

Nurses' Experiences as Worker During the Covid-19 Pandemic

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ABSTRACT

Background: The Covid-19 pandemic has had a significant impact on nurses. Nurses as workers face various health hazards in the workplace (hospital). Nurses are a group at risk of contracting the virus when providing nursing care to Covid-19 patients. This study aimed to determine the meaning of nurses' experience as workers during the Covid-19 pandemic. **Design:** This research is qualitative research with a descriptive phenomenological approach. **Methods:** Data collection was done using in-depth interviews with online interviews using the zoom application. The interview data were analyzed using the Colaizzi method. **Results:** The results of this study identified four main themes, namely feelings of insecurity, dangers faced by nurses, active nurses in preventing transmission, and meaning for nurses. **Conclusion:** This study provides information that nurses during the Covid-19 pandemic face various health hazards. The implications of this research, as input to occupational health nursing science regarding the danger nurses faced during the Covid-19 pandemic. Suggestions from this research are expected to optimize efforts to promote and protect the health and safety of nurses during the Covid-19 pandemic.

Keywords: Occupational Health Nursing; Covid-19; Workplace; Hospital; Health Hazards; Health Workers

INTRODUCTION

Corona Virus Disease 19 (Covid-19) first appeared in Wuhan-China on December 31, 2019 (Peck, 2020). Similar cases followed this finding in several countries such as Thailand, Japan, Korea, and the United States. With such a rapid and a high number of transmission cases, on March 3, 2020, WHO announced that a global Covid-19 pandemic had occurred in the world (WHO, 2020).

Information from the emerging infection website. kemkes.go.id on December 25, 2020, showed that Indonesia experienced the highest cases in Southeast Asia with 692,838 positive cases. With the highest issues, Indonesia is still vulnerable and at risk for transmission of SARS-CoV-2 (Kemenkes RI, 2020). Other information obtained from the Task Force for the Acceleration of Covid-19 Response, DKI Jakarta has the highest number of cases with 171,871 cases (24.5%). DKI Jakarta is an area to be wary of because it has the highest number of Covid-19 cases (Gugus Tugas Percepatan Penanganan COVID-19, 2020). Furthermore, IDI (Indonesian

Doctors Association) said that 115 health workers had died due to exposure to the Covid-19 virus (Yossihara, 2020). IDI and PPNI (Indonesian National Nurses Association), on July 7, 2020, released that 61 doctors died and 39 nurses died allegedly due to being infected with Covid-19 (Arif, 2020).

This infectious disease pandemic situation also has an impact on the health care system. The high mortality and morbidity rate of Covid-19 in the community is a challenge for nurses as health care providers (Tang *et al.*, 2020). Working in the frontline, nurses have a high risk of exposure to biological agents such as contamination, infection, fluids, and environmentally transmitted through close contact with clients (Anderson & McFarlane, 2014). In hospitals, nurses face various occupational risks and hazards. As workers who face work risks in the industrial sector, nurses as workers in health services also faced with risks that can pose a danger to themselves (Oakley, 2015). Nurses face various hazards, both from biological, chemical, environmental, physical, and psychosocial factors

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(Stanhope & Lancaster, 2015). The practice of occupational health in nursing must focus on the promotion of health in the workplaces by using a variety of strategies of primary, secondary and tertiary level of preventions (Permatasari, 2010).

METHODOLOGY

This research is qualitative research using a descriptive phenomenological design. This study aimed to determine the meaning and significance of nurses' experience as workers during the Covid-19 pandemic.

Participants

Participants in this study were selected by purposive sampling technique to obtain a sample following the criteria and research objectives (Polit & Beck, 2008). The participants in this study were 15 nurses who were looking after Covid-19 positive patients who met the following inclusion criteria: 1) nurses who worked at one of the Covid-19 referral hospitals in the DKI Jakarta area, 2) had a minimum of 3 years of work experience at home 3) have a minimum education level of D3 nursing, 4) nurses have treated Covid-19 patients for at least two weeks, 5) can communicate well in Indonesian language, 6) can operate a laptop or cellphone with the Zoom application installed, 7) are willing to become a participant

Data Collection Method

Data collection was carried out by online interviews using zoom. Researchers used in-depth interview techniques to obtain in-depth data about the experience of nurses. Online interviews were conducted for 45-60 minutes using an interview guide that the researcher had prepared. All participants have been informed about the purpose and benefits of the study. This study is voluntary, and participants can withdraw at any time. Furthermore, willing participants to give their consent verbally. The data from the interviews and the identity of the participants were kept confidential by the researcher. This research has received ethical approval from the Faculty of Nursing, University of Indonesia on March 12, 2021 with the number: SK-57/UN2.F12.D1.2.1/ETIK 2021

Data Analysis

The data were analyzed using the Colaizzi method to find the meaning and significance of the phenomenon (Streubert & Carpenter, 2011). In the first step, the

researcher reads the interview transcripts repeatedly to understand the participants' experiences from the participant's point of view. Second, the researcher looks for significant statements that are following the research objectives. Third, each statement is interpreted so that the meaning of the participant's statement is known. Fourth, each unit of meaning is categorized. The five categories are grouped into themes and sub-themes. Sixth, the analysis results are described in a table, and the results are presented in a narrative description. Seventh, the researcher validated the data to the participants regarding the research results.

Validity of Research

The validity and reliability tests were carried out following the criteria of Creswell & Poth (2013). Namely credibility, transferability, confirmability, and dependability (Creswell & Poth, 2013). To increase the research's credibility, the member check technique was used to convey the results of the interviews to all participants. Participants stated that the results of the study were following participant's description. The transferability test was carried out by conveying the study results to nurses with the same criteria but working in a different hospital. From the transferability finding it was found that the study results were like those faced by nurses. Confirmability is carried out by conveying the results of data analysis to supervisors and participants. All nurses expressed the same image and agreed that the results of the study were acceptable.

RESULTS

Characteristics of Participants

Fifteen nurses participated in this study. Participants in this study are nurses who treated Covid-19 patients and work in hospitals in DKI Jakarta. Most of the participants were women, totaling to 11 nurses. There were four male nurses as participants. The age range of the participants were from 32 to 42 years. The participants' working experience ranged from 8 to 20 years.

Participants in this study have attended various training such as PPI (Infection Prevention and Control), BTCLS (Basic Trauma and Cardiac Life Support), K3RS (Health and Safety in Hospitals), Patient Safety, and some of them have been certified through ICU (Intensive) training. Care Units). Most of the participants have experience dealing with New Emerging Diseases

and Re-emerging Diseases such as H5N1, H1N1, MERS-CoV, Diphtheria, Tuberculosis, and HIV-AIDS.

Thematic Analysis

Based on the results of data analysis, the researcher got four main themes. The themes consist of 1) feelings of insecurity, 2) the dangers nurses face, 3) actively preventing transmission, and 4) wisdom for nurses.

1. Feelings of Insecurity

Due to the Covid-19 outbreak, nurses experience feelings of insecurity. In this theme, nurses experience anxiety and fear. These feelings are described in the sub-themes of anxiety and fear.

a. Anxiety

Participants said that they experienced feelings of anxiety at the beginning of the Covid-19 pandemic. Participants feel anxious about their health when they provide nursing care to patients. This information is as stated by participants:

"What will happen to us, then. There is a feeling of anxiety in yourself when you want to do nursing services." (P6)

"I'm starting to feel anxious. Anxious for self, for family, for the environment." (P9)

b. Fear

Anxiety is accompanied by fear. Nurses experience deep fear of infection. In addition, nurses also encountered many incidents of death experienced by patients. Nurses are afraid of viral infections that can endanger a person's life.

"Covid is spreading so fast, and it's getting worse, so we must be scared." (P10).

"I'm also afraid that the environment won't accept it because we are health workers." (P10)

"My chest suddenly felt tight, but the EKG showed it was okay." (P8)

"Sometimes I feel like I'm short of breath." (P13)

2. Dangers Faced by Nurses

During the Covid-19 pandemic, nurses face various work risks when treating Covid-19 patients. Nurses describe these threats in sub-themes, namely, viral

infections, high workloads, the use of PPE (personal protective equipment), social risks.

a. Virus Infection

Nurses realize that the biggest risk of treating Covid-19 patients is an infection due to exposure to the virus. Nurses in this study had been exposed to Covid-19 and became survivors. This information is as stated by the participants;

"I've been infected once, twice in fact." (P1)

b. High Workload

Nurses also experience dealing with high workloads is caused by an unbalanced ratio between nurses and patients. Nurses need more energy to deal with these situations. The description of these conditions is as conveyed in the statement:

"We are three nurses who treat 14 patients in the ICU; you can imagine how difficult it is for us." (P12).

c. Impact of using PPE

Another challenge faced by nurses is the impact of using PPE. Nurses feel physical discomfort, such as feeling tight, hot, and sweating. It was as conveyed by the participants:

"When you use PPE, for example, you are not used to it; you feel tight, it's hot." (P1)"

"The first two hours are still safe. But in the next three hours, concentration has decreased, I see." (P9)"

"If you have worn a hazmat, you feel hot. You are hungry, you want to pee, then you can endure it." (P2)

d. Social Risk

After returning from the hospital, the nurse acts as a member of the community. Several nurses stated that the social pressures they faced were not being accepted by society, ostracized, and being considered carriers of the virus. The participants conveyed the description of the condition:

"I (Nurse) plan to contract because I want to renovate my house. It turns out that in another RT, they still don't want to accept me." (P15)"

3. Nurses Actively Prevent Contagion

Nurses took various steps to prevent Covid 19. The

pandemic that has been going on for more than one year has provided different alternative ways of providing nursing care to patients and preventing the transmission of Covid-19. The theme of active nurses avoiding the transmission of Covid-19 is formed from several sub-themes, including 1) by nurses, 2) support from hospitals.

a. Preventive Strategies by Nurses

Following the Covid-19 prevention protocol in hospitals, nurses carry out various strategies to prevent the transmission of Covid-19. The nurse performs personal hygiene by taking a shower immediately after attending patient or when the nurse reach home. In addition, nurses also maintain hand hygiene always by complying with the five moments.

"If our strategy is in the room, the important thing is five moments" (P7)

"First of all, when we want to treat patient, the most important thing is to make sure we are healthy first. For example, if we are tired (nurses), do not force us to enter." (P12)(P7)(P5)

b. Support from Hospital

In carrying out prevention efforts, nurses also receive support from the hospital. Hospitals as workplaces take steps to support the efforts to prevent Covid-19 by nurses.

Hospitals provide facilities and incentives because they work with a high level of risk. This information is as stated by participants:

"We have incentives from the government. The existence of incentives is also one of the motivations for us" (P5)

"Alhamdulillah, until now we (nurses) have never had a shortage of PPE." (P7)

"The hospital's room was changed. The changes to a room with negative pressure, there is a non-negative pressure isolation room." (P6)

"Every room, every patient bed is also installed with CCTV to monitor." (P3)

"We can also provide information via the intercom at the nurse station. So, each patient's room is equipped with a nurse call." (P6)

4. Lessons for Nurses

During the Covid-19 pandemic, nurses became the main capital in the health care system. The presence of nurses is urgently needed to meet the care needs of Covid-19 patients. Nurses working in hospitals take lessons to always take care of themselves and comply with health protocols.

a. Taking Care of Yourself

Nurses understand the meaning of this pandemic incident, that as a nurse they must always maintain their health and safety. Health is the main factor in working and carry out duties as a nurse. Taking Care of Yourself is as stated by the participants:

"For health workers, everything must be in good health." (P5)

"We hope that no more nurses will be infected." (P1)

c. Adhering to Health Protocols

Another lesson learnt is increasing compliance with health protocols. Nurses expect nurse colleagues to always comply with health protocols to protect themselves and their families. Adhering to Health Protocols is what the nurse said:

We hope that our health workers will continue to follow the health protocols recommended by the government regarding social distancing, wearing masks, and hand hygiene." (P1)(P6).

DISCUSSION

Nurses who work in the workplace (hospital) are exposed to various hazards in the hospital. Nurses, as workers, carry out tasks in hazardous areas in hospitals or health care facilities (Walton & Rogers, 2017).

This study indicates that nurses experience feelings of anxiety and fear in the early days of the Covid-19 pandemic. Participants feel anxious about their health and feel afraid. Fear is caused by fear of infection, fear of death, and fear of not being accepted by society. In line with the study results, nurses showed various emotions ranging from anxiety, fear, helplessness, and empathy (Gordon *et al.*, 2021).

During an epidemic outbreak, positive and negative emotions of the front-line nurses intertwined and existed. In the early stage, negative emotions were dominant and positive emotions appeared slowly. Self-coping styles and psychological growth played a significant role in sustaining mental health of nurses

(Sun *et al.*, 2020). Some of the causes identified include fear of contracting and transmitting the virus, lack of knowledge, and being in an infectious environment (Gordon *et al.*, 2021). He *et al.*, (2020) mentioned that all nurses had negative feelings. Nurses experience bad moods, regrets, fears, and sadness while treating Covid-19 patient and distributing duties in China (He *et al.*, 2020). Furthermore, Tian *et al.*, (2021) confirmed that nurse depression could impact the quality of life of nurses and the quality of nursing care provided (Tian *et al.*, 2021). Health education interventions were directed towards vulnerable population, who may be at increased risk of contracting COVID-19. This may increase COVID-19 knowledge significantly if health education programs are specifically targeted at men (Al-Hanawi *et al.*, 2020).

The results of this study illustrate that nurses are vulnerable to psychological stressors in the form of anxiety, fear, and high workload. Nurses in this study showed that the symptoms of mild to moderate anxiety were characterized by concern about viral infections and anxiety about transmitting to family and the environment. Symptoms of severe anxiety experienced by some nurses are characterized by the emergence of psychosomatic. The importance of ensuring good professional quality of life and caring behaviour among clinical nurses during the COVID-19 pandemic is underscored. Nursing leaders can utilize programmes for clinical nurses to tackle professional quality of life issues and enhance caring behaviours (Inocian *et al.*, 2021).

Nurses also face other situations. During the Covid-19 pandemic, nurses face various work-related risks. Nurses are faced with the threat of viral infection and often get infected. The results of this study are also similar to the research of Mhango *et al.*, (2020) that Covid-19 poses work related risk for health workers. Many health workers have been infected with the coronavirus (Mhango *et al.*, 2020). During their professional duties, nurses often sacrifice themselves to contract the virus and even die (Sun, Shi, *et al.*, 2020; Tsay *et al.*, 2020).

Another condition faced by nurses is the high workload. This finding is the same as the research of Okediran *et al.*, (2020), where it is stated that the workload was getting heavier due to the patient's condition. Patients with complications may experience

worsening conditions that require supportive care. A study conducted on nurses in the operating room described the situation of no rest hours, unable to eat, and nurses spending all the time in a closed environment (Çelikkalp & Sayilan, 2021).

Another risk comes from the impact of using PPE. Nurses feel physical discomfort, such as feeling uncomfortable due to PPE, hot, and sweating. The nurse experienced complaints of dizziness, reduced vision, and lack of concentration. In addition, nurses are also struggling to meet physiological needs such as eating, drinking, and urinating. Similar research theme was seen among 15 nurses in Wuhan, China. The nurse describes the discomfort caused by the use of PPE. Heat, dehydration, shortness of breath are symptoms experienced by nurses. In addition, nurses also complain of decreased body functions such as reduced vision, hearing, smell, limited mobility, and communication problems (Chen *et al.*, 2021). Gordon *et al.* (2021) study among 11 ICU nurses, stated that physical symptoms were due to PPE use. Nurses said that PPE use causes discomfort, dizziness, and fatigue (Gordon *et al.*, 2021).

Nurses experience social risk in the form of stigmatization. Nurses are not accepted by society, ostracized, and considered as carriers of the virus. It is also stated by Gordon *et al.*, (2021) that the pandemic brings unique challenges for nurses. Outside the hospital, nurses are stigmatized by society (Brophy *et al.*, 2021). Nurses working in hospitals cause a lot of negative reactions from the community. The available information is sometimes exaggerated that nurses work in the coronavirus unit (Fawaz & Samaha, 2020).

This research shows that nurses who work in hospital settings also encounter many work risks, especially during the Covid-19 pandemic. Nurses are dealing with hazards derived from viral infections. Physical hazards resulting from the use of PPE. The impact of using PPE in the long term poses ergonomic risks ranging from lack of oxygenation (hypoxia), increased body metabolism which drains a lot of energy. Nurses also face psychosocial hazards in the form of deep feelings of fear, high workload as well as social pressure in the form of stigmatization by the Covid-19 pandemic.

Amidst the many stressors experienced, nurses are trying to prevent the transmission of Covid-19. Nurses are active in doing personal prevention (self-

protection). Personal prevention starting from bathing, maintaining hand hygiene, using masks, disinfecting, changing gloves to maintaining personal health. A similar research conducted by Lotfi *et al.*, (2020) emphasizes efforts to prevent transmission by various methods such as washing hands, using masks, and using hand sanitizers to avoid virus transmission. In the health care setting, infection control is also carried out by nurses and health workers. There are many steps such as handwashing practices and putting on and taking off PPE must follow proper steps to avoid infection in hospitals. Nurses' active efforts to comply with procedures are expected to prevent cross-infection in hospitals (Tang *et al.*, 2020).

In line with this study, participants in this study actively took preventive measures. Participants took various efforts to prevent the transmission of Covid-19. Nurses comply with health protocols, such as bathing, wearing masks and carrying out disinfection. Nurses also carry out orderly hand hygiene procedures. Participants also prevent transmission by making sure they are healthy before taking nursing actions to patients. It can be concluded that nurses' awareness is an important factor in virus prevention efforts both in hospitals, as well as at home and in their environment.

Hospitals also support nurses' efforts to prevent transmission in hospitals. The hospital implements an infection prevention policy and provides facilities to nurses. Virmeceti (2021) also stated that prevention of transmission is carried out in a hospital setting to prevent nosocomial infections, protecting workers from dangerous contact with patients (Vimercati *et al.*, 2021). Çelikkalp & Sayılan (2021) stated that nurses need higher salaries due to the increased workload in hospitals. Nurses expressed dissatisfaction with the compensation they had received (Çelikkalp & Sayılan, 2021). In contrast to the findings in this study, nurses have received appropriate incentives. Appropriate salary increases work motivation for nurses.

Another step taken by the hospital is to facilitate information technology. The hospital provides information technology facilities to facilitate patient monitoring and a communication tool in the hospital environment. Richterman *et al.*, (2020) stated that hospitals also have an important role in preventing Covid-19. Nurses provide facilities by providing good ventilation, adequate room, rest time for health workers. The hospital also ensures that the environment must minimize contact in risky surroundings. The hospital

carries out this method by designing a safety policy in the hospital environment (Richterman *et al.*, 2020).

This is in line with the research findings, that from the beginning until one year the pandemic continued, hospitals provided adequate facilities for nurses. PPE was always available, and nurses have never experienced a shortage of PPE. The hospital provided incentive facilities, supply of PPE, supply of vitamins and nutrition, hotel facilities, medical facilities and vaccinations. These facilities are provided to support the safety of patients and nurses. Policies are also implemented starting from the development of isolation room, room disinfection, setting negative pressure rooms and infection control policies that have been implemented by the hospital. Other support provided by the hospital is the use of zoom, WhatsApp and intercom technology.

CONCLUSION

In the workplace, nurses are faced with various health hazards that come from biological hazards (virus infection), physical hazards (PPE use), and psychosocial hazards (anxiety, fear, stigmatization, high workload) that threaten the safety of nurses. Nurses actively carry out the practice of preventing the transmission of Covid-19 in hospitals by obediently doing hand hygiene, using masks, and maintaining personal health. Hospitals as workplaces have an important role in supporting nurses to make efforts to prevent Covid-19 through infection control policies (negative pressure rooms, IPCLN assignments), facilities (incentives, ensuring the availability of PPE), and technology development (using CCTV, intercom).

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Conflict of Interests

The authors declare that they have no conflict of interests.

Research Implication

1. This study highlights the dangerous risks nurses face in hospital settings during the Covid-19 pandemic. Nurses face risks that come from biological agents (viral infection), physical (infectious environment), ergonomic (impact of using PPE), as well as psychosocial (fear, high workload, and stigmatization). Exposure to occupational hazards in the hospital can

reduce the quality of life of nurses and increase the potential for viral infections for nurses. Therefore, this research is expected to be the basis for occupational health nursing in hospitals to develop efforts to protect and promote health for nurses in the workplace.

2. This study also provides information about the

support provided by the hospital. Hospitals prevent the transmission of Covid-19 by protecting the hospital environment. This picture can be used as consideration for making infection control policies and providing facilities for nurses to protect nurses working during the Covid-19 pandemic.

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