ORIGINAL ARTICLE

Exploring Perception and Role of Nurses during COVID-19 Pandemic: Experiences of Frontline Workers in East Java, Indonesia

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ABSTRACT

Introduction: Humanity is increasingly faced with the constant threat of natural and man-made disasters. Nurses need to have preparedness because they are at the forefront of disaster management. However, few studies have explored the perception of nurses during the COVID-19 pandemic in Indonesia. This study explored nurses' perceptions in caring for patients with COVID-19. **Methods:** The study used a qualitative approach at two referral hospitals for COVID-19 in East Java, Indonesia, from June 10 to 30, 2021. Twenty-five nurses who worked closely with COVID-19 patients were recruited through convenience sampling. They underwent a face-to-face interview, through an online platform, using semi-structured interview. The data were analyzed thematically. The NVivo version 12 was used to organize data to improve analysis. **Results:** Three main themes emerged from the analysis including 1) lack of preparation in facing a pandemic situation, 2) ready to face all the tremendous challenges–fighting with nurse duties, and 3) working together as a transdisciplinary team. **Conclusion:** The study showed that during caring for patients with COVID-19, nurses perceived the lack of PPE, unstable working emotions, burning shift schedule, and working collaboration. Enhancing the role of nurses to deal with any pandemic or microbiological attack needs to be highlighted.
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INTRODUCTION

Humanity is increasingly faced with the constant threat of both natural and man-made disasters. The coronavirus disease 2019 (COVID-19) was found for the first time in China in December 2019. By September 8, 2020, the virus had infected over 27 million individuals and killed over 890,000 globally (1). COVID-19 was initially detected in Indonesia on March 2, 2020, in Depok, West Java. As reported by the Indonesian Ministry of Health, the virus has continued to spread throughout the country. On September 6, 2020, there were 194,109 confirmed COVID-19 cases, 138,575 people recovered, and 8,025 people died due to the infection (1). It is estimated that an increasing number of healthcare professionals have been exposed to COVID-19. The Evidence-based Medicine Center found that healthcare workers had the highest rate of positive cases at 14.8%. By April 16, 2020, the proportion of healthcare professionals confirmed with COVID-19 had increased to 16.2% (2).

Nurses are the front liners of disaster preparation and management. During this COVID-19 pandemic, nurses play a critical role in preventing the spread of the virus and providing critical nursing interventions to assist patients in surviving and achieving optimal health. Nurses are expected to offer care even though they are placed in situations which endanger themselves. They must make difficult decisions while working under extreme time constraints. This is a part of the ethical code of conduct that governs healthcare workers' professional decisions (3). The critical role of nurses in the event of a pandemic is emphasized in health policies that seek to equip nurses for local and international disaster response adequately. Since the COVID-19 is a new infectious disease, many healthcare systems were unprepared to deal with this virus, which caused nurses to be fearful and uncertain as they attempted to combat it (4). This condition has put significant pressure on the nurses that impacted their ability to deal with the situation. However, few studies have explored the perception of nurses during the COVID-19 pandemic in Indonesia (5).

Nurses around the world are faced with an extraordinary situation when the COVID-19 virus began to spread. Nurses faced stigmatization, and even their families found it challenging to advocate for them (5). Concerns are also growing as more information about the disease prevalence, mortality, and other scary situations made known regularly both on television and the internet (6). These challenging situations affect patients, communities, and healthcare workers equally. It is vital to explore perceptions of nurses in an Indonesian healthcare setting, as this is an issue that receives little attention by research and government. Since the researcher and the government in Indonesia are at the beginning of a pandemic and focusing on how to deal and combat the COVID-19 virus, this study which explored the nurses' perception of caring for patients with this virus is timely. This study explored nurses' perceptions of caring for patients with COVID-19 in Indonesia.

MATERIALS AND METHODS

Study design
This study used a descriptive qualitative approach (7). Descriptive qualitative research has been highlighted as crucial and valuable for research questions centered on uncovering the who, what, or where of events and experiences and gathering perspectives from interviewees about a poorly defined phenomenon (8).

Study setting
This study was conducted at two referral hospitals for COVID-19 in East Java, Indonesia, from June 10 to 30, 2021. During the study period, COVID-19 cases in East Java, Indonesia, increased dramatically compared to other Java regions.

Participants
Nurses currently providing direct care to COVID-19 patients for at least three months (because if nurses are new to treating COVID-19 patients, they may have new perception compared to those nurses who have provided care for a longer period) met the inclusion criteria for this study. Nurses who took leave, refused to participate or withdrew from the study were excluded. A convenience sampling technique was used to select participants. Out of 100 nurses who met the eligibility criteria, 30 participants agreed to participate in the study. However, 5 of them withdrew due to personal reasons. Finally, twenty-five nurses consented to participate. Table I contains information of the characteristics of participants.

Interview outline
The interview guideline was developed from the literature review and expert discussion. The interview guidelines included probes for the main point of the interview were: 1) What do you think about caring for COVID-19 patients? 2) what is your opinion about the nursing role for patients with COVID-19?. The interview

Table I: Demographic characteristics of studied participants (n=25)

Characteristics	n (%)
Age in years (Mean ± SD)	30.2 ± 3.32
Gender	
Male	7 (28)
Female	18 (72)
Marital status	
Unmarried	5 (20)
Married	20 (80)
Working experience	6.7 ± 4.18
Education level	
Diploma III	13 (52)
Bachelor/profession degree	12 (48)

was conducted using the national language of Indonesia in which the researcher and participants both were confident in expressing perspectives.

Data collection and analysis
The researchers contacted hospital administrators, who subsequently disseminated the information to their employees. The researchers contacted only participants who expressed interest in participating in this study to plan an online interview. After receiving the participant's consent, the researcher invited the participants to join the interview via an online platform to prevent the transmission of COVID-19 and to abide the SOP guidelines (9). All the interviews lasted 30 to 45 minutes. Interviews were stopped after a saturation point was reached, i.e., when new data were no longer generated from the discussions. Finally, we performed 25 semi-structured interviews with clinical nurses. All the interviews were recorded in audio and transcribed verbatim prior to analysis. The original data was translated from Indonesian to English by a native speaker who could speak both Indonesian and English languages. The NVivo version 12 was used to organize data to improve analysis. The data were analyzed thematically, and interviews with the participants supported the emerging themes (10). The steps on thematic analysis include familiarizing with data, generating initial code, searching for themes, reviewing themes, defining and naming themes, and producing the report (11).

The trustworthiness was done following the Lincoln and Guba criteria: credibility, transferability, dependability, and confirmability (12). Credibility was established by peer review and debriefing in order to give an external check on the research process, hence increasing credibility, as well as through analyzing referential adequacy in order to compare preliminary findings and interpretations to the raw data. To ensure transferability, we attempted to detail every step of the data collection process. To establish dependability, researchers can guarantee that their research is rational, traceable, and well-documented. Confirmability was achieved by incorporating indicators such as the rationale for

theoretical, methodological, and analytical choices throughout the investigation, allowing others to comprehend how and why decisions were taken.

Ethical considerations
The university ethics committee approved the study (726/KEPK/STIKES-NHM/EC/I/2021). All participants received a fact sheet prior to participating in the study. They were also allowed to ask questions. The participants also completed a consent form allowing them to withdraw from the study at any time without explanation.

RESULTS

Three themes were identified and subsequently presented after analyzing the data on nurses' perceptions during the COVID-19 pandemic. Table II shows the themes, the discussion of the cluster, and the statement of an example.

Lack of Preparation in Facing Pandemic Situation
The participants reported inadequate personal protection equipment (PPE) and emotional instability: too fast, too surprising, the uncertainty of hospital management

support, the uncertainty of having sufficient knowledge and skill related to COVID-19, and unsupportive hospital facility.

"….in the beginning of this pandemic situation, it is too hard to find PPE" (P2)

"….it is too surprising for me. We as healthcare provider abruptly facing a chaos situation that make us easy to feel anxious or worry" (P10)

"The hospital leaders seem discomfiture in making some decision of those kind of shortage" (P7)

"I am having long experience in giving care for patient and meets lots kind of disease but I am not one hundred percent certain have a good skill in giving care to COVID-19 case."

"…. there is no sufficient isolation room in my hospital. All bed is getting full easily."

Ready to face all the tremendous challenges – Fight with nurse duties
The participants reported a "burning" shift schedule, unfamiliar context, and worried about being transmitted or transmit the infectious disease to someone else.

"…even though I got 7 to 8 hours like as usual shift. But I think, it is too stressful. Having more time to break is

Table II: Theme, cluster theme, and example statement

Theme	Cluster Theme	Sentence
Lack of Preparation in Facing Pandemic Situation	1. Inadequacy Personal Protection Equipment (PPE)	"….in the beginning of this pandemic situation, it is too hard to find PPE" "…..all the PPE distributors are runs of stock. Some health provider including nurse was using improvised protected gear such as rain coat"
	2. Emotionally unstable: too fast, and too surprising	"This pandemic happens too fast; I even do not realize how it goes infected all around the world" "…..it is too surprising for me. We as healthcare provider abruptly facing a chaos situation that make us easy to feel anxious or worry"
	3. Uncertainty of hospital management support	"….Moreover, I think hospital management do not have a sufficient time to prepare this kind of situation" "The hospital leaders seem discomfiture in making some decision of those kind of shortage"
	4. Uncertainty of having sufficient knowledge and skill related to COVID-19	"I am having long experience in giving care for patient and meets lots kind of disease but I am not one hundred percent certain have a good skill in giving care to COVID-19 case" "…. I think I need more information related COVID-19, so I can fully understand and feel safe when I give an intervention to patient"
	5. Unsupportive hospital facility	"….there is no sufficient isolation room in my hospital. All bed are getting full easily" "This is insane, patient come over more and more but we are runs of ventilator"
Ready to face all the tremendous challenge – Fight with nurse duties	1. "Burning" shift schedule	"…..It is so exhausted for me to work about 9 to 10 hours using protection gear, I even hard to pee" "…even though I got 7 to 8 hours like as usual shift. But I think, it is too stressful. Having more time to break is better"
	2. Unfamiliar context	"…This situation is confusing, I do not familiar with all those protection gear" "Each patient has different symptoms, even do not written in textbook… Some burden is unusual for me "
	3. Worrying of being transmitted or transmits someone else	"It is hard to feel "clear" when going home. I do not know what kind and how the viruses infected my body" "Even though we used protection gear, we do not 100% certain the virus cannot transmit to us"
Working together as transdisciplinary team	1. Cooperate in giving best care to patient	"….Also, in my hospital, not only doctors and nurses, psychologist also have a role in convincing patient's mental condition" "….When it comes to the end of life situation, sometimes spiritual leaders come to bring peace for patient"
	2. Maintaining bond among different health care professional	"Besides exchanges orders and information related to patient care and COVID-19, all the team in ward also share their feeling to support each other" "….We (healthcare team) always try to understand each other feeling and avoid unimportant argument in order to maintain our excitement"

better" (P6)

"*Each patient has different symptoms, even do not written in textbook… Some burden is unusual for me*" (P5)

"*Even though we used protection gear, we do not 100% certain the virus cannot transmit to us*" (P11)

Working together as a transdisciplinary team
The research participants reported cooperating in giving the best care to patients and maintaining bonds among other health care professionals.

"*…. Also, in my hospital, not only doctors and nurses, psychologist also have a role in convincing patient's mental condition.*"

"*Besides exchanges orders and information related to patient care and COVID-19, all the team in ward also share their feeling to support each other*"

DISCUSSION

This study aimed to understand better the perceptions of nurses in Indonesia who worked directly with COVID-19 patients. Findings revealed that nurses faced a difficult situation with a lack of preparation to combat the virus. Pandemic preparedness is essential in disease control; failure to prepare could induce panic and anxiety among nurses, as they may be unaware of the extent to which the COVID-19 pandemic will spread (13). Lack of preparation caused a lack of motivation and workplace collaboration (14). Health care workplaces must have sustainable pandemic control and monitoring strategies to protect employees and their patients (15). These policies should guide nurses when confronted with a worldwide Pandemic such as the COVID-19.

PPE is a critical consideration in the fight against infections such as COVID-19 (16). Many studies reported a lack of PPE in their workplace, especially during the early pandemic COVID-19, which caused many nurses to be infected with COVID-19 (17). The scarcity of PPE caused fear and anxiety among nurses for being infected by COVID-19 (17). All healthcare institutions should have a clear policy for providing personal protective equipment (PPE) (18). This will ensure an appropriate supply of PPE and security for all nurses concerned. Moreover, the central government must adopt PPE procurement policies for health care institutions as a national policy (18). It will also ensure comprehensive PPE in epidemic periods. A safe work environment and maintaining the provision of high-quality care require good resourcing in healthcare institutions.

Participants described a "burning" shift pattern, an unfamiliar environment, and the fear of being transmitted or transmitted to another person. Previous studies revealed that nurses in hospitals have long struggled with increased patient care responsibilities and exhaustion (19–21). If a pandemic reaches a critical stage, nurse availability will be impacted. When employees put in long hours, they should help each other by providing short breaks (22). Thus, healthcare institutions must be prepared for the potential of insufficient healthcare professionals and have contingency measures in place (22). The current findings indicate that efficient national recruitment and significant sector financing are required (23).

Our findings indicate the need to better prepare for the availability of adequate PPE to protect and prevent the nurses and healthcare professionals from being infected by COVID-19. All healthcare institutions should have pandemic training to ensure that healthcare professionals and staff are prepared in times of any pandemic in the future. In addition, nurse managers should consider managing nurses' working schedules and having adequate staffing to prevent a shortage of nurses.

The limitation of this study should be acknowledged. First, the nature of qualitative status conducted in one region of Indonesia has limited the generalizability of this study. This study has a small sample size that cannot provide cumulative evidence to support a policy change. Thus, future studies should explore more comprehensively the perceptions of nurses in dealing with any pandemic using mixed-method study.

CONCLUSION

The study shows that during caring for patients with COVID-19, nurses perceived the lack of PPE and unstable working emotions, burning shift schedule, and working collaboration. In order to better prepare for future pandemics, governments and healthcare institutions need to work together to develop a coordinated plan for dealing with and controlling such outbreaks. Additionally, it is critical to emphasize the importance of nurses in dealing with any pandemic or microbiological infection.

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