

# "Frontline Nurses Readiness": How Did Nurses Learn About Nursing Care During the Pandemic in Indonesia?

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## Abstract

**Background:** The COVID-19 pandemic has caused adjustments in health services and hospital procedures, particularly in the provision of nursing care to patients. The shift of health care during the COVID-19 pandemic has had both beneficial and bad consequences, including the dynamics, problems, and impediments that nurses encounter. **Methods:** This descriptive phenomenological study investigated nurses' readiness to offer nursing care during the COVID-19 pandemic in Indonesia. Semi-structured interviews were performed with 13 nurse participants in a teaching hospital in the province of Aceh, Indonesia. The Collaizzi method, consisting of seven steps, was used to examine qualitative data. **Results:** The study identified four major themes: 1) modifying health services during a pandemic; 2) coping mechanisms for nurses dealing with a pandemic; 3) barriers to providing nursing care during a pandemic; and 4) making wish come true during a pandemic. **Conclusion:** Nurses' experience enhancing health care during the COVID-19 pandemic requires more improvement, integration, and holistic thinking. Nonetheless, they must treat patients even when their situations are not favourable. The proposed research should address the significance of optimizing care during a pandemic, such as nurse safety and security, government measures to limit COVID-19 in nursing services, and nurses' effective pandemic methods in Indonesia.

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## Introduction

The COVID-19 virus has multiple forms and mutations; therefore, we must be well-prepared to restrict its spread. Unfortunately, many individuals continue to disregard viral alterations, which can spread illness and limit vaccination efficacy Lou et al. (2022) found that an increase in the number of COVID-19 cases after receiving government intervention led to a growth in the activation of COVID-19 mutations. The COVID-19 pandemic has presented severe challenges to all global aspects of human life, especially the health sector, medical services, access and quality of health services (Duek and Fliss, 2020; Kaye et al., 2021; Lac et al., 2021). In addition, The COVID-19 pandemic has disrupted the global health system, resulting in decreased health quality, particularly in hospital inpatient rooms and intensive care units (Braithwaite, 2021; Tuczynska et al., 2022).

The COVID-19 pandemic has increased the load on global health systems, necessitating realignment and reorganization of medical treatment (Baral, 2021; Khalilpourazari et al., 2021). The huge increase in COVID-19 patients has strained hospitals' capacity, capability, and general functioning. Hospitals and clinics implement triage protocols, isolate suspected infected patients in the emergency department to prevent virus spread and adapt to changing medical roles in pandemics (Adalja et al., 2020; Goff et al., 2022).

The global impact and mutation of COVID-19 have increased the challenges for nurses as frontline workers (Jackson et al., 2020). Mohebi et al. (2018) found that nurses faced obstacles for instance management errors in controlling COVID-19 pandemic circumstances, emotional and physical complications, challenges in working conditions due to the COVID-19 pandemic, and requirement for an appropriate workforce. According to Ünver, Yildirim and Cansu Yeniğün (2022), nurses face ethical challenges when caring for COVID-19 patients, including concerns about patient care, equipment, and facilities. Firouzkouhi et al. (2021) stated that nurses also experience ethical challenges while caring for COVID-19 patients when caring for patients and families. As a result, they frequently experience psychological issues and early burnout.

Furthermore, Firouzkouhi et al. (2022) mentioned that nurses confront a variety of obstacles when caring for COVID-19 patients, which have an influence on both health and nursing. During the pandemic, nurses faced a

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problem between personal safety and the expectations of professionalism when caring for patients. The COVID-19 pandemic has also resulted in less contact between nurses and patients and has caused issues with patient's families related to actions taken and working conditions. These challenges have been the primary issues faced by nurses during the COVID-19 pandemic; according to Al Thobaity and Alshammari (2020), nurses' main challenges during the COVID-19 pandemic were a shortage of nursing staff, beds, and medical supplies, especially Personal Protective Equipment (PPE), as well as psychological changes like fear of infection among fellow nurses. Prior outbreaks of infectious diseases have also had significant adverse effects on healthcare professionals' physical and mental well-being (Goff et al., 2022).

Jerome-D'Emilia, Suplee and Linz (2022) revealed that nurses caring for COVID-19 patients experienced fear, fatigue, isolation, and distress. Furthermore, the COVID-19 pandemic put unprecedented pressure on healthcare systems worldwide, leading to adverse effects on nurses' mental health, welfare, and energy capacity due to working beyond regular hours (Garosi, Danesh and Mazloumi, 2020; Rajkumar, 2020; Pappa et al., 2022). Increased pandemic cases overloaded health facilities and medical staff, leading many people to become critically ill and die (Anders and Lam, 2021).

Previous study has focused on nurses' COVID-19 pandemic experiences. No systematic study has examined nurses' readiness to provide optimal patient care during the pandemic and their challenges, especially in Aceh, Indonesia. While providing nursing care to patients during the pandemic, nurses encounter a variety of challenges. These include a shortage of nursing staff, working under pressure, grappling with negative self-stigma, attempting to survive in inadequate conditions due to limited human resources, incomplete equipment, and a lack of knowledge and skills in patient care during a pandemic. In addition, the death rate of nurses and other health workers while caring for patients is increasing. The challenges faced by nurses while caring for patients during the pandemic are impacting their physical and psychological aspects. Despite the end of the COVID-19 pandemic, nurses still seem unprepared when it comes to handling emergency conditions of respiratory diseases. This is particularly true when it comes to providing fast and precise treatment, fostering good team cooperation through interprofessional collaboration, and addressing the lack of adequate facilities and resources. The patient referral system is ineffective and unevenly integrated, limiting its focus to just one hospital. This inexperience is a concern for the preparedness of nurses to face pandemic conditions in the future. Understanding these nurses' experiences can help create better pandemic protocols. Learning from nurses' experiences regarding handling care during previous pandemics can serve as a guideline for preparing nursing care protocols for COVID-19 patients that are relevant and optimal in the future. Nursing care protocols in the optimal handling of pandemic problems in the future might lower mortality and morbidity rates, which are detrimental to all countries facing the pandemic. This research explores the readiness of nurses to provide nursing care during the COVID-19 pandemic in Indonesia.

## Method

This research employed a phenomenological study design, aiming to explore the readiness of nurses to provide nursing care during the COVID-19 pandemic. The purposive sampling technique was used to select samples from a population defined by researchers based on the problem being examined so that it could represent previously known characteristics. Participants in this study were hospital nurses working in Banda Aceh, Indonesia. The key informant in this research was the head of the emergency department, a nurse who was directly involved and interacted with the executive nurses during the COVID-19 pandemic. The researcher created inclusion criteria to select key informants. Based on data saturation, a purposive sampling strategy was used to choose 13 individuals. Purposive sampling is appropriate for use in qualitative design research or research that does not generalize because the researcher wants to target a participant with the traits of interest in a research study. Participants in this research had to meet the following inclusion criteria: (1) nurses who had cared for and provided services during the COVID-19 pandemic for at least one month, (2) education level of at least an associate's degree in nursing, and (3) can speak Indonesian, while the exclusion criteria for this study included nurses who were not on leave were excluded.

In this investigation, the researcher served as the instrument. Data were collected in December 2022. In this study, data was acquired through in-depth interviews with participants while adhering to normal health practices to prevent the COVID-19 virus from getting information on nurses' experiences and issues treating suspected COVID-19 patients. In-depth interviews were conducted using open-ended interview guidelines.

The results of the Content Validity Index (CVI) of three expert judgments were 0.86. Nursing experts provide expert opinions, which include those with Ph.D. in nursing, master's in nursing, and master's in medical surgical nursing. The interview guide consists of the following questions: What is your response to the current developments in the COVID-19 case? What are your thoughts on the current handling of COVID-19 cases? What are your strategies for maintaining service quality during the COVID-19 pandemic? What are your preparations for providing nursing care during the COVID-19 pandemic? What are your obstacles as a nurse in carrying out

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services during the COVID-19 pandemic? What are your expectations as a nurse providing care during the COVID-19 pandemic?

Before starting the interview, all participants agreed and signed informed consent provided by researchers. The following step is conducting interview. During the interview, the researchers initiated a discourse about light pandemic-related services to create confidence with the participants. This contributed to a more conducive climate for communication. The researchers then conducted in-depth interviews with the individuals using a semi-structured interview approach that she had previously devised. When providing information during the interview process, researchers protected the confidentiality of personal research participants by not disclosing recorded interviews to unauthorised parties. In addition, interviewers conducted one-on-one interviews with participants. This technique in covering a wide variety of general to specific parts of the participants' experiences, followed by a probing strategy to elicit additional specific information. The probing approach delivers follow-up statements based on the interview guide's key assertions, allowing participants to express their opinions in greater depth.

Researchers conducted in-depth interviews to uncover comprehensive information about participants' activities at the hospital. The interviews were conducted in a free-flowing manner, allowing for spontaneous inquiries and replies without the use of pre-prepared leading questions. This approach aimed to create a more dynamic and engaging setting. The actions were performed in a repetitive manner. Once to prepare for the first interview, the researcher spent maximum three days establishing a rapport with the nurse. This helped to make the interview process smoother. On the first day, the researcher introduced himself and talked about the phenomenon of patient care in hospitals. On the second day, the researcher conducted a short interview regarding nurses' experiences in providing nursing care to patients during the pandemic and post-pandemic. Next, on the third day, researchers conducted in-depth interviews related to research questions to develop more in-depth follow-up questions and provide continued, prolonged engagement. The prolonged engagement was completed, the researcher obtained verbal and written consent from the participants to record the interview. Conduct interviews with participants directly while implementing health protocols, such as keeping a distance, washing hands, and wearing masks. The interview was recorded using a tape recorder and a smartphone recording. The interview procedure took approximately 40 minutes. The interview technique used probing while considering the participants' ethical considerations. During the interview, the researcher quiet methods to allow participants to recall and relive their experiences preparing to offer care during the pandemic.

The researcher then conducted in-depth interviews with participants using semi-structured interview techniques, that he had designed and tested for topic validity. The researcher did not direct the participants' answers by allowing the participants to express their experiences freely regarding the questions asked during the interview process so that natural information was obtained according to the participants' experiences. Before ending the interview, the researcher terminated by re-evaluating and clarifying each meaningful expression from the participant to avoid mistakes. The researcher also entered a contract regarding the need for a second meeting to explain the results of the analysis carried out by the researcher. Researchers utilized field notes to acquire data. The interview transcript was prepared using the whole interview tape and field notes.

Data analysis used the Collaizzi method, which consisted of (1) reading stages and transcripts of all participant interview descriptions, (2) extracting, (3) describing the meaning contained in significant statements, (4) combining the formulated meanings into a group theme, (5) developing a complete description of the theme, (6) identifying the underlying structure of the phenomenon and (7) returning to participants for validation. Data was analyzed using the Non-Numerical Unstructured Data Indexing Searching and Theorizing version 12 (NVivo-12) application.

The data's trustworthiness was ensured to meet criteria for this phenomenological research. Guba (1985), defines credibility, dependability, confirmability, transferability, and authenticity. Researchers fulfil credibility by using prolonged engagement techniques. Credibility is established through prolonged engagement techniques, which involve holding meetings with participants in the hospital for a week. Credibility is fulfilled by researchers using prolonged engagement techniques. Prolonged engagement is carried out by holding meetings with participants in the hospital for 1 week. During the one-week period, the researcher called the participants and scheduled a meeting. The researcher conducted an elaborate introduction procedure to better understand the participant's personality, with the goal of developing a mutual trusting connection.

The confirmability test was conducted simultaneously with the dependability test; in which the researchers validated the answers that were unclear to the participants. Researchers achieve transferability by formatting papers as extensive descriptions. Dependability suggests that the research findings are reliable; that is, if the study is repeated on the same individuals using the same context or procedure, the same results will be produced. Transferability is achieved by researchers blinding the report as a detailed account of all archives and materials used during the study process. The following principle is authenticity, which refers to the presentation of nurses'

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experiences expressed as the reality of nurses' lives during the COVID-19 pandemic including emotions, language of experience, and living circumstances in interview transcripts.

Transcripts of participants' interview responses were translated into English, and one of the professional translators proofread and back translated the translated participant interview replies from Indonesian to English, as well as the English to Indonesian translation. Authenticity in this study was carried out by presenting experiences of how the readiness of nurses to provide nursing services during the COVID-19 pandemic in Aceh, Indonesia, was reflected by life's reality.

### Ethical consideration

This study was authorized by the Institutional Review Board of the affiliated research institute from the Faculty of Nursing, Universitas Syiah Kuala, under the ethical number 113009040821.

## Results

### Socio-demographic Analysis of respondents

Table 1 provides demographic information for 13 hospital nurses in Aceh, Indonesia, with an average age of 28.54 years (SD=2.602). The majority of participants were female (61.5%). Most of the civil status were married (76.9%). All levels of education were nurse professional education level (100%). In general, nurses have an average work experience of one year (46.2%). Most nursing placements were in the Emergency Room (53.8%).

Table 1. Demographic data of participants

Categories	frequency	Percentage
Age (M= 28.54; SD= 2.602)		
Gender		
Male	5	38.5
Female	8	61.5
Marital Status		
Single	3	23.1
Married	10	76.9
Level of Education		
Nurse Professional	13	100
Job Experience		
1 year	6	46.2
2 years	2	15.4
3 years	4	30.8
5 years	1	7.7
Placement of Nurses		
Emergency room	7	53.8
Surgical inpatient room	6	46.2

### Theme 1: Modifying health services during a pandemic

The three sub-themes of modifying health services during a pandemic are: changing hospital services; changing education during the pandemic; and adapting nursing care.

#### Changing in hospital health services

One of the adjustments in hospital services during the COVID-19 pandemic was to ensure the protection of patients and healthcare personnel against direct exposure. Despite the fact that the patients' treatment status was unclear, the majority of participants said that nurses followed health standards and used complete PPE. The participant also mentioned that the screening process mechanism facilitates the flow of services for patients who enter the hospital. Two participants stated:

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"During this pandemic, even though all the patients came in negative, we still use N-95, we still wear Google glasses" (P3)

"During the COVID-19 period, the flow of service quality strategy changed; now, as soon as a patient enters, there is a screening officer who is immediately screened, especially the patient's body temperature, and the staff wears personal protective equipment according to the area, then the patient enters to keep their distance, the patient must also wear the personal equipment protection at least a mask" (P10).

### **Changing in education during the pandemic**

The majority of participants' responses were to regularly deliver effective information about the COVID-19 pandemic to patients and their families by following health guidelines. Education is provided to positive COVID-19 patients while preserving health procedures and self-isolation.

"We always provide education for patients regarding what to do during this pandemic even though the patient is contaminated, detected as a Covid patient or not, but we also have to educate them slowly and even some are angry, but we still call other families we educate" (P1).

"Another strategy, maybe we can educate the patient, even when our patient is being examined at the hospital, the antigen swab is positive, we can educate him so that he always takes care of and implements health protocols by self-isolating at home or directly to the COVID hospital at the Pinere Emergency Room to ask for the covid drugs" (P2).

### **Adaptation of nursing care service during a pandemic**

Most participants reported that they were cautious of expecting COVID-19 patients and avoided direct communication, resulting in a shorter time spent providing nursing care.

"Preparations in providing nursing care during a pandemic used to care more for patients, now we have to be suspicious of patients, don't be close to them, must maintain a distance of one meter if, for example, we serve patients. If there used to be touch, say hi, if now we touch less, at least say hello from a far" (P6).

"When examining patients from head-to-toe examination, for now, we may do it in indirect communication because to avoid or the time we do to carry out an assessment, for example, we can reduce it to ten minutes to five minutes" (P13).

## **Theme 2: Coping mechanisms for nurses dealing with a pandemic**

This study identified two sub-themes: protective behaviour and the psychological impact of nurses.

### **Self-protective behaviour**

The COVID-19 pandemic has increased the psychological burden on nurses while providing nursing care, namely self-protective behaviour and the psychological impact nurses experience. The majority of participants stated that nurses' self-protective behaviour against the COVID-19 virus consisted mostly of maintaining discipline when performing health standards.

"We have considered the patients we suspect of having COVID as other patients with other diagnoses, but how do we protect ourselves? For example, washing hands before contact with patients and washing hands after contact and wearing masks is mandatory" (P13).

### **The psychological impact of nurses**

The COVID-19 pandemic has had psychological impact on nurses, who serve as frontline providers of nursing care. Most nurses are worried by the severe changes in conditions caused by the COVID-19 pandemic, namely feelings of anxiety, fear, and anxiety.

"There is a feeling of anxiety when I provide services to patients, especially when I am pregnant again, isn't it? A little anxious, afraid of contracting it" (P4)

"The COVID pandemic has indeed caused a lot of fear or anxiety from various parties" (P11).

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"Our psyche at the beginning of facing the pandemic was very disturbed, especially with very little personal protective equipment, and we didn't know how the transmission system works?" (P13).

### **Theme 3: Barriers to providing nursing care during a pandemic**

In this study, there were eight sub-themes, which included incomplete medical equipment during the COVID-19 pandemic, discomfort using personal protective equipment, disobedience to self-isolation, refusal of vaccination, refusal of the early detection test for COVID-19, and noncompliance with the implementation of health protocols. Nursing care documentation is incomplete, the referral procedure is inadequate during a pandemic, and patients are dishonest about their symptoms.

#### **Incomplete medical equipment during the COVID-19 pandemic**

Nurses encounter a variety of challenges while implementing health-care initiatives and providing nursing care during a pandemic. Incomplete personal protective equipment became an impediment in the early days of the COVID-19 pandemic as the number of COVID-19 patients increased on a daily basis. Most participants reported a lack of personal protective equipment; gowns and robes were not provided, thus nurses had to purchase them themselves. Some participants also reported that the usage of medical masks was restricted. Participants also reported a paucity of isolation rooms at hospitals.

"In that room, there were problems with personal protective equipment, maybe yes, because there was not enough personal protective equipment in the room, such as the gown or robe itself, which the hospital did not provide. So, it must be provided personally by nurses or health workers at the hospital. Then, for example, for masks, it is limited. It is limited; for example, one person can only take one or two a day. Masks limited to ordinary medical masks" (P4).

"This hospital still lacks isolation rooms, and the facilities for personal protective equipment are still limited (P6).

#### **Discomfort using personal protective equipment**

Nurses must constantly use personal protective equipment to avoid transmitting the COVID-19 virus, yet they frequently express discomfort with it. Participants reported that wearing personal protection equipment made them feel overheated and caused blisters on their noses.

"We have to wear complete Personal Protective Equipment, such as gowns, facials, like that, sometimes it does feel hot" (P1).

"KN-95 is hard if it's on the nose, so if you use it, it's like a wound on the nose, so it's uncomfortable; that's why we (nurses) don't use it" (P5).

"When serving patients, but the receptionist also wears a mask all the time, it's uncomfortable, we don't want to have Covid, we just use it when there are patients" (P10).

#### **Disobedience to self-isolation**

One of the explanations for the increase in COVID-19 cases is patient noncompliance with the self-isolation procedure. Several participants felt that persons returning from distant areas needed to be better aware of the importance of independent isolation, and that the care of COVID-19 cases was solely focused on patients with severe symptoms.

"Some people who have just returned from faraway places are not aware or don't want to carry out independent isolation, and some even have symptoms but don't immediately visit the COVID-19 service centre (P11).

"The handling of serious COVID-19 cases shows symptoms with comorbidities, while there are many out there whose status of independent isolation patients is not handled properly where patients who are isolated are free to roam out there, in coffee shops, gathering with family regardless that independent isolation is should not be in contact with other people" (P12).

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### **Refusing the early detection test for COVID-19**

Public knowledge about vaccination is still deficient; fear, lack of information, and other reasons strengthen the government's refusal to vaccinate.

"Even though the government has made a vaccination program for the community and indeed many people have done the vaccine, there are also ordinary people either because of fear or lack of information, but they each refuse to do the vaccine for various reasons that justify strengthening their reasons" (P11).

Despite the fact that COVID-19 early detection tests are free, a tiny minority of patients still decline them, preferring to go home. There was one patient who insisted on being treated but was unwilling to undergo a rapid test.

"Many patients who have signs and symptoms of COVID but don't want to be swabbed, the patients go home again" (P9).

"There are some patients or families who insist on being treated, but they are not willing to do the previous rapid test" (P11).

### **Non-compliance with the implementation of health protocols**

At the beginning of the pandemic, most individuals followed health protocols as a preventive measure against the spread of COVID-19. However, some people must continue to follow health procedures. Most participants said that they did not follow hand hygiene guidelines, kept their distance, and did not wear masks.

"Lack of awareness from the patient himself in maintaining hand hygiene, keeping a distance and not using a mask" (P4).

"Some patients or their families rarely use masks when they need services at the hospital" (P10).

### **Incomplete documentation of nursing care**

Several participants said that nursing care documentation was completed rapidly due to the significant number of patients who need immediate intervention. Documentation of nursing care is still done manually, with handwriting on documentation paper, which takes a long time.

"The medical records for nursing care are still being rushed because the time is running out; if it's, for example, one patient... two, it's safe, no one is holding it. But if the patient arrives, five people are lucky; that's what we (the nurses) are in a hurry for; two actions are already over, the shift is over, and the documents are not ready; that's the rush. Until now, there is a lot of nursing documentation that has to be written after being given nursing service actions" (P5).

### **Ineffective referral process during a pandemic**

One of the challenges faced by nurses during the COVID-19 pandemic was that numerous COVID-19 referral hospitals refused to take patients because they were overcrowded, forcing patients to wait.

"We called several referral hospitals for COVID-19, they were not accepted because they were full, so patients had to wait" (P5).

### **Dishonesty of patients with their symptoms**

During the COVID-19 pandemic, nurses had a challenge: patients with COVID-19 symptoms were dishonest. Some participants stated that patients covered up their complaints regarding COVID-19 symptoms and responded indifferently to the nurse's assessment. The statement of the participant is as follows:

"There must be data that has been hidden from the patient. If we ask for complaints over the past few days, is it coughing, sore throat, definitely not, but when we check for positive wheezing for COVID-19, the patient is coughing" (P1).

"The problem is that when we ask again about the study, they are already indifferent, so the data we get is no longer accurate" (P2).

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#### **Theme 4: Making wish come true during a pandemic**

This study has nine sub-themes, including: the pandemic is over, nursing services are more effective, nurse preparedness during the pandemic, always complying with health protocols, increasing the number of nurses, continuing effective education, patient honesty in their condition, legal protection for nurses during a pandemic, and complete vaccination in all societies.

Furthermore, everyone, especially nurses, expects the pandemic to stop soon so that they may resume their everyday tasks securely.

"Everyone's expectation may not just be mine. Hopefully, this COVID will disappear from the face of the earth, and we can do our activities as usual" (P10).

"What is most expected as a nurse is this pandemic is over, finished, and there is no more" (P11).

#### **More effective nursing services**

Nursing services are more successful during a pandemic because they provide education and improve coordination with other health teams.

"It is expected that nurses will be able to provide good education to their patients, so there will be no misunderstandings or misinformation received by patients and families provided by nurses" (P11).

"The establishment of cooperation between one nurse and another nurse, the establishment of cooperation between nurses and patients so that maximum nursing services are achieved" (P12).

"I hope the patient understands that the pandemic or COVID is still there. In that way, every patient who enters the hospital when we explain that it is cooperative and the service that I provide as a nurse is optimal" (P13).

#### **Nurse preparedness through the pandemic**

Nurses, as front-line personnel, are required to be able to prepare for rapid and unexpected changes in dealing with a pandemic. One of the participants mentioned that they must be prepared to give nursing services during a pandemic.

"Hopefully, we should be more alert to any stories; whether we like it or not, we are at the forefront" (P1).

#### **Always comply with health protocols**

The nurse expects that the community and nurses will always follow health standards and develop the habit of caring for themselves and people around them.

"The community complies with the government's directives to maintain mutual health protocols" (P8)

"The hope is to increase awareness, the use of personal protective equipment, which is very strict, meaning that it is by the proper procedures" (P9).

"It is also hoped that in carrying out nursing services during this pandemic, we will provide services sincerely by continuing to maintain health promotion" (P12).

#### **Increasing the number of nurses**

During the COVID-19 pandemic, nurses aspire for more nurse resources to ensure that nursing services are as effective as possible. The increase in the number of health professionals was owing to an increase in patients during the pandemic, which prevented a decrease in the quality of nursing care.

"The service from the nurse's point of view can be added even more because it's a bit lacking regarding the health workers in the room. Not according to the number of patients. During a pandemic like this, some carried out independent isolation in one shift. Once, there was one person who guarded the night



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alone because there was a nurse who had COVID-19, so the service for caring for patients was not optimal" (P4).

### **Continuous effective education**

Education is crucial during a pandemic to reduce the pressure between nurses and patients while providing nursing care during the COVID-19 pandemic. Most nurses in hospitals expect nurses to be able to provide therapeutic education for patients and their families. "It is expected that the nurse will be able to provide good education to the patient, so there will be no misunderstanding or misinformation received by the patient and family provided by the nurse" (P11).

### **Honesty of the patient in his condition**

Patient honesty about being exposed to COVID-19 is highly prioritised in order to avoid and minimize COVID-19 transmission.

"If you say that the hope is to make the examination easier, is it honesty from the patient that is the main thing, that's the most important thing" (P1).

### **Legal Protection for Nurses during a Pandemic**

The expectation for nurses in hospitals during a pandemic is that they have legal protection, such as guarantees for safety and health in hospitals when providing health services for patients.

"My hope is for our safety as nurses, for our safety (nurses) from the hospital, we have to work and try our best, if something goes wrong, we (nurses) should be protected by the hospital and the agency" (P5).

### **Complete vaccination for all people**

A comprehensive vaccination program can prevent and stop the development of COVID-19; thus, health personnel and the public are urged to actively support the immunizations mandated by the government.

"The vaccination process must be complete. Hopefully, the pandemic will end soon, and we will return to how we used to be, no longer needing to wear masks" (P11).

"I hope that the point is that everyone will be vaccinated. I also hope that the government will not get bored vaccinating people because what I feel after being vaccinated has decreased the number of patients who have been confirmed with COVID-19" (P13).

## **Discussion**

This study explores nurses' experiences providing health care during the COVID-19 pandemic in a hospital in Aceh, Indonesia. The fundamental subject of this study was to adapt health-care services during a pandemic. According to subsequent research by (Casman et al., 2022), 42 health service units have been closed out of 16 health service units in Indonesia due to an increase in patient capacity, delays in patient treatment, many nurses being infected by COVID-19 and surgical students not being able to practice directly. Several nurses' fundamental concerns about personal health and safety, quality and security must be addressed to support primary health services during the COVID-19 pandemic (Halcomb et al., 2020).

In this research, the most dominant sub-theme from theme modifying health services during a pandemic obtained changing in hospital health service participants, who stated that nurses comply with health protocols by always using complete PPE even though the status of the patient seeking treatment is unknown. Changes in the flow of services for patients who enter directly into the hospital through the screening process mechanism. During COVID-19, a research participant experienced a shift in health-care approaches. Patients must be screened for body temperature by police wearing PPE, according to guidelines. Patients must also wear masks and observe social distancing guidelines. Based on the screening results, the patient is sent to emergency department triage, outpatient care for COVID-19, or non-COVID-19 outpatient care. There are restrictions on the number of visitors, including families. The importance of nurse support and preparation in overcoming pandemic problems requires hospital leadership with timely and transparent planning (Whiteing et al., 2022).

Table 2. Theme and Sub-theme

No	Theme	Sub-theme
1.	Modifying health services during a pandemic	<ol style="list-style-type: none"> <li>1. Changing in hospital health services</li> <li>2. Changing in education during the pandemic</li> <li>3. Adaptation of nursing care during a pandemic</li> </ol>
2.	Coping mechanisms for nurses dealing with a pandemic	<ol style="list-style-type: none"> <li>1. Self-protective behaviour</li> <li>2. The psychological impact of nurses</li> </ol>
3.	Barriers to providing nursing care during a pandemic	<ol style="list-style-type: none"> <li>1. Incomplete medical equipment during the COVID-19 pandemic</li> <li>2. Discomfort using personal protective equipment</li> <li>3. Disobedience to self-isolation</li> <li>4. Refusing the early detection test for COVID-19</li> <li>5. Non-compliance with the implementation of health protocols</li> <li>6. Incomplete documentation of Nursing Care</li> <li>7. Ineffective referral process during a pandemic</li> <li>8. Dishonesty of patients with their symptoms</li> </ol>
4.	Making wish come true during a pandemic	<ol style="list-style-type: none"> <li>1. The pandemic is over</li> <li>2. More effective nursing services</li> <li>3. nurse preparedness through the pandemic</li> <li>4. Always comply with health protocols</li> <li>5. Increase in the number of nurses</li> <li>6. Continuous effective education</li> <li>7. Honesty of the patient in his condition</li> <li>8. Legal protection for nurses during a pandemic</li> <li>9. Complete vaccination for all people.</li> </ol>

However, during the previous COVID-19 pandemic, practically all hospitals required timely and clear planning preparedness guidelines. Transparent in dealing with the pandemic. This is demonstrated by the increasing mortality and morbidity of health care workers, particularly nurses, who treat COVID-19-positive patients. Nurses need to implement strict hospital rules in implementing health protocols for handling the pandemic. There is also continuous disaster training, especially care during the pandemic. Most participants answered that nurses' self-protection behaviour from the COVID-19 virus was mainly disciplined in implementing health protocols by washing hands, using hand spoons, and wearing surgical masks. Nurses also employ personal protective equipment to protect themselves and others from the dangers of transmitting COVID-19 (Simonovich et al., 2022). Almost two-thirds (81.93%) of nurses' hand hygiene behaviour had attended infection control training (Sin and Rochelle, 2022).

Furthermore, in the sub-theme changing in hospitals in education during the pandemic, it was found that most of the answers from the participants were to consistently provide effective education by observing health protocols for patients and their families about how to deal with the dangers of the COVID-19 pandemic. Most participants stated they were suspicious of anticipating COVID-19 patients, avoiding direct communication to shorten the time. Education is carried out for positive COVID-19 patients while maintaining health protocols and self-isolation. The COVID-19 pandemic demands changes in the healthcare system, including providing nursing care. The results of Lord et al. (2021) stated that effective communication is a vital component of emergency conditions during the COVID-19 pandemic to promote the willingness of nurses to care for COVID-19 patients in the ICU.

Furthermore, in the sub-theme of changing in hospitals in education during the pandemic, it was discovered that most participants' responses were to consistently provide effective education by observing health protocols for patients and their families about how to deal with the dangers of the COVID-19 pandemic. Most participants expressed suspicion about expecting COVID-19 patients and avoided direct communication to save time. Education is provided to positive COVID-19 patients while preserving health procedures and self-isolation. The COVID-19 pandemic requires reforms in the healthcare system, particularly nursing care. Lord et al. (2021) found

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that good communication is a critical component of emergency situations during the COVID-19 pandemic to enhance nurses' desire to care for COVID-19.

Nurses' roles in providing education during a pandemic were halted, disrupted, and changed to accommodate workplace environmental conditions, new processes, and innovative programs in order to maintain interaction and meet the needs of remote health care (Hamilton et al., 2022; Prasun et al., 2022; Whaley et al., 2020). Previous research suggests that nurses should use telemedicine innovations to improve efficiency (García-González et al., 2020; Huggins, 2004; Palozzi et al., 2020). In contrast J. Lee & Kang (J. et al., 2020) discovered that behavioral control, namely self-confidence or self-efficacy, is the biggest predictor of nurses' desire to care for COVID-19-infected patients.

The second subject of this study is coping techniques for nurses dealing with pandemics. In this study, the most cited sub-theme was nurses' psychological influence. The COVID-19 pandemic has also had a psychological impact on nurses, who serve as frontline providers of nursing care. Most nurses are worried by the severe changes in conditions caused by the COVID-19 pandemic, namely feelings of fear, and anxious. In this study, several individuals reported experiencing worry because of contracting the virus, a lack of PEE, and a lack of knowledge regarding the transmission mechanism. Nurses who provide treatment during a pandemic face significant stress (Graham et al., 2020).

Nurses must offer nursing care despite higher workloads while also accommodating new guidelines and ongoing changes in infectious disease (Lam et al., 2019). The results of this study are supported by Nelson, Hubbard Murdoch and Norman (2021); the psychological challenges for nurses during the pandemic are emotional conditions of stress, anxiety, fatigue, frustration, guilt, and loneliness. Psychological pressure is significant, according to (Lee et al., 2020), psychological pressure is significant due to the presence of co-morbidities in some medical personnel, direct involvement in the care of COVID-19 patients, quarantine, and limited skills caused by being placed in a patient room with COVID-19, but the most common concern expressed by medical personnel was the risk of infection (83.6%) and infecting family members (78.0%). However, Noorland, Hoekstra and Kok (2021) demonstrated that most participants were able to manage their mental health independently, discussing their experiences with family and other nurses.

According to the findings of following research Tomaszewska et al. (2022) concluded that more than half of nurses reported exhaustion when dealing with COVID-19 patients. Excessive workload has been verified as a statistically significant stressor for nurses, affecting mental health (Maharaj et al., 2018; Watanabe & Yamauchi, 2018). Additional unique challenges nurses faced during the COVID-19 pandemic have an impact on psychological health, including fear of being infected and infecting loved ones, fear of premature death, psychological distress related to the conflict between lack of PPE and professionalism and moral responsibility towards patients; stress due to long waits for COVID-19 test results; stress and worry resulting from societal indifference and lack of role models; the negative effects of public mistrust and doubt about the virus, and pressure from stigma and discrimination towards nurses who care for COVID-19 patients and their families (Asa et al., 2022).

A positive psychological response is one of the most components in training nurses to interact patients during the pandemic. Nurses are required to be prepared to face dynamic changes due to the pandemic. Nurses overcame pandemic problems due to their enthusiasm and positive interest in facing the burden of care during a pandemic (Badu et al., 2020). The research findings of Rony et al. (2023) found that there is a positive attitude toward attitudes in dealing with difficult situations, the influence of close partners, self-regulation of emotions, the tendency to avoid negative things, being motivated by professional obligations, the influence of religion, and recreational activities.

However, the results of research from Rayner et al. (2019) and Weare et al. (2019) showed that nurses' negative attitudes significantly influence the provision of optimal nursing care. Therefore, it is necessary to develop coping strategies to increase nurses' interest when treating critical patients (Jiang et al., 2021). However, Rayner et al. (2019) and Weare et al. (2019) found that nurses' negative attitudes had a substantial impact on providing effective nursing care. As a result, coping methods must be developed to pique nurses' interest in caring for critically ill patients.

Apart from that, nurses also use various coping strategies in dealing with COVID-19 patients, including nursing self-strategies (self-emotional regulation, empathy for patients, self-protection and recreational activities, nursing strategies at the ethical level (application of nursing knowledge, attitudes and values, following evidence-based practice.), employer techniques (problem-focused coping, such as effective planning and adequate instrumental support, and skill mix: a combination of experience and new nurses), and nursing leader strategies fostering strong teamwork among nurses (Catania et al., 2021; Huang et al., 2020).

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The next theme in this study is the barriers to provide nursing care during the pandemic. The prominent sub-theme was incomplete PPE, which became an impediment in the early days of the COVID-19 pandemic because of the growing number of COVID-19 patients each day. The majority of participants stated a shortage of PPE, the hospital had limited masks, and gowns or robes were not provided. Hence, the nurses had to buy them themselves. Barriers to the use of PPE, according to research by Oladele et al. (2021), barriers to the use of PPE include the limited availability of essential PPE and varying perspectives on their use, so there is a need for easy access, knowledge, and proper use of PPE by increasing the implementation of infection control policies in hospitals.

Cohen and Rodgers (2020) research findings that strategies to reduce dependence on importing PPE will protect health workers by providing better health services with adequate supplies of personal protective equipment. Apart from that, the minimal amount of PPE during the pandemic forced nurses to buy it to prevent themselves from contracting COVID-19 while caring for patients. However, the purchase of PPE has an impact on nurses' financial losses. The study's findings revealed that virtually all respondents recycled and modified PPE, even invented PPE, or discontinued using PPE throughout their work shift to fulfil criteria. Some nurses even devised personal protective equipment (Sampe et al., 2021).

Nurses must constantly use PPE to avoid spreading the COVID-19 virus, but nurses often complain that they are uncomfortable using it. Participants stated that using personal protective equipment sometimes felt hot, and sores appeared on the nose. According to Ünver, Yildirim and Cansu Yeniğün (2022) showed the importance of the quality of personal protective equipment used and use for at least 2 hours because most ICU nurses reported that the N-95 mask caused changes to the skin behind the ears, over the nose, cheeks, and jaw, while on the forehead due to wearing a face shield. The most common dermatoses that occur when using PPE, namely xerosis, pressure-related erythema, and contact dermatitis, often affect the face and hands (Keng et al., 2021). Long-term usage of personal protection equipment alters physical and emotional circumstances, resulting in extreme weariness (Liu et al., 2020; Shen X et al., 2020).

One of the reasons for the increase in COVID-19 cases is patient non-compliance in adhering to the self-isolation protocol. Several participants stated that there was a lack of awareness among people who returned from remote areas to carry out independent isolation and that the care of COVID-19 cases only focused on patients with severe symptoms. Community non-compliance with self-isolation has led to the emergence of novel viral mutations. The results of Stipic et al. (2021) indicated that the daily increase in COVID-19 fatalities is the result of quarantine noncompliance and reduced movement limitations.

Patient non-compliance might increase the subjective risk assessment of contracting the virus, resulting in further increased psychological distress, especially depression (Oyenubi and Kollamparambil, 2023). Other studies found that subjective standards including social influence, disapproval of preventive behaviour, behavioural control, and external factors affect health workers' compliance with COVID-19 prevention guidelines. In contrast, behavioural goals and attitudes affect community prevention non-compliance. Such as distrust of government COVID-19 information, health professions, traditional ceremonial activities to fend off disaster, and subjective norms (Fauk et al., 2022).

To overcome non-compliance with prevention during the pandemic, the government conducted several strategies i.e. enforces health protocols, large-scale social restrictions, health services and treatment through hospitals and other health facilities, temporary closure of public places and public facilities, work-from-home arrangements, school-from-home regulations, regulation worship from home, field inspections by law enforcement officers, and the application of criminal sanctions against violators of policy regulations (Rasji and Gunardi, 2021).

Furthermore, the ultimate subject of this study is weaving optimism amid a pandemic. Most participants in this theme were hoping the pandemic will end soon so they can safely carry out their daily activities. Most participants in this theme were expected the pandemic will end soon so they can safely carry out their daily activities. In addition, nurses expect to provide therapeutic education to reduce the tension between nurses and patients while providing nursing care during the COVID-19 pandemic, to increase collaboration with other health teams, and to prepare for fast and sudden changes in dealing with a pandemic.

One of the participants mentioned that they must be prepared to provide nursing services during a pandemic. Expectation during a pandemic, according to (Isley et al., 2021) is not only the end of the COVID-19 pandemic but also one of which is fair access to healthcare services. Most participants expected that the public and nurses would always comply with health protocols and become a habit to care for themselves and those around them. Nurses' readiness and preparedness during a pandemic are critical for strengthening the commitment to assertive behavior in psychosocial therapy through self-control, as well as raising public awareness of the importance of following health protocols to prevent the spread of COVID-19 (Fathoni et al., 2022).

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The minority of participants demand legal protection, namely a guarantee of safety and health in the hospital when providing health services to patients. The ethical challenges of nurses while providing nursing services include the safety of nurses, co-workers, and families, shortage of nurses, lack of concentration due to mental fatigue, life-threatening illnesses, many patients, performing nursing actions in dangerous conditions, giving importance to nurses Fathoni et al. (2022). The role of nurses in achieving the hope that the pandemic period will end soon and prevent it from recurring is the need for all health teams, the community, and the government to work together to strengthen the pandemic prevention rules that were previously established, even after the pandemic period has ended.

### Conclusions

This study examined nurses' COVID-19 pandemic experience in Aceh, Indonesia, through four themes and 22 sub-themes. During a pandemic, most nurses agreed that hospital services must follow tight health regulations, adjust education, and modify nursing care. Pandemic health services altered coping strategies, including strict virus prevention and psychological problems. During a pandemic, nurses face many challenges, including incomplete PPE, inconvenience in using it, patient and family non-compliance with self-isolation measures, refusal to take early detection tests for COVID-19, non-adherence to health protocols, incomplete nursing care documentation, and ineffective referrals. The recommended investigations should include nurse safety and security, government pandemic control measures, and care optimization. The research recommended that optimizing services during the pandemic is crucial, with an emphasis on providing comprehensive PPE to protect the safety and security of nurses. However, further research is needed on the precise government initiatives used to restrict the development of COVID-19 in nursing facilities. Examining the effective tactics that nurses used in Aceh, Indonesia, is critical to delivering nursing care throughout the pandemic.

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### Conflict of Interest

The authors declare no potential conflict of interest concerning this article's research, authorship, and publication.

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