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Frontilines Readiness in Facing Attacks of Mysterious Acute Hepatitis in Indonesia: A Qualitative Approach

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Abstract

Background: Frontliners are currently the leading pillar in dealing with various health cases that arise in Indonesia. several health cases that have become epidemics or pandemics provide significant lessons on how frontliners are prepared to deal with health problems. one of them is an attack of Mysterious Acute Hepatitis. the ability of frontliners to deal with attacks of acute hepatitis will be one of the keys to the readiness of health workers and hospitals in dealing with the development of the disease**.** **Objective**: The study aimed to explore frontliners' readiness regarding knowledge, skills, mental health in dealing with Mysterious Acute Hepatitis at Mustika Medika Hospital . **Method**: A qualitative study with phenomenology approach was applied in this study. In-depth interviews and Focus Group Discussion (FGD) techniques were carried out in collecting research data. Informants in this study were 12 people taken from nurses, midwives, doctors and also representatives of hospital management. **Result:** The results found that four themes described the frontliners readiness in facing the attacks of mysterious acute hepatitis including: 1) lack of Understanding of Mysterious Acute Hepatitis; 2) readiness of self-protection; 3) anxiety about the high transmission and also the death rate of acute hepatitis; 4) hospital readiness both in terms of facilities and infrastructure

Conclusion:. large number of frontliners' unpreparedness in dealing with pandemic outbreaks.

Keywords: frontlines readiness, hospital resdiness, acute hepatitis,

Introduction

The number of probable cases of acute hepatitis of unknown origin in children reported worldwide continues to rise, now exceeding 650. Thirty-three countries representing all continents have reported cases, with the UK accounting for the highest number with 222 (1) . In Indonesia, Indonesia reported that it had identified 14 suspected cases of acute hepatitis of unknown origin, thirteen of which were still waiting for their test results before being classified as a probable case (2)

While efforts to thoroughly investigate and identify the cause(s) of this mysterious illness are ongoing, health alerts and guidelines for sample collection, testing, and reporting have been released across the globe by public health authorities (3).

Due to the absence of a defined aetiology, only either probable or epi-linked cases can be considered. WHO mentioned that a probable case is defined as an individual aged 16 or younger presenting since 1 October 2021 with an acute hepatitis (non hep A-E) characterized by serum aminotransferases >500 IU/L (AST or ALT) (4).

The results from a study conducted in Italian suggest a poor association of SARS-CoV-2 and Adenovirus infection with severe acute hepatitis (5). Therefore, preventing of outbreak need to carry out. Frontiliners Readiners is crucial to manage and prevent the the outbreak transmission.

However, The lack of knowledge and skills of health workers in dealing with the Covid-19 case has been a bad report card for health performance in Indonesia for almost 2 years. New health workers can be skilled and have good knowledge about Covid-19 infection.

The readiness of health workers in dealing with infections that spread through droplets such as this mysterious acute hepatitis needs to be properly prepared. If this is not done immediately as one of the risk mitigation efforts in dealing with the spread of mysterious acute hepatitis. it is not impossible that this mysterious attack of acute hepatitis can spread again.

Although this issue is important, so far there has been no study in Indonesia that explores the readiness of health workers in dealing with mysterious acute hepatitis attacks. So this study will focus on this issue.

Mustika Medika Hospital was chosen because one of the reasons is the large number of pediatric patients being treated at this time compared to patients of other specialties. Therefore, it is necessary to ensure that the service system and mental readiness, knowledge and also the ability of health workers to face new challenges in the world of health, namely attacks of mysterious acute hepatitis so that they do not spread into active cases of infection

OBJECTIVE

The study aimed to explore frontliners' readiness regarding knowledge, skills, mental health in dealing with Mysterious Acute Hepatitis at Mustika Medika Hospital.

METHOD

Design

A qualitative research with a phenomenological was approached in this study. Phenomenological research to find out detailed explanations and individual understanding of their experiences and how the process of something becomes clear and real.

Sample, sample size, & Sampling technique

The informants in this study were pediatricians, nurses and midwives who worked in the pediatric nursing unit and management at Mustika Medika Hospital. The sampling technique in this study used a purposive sampling technique, which is a sampling technique for data sources with certain considerations. Twelve informants were involved in this study

Informan	Total samples	inclusion criteria
Pediatricians	1	- Doctor in charge

		- Has been working within 1 year or more
Nurses	6	- Nurses who are woriking in emergency room, child care room - Has been working within 3 months - Nurses who have a licences in practice perawat
Midwifery	4	- Midwife on duty in child care - Has been working within 3 months - Have a nurse's licences
Vice Director	1	- Has been working within 3 months

Data collection procedure

The data were collected directly to the participants. We conducted the in-depth interviews and focus group discussions (FGD). The FGD technique was carry out for pediatricians, nurses, midwives and management at Mustika Medika Hospital. The FGD technique was carried out simultaneously at one time and during implementation it will be recorded so that the data used later can be recorded properly.

The in-depth interviews were also carried out with key informants, namely pediatricians as a direct source of information about mysterious acute hepatitis attacks, interviews were conducted for 30 minutes to obtain additional information.

Document review is carried out by researchers to collect valid and accurate data from the object under study. the data in question can be in the form of documentation, management documents and other information obtained through Hospital data.

Data Analysis

We conducted the thematic analysis techniques to analyze the data. Thematic analysis is a way of identifying patterned themes in a phenomenon. These themes can be identified, coded inductively (data driven) from raw qualitative data (interview transcripts, biographies, video recordings, etc.) or deductively (theory driven) based on theory and the results of previous research (Boyatzis, 1998).

In this study, the data analysis technique used was phenomenological data analysis which prioritized data analysis through the phenomena experienced by key informants. The triangulation method was used to checks the results with different data collection techniques, namely interviews, observation and documentation so that the degree of trust can be valid so that data collection becomes valid.

Results

Characteristic of respondents

Respondents consisted of 12 people and 6 people consisted of nurses, 4 people consisted of midwives, 1 pediatrician, 1 deputy director of the Hospital. The nurses involved in this study were those who served in the emergency room and inpatient rooms where the nurse respondents who were taken were nurses who had licenses. The midwives on duty in child care rooms were also involved in this study. One of the elements of the doctor, namely a pediatrician was required to provide the information regarding this mysterious acute hepatitis affecting children.

Frontliners readiness in facing the attacks of mysterious acute hepatitis

Several themes have been found in this study to determine the frontliners readiness in facing the attacks of mysterious acute hepatitis including:

1) Lack of Understanding of Mysterious Acute Hepatitis

Dari hasil diskusi didapatkan adanya 1 pendapat yang tidak tahu mengenai hepatitis akut Misterius itu sendiri, sedangkan 1 orang responden mengatakan bahwa penyebaran sangat cepat dan 4 orang lainnya mengatakan bahwa gejala hepatitis akut dengan diare mual dan penyebaran lewat saluran kemih. Lalu 3

orang responden mengatakan bahwa hepatitis akut adalah peradangan pada hati, 3 responden menyatakan bahwa hepatitis akut disebabkan oleh infeksi virus. Untuk pertanyaan menegenai tatalaksana hepatitis akut misterius 3 orang responden menyatakan belum mengetahui secara pasti sedangkan 9 orang responden mengatakan mengetahui tatalaksana mengenai hepatitis akut misterius ini. Menurut teori Hepatitis akut adalah peradangan hati yang bisa berkembang menjadi fibrosis (jaringan parut), sirosis atau kanker hati. Hepatitis disebabkan oleh berbagai faktor seperti infeksi virus, zat beracun (misalnya alkohol, obat-obatan tertentu), dan penyakit autoimun. Sehingga dari hasil diskusi diatas dapat disimpulkan bahwa adanya kekurang pemahaman responden terhadap serangan hepatitis akut misterius itu sendiri.

"*Actually, for an exact explanation, I don't know, I just know from social media, I don't know the details" (R, 27 years old, female, midwife)*

"I am not clear yet. It occur in children under 16 years, jaundice, diarrhea, abdominal pain, nausea, vomiting (T, 38 Years Female, Nurse)

"Belum mengetahui secara pasti untuk tatalaksana, tetapi pada fase akut monitoring perjalanan klinis, terutama kesadaran dan laboratorium" (L, 21 Tahun Perempuan, Perawat)

"Dari sini jujur, saya juga tidak bisa banyak berkomentar ya. Kenapa karena kita juga masih memantau perkembangan tentang tata laksana spesifik untuk hepatitis akut misterius ini ya" (E, 64 Tahun Pria, Dokter)

2) Readiness of self-protection

The results of the interview found that 3 respondents said that the use of PPE was very important but the hospital was inadequate.

"Readiness on self-protection , and room (R; 27 years old; woman; midwifery)

"self-protection used, sepatrated in isolation room, separated in patient care rooms, family education on personal hygiene" (T, 38 years female, nurse)

""should be done the same as before, prepare Personal Protection Equipment, Personal Protection Equipment must be completely complete" (A, 23 Years Female, Nurse)

One respondent stated that there must be a lack of understanding of how to wash hands as a form of self-protection. good knowledge and skills in terms of self-protection, namely the use of PPE is an effort to create occupational safety and health for health workers in several treatment rooms in hospitals.

"In terms of knowledge, we, as pediatricians, are still minimal, as well as the nurses, whose knowledge is of course still minimal. So if you say your readiness for those caring for you, whether it's a nurse or midwife, your readiness is still very lacking" (E, 64 years man, doctor)

3) Anxiety about the high transmission and also the death rate of acute hepatitis

From the results of the discussion it was found that the 12 respondents said that they were worried if the transmission of mysterious acute hepatitis became widespread. One respondent said if there was a case of death. They worry that the high mortality rate due to previous disease outbreaks will disrupt the stability of health workers, the danger of being infected and causing death is one of the reasons for the high anxiety rate which can have an impact on anxiety disorders.

What is worried about is the subjective domain with complaints because children are difficult to detect" (A, 26 years, female, midwife

What is worrying is if there is no prevention of fast and protracted transmission" (A, 51 years old Male, Management)

"I'm afraid it's like Covid, fast transmission can be through goods or air, we have to wear masks and wash our hands more often so that transmission doesn't happen more quickly to humans" (D, 23 years old Female, Nurse)

"What I'm worried about or what I'm afraid of from this mysterious acute Hepatitis is direct contact with patients who have been

exposed to this mysterious acute hepatitis" (S, 33 Years Female, Nurse)

4) Hospital readiness both in terms of facilities and infrastructure

Another factor found from the interview process such as lack of hospital readiness both interm of facilities and infrastructure. Three respondets mentioned about the readiness of room preparation, human resources, and information unit.

"*in terms of human resource knowledge related to mysterious acute hepatitis, laboratory support readiness, isolation room" (R, 27 Years Female, Midwife)*

"*Readiness of Personal Protection Equipment" (A, 26 Years Old, Female, Midwife)*

"*Preparation of tools, rooms, personnel, knowledge of human resources, PPE, medicines" (E, 26 Years Female, Midwife).*

Three respondents also explained about continuity of essential service support. Two of them mentioned that need a isolation room to conduct the examination and estblish the diagnosis

For the hospital treating acute hepatitis patients, it has an isolation treatment room, we refer the supporting examinations out unfortunately, so it takes time to establish the diagnosis at the start, what must be added are the supporting examination items" (T, 38 years Female, Nurse)

"*In my opinion, the hospital has an isolation room, but there are limitations in supporting examinations for OT PT, which are referred to other hospitals, in my opinion, the hospital is not ready if there are no supporting examinations" (A, 23 years old, female, nurse)*

Other three respondents also described the healty safety work as the hospital readiness. One of respondents mentioned that all medical personel should use the personal protective equipment for caring the patients. Two of them confirmed that all patients should check the HbsAg to ensure the diagnosis of acute hepatitis.

The medical personnel and doctors treat patients by using Personal Protective Equipment and also keeping our tools sterile" (D, 23 years Female, Nurse)

"*Hospital readiness to handle this mysterious attack of acute hepatitis. Every patient who enters the hospital or nurse makes sure to check HBsAg to check for hepatitis to check" (S, 33 years Female, Nurse)*

"*The readiness of the hospital is that every patient who wants to be hospitalized or hospitalized is prioritized for HBsAg checks for acute hepatitis" (M, 21 years old, female, nurse)*

Discussion

Lack of understanding and knowledge of frontliners on the emergence of this mysterious acute hepatitis is very important. With adequate knowledge, early prevention of hepatitis can be carried out for health workers. The findings of this study found that there are still many health workers who have minimal knowledge of this mysterious attack of acute hepatitis. there are still many respondents who need information about the emergence of this mysterious acute hepatitis. Therefore it can cause delays in handling this mysterious acute hepatitis as well as delays in preventing the transmission of this disease. It was consistent with a previous study mentioned that lack of knowledge and attitude could impact on delays in handling fo the diseases (6-7). Another study also mentioned that knowledge directly drove peoples' preceived vulnerability, and practice and also could impact on threat appraisal and coping appraisal (8). Both of these assessments generate individual motivation to initiate, continue, or even hinder the emergence of adaptive responses.

The results of research related to the use of personal protective equipment, it can be concluded that the compliance of informants in the use of personal protective equipment (PPE) is still relatively low. The improvement and improvement of knowledge, attitudes, availability of Personal Protective Equipment, as well as supervision needs to be carried out

so that compliance with the use of Personal Protective Equipment can fully go well. It was consistent with a previous study mentioned that knowledge, attitudes, availability of Personal Protective Equipment could improve the compliance with the use of Personal Protective Equipment (9). Another study also mentioned that Adequate knowledge, positive attitude, and proper practice of personal protective equipment by healthcare workers are necessary to get protection from COVID-19 infection (10)

A high level of anxiety disorder is related to the presence of a pandemic, namely the emergence of fear in health workers if they are infected and then they can transmit it to family members at home. The results of the discussion found that all frontliners said they were very worried about the high transmission and death from acute hepatitis.

These results affect the relationship with hospital occupational health and safety. Mental health factors must be properly maintained by employers because this is part of occupational health and safety. This is a dominant effect that can arise if it is not paid attention to, it can disrupt the operation of the hospital. A study reported that high prevalence of anxiety, depression, stress, and insomnia but a low prevalence of post-traumatic stress disorder among healthcare providers (11). It was consistent with a previous study mentioned that anxiety and mental disorder of healthcare providers could impact the quality of health services (12)

Another hospital readiness should be ready such as readiness of hospital facilities and infrastructure to deal with mysterious acute hepatitis attacks. Complete facilities and infrastructure would be a benchmark for the success of a health facility in dealing with disease attacks that have the potential to become epidemics. In addition, the readiness of the Hospital itself is very important to maintain the stability of service operations and business continuity. A complete and qualified health facility system will provide high self-confidence and create a sense of security for employees and visitors who come to the hospital to get health services. A study also described the importance of hospital facilities and infrastructure to deal with Nasocomial spread of viral disease (13). A review study also confirmed the necessary infrastructure on infection prevention and healthcare epidemiology program (14)

Conclusions

Analysis of frontlines readiness in dealing with mysterious acute hepatitis attacks is a research conducted because it saw the large number of frontliners' unpreparedness in dealing with pandemic outbreaks. From the discussion found that four themes including; lack of understanding of mysterious acute hepatitis; readiness of self-protection; anxiety about the high transmission and also the death rate of acute hepatitis; hospital readiness both in terms of facilities and infrastructure

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