

Implementation of Health Education Booklet for Parents on Handling Fever Children with Water Tepid Sponge (WTS)

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Abstract

Pre-school to school-age children are very susceptible to viruses, such as the dengue virus. Fever is a symptom that may appear in this case. One way to overcome this is with Water Tepid Sponge (WTS). This technique is a compressing action that is done using a towel or washcloth dampened with warm water. This study aims to determine health education about handling children with fever with Water Tepid Sponge. This research uses a case study method directly to patients by means of observation and interviews. Based on the implementation carried out, health education about treating children with fever with Water Edged Sponge (WTS) can be understood by the client's parents well. The results obtained are that all the interventions that have been given are effective in overcoming nursing problems in client.

Keywords: Water Tepid Sponge,, Children, Booklet, Health Education

Introduction

Children are unique individuals and have needs according to their stage of development, these needs can include physiological needs such as nutrition and fluids, activity and elimination, rest, sleep and others (Bukvić, Ćirović and Nikolić, 2021) . Children are also individuals who need social psychological and spiritual needs. Children are individuals who are in a range of developmental changes starting from infancy to adolescence (Rizka Saputri, Yuwono Puji Sugiharto and Mulawarman, 2024) (Jing, Wang, 2019).

Children in preschool age to school age children are referred to as a very active period along with the development of growing muscles and increased play activities (Pradnyani, Pramita and Tianing, 2024) . Experts classify toddler age, preschool age to school age children as stages of child development that are quite vulnerable to various diseases and diseases that are often encountered are infectious diseases such as Dengue Fever (DHF) (Alejandria, 2015) (Zhang et al., 2024) (Abaa, Polii, Wowor, 2017).

Dengue Hemorrhagic Fever (DHF) is one of the infectious diseases caused by the dengue virus through the bite of the aedes aegypti mosquito (Rahman, 2020) (Mahammed, Abdilahi and Arab, 2022)(3) Diseases caused by dengue virus infection are still a public health problem. Dengue virus is a type of virus from the

flaviviridae family and flavivirus genus that is spread by the aedes aegypti mosquito has been known only as a carrier of dengue virus (Meyrita et al., 2023) (Kurnia et al., 2022) (Ministry of Health, 2005).

Dengue fever (DHF) is a problem in Indonesia because the current DHF morbidity rate has not reached the government's target of less than 49 per 100,000 population. Data obtained from the Ministry of Health (MoH) states that in 2019 the dengue morbidity rate was 59.02 per 100,000 population. This number climbed up and reached a peak in 2015 at 65.7 per 100,000 population. The following year the rate declined rapidly to 27.67 per 100,000 population. The morbidity rate rose again the following year to 37.23 per 100,000 population. In 2017, the dengue morbidity rate reached 50.75 per 100,000 population (WHO, 2018).

WHO estimates that dengue incidence has grown dramatically worldwide in recent decades. One recent estimate suggests that dengue infections amount to 390 million per year. Another study estimated that 3.9 billion people in 128 countries are at risk of dengue virus infection, especially those living in urban areas in tropical and subtropical countries (Nuraid, 2015).

Common signs and symptoms of dengue virus infection are high fever, headache, nausea and vomiting, pain throughout the body, red

spots on the body and swollen glands (Kok et al., 2023). The incubation period of this virus is usually 3-7 days. Then after the initial symptoms, there can be a decrease in temperature, the patient feels fatigue and also anxiety (Tayal, Kabra and Lodha, 2023). Patients who are attacked by the dengue virus should not underestimate the symptoms that appear, because it can cause several health problems (Kemenkes RI, 2022). The nursing process is very important to overcome Dengue Fever (WHO, 2015).

The nursing process is an activity with the goal of systematic nursing practice. In the nursing process, nurses use a broad knowledge base to assess client health, make wise decisions and diagnoses, identify client health outcomes, and provide appropriate nursing care to achieve these outcomes. The nursing process cycle starts from nursing assessment, which is carried out by collecting subjective data (data obtained from patients / families) through anamnesa methods and objective data (data from measurements or observations), nursing diagnoses, which are nursing problems that may arise in cases, nursing interventions, which are the process of determining the plans needed to achieve the goals and outcomes of nursing care carried out and the last nursing evaluation is carried out to assess whether nursing problems can be resolved or not resolved (Amorim et al., 2020).

Nursing problems that often arise in Dengue Fever patients are hyperthermia due to disease process, acute pain due to physiological injuring agents, knowledge deficit due to lack of exposure to information, ineffective breathing pattern due to respiratory effort resistance, nutritional deficit due to psychological factors, hypovolemia due to increased capillary permeability, activity intolerance due to weakness, anxiety due to situational crisis, risk of bleeding due to coagulation and risk of shock.d psychological factors, hypovolemia b.d increased capillary permeability, activity intolerance b.d weakness, anxiety b.d situational crisis, risk of bleeding d.d coagulation and risk of shock d.d lack of fluid volume (Wijayaningsih, Kartika, 2017).

The nursing plan from the diagnosis of knowledge deficit b.d lack of exposure to information, is health education. Where in this nursing plan, nurses observe the readiness and ability of clients and families to receive information, provide health materials and media,

schedule health education, provide opportunities to ask questions, explain risks that can affect health and teach strategies that can be used to improve health status (Hermawan, 2018).

Health education on the diagnosis of knowledge deficit b.d lack of exposure to this information, one of which is by applying a health education booklet about Water Tepid Sponge (WTS). Where the nurse provides booklet media that explains the health problems experienced by clients and how to overcome them that clients can do. Booklet media was chosen because there are many benefits in it, such as the information and instructions needed without the need to rely on educator guidance, besides that the booklet also presents information in an attractive, more structured, systematic, unique design making it easier for clients to understand about Water Tepid Sponge (WTS) (SDI DPP PPNI, 2017).

Water Tepid Sponge is a compressive action performed using a towel or washcloth moistened with warm water (Shofiya and Sari, 2024) (Takahepis, Wahyuni and Hutahuruk, 2025). Tepid sponge is one of the warm compress techniques to reduce body temperature. This technique is aimed at five major blood vessel points on the body, namely a washcloth compressed on the forehead under both armpits and two groins. Then another washcloth is used to wipe the client's entire body. This action can overcome the nursing problem of hyperthermia which is experienced by many dengue hemorrhagic fever (DHF) sufferers (SDI DPP PPNI, 2017).

The purpose of this study is to describe a case study of "Application of Health Education Booklets to Parents about Handling Fever Children with Water Tepid Sponge (WTS)".

Methods

This research uses a case study method directly to the patient by means of observation and interviews.

Results

The case is known to the client with the initials An.K, age 9 years 4 months, female gender and occupation as a student. The client sought treatment at the puskesmas on June 12, 2023 with a medical diagnosis of Dengue Hemorrhagic Fever (DHF), the client's main complaints were complaining of fever, heat throughout the body, fever, lack of appetite,

restless sleep and pain throughout the body. The client's mother said her child had a history of Dengue Fever (DHF) at the age of 5 th was hospitalized for 4 days. Assessment on June 13, 2023, obtained TTV is TD = 100/70 mmHg, N = 90x / min, RR = 20x / min, S = 37.8oC.

Discussion

Based on the results of the assessment carried out, the nurse diagnoses acute pain b.d physiological injury agents, hyperthermia b.d disease process, knowledge deficit b.d lack of exposure to information. The diagnosis refers to the Indonesian Nursing Diagnosis Standards by paying attention to the signs and symptoms present in the client. After establishing nursing diagnoses, nurses develop priority diagnoses.

In the first diagnosis, namely acute pain b.d physiological injury agents. Acute pain is a nursing diagnosis defined as a sensory or emotional experience related to actual or functional tissue damage, with sudden or slow onset and mild to severe intensity lasting less than 3 months.¹⁵ Based on the results of the assessment obtained data from the client, namely the client complained of pain throughout his body, his body was weak, his head was dizzy, the client looked grimacing, restless and had difficulty sleeping.

The second diagnosis in the case of An.K, namely hyperthermia b.d disease process. Hyperthermia is a nursing diagnosis defined as an increased body temperature above the normal range of the body.⁹ From the observation of the client said his body felt hot, when touched by the nurse his body was warm, his body temperature was 37.8oC and felt tired.

The third diagnosis is knowledge deficit b.d lack of exposure to information. Knowledge deficit is a nursing diagnosis defined as the absence or lack of cognitive information related to a particular topic. The results of the assessment were obtained, the client's mother said she did not know how to handle the initial high fever, the client's mother looked confused and also asked the nurse how to deal with children with fever.

Management of acute pain problems is by providing non-pharmacological techniques to reduce pain (deep breath relaxation techniques).

The implementation of this deep breath relaxation technique is carried out directly with the client by implementing according to the procedure. After teaching the technique, the client's observation results said the pain was reduced. In the nonpharmacological techniques performed, it was stated that there was an effect of providing deep breath relaxation techniques on the pain scale of acute pain patients. It can be concluded that the technique can help reduce pain.

Management carried out on the second diagnosis of Hyperthermia, which can monitor body temperature, provide warm compresses or Water Tepid Sponge techniques, recommend using thin and loose clothing and increasing oral fluids in clients who experience body temperatures above normal. After this treatment is carried out, it is hoped that the body temperature is within normal limits, the client is calm. Meanwhile, the management of the third problem of knowledge deficit is to conduct health education about related problems using booklets. In providing this health education, it was found that the client and his mother understood the health problems that were being experienced and also knew how to overcome these health problems.

Conclusion

The conclusions obtained based on the analysis of the case of An. K with a diagnosis of Dengue Fever (DHF), namely:

Based on the results of the assessment carried out, it was obtained from the assessment of pain (+), headache, grimacing, restlessness and difficulty sleeping. In addition, the client also stated that his body was hot, the acral felt warm, and the body temperature was above normal 37.8oC. The client's mother said she did not know how to handle the initial treatment when her child had a fever, the client's mother looked confused and also asked the nurse how to solve the health problem.

The diagnoses obtained are acute pain b.d physiological injury agent d.d the client said pain throughout the body, hyperthermia b.d disease process d.d the client said his body felt hot and knowledge deficit b.d lack of exposure to information d.d the client's mother said she did not know the initial handling of high fever.

Based on the diagnoses obtained, nursing interventions will be carried out on acute pain nursing problems, namely in the form of pain observation, observation of pain response, providing non-pharmacological techniques, and collaborative analgesic administration. In hyperthermia nursing problems, monitoring body temperature, giving warm compresses, recommending wearing thin and loose clothing and increasing oral fluids. In the nursing problem of knowledge deficit, health education is provided in the form of booklet media that explains health problems and also events to overcome them.

Nursing implementation carried out is to provide nonpharmacological techniques, teach warm compresses and provide health education using booklet media.

Evaluation of the results of nursing care on the nursing problems of acute pain and hyperthermia on the second day was resolved and the intervention was stopped..

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