



Pre-hospital Emergency of Covid-19 in Community Based on Care Providers' Experience in Indonesia

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Abstract. This study aimed to explore pre-hospital emergencies of COVID-19 in the community based on care providers' experience. **Methods:** This article's design was descriptive, using a qualitative research approach with an in-depth interview. A total of 10 care providers were selected using purposive sampling. **Results:** The results of the study showed that there were four themes related to the pre-hospital emergency of COVID-19 in the community. Community health service infrastructure, shortage of resources, late case finding, and economic conditions were the triggers. **Conclusion:** These findings can explain that pre-hospital emergencies in COVID-19 cases in the community appear with various complex problems and have an impact on the role of the community. Every community needs strong social capital as a bridge between the community, local government, and health service providers.

Keywords: COVID-19 · emergency · pre-Hospital

1 Introduction

World Health Organization (WHO) states that COVID-19 is a global emergency problem, a pandemic for humanity, which is an important problem in various countries around the world [1]. In Indonesia, nationally, through the Decree of the Head of the National Disaster Management Agency Number 9A of 2020, which was updated through Decree number 13 A of 2020, a Certain State of Emergency for the Corona Virus Outbreak disaster has been determined. Although promotive and preventive handling efforts have proven to be very effective for control, the mortality rate in Indonesia is still very high. This is because the application of the handling program in its application still has challenges and problems in the community [2].

Efforts to contain pre-hospital emergencies are part of the efforts made by the government to reduce mortality at the community level [2]. At the beginning of the pandemic, the handling of emerging infectious disease (PIE) COVID-19 was more focused on hospitals. However, with the continuous increase or acceleration of cases, the number of COVID-19 referral hospitals continued to grow until an emergency hospital was established, which became an important description of the situation as the main cause of death.

Efforts to contain the COVID-19 pandemic have not only grown in handling cases in hospitals but have shifted to being more focused on community empowerment in an effort to break the chain of transmission, including reducing the fatality rate or death rate [3, 4].

East Java Province is one of the provinces in Indonesia that is still experiencing problems in overcoming COVID-19, with 379,481 cases of compulsive confirmation and is the five-largest case of COVID-19. Surabaya, with a population of 2,848,583 people, found a COVID-19 incidence rate of 64,836 cases of compulsive confirmation in August 2021 [5]. The death rate of COVID-19 cases in Surabaya still occupies the highest position in East Java as many as 2,393 people [5].

The main obstacle is the strength of the health service infrastructure in the community in providing pre-hospital emergency services during the pandemic and also the limited personnel involved in participating in handling emergency problems due to COVID-19, both from professional and non-professional parties [6, 7]. Another thing is the delay in handling the diagnostic procedure in determining the COVID-19 disease, plus it is exacerbated by the delay in finding COVID-19 cases so that the risk of disease transmission increases quickly. The obstacles encountered certainly cannot be solved only by promotive and preventive efforts [8].

2 Methods

The qualitative study was conducted for one month, starting May 2022. The data was collected during the COVID-19 pandemic event in 2019–2021 to explore the pre-hospital emergency of COVID-19 in community-based care providers' experience. The purpose of descriptive qualitative research is to present a comprehensive summary of the data.

This study used a purposive sampling design because it is a design by selecting a population that understands the issues regarding the theme under study. Samples in this study include; 4 persons in charge of handling COVID at the Puskesmas, 4 COVID-19 Task Forces, and 2 persons who were in the village government.

In this study, the interview data will be analyzed using [1] data reduction to find interesting phenomena. In this phase, the activities are transcription, reading, and rereading of data. Furthermore, the next phase [2] was the reorganization, classification, and categorization of data; the researchers' analysis produced statements on the topic. The last stage [6] was interpreting and writing findings. In this phase, the researchers considered the statements and propositions to have been clear, and there are theories in order to develop arguments. Researchers developed stories that conveyed the main ideas developed in data analysis and presented citations or stories to support statements [9].

3 Results

3.1 Pre-hospital Emergency of COVID-19 in Terms of Health Service System Infrastructure

The emergency of pre-hospital care for COVID-19 cases can be described as how inadequate the infrastructure of the health service system is in dealing with the COVID-19 pandemic. The impact of these problems is various problems that arise, especially in

the spread of disease and handling emergency situations in the community. The main obstacle felt by Public Health Center (Puskesmas) as the main health service unit in the community is the availability of facilities and infrastructure in dealing with pandemic conditions that occur in the community.

“During the delta variant wave, we provided eight beds. In one bed, there were concentrated oxygen and oxygen cylinders, which was not enough in conditions like the delta variant. We cannot force Puskesmas to become emergency services because, in fact, Puskesmas are set up as the main service in terms of promotive and preventive”. P1 Puskesmas.

“In our service, we experienced overload, so we were forced to all open tents in the field, and unfortunately, indeed, most deaths occurred during handling in tents”. P1 Puskesmas.

“There are people coming to the Puskesmas where the saturation is heavy, and the electrolyte balance is also bad. We do not support some of the tools that should be in the ICU. Maybe all we can provide is a support system in terms of Basic Human Needs”. P3 Puskesmas.

“We should be able to judge then the problem should be referred to finding only one empty bed in the hospital only in Surabaya Raya (Surabaya, Gresik, Sidoarjo, Mojokerto) that does not exist. Really – it’s really difficult”. P2 Puskesmas.

“Measuring the quality of health service infrastructure at the community level or pre-hospital can be seen by how prepared all levels of society are to face disasters, especially pandemic conditions due to COVID-19. The pre-hospital emergency will occur when the community is not ready to accept a disaster such as COVID-19 disease”.

The community must be trained in the integrated emergency management system (SPGD), preferably in one city, to be ready to deal with the possibility of a pandemic and be prepared to face the possibility of an outbreak when a public health emergency occurs. We must start building an independent community at least to assess themselves and the family”. P4 Puskesmas.

“So far, we have only been limited to the village head level and socialized in the RT/RW in the form of the management level, not all communities. It should have to be up to the level of the house because, in some places, there have started to be many independent ambulances and foundations, but they sometimes can’t and don’t know how it works and how to integrate the programs. I think in the digital age of information. Everything can be done”. P4 Puskesmas.

3.2 Pre-hospital Emergency of COVID-19 in Terms of the Availability of COVID-19 Health Workers and Volunteers

The establishment of the COVID-19 Resilient Village was carried out by the government in collaboration with officers at the village level. The village task force team is the spearhead of the running of various kinds of COVID-19 containment programs in the order or at the community level, but by looking at the pandemic conditions and the level of COVID-19 incidence that is so large and fast; if this is not based on the availability of

sufficient volunteers, then the Kampung Tangguh (Resilient Village) program will not run as it should.

“Community assistance is very important and urgently needed. Honestly, we, village administrators only have a few people. The task force also has how many people there are...and to take care of so many of our citizens is distressing.” P6 Covid Task force.

“Services at the Puskesmas level are also not spared from the shortage of manpower, so medical personnel feel difficulty in providing health services or the first service to people who have symptoms. Non-optimal health services at the Puskesmas level can provide poor-quality medical care for clients at Puskesmas and result in an increase in the fatality rate at the community or pre-hospital level.”

“At the time of turning back yesterday, the task force team and the residents helped us at the health center, patient care, helped our logistical needs, although they were not medical people, but their presence in the health center really helped us, we knew they were tired and also had to take care of it in the community, but that’s the condition, we at the health center also felt short of manpower.” P1 Puskesmas.

“Because of limited energy, ...not a few people die at the Puskesmas or their condition becomes worse when at home. This is because the increase in the number of patients is not comparable to the manpower in the Puskesmas; even patients who have died become corpses we are still queuing if we plan to burry”. P3 Puskesmas.

3.3 Pre-hospital Emergency of COVID-19 in Terms of the Delay in Finding COVID-19 Cases

The speed of COVID-19 diagnostic procedures is a mandatory thing that must be prepared in handling the pandemic at the community level. Rapid diagnosis enforcement will accelerate the ability at the community level to trace and find new cases of COVID-19. Therefore, enforcement of a diagnosis of pandemic disease must be fast and efficient. Delays in case discovery will have a direct impact on the speed of transmission and the ability to detect the condition of patients who are at risk of falling in an emergency or even dying. The COVID-19 pre-hospital emergency is illustrated in how the efforts to handle COVID-19 were carried out by Puskesmas and the community encountering various problems, especially in the duration of diagnosis determination. So, it has an impact on delays in finding cases.

“Now, to determine the diagnosis, the examination here.... The results of 1 month just came out...finally in doing the tracing is not by data. However, we had maxed out our friends.... Our friends had fallen ill”. P2 Puskesmas.

“After doing the swab at the health center, they went home while waiting, and we had difficulty controlling if we were not helped by the residents, but we knew that the residents of the community had limitations. So many patients fall into serious conditions that we cannot handle. Imagine that in 1 month, almost 1000 persons are positive. That’s the positive one, if someone who swabs a day can be 300. So, we have also been desperately dealing with COVID-19”. P1 Puskesmas.

“...there used to be residents of their families. Drivers were outside the city such as from Jakarta. He went home for a while, and his home is next to him. There was an ambulance driver who continued to bring him to Dr. Soetomo hospital, and not more than 3 days, he has died and the results have not come out”. P5 Covid-19 Task force.

“If it’s from us, yes... the government is already very good. Just yesterday... it was the lack of results of the old inspection... that made us tired because people especially traders did not want to be in isolation yesterday...which was booming, it really made us tired and got headache”. P7 COVID-19 Task force.

Public knowledge is an important variable in the speed of diagnostic procedures. People with sufficient knowledge tend to take adaptive actions such as conducting examinations independently or utilizing health service facilities. This knowledge is greatly influenced by how the government is aware of the pandemic outbreak that occurs because this disease is a new disease, so the initial information provided by the government becomes the initial knowledge about COVID-19 and becomes the initial basis for the community in behaving and behaving towards the prevention of the COVID-19 disease outbreak.

“Indeed, in the beginning... the hope was that when COVID-19 entered Indonesia, it was just a common cold that could not have an impact on things that were problematic. So, when we first came in, we were still sectoral... so when it was the problem of health, it meant the problem was in the Health Department. Because you still haven’t seen it, it doesn’t has any impact on other aspects”. P9 village officers.

“So, it is necessary to provide the widest possible information first and thenan antidote to hoax information must be done because if the hoax information is not immediately denied, it will make it difficult for officers when promoting prefentive socialization”. P10 village officers.

3.4 Pre-hospital Emergency of COVID-19 in Terms of Community Economic Conditions

The main program in handling the COVID-19 outbreak is how to prevent transmission in the community. Pre-hospital emergencies occur due to the inability of health services to suppress the spread of COVID-19 cases. Various efforts have been made, including strengthening in maintaining health protocols, but when this outbreak indirectly affects the economy of sufferers, this becomes a major problem in handling the spread of COVID-19 cases in the community.

“The most difficult thing is to get residents to self-isolate, especially those who sell around. I also can’t prevent it because it is about their lives”. P8 COVID-19 Task force.

“The most memorable experience when we got a report from a resident was that there was a person who did not want to check on his family confirmed positive... but he still went out and worked without doing an examination. When we came with the task force team for tracing, we were scolded and told to change our jobs”. P3 Puskesmas.

“We have a hard time banning small coffee shops in our area from closing at 8 pm because we are also confused, they gave an explanation if the economic conditions are down”. P5 COVID-19 Task force.

“If they suffer from COVID-19, they relatively hide because they do not want to self-isolate, especially those who sell. Even though we have provided food for the isolation

period, but they explained that when people know that they are sick with COVID-19, even though they have recovered, they will still not sell well". P8 COVID-19 Task force.

4 Discussion

The Pre-hospital Emergency of COVID-19 in Community Based on Care Providers' Experience in Indonesia

The results showed that four variables related to or illustrated how the emergency condition of the COVID-19 pre-hospital was based on the experience of health service providers in handling COVID-19. The results of the study illustrate that the findings of four variables can explain that pre-hospital emergencies in COVID-19 cases in the community that arise with various complex problems related to the description of the condition of the health service system infrastructure, the need for human resources in handling the COVID-19 pandemic, delays in the discovery of COVID-19 cases, and economic conditions that trigger the discovery of obstacles in handling COVID-19 [7, 10].

Puskesmas, in this case, is part that plays a role in the problem of the degree of public health being the most important element in handling pre-hospital COVID-19, which is responsible for providing all infrastructure, including health facilities and infrastructure in the community. Health infrastructure is clearly illustrated how the condition of Puskesmas services is unable to accommodate the large number of COVID-19 events that require services, including basic health needs services or emergency services that require a referral system. These conditions are increasingly aggravated by the difficulty of obtaining access to hospitals which are referral systems from Puskesmas. In addition, the length of diagnostic procedures in all health services, especially Puskesmas, is also an illustration of readiness in terms of infrastructure, especially in health infrastructure that supports the handling of COVID-19 pre-hospitals.

Services at the Puskesmas level are also not spared from the shortage of manpower, so medical personnel feels difficulty in providing health services or the first service to people with symptoms. Non-optimal health services at the Puskesmas level can provide poor-quality medical treatment for clients at Puskesmas and result in an increase in the fatality rate at the community or pre-hospital level. Various government programs at the community level, such as the establishment of the COVID-19 Resilient Village carried out by the government in collaboration with officers at the village level and the village task force team, are the spearhead of the running of various kinds of COVID-19 containment programs in the order or at the community level, not from the availability of volunteers who are in a part of the community [11, 12].

Public knowledge related to COVID-19 disease determines how the community's readiness to handle COVID-19 pre-hospital in Surabaya. COVID-19 prevention behavior and perceptions of pandemic conditions are the basis for the community in responding to various COVID-19 pre-hospital handling programs. People with sufficient knowledge tend to take adaptive actions such as conducting examinations independently or utilizing health service facilities. This knowledge is greatly influenced by how the government is aware of the pandemic outbreak that occurs because this disease is a new disease, so the initial information provided by the government becomes the initial knowledge about

COVID-19 and becomes the initial basis for the community in behaving and behaving towards the prevention of the COVID-19 disease outbreak. The delay in the discovery of COVID-19 cases is a reflection of the condition of minimal public knowledge, which is illustrated in the pattern of behavior and public perception in accepting the COVID-19 handling program [13, 14].

In addition, the speed of the COVID-19 diagnostic procedure is a mandatory thing that must be prepared in handling the pandemic at the community level. Rapid diagnosis enforcement will accelerate the ability at the community level to trace and find new cases of COVID-19. The COVID-19 pre-hospital emergency is illustrated in how the efforts to handle COVID-19 carried out by Puskesmas and the community encounter various problems, especially in the duration of diagnosis determination, and so it has an impact on delays in finding cases.

The theoretical principle of transcultural care is that the worldview (World Views), one of which is the factor of the infrastructure of the health service system, will greatly affect the meaning of patterns or practices related to health problems. These factors also need to be observed for holistic health services and provide benefits to humans because this dimension has been lost in studies related to the need to solve health problems, one of which is the health problems of infectious diseases in society, which involves other factors beyond the medical aspect in its treatment. The infrastructure of the health service system is predicted to be a strong influencer in finding out the situation picture of how elements of society are tackling health problems and also understanding the development that is structured with adequate infrastructure for individuals, families, and groups and functions in health institutions [15].

The establishment of the COVID-19 Resilient Village, carried out by the government in collaboration with officers at the village level and the village task force team, is the spearhead of the running of various kinds of COVID-19 containment programs at the order or at the community level. The fulfillment of human resources in carrying out the program will not run without strong social capital at the community level. One of the social capitals that can bridge the need for human resources is the values and norms that exist in society. The advantages that can be passed by group members in an organization are solidarity and kinship in the group if it is based on good norms. With this foundation, the group will continue to run to achieve common goals [15].

The attitude and behavior of the community towards the acceptance of the COVID-19 handling program are one of the factors of delay in the discovery of COVID-19 cases. The impact of these conditions is the difficulty in reducing the incidence of COVID-19 transmission in the community. The gap between the program and the attitudes of the community shows a lack of trust from the community in health care providers during the pandemic. The pattern of public trust must be built without realizing it so that finally, the COVID-19 handling program can take place and go hand in hand with the foundation of public trust in various elements, namely, social groups, power holders, namely sub-districts and people who are experts in the field of health, in this case, are Puskesmas. However, these elements work together, especially in terms of finding COVID-19 cases, which always experience obstacles.

The material support provided during the pandemic, especially when clients are self-isolating, is not enough for them, especially if the status of COVID-19 disease is known

by the surrounding community. It will have an impact on the economic conditions that will be experienced next. Although this study did not aim to investigate in depth the economic status of the people, it was found that most people who did not comply with health protocols were associated with financial difficulties, which affected their ability to earn money for transportation for daily life [16].

5 Conclusion

The pre-hospital emergency of COVID-19, based on the experience of health service providers, can be described using the transcultural care model and social capital by conducting an assessment of health service infrastructure, norm values, public trust, and economic factors that trigger various problems that occur. Some of these factors can finally answer the next strategy carried out in preparing the situation for handling health problems, especially in the problem of infectious diseases that become pandemics.

Suggestion

Some research findings that are able to describe the situation should be a reference in carrying out pre-hospital management strategies for infectious diseases that are at risk of becoming a pandemic by knowing the pre-hospital emergency conditions in the community through transcultural care and social capital assessments.

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