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Experience of Overcome Nausea and Vomiting in Dengue Fever: A Phenomenology Study

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ABSTRACT

Background: In a tropical country like Indonesia, renowned for its two seasons (rainy and dry season), a transitional period is observed between these seasons, aptly referred to as the transition season. During this transitional phase, the Aedes mosquito rapidly breeds, laying its eggs. Sunlight enhances this process, warming the air and puddles, thereby contributing to the hatching of eggs and potentially causing an endemic outbreak of dengue fever. This study aims to explore the experiences of individuals in overcoming nausea and vomiting during dengue fever.
Method: Employing a phenomenological qualitative research design, the research involves 7 participants selected through purposive sampling. The research process includes bracketing, intuition, analysis, and the generation of descriptions and interpretations. Bracketing is undertaken to ensure that the information gathered is genuinely natural and derived from participants' direct expressions regarding their experiences in handling nausea and vomiting during dengue fever. In the intuition stage, the researcher strives to recognize and understand the phenomenon under study. The data is analyzed using qualitative content analysis with the Collaizi approach, involving stages such as reading and re-reading collected data, selecting keywords through coding, categorizing identified keywords, grouping meanings into themes, creating a provisional narrative, validating the narrative with participants, and finally, presenting the validated narrative as the final study output.
Result: The research reveals several findings: Nausea and feeling unwell are likened to catching a cold; nausea intensifies in response to specific smells or food aromas; respondents can only consume small portions; and notably, respondents alleviate sickness by drinking warm water. During dengue, feelings of weakness compel participants to maintain an intense but small food intake to sustain energy.
Coclusion: Nausea and vomiting experiences are not uniformly perceived as uncomfortable by respondents, and when contemplating the use of warm water to relieve nausea, considerations must be made regarding its safety and potential unknown side effects.

KEYWORDS
Phenomenology; dengue fever; nausea; vomiting

INTRODUCTION

Tropical countries like Indonesia are known for their two seasons, namely the rainy season and the dry season. Still, between the two seasons, there is also a transitional period known as the transition season. Due to no small amount of standing water in the rainy season, *Aides mosquitos* can quickly breed to lay their eggs. The number will continue to increase in the transition season because it is supported by sunlight causing the air and puddles to warm.

The number of *Aides Aegyptus mosquitoes* that successfully breed during the rainy season and transition will increase and carry the virus *dengue*, which then attacks humans, causing dengue fever. Almost no area in Indonesia is free from the attack of dengue hemorrhagic *fever,* or commonly known as DHF. In 1968 there was a drastic increase in dengue cases, which previously was only 0.005 to 627 per 100,000 populations. DHF usually occurs during January and continues to increase until April (Satari & Meiliasari, 2004).

The season is not the only cause of dengue fever in Indonesia, even in Asia. Other factors, such as globalization and mobilization, contribute to the

success of the coverage of DHF. In a heterogeneous environment, such as the housing complex, where mosquito larvae checks are routinely carried out, and no standing water is found, many residents are affected by dengue to be infected at work, at school, or outside the city.

DHF is an acute disease with clinical manifestations of bleeding; if not treated immediately will cause shock and death. In the clinical course of DHF, many expressions appear so that individuals affected by DHF are aware of their condition and seek help. A study conducted in Singapore felt various common complaints such as fever, decreased appetite, fatigue, headaches, nausea, vomiting, chills, and muscle aches (Seet et al., 2007).

Symptoms of nausea and vomiting in DHF sufferers attracted researchers' curiosity to identify DHF patients' experiences in dealing with nausea and vomiting. A preliminary study conducted by researchers found that DHF patients complained of sudden nausea to vomiting. So far, there has been no similar research related to the experience of nausea and vomiting in dengue sufferers. Research on nausea and vomiting in dengue fever will be the basis for determining the independent management of nausea in DHF patients. Health workers and hospitals must identify discomfort related to nausea and vomiting early so that the patient's nutritional intake can be optimal.

METHOD

The method used in this research is qualitative research. Researchers chose the phenomenological approach because this study aimed to explore in-depth and describe the problems of life experiences faced by dengue fever patients, namely nausea and vomiting. Interpretation and analysis of the findings in a phenomenological approach allow researchers to reveal a description of the essence of the situation or phenomenon experienced by each individual and their shared perspective as a universal understanding (Afiyanti & Rachmawati, 2014).

This research was conducted in 6 months. Participants in this study were patients with dengue fever who were allowed to go home after being hospitalized. The number of qualitative research participants cannot be determined in advance because it depends on the data's saturation, namely when there are no new things obtained from the participants. Interviews were conducted with an interview guide prepared in advance but are flexible in the sequence (Cresswell, 2002).

Activities carried out by researchers use phenomenology consists of *bracketing,* intuition, analysis, and conducting descriptions and interpretations. *Bracketing is* carried out so that the information obtained is genuinely natural and comes from the participants' direct expressions regarding the various experiences they have had regarding handling nausea and vomiting during dengue fever. Meanwhile, at the intuition stage, the researcher recognizes and understands the phenomenon under study (Polit & Beck, 2006).

At the analysis stage, namely identifying and analyzing the data or information found. There are several stages in this stage, namely, reading the data collected, re-reading the phenomenon, selecting keywords (coding process), identifying the meaning of

several specified keywords (categorization process), and grouping several substances that have been identified. Placed in the form of themes, writing patterns of relationship between these themes into a provisional narrative, returning the report to be validated and recognized by the participants, and describing the data from the validation results and writing them into a final story of the study (research results) (Afiyanti & Rachmawati, 2014).

RESULT AND DISCUSSION

Present This study involved seven respondents, mostly women (5 people or 71%). Three respondents were in the range of late adolescence (43%), three people were in the field of late adulthood (43%), and one person was in the first elderly category (14%). All respondents are Moslem, with the last education level is dominated by senior high school, while one person has an associate degree education. Most of the respondents' occupations are traders (3 people or 43%); the others are students, laborers, and midwives. The following is a table of the characteristics of the respondents.

Table 1. Characteristics of Respondent

Participants	Gender	Age	Education	Religion	Occupation
P1	Female	55	Senior High School	Moslem	Trader
P2	Female	40	Senior High School	Moslem	Trader
P3	Male	23	Senior High School	Moslem	Laborer
P4	Male	19	Senior High School	Moslem	Student
P5	Female	36	Senior High School	Moslem	Trader
P6	Female	43	Associate Degree	Moslem	Midwife
P7	Female	23	Senior High School	Moslem	Student

The results of the interviews conducted with respondents obtained several themes in this study, namely: 1) nausea is felt like when a cold, 2) nausea increases when eating or smelling certain aromas, 3) food intake in small but frequent ways, 4) drinking warm water helps reduce nausea.

Theme 1: Nausea and feeling unwell like when you catch a cold.

Nausea in dengue fever is not the main complaint. There are several other complaints that each respondent feels, such as dizziness, pain, fever, and weakness. There are two categories in this first theme: complaints such as colds and efforts to deal with scrapings, but they do not affect. The following are the various kinds of complaints felt by respondents.

Table 2. Complaints perceived by respondents

P1	P2	P3	P4	P5	P6	P7
Dizziness	Nausea	Dizziness	Weakness	Chills	Pain	Nausea
Fever	Weakness	Fever	Nausea	Fever	Nausea	Weakness
Chills	Headache	Pain	Fever	Abdominal pain	Headache	Dizziness
Nausea	Fever	Weakness	Dizziness	Nausea		Fever

Weakness	No appetite	pain

Nausea as the main complaint was found in P2 and P7 respondents; nausea in some respondents felt cold. The following is a quote from a respondent:

"*My nephew used to be a midwife at school, and now she has switched to herbal medicine, learning about it, she likes massage... She said I catch a cold..*" (P1)

"*Yes, initially mistaken for catch a cold anyway ...*" (P4)

"*Yes, like catch a cold, so repulsive like nausea continues but not vomiting...*" (P5)

"*First I think I got a cold because I travel long distances on a motorbike, my body moves like a person catches a cold, then I drink ginger...*" (P6)

Scraping does not relieve nausea.

In this category, it is found that the efforts made by the respondent at the time of catching dengue fever were found by doing scrapping. Scraping is a traditional Javanese massage by back rubbing using a coin to relieve nausea when catching a cold, but in dengue fever, do some scrapping won't ease nausea. The following are some statements from the respondent:

"First, I thought to catch a common cold; then I tried to get rid of it and take anti-cold medicine; everything doesn't work out, then in the afternoon I go to a general practitioner. The doctor immediately stamped it, meaning the doctor had immediately said wow, this is possibly dengue fever because the previous medicine runs out, how come it doesn't heal..." (P3)

"*Early, before going to the doctor, my husband told me to try some scrapping. The effect is just normal if you catch a cold, it's usually a bit better to catch a cold, but it's still like that ...*" (P5)

Theme 2: Nausea increases when eating or smelling a particular smell

On the second theme, even nausea is not the main complaint; however, some patients experience vomiting. Vomiting occurs when the patient tries to eat or smells a particular smell. The following is the statement of a patient who experiences nausea with specific food or aroma triggers:

"I tried to eat, and then it just comes out." (P1)

"Yes, when there is a smell or when given food, the stomach feels nauseous. Yes. Even it's the smell of cooking or the smell of perfume is nausea..." (P1)

"*Yes, the first day it was stood still, the temperature was still high, and the nausea was still there. Then the second day gradually, the nausea is a bit better, but when the food is finished, it immediately feels nauseous again.*" (P2)

"How do I describe, it feels bitter, you know, it's not good to eat, can't get in.. I've tried eating, but I'm petrified that it will come out ..." (P3)

"All I could try to eat mostly rice, just rice with some vegetables for the dishes. I can't stand the smell of egg, sir; I feel nauseous, sir. Yes,

especially the smell of fish, sir, which smells bad. -It smells fishy, it smells bad right away, and the stomach doesn't feel good ..." (P4)

"Since the first day I wanted to eat but couldn't, I was nauseous. Yeah, I think it's because of my stomach (gastritis), I thought, I thought so, you know. I asked for chicken porridge, but only one spoonful, then I can't eat until that point, but I just drink some water, which means I drink whatever I can. But I really can't eat it, for a week I don't like eating any food..." (P6)

Theme 3: Keep trying to eat a little but often

The third theme describes how the respondent's efforts to overcome nausea are by forcing to eat or increasing the intensity of taking some food even in small amounts. The following are some of the respondents' statements regarding the effort to keep eating:

"Yes, I don't think the food comes in for a week, so there are almost ten days, after the impression of being forced, you have to be forced to eat. At this point, if you feel hungry, you forced yourself to eat even just a little.."(P1)

"*Yes, you eat it at least, come in, slowly bro. I've been asked to intermittently snack so I can go home soon.."* (P2)

"When I get better, I force it to eat or drink anything. I force myself, even my stomach feels nauseated and full.." (P5)

"*At that time, I was forced to eat a little, but not for the smelly food..".* (P7)

Theme 4: Drinking warm water helps reduce nausea

The fourth theme describes the efforts being made to reduce nausea. Some respondents stated that drinking plain water triggers nausea, but drinking warm water can provide a feeling of comfort and reduce nausea. The following is the respondent's statement about drinking warm water:

"*Warm waters no sugar. If using sugar does not taste good too in the mouth..."* (P1)

"*Ooh yes, I mostly drink warm water... I think it feels like in this (pointing at the stomach) a bit, this nausea is a bit diminished..."* (P2)

"At first it was just given the usual plain water, but then my tongue senses a bitter taste of it... Then I replace with warm water... If it's warm in the throat and stomach feels warm.." (P4)

"*Yes, for that. I think it is to relieve nauseated feeling, so I drink hot water... Yes, if it's not warm, the taste will get worse..."* (P5)

Nausea is a complaint felt by dengue fever sufferers.

Sickness is an unpleasant taste or causes discomfort in the stomach, while vomiting is a strong urge to expel the stomach contents (Lacy et al., 2018). In line with this statement, dengue fever patients have common complaints such as fever, nausea, pain, and vomiting. This complaint is related to a high viral load (VL) in dengue fever patients. High VL numbers in dengue fever patients can also cause leukopenia, persistent vomiting, abdominal pain, and clinical fluids accumulation, which are dangerous signs of dengue fever infection (Pal et al., 2014).

In this study, several respondents stated that they were hospitalized after complaining of not feeling well, such as catching a cold and being examined by a doctor and then given medication. Even though drugs have been given, the complaints have not subsided, and laboratory tests are recommended to check the levels of hematocrit, platelets, and hemoglobin. After finding out the results of laboratory tests, the patient is found to have dengue fever. Getting an early diagnosis is difficult, even though determining the diagnosis of dengue fever is crucial and can save lives, especially in children (Hossain et al., 2017).

The gold standard so far for monitoring the risk of dengue fever is through a patient's blood sample to determine the concentration of hematocrit and hemoglobin levels, platelet levels, and liver function status. Therefore, it requires various techniques to help make an early diagnosis of both invasive and non-invasively. Invasive measures such as checking IFN-gamma serum levels and dengue fever viremia in acute-phase patients can be the first prognostic marker of the disease's severity. In contrast, for non-invasive measures, a system of experts or schemes can be developed to help doctors or health care workers categorize and exclude signs, and the symptoms of dengue fever are uncertain (Hossain et al., 2017; Pal et al., 2014). Prevention, such as educating people in endemic areas, can be done. Various other methods are currently being developed, including the tetravalent vaccine. Every effort is made to avoid dengue fever complications such as *dengue shock syndrome* (DSS), causing death in the sufferer (Kularatne, 2015).

Overcoming the lack of nutrient and fluid intake in dengue patients

The characteristics of nausea in each disease can be different. Sickness can be caused by a disease process or due to drugs such as anesthetics. In dengue fever, nausea appears suddenly. For example, the feeling of nausea is different when compared to during pregnancy. During pregnancy, nausea and vomiting are caused by the fetus's development, which gets bigger with gestational age, but in dengue fever, nausea appears suddenly (Fejzo et al., 2019). The sickness that appears suddenly is felt accompanied by a bitter taste on the tongue. The tongue's bitter taste has something to do with one's sensitivity to the bitter taste itself. The bitter taste is the manifestation of plants that contain poison, which is related to the creation of a bitter taste on the tongue that comes from human digestion. The bitter taste that appears on the tongue is very sensitive to the glossopharyngeal and vagus nerves' response. Besides that, the bitter taste also slows down gastric emptying. The essence of the emergence of a bitter taste is that the body anticipates the potential for toxins to enter through digestion (Peyrot des Gachons et al., 2011).

Slow gastric emptying due to the bitter taste that appears makes it difficult for dengue patients to eat food. In this study, some patients were unable to eat for several days. The decrease in the patient's ability to make food intake needs to be supported by fluid replacement therapy, such as infusion. Patients who have been able to intake food and fluids orally or are allowed to stay in the restaurant are advised to maintain a fluid intake of 2500 ml/day with plenty of rest. Proper handling of dengue fever will reduce

morbidity and mortality due to dengue fever (Kularatne, 2015).

The effect of warm water on the body

Fluids as the primary treatment in dengue fever are essential. The presence of fever as a symptom of dengue fever increases the importance of adequate fluids. Warm water is commonly used in the health sector, such as rinse eyes affected by irritation, wash skin with pruritus, and use it for drinking. Drinking warm water can reduce irritation to the pharynx and larynx of patients who experience cough (Lin et al., 2020). Belching routinely is accompanied by the smell of food eaten before. Other symptoms appear, such as nausea, flatulence, and intestine sounds, so you can use warm water for drinking, wiping the oil to warm the stomach, and sleep on your left side (Chaichi-Raghimi et al., 2020).

The use of warm water for drinking is not always practical. Drinking warm water to prevent shivering after giving spinal anesthesia has not many different results than standard prevention carried out in hospitals (James, 2018). There are several kinds of errors in drinking behavior made so far, one of which is drinking warm water. Drinking warm water from the perspective of traditional Persian medicine assesses that drinking warm water can cause digestive and respiratory disorders (Nimrouzi et al., 2016).

Limitations of the study

The endemic status of dengue fever does not consistently manifest in a specific month each year, with varying case numbers annually, thereby limiting the study's temporal scope. The brief duration of the transition season during which this study was conducted witnessed a lower incidence of dengue fever cases. Furthermore, the occurrence of the COVID-19 pandemic in 2020 contributed to increased adherence to home confinement and social distancing practices, potentially influencing the prevalence of dengue fever cases.

CONCLUSION AND RECOMMENDATION

Nausea that patients feel is not the same as one another in terms of the most complaints handled during dengue fever. The similarity of sickness indicates the similarity of nausea experiences in this study during dengue fever and cold. The handling carried out is also similar, namely *scraping it,* but it does not affect. Nausea felt by the respondents increased when eating. It felt uncomfortable eating because of the tongue's bitter taste—this bitter taste leads to the respondent drinking warm water to overcome the bitter taste and nausea. Although drinking warm water can provide a comfortable sensation, it is necessary to study further the safety or side effects that may arise.

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