a major public health problem globally. The reason patients are late in seeking medical treatment should be identified in order to prevent complications which can be avoided to produce a good prognosis. This study was conducted to find the pattern of treatment seeking behaviour among dengue fever patients and their influencing factors using a health utilisation model.

Methods: Data on health seeking behaviour were collected among the dengue fever patients who were admitted to Dr. Hasan Sadikin General Hospital Bandung from September–October 2014. The data were collected through in-depth interview with patients who were diagnosed with dengue fever and dengue haemorrhagic fever. All the interviews were recorded using an audio recorder. The recordings were transcribed and then translated into English and analyzed using thematic analysis.

Results: Nine patients were interviewed. The age of the patients ranged between 17 to 46 years. Altogether 7 patterns were identified with patients treatment seeking behavior. Most of them took longer steps to reach adequate care with blood examination. These longer steps, caused by lack of facilities to perform blood test in primary health care facilities, no bed for admission and also low skills of health care providers in diagnosing patients. The primary health care facility played an important role in the delay of patients acquiring definite care for their dengue fever.

Conclusions: Health care seeking behavior is hampered by the inadequacy of primary health care facilities to provide adequate services to dengue patients.]

Keywords: Dengue fever, dengue haemorrgic Fever, treatment seeking pattern

Introduction

Dengue fever (DF) or dengue hemorrhagic fever (DHF) is caused by one of four virus serotypes (DEN–1, DEN–2, DEN–3 and DEN–4).[1] According to the World Health Organization (WHO), the number of incidence of DF are increasing drastically and have become a major public health problem globally.[2] There are about 50 million of dengue cases reported every year that was estimated by WHO.[2] About 500,000 are admitted in hospital due to DF.[2] The incidence and geographical distribution have increased in recent years because there is increase in the spread of the vector throughout tropic and subtropics, and become more exposed to dengue viruses transmitted through infected human.[3] The incidence rate of DF in West Java is 18 cases per 1000 and mild infection is 56 cases per 1000.[4] There were 150,000 cases reported in 2007 and 25,000 of the cases are from Jakarta and West Java as mentioned by WHO.[2] The fatality of the case was 1% approximately.[4] The reason why patients are late in seeking medical treatment should be identified in order to prevent complications which can be avoided to produce a good prognosis.

Treatment seeking behaviour among dengue fever patients affects the prognosis of the disease. If the patients seek the treatment as soon as they have the symptoms, then the prognosis of the patients are good and further complications from the dengue fever such as dengue haemorrhagic fever can be prevented.[3] There are several factors which

Correspondence: Tharani Krisnian, Faculty of Medicine, Universitas Padjadjaran, Jalan Raya Bandung-Sumedang Km.21, Jatinangor, Sumedang, Indonesia, Email: tharukrish3110@gmail.com

ISSN 2337-4330 || doi: http://dx.doi.org/10.15850/amj.v4n3.1183

affect the treatment seeking behaviour among the patients such as the perception of the person who thinks that the fever might be a mild fever and not dengue fever and health care facilities that are not ready to conduct early detection.[5] Moreover, demographic and socioeconomic factors also play an important role in treatment seeking behaviour among dengue patients.[5] The aim of this study was to explore the treatment seeking patterns among DF patients.

Methods

This study was conducted at Dr. Hasan Sadikin General Hospital which is located in Bandung, Indonesia, from September–October 2014. This study was approved by the Health Research Ethics Committee of Dr. Hasan Sadikin General Hospital. The samples were collected using purposive sampling method. The study design used was explorative qualitative. The inclusion criteria were the patients who were admitted (inpatient) to the hospital and confirmed with dengue fever. The exclusion criteria were the patients who were only suspected with dengue fever and who disagreed to be interviewed.

The data was collected through key informant interviews and in- depth interviews which was performed to the patient who was diagnosed with DF and DHF based on the WHO diagnostic criteria. The interview was conducted on 9 patients who were admitted to Dr. Hasan Sadikin General Hospital. Information about the pattern of treatment seeking behavior was from the day 1 they had symptoms until the day they went to seek for help was gathered. Furthermore, questions about the steps they took to overcome the sickness were also asked. Moreover, interviewer also gathered information about their attitude, knowledge, access in seeking treatment and also about primary health care facility services from the informants. All the interviews were recorded using an audio recorder. The recordings were transcribed, and then translated into English and analyzed using thematic analysis.

Results

There were 9 patients interviewed consisting of 7 males and 2 females. Their age ranged from 17–46 years. Most respondents completed their senior high school (*Sekolah Menengah Atas*, SMA). There were 6 patients who were working and their monthly salary ranged from Rp800,000 to Rp1,3 million. There were 7 patients who were diagnosed as DHF and 2 patients as DF.

The most common symptom reported by the Dengue patients was continuous fever. Other symptoms that appeared differently according to the individuals was nausea,

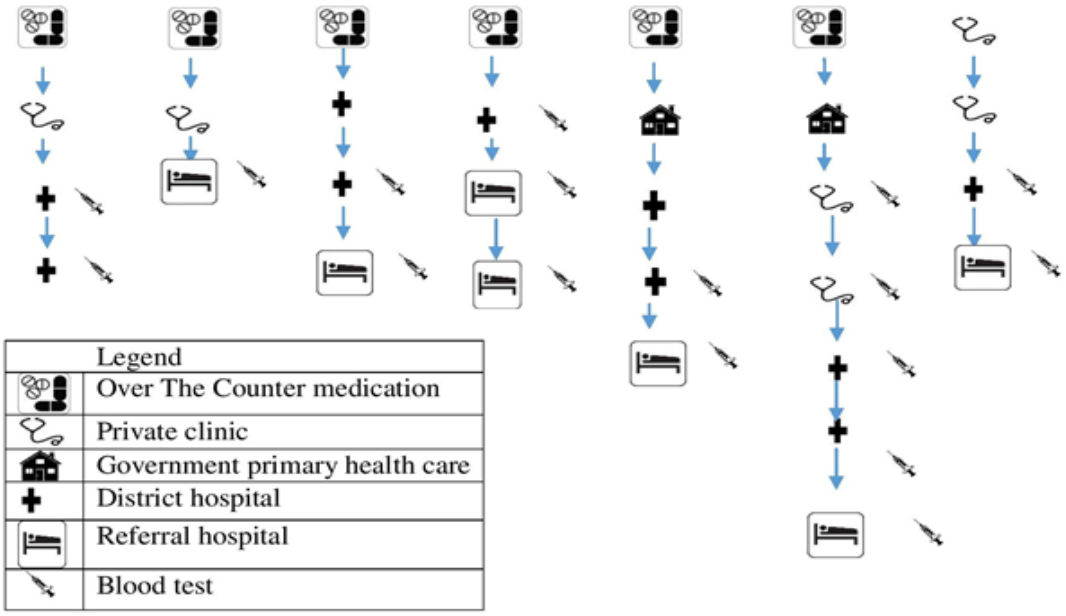

Figure Pattern of Treatment Seeking in Dengue Fever Patients[6]

Table Favorable and Less Favorable Condition and Practices in Seeking Treatment for Dengue Fever Patient

Patient/health care provider	Favorable practice	Less favorable practice
Healthcare provider	Blood test was done ≤ 3 days of being sick. Primary health care that has facility for blood test.	Blood test that done > 3 days of being sick. Primary healthcare and district hospital that does not have facility to perform blood test. District hospital full (no bed) to treat the patient. Referral hospital that is far. Skills of healthcare provider in diagnosing patient.
Patient	Seek for medical care ≤ 3 days. Persistent in seeking treatment if symptoms present	Seeking medical treatment > 3 days of being sick.

dizziness, vomiting, nose bleeding, body ache, cough and joint pain. There were 8 patients who took obat warung (over-the-counter drugs) as their first step in curing the illness. They bought the drugs that were available in an ordinary shop that was nearer to their house, or took the drugs that were already available in the house from a previous purchase. It was their habit to consume over-the-counter drugs to see whether the symptoms were reducing or not. There was 1 patient who does not consume over-the-counter drugs and always will go to the Primary health care facility to seek treatment despite severity of the illness. When there was no any improvement, they would decide to go to the clinic or other primary health care facilities.

Most of the patients chose a private clinic or public health center (*Pusat Kesehatan Masyarakat*, Puskesmas) as their first aid to seek treatment if over-the-counter drugs did not give any effect. The reason for them to choose a private clinic or Puskesmas was, most of them claimed, that it was nearer to their house. Some of them even considered that the illness was still mild. There were 2 patients who chose the district hospital as their first place to seek treatment. This was due to their habit of going to hospital for seeking treatment and they did not have to pay much because of the health insurance (*Badan Penyelenggara Jaminan Sosial*, BPJS). Another patient went to hospital because he was triggered by the symptom he had (nose bleeding).

When the patients failed to respond to the treatment that was given by a private practitioner or Puskesmas (first aid), then they would go to the district hospital as their next place to seek treatment. The reasons that made them go and seek for second aid was their symptoms did not get resolved and got worsened. Most the patients were diagnosed with dengue fever when they were in the District hospital when the blood test was carried out.

Finally, all the patients were admitted to Dr. Hasan Sadikin General Hospital (RSHS). This was due to the district hospital was filled to capacity. There was no more bed to treat those patients, thus they had to refer them to RSHS. There was 1 patient who never seeked treatment to the District hospital, in addition came to RSHS as second place to seek treatment because he was a staff who was working at RSHS.

The way the patients are seeking treatment is usually step by step which means if the previous step did not work, then they choose to go and seek treatment in a more higher health care facility such as a private or government hospital. (Figure)

Furthermore, healthcare practice can be divided into 2 major groups: favorable healthcare practice and less favorable healthcare practice (Table).

Out of 9 patients, 3 patients' knowledge was bad because they did not know anything about Dengue fever including the cause. One patient mentioned that it was caused by dust, and the rest said it was caused by mosquitoes which transmitted the disease from an infected person to another. Since his knowledge was bad so his health care practice was also not favorable because he went to seek treatment only on the fourth day.

When the patients were asked about the treatment for DF, and the need for hospitalization; 6 patients mentioned that hospitalization was necessary for DF, 3 patients said there was no need of hospitalization

as long as the patient was not severely dehydrated and controlled for thrombocyte count. They obtained this information from a healthcare provider. However, since they had no knowledge about the severity of the illness, they did not try to seek for appropriate professional care.

The patients' attitude towards the DF varied from good to bad attitude. There were 4 patients who were ignorant towards the disease because they did not really care about being sick. Some of them even thought that it was just a normal fever of which they would recover eventually. Thus, they did not take serious actions to cure the disease such as seeking treatment on the first day the symptom appeared. However, one of the patients had a good attitude because she sought help on the first day the symptom appeared. She did not have the habit of purchasing over-the-counter drugs and would always go to the healthcare provider whenever she got sick, which enabled her for having a good healthcare practice.

Another patient's attitude was also good because he planned to go and seek treatment on the first day the symptom appeared however, it was on the weekend and the nearest Primary health care facility was closed. There was 1 patient who was embarrassed; whenever, he was sick it was very hard for him to go and seek treatment to the primary health care facility. His attitude made him to have less favorable practices. Most of the patients also claimed that they had no prior experience regarding DF. They did not get infected by DF before and neither did their family members. On the one hand, they thought that it was just a normal fever and did not care much but on the other, some of the patients were aware that something was wrong although, they did not have prior experience of having DF. They felt this because the symptom such as nose bleeding and the condition of the sick got worse and did not get cured at all. However, there was one patient who did not care at all about the illness he suffered from. He did not seek treatment on his own initiative and was forced by his wife. This was a less favorable practice from the patient.

The access to primary health care facilities is the distance from the patient's residence to the nearest primary health care facility. All the patients did not have problems with healthcare access because it only took about 7 to 15 minutes by vehicle to reach the nearest primary health care facility. However, some of the patients had problems in reaching RSHS due to the far distance from their house to the primary health care facility; however they had no choice and had to seek treatment. The direct impact of the distance for the patient was the travel-costs. Some of the patients had difficulties to purchase petrol as it cost a lot of money but they had no choice because health was more important. Most of the patients had their own car to travel and did not have financial problems. One of the patients used the public car that was already available at the Puskesmas. Some of them used a rented car borrowed from neighbors and their friends. So, good access to the primary health care facility made the patients had favorable healthcare practices.

All the patients were satisfied with the service provided by RSHS, according to them, the health care providers at RSHS took the blood test and sent them to the ultrasonografi (USG) to check whether there was any complication. Moreover, most of the patients were unsatisfied with the treatment at the district hospital. The facilities were insufficient for performing blood test to the patient and there was a delay of treatment since they were not able to diagnose the patient. Most of the patients were referred to RSHS not because of the medical indication but because of insufficient treatment capacity at the district hospital; there was no bed to treat the patient. Due to this situation, the patient had to travel all the way to the referral hospital which cost a lot of money.

Furthermore, when the patient went to a private clinic or Puskesmas as the first aid or first place for seeking treatment, the health care provider might wrongly diagnose them. They might tell the patient that it was just a normal fever and gave paracetamol and antibiotics as the medication. They did not ask the patient to perform a blood test nor refer them to another place or primary health care facility to perform a blood test. This was a less favorable practice from the health care providers as they could perform the blood test on the third day since the day the symptoms appeared or at least referred them to better primary health care facility if they did not have the facility for performing a blood test. There were 2 healthcare providers who referred patients to the district hospital to perform a blood test.

Discussion

The benefit of knowing the pattern of treatment seeking behavior is to understand how and why the patients react when they

are ill. Most of the patients used over-the-counter drugs as their first step in curing their illness which is supported by the study that was conducted by Khun and Manderson[6] in Cambodia. Moreover a study about health seeking behavior in Guatemala by Goldman and Heuveline[7] also state that they choose a pharmacist over a doctor to seek treatment. Furthermore, most of the patients choose a private practice as their first place to seek treatment. The same findings are identified in India[8] and Pakistan[9], this study reveals that there are 2 types of health practices, which are favorable and less favorable practice that come from both the sides, including patients and also health care providers. In DF or DHF, the health seeking behavior is mainly affected by the patients who select the methods and primary health care facility based on their knowledge and attitude as well.

Most of the patients were knowledgeable about the cause of DF. They knew that it is caused by mosquitoes and cannot be transmitted from person to person from direct contact. It was notable that one of the patients had a misconception about the cause, i.e. caused by dust. This reason affected the patient's health seeking behavior. Chibwana et al.[10] also state that knowledge about the cause of the disease affects the treatment seeking behavior in the study conducted by them. Gender, rural or urban areas, income and educational level do not really seem to affect the treatment seeking behavior. This study also revealed that there was no evidence that educational level influenced the treatment seeking behavior.

The patient's attitude towards DF also influenced the treatment seeking pattern. Their prior experience of not having DF led to the delay of health seeking behavior as they deemed it was just a normal fever. Their attitude varied from good to bad.

In the study that was conducted by Khun and Manderson[6], they state that costs and access to the primary health care facility influence the most in the delay of treatment seeking in Cambodia. This however, contradicts the current study because patients in Indonesia are already under universal insurance coverage or BPJS. So they do not need to spend money regarding treatment at the primary health care facility. The access to the nearest Primary health care facility was also good. Khun and Manderson[6] also mention that women in Cambodia do not trust the public sector and choose the private sector to bring their child in seeking treatment although they are financially restricted. Furthermore, a study carried out in Pakistan[9] and Malawi[10] reveal that access and costs influenced the most in patient's treatment seeking behavior.

Healthcare providers seem to contribute to overall delay in treatment seeking in DF patients. The common mistakes that were performed by the health care providers in this study were wrong diagnosis and delay in performing blood test. The study conducted in Malawi[10], also state that healthcare service plays an important role in treatment seeking behavior of Malaria patients. They prefer private practitioners over government hospitals because of poor healthcare services of government healthcare providers.[10] There is also gender discrimination that leads to delay in treatment seeking in Pakistan[9] because men is the only one who decides in treatment seeking for their woman and also family, which did not influence this current study. Thus, interventions to ensure more proper implementation of WHO guidelines in health facilities might be needed. Although this finding was only bound to one particular setting, they might be relevant and applicable to other parts of Indonesia with similar socio-economics, epidemiological and health system characteristics.

Limitation of this study is the biased selection because the patients who are included in the study are only those who are admitted at the tertiary hospital.

In conclusion, there are altogether 7 patterns in the treatment seeking behavior by Dengue fever patients. The most influenced factor in the treatment seeking behavior is healthcare service itself by the delay in performing blood examination, bed unavailability for the hospitalized and also the low skills of health care providers in diagnosing the patients. There should be more campaign or effective programs conducted by government to create more awareness of DF, and improvement of the healthcare system for the Primary health care facility for early diagnosis. District hospitals should have more treatment capacity to support the increase of number of admitted patients.

References

1. Karper DL, Fausi AS, Longo DL, Braunwald E, Hauser SL, Jameson JL. Infections caused by arthropod– and rodent–borne virues In: Peters CJ editor. Harrison's principle of internal medicine. 16th ed. New York: McGraw–Hill companies; 2005. p. 1173.

2. WHO. Comprehensive guidelines for prevention and control of dengue and dengue haemorrhagic fever. World Health Organization; 2011 [cited 2014 May 14]: Available from: http://apps.searo.who.int/pds.
3. Guha-Sapir D, Schimmer B. Dengue fever: new paradigms for a changing epidemiology. Emerg Themes Epidemiol. 2005;2(1):1–10.
4. Porter KR, Beckett CG, Herman Kosasih, Ratna Irsiana Tan, Bachti Alisjahbana, Pandji Irani Fianza Rudiman, et al. Epidemiology of dengue and dengue hemorrhagic fever in a cohort of adults living in Bandung, West Java, Indonesia. Mclean Va. 2005;72(1):60–6.
5. Chuma J, Gilson L, Molyneux C. Treatment-seeking behaviour, cost burdens and coping strategies among rural and urban households in Coastal Kenya: an equity analysis. Oxford. 2007;12(5):673–86.
6. Khun S, Manderson L. Health seeking and access to care for children with suspected dengue in Cambodia: an ethnographic study. BMC Public Health. 2007;7(1):262–72.
7. Goldman N, Heuveline P. Health-seeking behaviour for child illness in Guatemala. Family Med Prim Care. 2000;5(2):145–55.
8. Banerjee A, Bhawalkar J, Jadhav S, Rathod H, Khedkar D. Access to health services among slum dwellers in an industrial township and surrounding rural areas: a rapid epidemiological assessment. Basingstoke. 2012;1(1):20–6.
9. Shaikh BT, Hatcher J. Health seeking behaviour and health service utilization in Pakistan: challenging the policy makers. J Public Health (Oxf). 2005;27(1):49–54.
10. Chibwana AI, Mathanga DP, Chinkhumba J, Campbell CH. Socio-cultural predictors of health seeking behaviour for febrile under-five children in Mwanza-Neno district, Malawi. Malar J. 2009;8(1):219–27.