

# The Caring Process in Patients with Covid-19: A Grounded Theory Study

## Abstract

**Background:** The care process involves essential tasks of assisting, supporting, and facilitating nursing activities to meet the comprehensive needs of patients. Coronavirus disease 2019 (COVID-19) is a global infectious disease that has caused a pandemic. Nurses play a crucial role in caring for and treating patients with COVID-19. This study aims to explain the care process in patients with COVID-19. **Materials and Methods:** A qualitative study using the grounded theory method was conducted from 2021 to 2022. Eleven nurses providing care to hospitalized patients with COVID-19 were purposively selected from the COVID wards of Shariati Hospital in Tehran, Iran. Data were collected through in-depth semistructured interviews and observation. Data analysis was conducted using the approach developed by Corbin and Strauss (2008). **Results:** The data analysis phase identified a main theme of “protection and support in the shadow of uncertainty” along with five main categories and ten subcategories. The main categories included “encountering life-threatening crisis”, “maintaining safety”, “improving the patient’s physical health”, “encouraging”, and “feeling satisfied despite the burden of care”. **Conclusions:** Nurses aimed to improve the physical and psychological conditions of patients with COVID-19 by implementing a comprehensive care plan. The five main categories identified can be considered the primary approach to nursing care in the COVID-19 crisis. Additionally, the nurses’ experiences can help establish the necessary infrastructure for care and education during other potential health crises.

**Keywords:** COVID-19, grounded theory, nursing, patient care, patients

## Introduction

Care is a complex concept that has been defined in various ways, including as a human characteristic, moral necessity, interpersonal interaction, and intervention.<sup>[1]</sup> Its purpose is to increase patients’ awareness and provide them with a sense of comfort. Care is widely recognized as the foundation of nursing, representing its mission and essence. Given the essential role of care in meeting basic human needs and delivering high-quality nursing services, a deeper understanding of this concept is crucial for nurses.<sup>[2]</sup> Throughout the history of nursing research, care has always been considered fundamental.<sup>[3]</sup> However, despite the passage of time, a unified concept of care in different circumstances has yet to be established. Therefore, conducting further research on the concept of care in different cultural contexts and diseases is essential.

Despite numerous studies conducted on providing nursing care to hospitalized patients in general surgery wards,<sup>[4]</sup> the

emergency department,<sup>[5]</sup> and intensive care units,<sup>[6]</sup> the care process for coronavirus disease 2019 (COVID-19) patients remains unknown due to the novelty of the disease. COVID-19 is a novel infectious disease that was initially identified in December 2019 in Wuhan, China. As of November 4, 2023, the number of people with COVID-19 and the number of deaths due to the disease were more than 771 million and nearly 7 million, respectively.<sup>[7]</sup> The highly contagious nature of COVID-19 has posed a significant global health challenge and has become a threat to medical systems worldwide. Healthcare workers, especially nurses, play a crucial role in the fight against this disease from both preventive and care perspectives. Caring for patients is a vital aspect of nursing and plays a significant role in their recovery.<sup>[8]</sup> Several studies have been conducted on patient care since the beginning of the COVID-19 pandemic, some of which are quantitative in nature. However, qualitative studies have also been done on this subject using content analysis or phenomenology methods. Many

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### Access this article online

Website: <https://journals.lww.com/ijnmr>

DOI: 10.4103/ijnmr.ijnmr\_207\_23

### Quick Response Code:



**How to cite this article:** Sayadi L, Karami F, Rozveh AK, Karamad SP. The caring process in patients with Covid-19: A grounded theory study. Iran J Nurs Midwifery Res 2024;29:623-30.

**Submitted:** 23-Jul-2023. **Revised:** 16-Jun-2024.

**Accepted:** 23-Jun-2024. **Published:** 04-Sep-2024.

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of these studies have been conducted in other countries, but we could not find a study that specifically investigated the care process in patients with COVID-19.

Nurses play a crucial role in delivering healthcare, particularly during pandemics and outbreaks of emerging infectious diseases.<sup>[9]</sup> Therefore, it is important for them to receive proper training on providing care for patients with COVID-19. Nurses must have a clear understanding of their role in delivering evidence-based care and creating an environment that facilitates optimal care and effective interventions. Explaining the care process for patients with COVID-19 can improve the quality of care, increase professional knowledge, and increase satisfaction for both patients and nurses. Although the nurses provide valuable and efficient care, the current care process for COVID-19 patients falls short of meeting present requirements. Additionally, research on the nursing care of COVID-19 patients is limited. Therefore, it is crucial to conduct additional research to enhance nurses' professional knowledge and provide high-quality services to patients. Describing the care process for patients with COVID-19 can clarify the specific concepts and theories related to their care and improve nurses' understanding of treatment protocols. Care is an interactive process that occurs within a social context. Grounded theory, a qualitative research method, focuses on individuals' interactions, values, and social perspectives. Considering care patterns are influenced by environments and cultural contexts and recognizing the need to study the concept of care in Iran, it is necessary to conduct a qualitative study on the process of providing care to COVID-19 patients. This study aims to explain the care process in patients with COVID-19 using a grounded theory approach.

## Materials and Methods

This is a qualitative study which was conducted in the COVID-19 wards of Shariati Hospital, affiliated with Tehran University of Medical Sciences, during the second peak of the pandemic (2021–2022). The grounded theory method proposed by Corbin and Strauss (2008) was used in this qualitative study.<sup>[10]</sup> A qualitative method is suitable in such cases where existing knowledge is lacking and does not provide all the answers or clear any ambiguities. A qualitative study can identify cultural factors and beliefs that guide medical centers as well as other variables that affect nursing care based on the experiences of the people involved in its delivery and provision.<sup>[11]</sup> Nursing care is an interactive, coherent, and interpersonal process that is influenced by cultural contexts.<sup>[12]</sup> Grounded theory is a qualitative method that can be used to study the care process in patients. This method is based on symbolic interaction, which lies at the core of the care process. Grounded theory can reveal the phenomenon, clarify its aspects, and provide guidance for action.<sup>[13]</sup>

The participants in this research consisted of nurses caring for patients with COVID-19. At first, we purposefully

selected samples from nurses who had experience and knowledge of caring for COVID-19 patients. We also asked previous participants to recommend suitable candidates for the study from among their colleagues. After analyzing the initial data, we switched to theoretical sampling and selected participants based on the information and results of the initial analysis. We continued sampling until we reached data saturation. Nurses needed to have at least 6 months of experience caring for COVID-19 patients and be willing to participate to be included in the study. Exclusion criteria were nurses who had resigned from their duties in the COVID-19 ward and those who did not wish to continue participating in the study.

Data for this study were collected through individual, face-to-face, semistructured interviews and observations. Before conducting the interviews, we explained the purpose of the study, the interview method, the interview time and location, the need to record the interviews, and how to answer the questions to the participants. The duration of each interview varied from 30 to 90 minutes, depending on the participants' responses and conditions. We assured participants of the confidentiality of their personal information and obtained informed consent. As agreed, all interviews and conversations were recorded. The interviews began with open-ended questions such as "Can you describe a day of your work caring for COVID-19 patients?" or "How do you care for patients with COVID-19?". As the interviews progressed, more specific questions were asked. The researcher also took notes during the interviews, which included objective descriptions of events, conversations, information related to activities, dialogs, and context. The researcher also observed the activities and behaviors of the nurses in the research field and recorded these observations. Data collection continued until categories, subcategories, and the relationships between them were identified and no new data source was obtained.

To conduct the analysis, each interview's audio file was listened to multiple times and transcribed word-for-word. The audio was converted into written texts. The transcribed interviews were then inputted into MAXQDA-10 software, which is used for analyzing textual data. The analysis process began with encoding the data, starting after the first interview. Synchronization of open and axial coding was used. Primary classification of extracted codes was performed based on their similarities and differences to form primary concepts. Continuous comparative analysis was used during the coding process to expand the analysis. This allowed for simultaneous comparison of each interview with previous ones. Attention was given to the concepts and extracted categories. The context refers to a set of conditions that lead to problems or events, which are responded to by people through actions, interactions, and emotions.<sup>[10]</sup> Using the conditional matrix presented by Corbin and Strauss (2008), the researcher examined the conditions or events to which participants responded with

actions, interactions, and emotions.<sup>[10]</sup> The consequences of these actions were then explored. Next, the data, concepts, and memos obtained from previous analysis were reviewed to uncover the hidden process. However, although each category in this study revealed a portion of the care process, none of them provided a comprehensive view of how nurses care for patients with COVID-19. Therefore, the researcher aimed to identify a central theme and an abstract phrase that could explain all categories. To achieve this, the researcher began writing the timeline of the study. The data, main concepts, their relationships, and categories and subcategories were reviewed multiple times in order to identify the central theme.

In order to ensure trustworthiness, the researchers utilized the criteria of validity, reliability, and transferability.<sup>[14]</sup> For determining validity, the researchers maintained long-term engagement with the samples and were consistently present in the research setting. Additionally, the researchers considered the reviews from participants, experts/observers, and external observers. To enhance the reliability of the findings, the method of peer review was employed and the process of data analysis was approved by the other authors. Furthermore, the researchers made efforts to provide a clear description of the research process. Finally, to guarantee the transferability of results, the researchers provided a comprehensive description of the participants, the setting, the method of data collection, and the developed theory. Moreover, participants from various age ranges and work experiences were selected to enhance the transferability of study findings. In this research, theoretical sensitivity was created by initiating data analysis soon after the first interview and continuing to analyze the data with successive and continuous changes in the questions or findings during the data collection process. Additionally, immersing in the data allowed for differentiation between insignificant and important data.

### Ethical considerations

The present study was approved by the Ethics Committee of Tehran University of Medical Sciences in 2020 with the code IR.TUMS.VCR.REC.1399.095. While ensuring the principles of confidentiality and anonymity in this study, written informed consent was obtained from all participants.

### Results

The data saturation was achieved through 15 interviews with 11 female nurses, with an average age of 37. Additional demographic characteristics of the participants are reported in Table 1. The data analysis resulted in the formation of 1190 open codes, which were categorized into one central theme, five categories, and ten subcategories. These findings described the process of care for patients with COVID-19, including encountering life-threatening crises, maintaining safety, improving the patient's physical

health, encouraging, and feeling satisfied despite the burden of nursing care [Table 2]. In the context of this study, which focused on nursing care for COVID-19 patients, "nursing care in the COVID-19 disease" was identified as a phenomenon. The strategy and factor controlling this phenomenon were recognized as "maintaining safety". Intervening situations included "improving the patient's physical health" and "encouraging". The causal conditions in the process path included "encountering life-threatening crises". The outcomes related to the strategy, influenced by the interventional factors and causal conditions, included "feeling satisfied despite the burden of care". The core variable of this study was "protection and support in the shadow of ambiguity" [Table 2].

The findings of the present study indicate that the nature of COVID-19, characterized by constant changes in the virus, high contagiousness of the disease, and the emergence of different clinical symptoms in patients, result in the patients' conditions becoming life-threatening crises. *"The COVID-19 is a global crisis that has spread throughout the world. Fear of death, ignorance, and lack of knowledge about what we should do, how to save the lives of patients, and how to prevent the spread of the virus in society were among the challenges that we faced at the beginning."* (Nurse No. 9)

The COVID-19 pandemic and the increase in hospitalizations presented significant challenges for nursing care. The limited staff resulted in an increased workload and long hours, which also affected nurses' performance. *"With the start of the COVID-19 pandemic, a large number of patients entered the hospital all of a sudden, so the shortage of staff was our primary problem."* (Nurse No. 3)

Furthermore, the lack of Personal Protective Equipment (PPE) and the extended use of PPE led to job burnout, decreased productivity, and reduced quality of patient care. *"Many hospitals have problems managing equipment and finding PPE for their employees. We should note that a nurse who wears a mask 24 hours a day may get tired and agitated due to hypoxia."* (Nurse No. 9)

In addition, nurses had to deal with patients with serious health conditions and the anticipation of their death, which were among the other challenges brought on by the pandemic. *"One day a patient is awake and I can talk to him, the next day he is intubated and 3-4 days later, he expires. It is very difficult to see such things."* (Nurse No. 6)

Despite facing numerous challenges in delivering care, the nurses accepted the uncertainty surrounding the disease. The study identified the life-threatening crisis as the main factor underlying the care provided.

Nurses are on the front lines of fight against the COVID-19 pandemic, but they experience extreme physical and mental pressures while providing care. This issue has an

**Table 1: Demographic characteristics of the participants**

Participant's number	Gender	Age	Education	Marital status	Work experience (year)	Work experience in COVID-19 ward (month)
1	Female	40	BSc	Married	15	15
2	Female	42	BSc	Married	18	9
3	Female	36	BSc	Married	10	9
4	Female	35	BSc	Married	10	20
5	Female	41	BSc	Married	14	12
6	Female	30	BSc	Married	10	8
7	Female	35	BSc	Single	11	10
8	Female	37	BSc	Married	15	19
9	Female	50	BSc	Single	24	24
10	Female	27	BSc	Married	5	7
11	Female	41	BSc	Married	13	24

**Table 2: Categories and subcategories**

Categories	Subcategories	Semantic units
Encountering life-threatening crises	Unclear condition of the disease	Changes in the nature of virus and clinical symptoms Collective fear of disease
	Caring in unstable conditions	Work pressure Equipment limitations Challenges of human resources Dealing with patients with different medical conditions
Maintaining safety	Strengthening the care infrastructure	Reducing the nurses' care pressure Providing and managing personal protective equipment Solving the problem of staff shortage
	Breaking the virus transmission chain	Avoiding congestion in the ward Complying with the given protocols Teaching protocols to the patients and their family members
Improving the patient's physical health	Managing the physical condition of patients	Monitoring the medical side effects Routine nursing care Respiratory care
	Increasing the knowledge of patient/family about COVID-19	Providing information Education
Encouraging	Eliminating loneliness	Entertaining the patients Patient communication with staff and family
	Helping to solve the problems	Relaxing Psychiatric consultations
Feeling satisfied despite the burden of care	Feeling satisfied	Acceptance of the situation A sense of empathy between colleagues Improving the status of nursing profession
	Burden of care	Emotional stress of caregiver Physical stress of caregiver

impact on the quality and safety of the care they provide. Nurses are in direct contact with infected patients and are at risk of getting infected. They often experience high levels of anxiety due to the fear of infection and spreading it to others. Therefore, prioritizing their safety is crucial. In the present study, supervisors and leaders worked to address the difficulties faced by nurses by improving the healthcare infrastructure. Various measures were implemented to address the staff shortage and reduce the burden on nurses, including hiring additional nursing staff, engaging public volunteers, and decreasing nurses'

working hours. "We tried not to give nurses heavy work shifts, and the nursing office was tremendously helping us." (Nurse No. 1)

The provision and management of PPE for patients, their families, and medical staff ensured fair distribution despite the initial shortages. "People outside the hospital produced personal protective equipment very quickly. On the other hand, in this economic situation where we are under international sanctions, Tehran University of Medical Sciences and the Ministry of Health did nothing to provide PPE for us." (Nurse No. 5)

To maintain safety and break the chain of virus transmission, nurses emphasized the importance of observing health protocols, preventing overcrowding in hospital wards, and providing necessary health education to patients and their families. They also stressed the significance of employees using PPE, practicing social distancing, and maintaining hand hygiene to ensure the safety of patients and healthcare workers. *“While working, the use of personal protective equipment is more important than anything else, because we cannot provide services unless we have a healthy workforce.”* (Nurse No. 6)

Nurses aim to improve the physical well-being of patients by appropriately monitoring prescribed medications, being attentive to possible side effects, and staying informed about drug-related advancements. *“The first class of drug that was used was Tamiflu, which was quickly discontinued because it was not very effective. Tamiflu was replaced by other medications such as Atazanavir, pulse methyl, and vitamin C, but then Remdesivir replaced them all.”*(Nurse No. 4)

As part of their duties, nurses use respiratory equipment such as oxygen masks, provide routine nursing care such as monitoring vital signs, administering fluids, assessing nutritional status, and reviewing clinical tests to improve patients' physical health. *“We set a series of ward routines, such as monitoring the vital signs of the patients with the most chronic conditions every two hours, checking such signals in the patients with better medical conditions every 6 hours, examining the respiration and oxygen saturation of the patients every morning and then every two hours, etc. We were making nursing diagnoses for the patients and implementing nursing processes accordingly.”* (Nurse No. 1)

Nurses also strive to educate patients about health protocols, oxygen therapy, and lung rehabilitation exercises. Additionally, they provide explanations about the disease and treatment options to empower patients and their families to participate in nursing care decisions. *“Explaining how to use NIV masks to the patient was very important because many patients could not tolerate it. It is very important to help them get used to such masks so that they can be comfortable and relaxed.”* (Nurse No. 6)

Restricting patient visits and limiting the time nurses spend with patients proved effective in facilitating direct communication between patients and their families. However, the hospital's public relations department acted as an intermediary between patients and their families. *“The hospital identified the person who answered the phone and worked as a communication bridge between the hospital and the patient's family. This person could remove the concerns of the patient's family, who could call the hospital 24 hours a day.”* (Nurse No. 3)

From the perspective of the nurses participating in the present study, it was crucial to prioritize the mental and

psychological well-being of both patients and their families in addition to their physical health. One of the primary measures taken by the nurses to uplift the patients' spirits was to instill hope in them. They made efforts to offer necessary amenities to keep the patients entertained and alleviate their feelings of loneliness, all while building a respectful and friendly therapeutic relationship. Moreover, employing virtual communication methods, like video calls, with the patients' family members proved to be effective in fostering encouragement for both the patients and their families.

One of the participants in this regard stated: *“For the patients who are not intubated, verbal communication is the most important issue. We encourage patients as previous experiences have shown that many people have recovered this way. We encourage them a lot and play music for them.”* (Nurse No. 11)

Caring for patients with COVID-19 has significant physical and emotional consequences for nurses. They often experience excessive fatigue due to increased workloads, long shifts, and frequent changes in treatment protocols. Moreover, limited communication with their families and being separated from loved ones for fear of transmitting the disease as well as witnessing the deaths of patients and the suffering of their families add emotional pressure on nurses. *“I have 15 years of work experience, but my burnout this year is equal to all those working years. This is because you endure a lot of stress and you see the death of patients whom you do not expect to expire. I mean I have seen lots of deaths and experienced critical situations.”* (Nurse No. 5)

To cope with these challenges, nurses found that acquiring knowledge about the disease and increasing empathy among the treatment team members helped them accept the situation. They also noticed that the pandemic brought the treatment team closer together, fostering a sense of intimacy. Additionally, the presence of volunteers in the hospital provided encouragement for the nurses. *“Before the pandemic, we were not very involved in research, but after Covid-19, the research discussions between the physicians and us increased greatly, our communication became much more effective, and teamwork was done in the real sense. We had some volunteers in the hospital that liked to help just like the wartime. We felt that we were not alone.”* (Nurse No. 5)

One of the most important outcomes of caring for COVID-19 patients is the recognition and elevation of the nursing profession. Nurses feel a sense of inner satisfaction as their professional value is acknowledged. Nurses believe that the global attitude toward their profession has shifted, as evidenced by the World Health Organization's declaration of 2020 as the year of nursing. *“Nursing used to be a normal job in society. After this pandemic, people feel as if they are indebted to us. Even now, whenever I*

*tell people that I am a medical staff, they try to help and respect me. This is very important for society, as well as my family and colleagues.” (Nurse No. 5)*

**Brief timeline**

The study reveals that the primary challenge in caring for COVID-19 patients is the life-threatening nature of the illness. The central theme of the study aims to answer the question: “How do nurses respond to this concern while caring for patients with COVID-19?”

The nurses responded to their concerns by adopting strategies and taking measures such as maintaining safety, improving the physical health of the patient, and providing encouragement to others. Despite the burden of care, the behaviors and activities displayed by the nurses created a sense of satisfaction in them. The care provided to COVID-19 patients included support and protection in the face of uncertainty caused by the complexity of the virus. On one hand, nursing care led to improvements in the physical and mental well-being of the patients as well as influencing the control and management of critical situations faced by the nurses. Ultimately, the behaviors and actions of the nurses during the care of COVID-19 patients resulted in protection and support. As a result, the central theme of this study was titled “Protection and Support in the Shadow of Ambiguity”. Despite facing the unknown nature of COVID-19, the nurses made efforts to provide physical, mental, spiritual, and social care and even supported the patients’ families. The outcome of this type of nursing care was to protect the patients from the physical and mental consequences of COVID-19 and provide the nurses with a sense of satisfaction despite the burden of care. The central theme of this study encompasses all the main categories identified and establishes a conceptual relationship between them [Figure 1].

**Discussion**

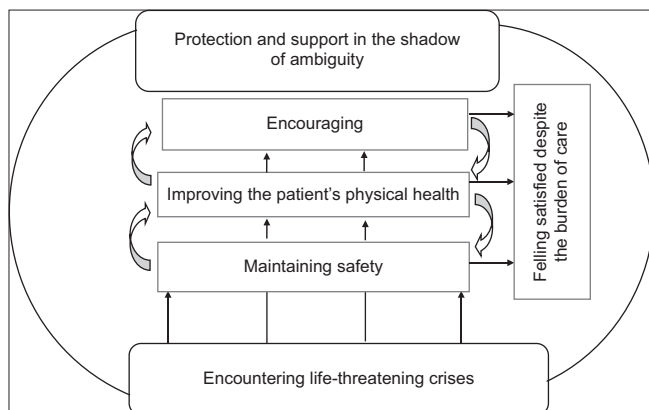
The findings of this study revealed that nurses engage in a care process called “Protection and Support in the Shadow of Uncertainty” when caring for COVID-19 patients. This process, which consists of five main categories and ten

subcategories, occurs during a period of extensive human interactions. The fundamental basis of this process is the life-threatening crisis posed by the virus. Strategies such as maintaining safety, improving the patient’s physical health, and providing encouragement were employed by the nurses in their care for COVID-19 patients, which also contributed to their sense of satisfaction despite the burden of care.

The findings of the present study revealed a first category called “Encountering life-threatening crises”. This category had two subcategories: “Unclear condition of the disease” and “Caring in unstable conditions”. Many individuals hospitalized due to COVID-19 experience various physical and mental crises. The goal of nursing care is to support patients in overcoming these crises and managing the consequences. In this study, nurses provided physical and psychological support by offering careful care, treatment, and supervision to COVID-19 patients. The complex and ambiguous nature of COVID-19 has turned it into a life-threatening disease, which has contributed to collective fear. Furthermore, this study found that nurses faced numerous challenges in clinical and unstable conditions. These challenges included increased admission of patients with diverse care needs, organizational issues like shortages of specialized and experienced nurses, limited availability of personal protective equipment, unconventional work schedules, and insufficient specific training. Similar to the findings of this study, Galehdar *et al.* (2020)<sup>[15]</sup> stated that caring for COVID-19 patients is associated with various issues, such as physical fatigue from long working shifts, increased workload, mismanagement, and lack of access to PPE.

The second category of the present study is “Maintaining safety” which consists of two subcategories: “Strengthening the care infrastructure” and “Breaking the virus transmission chain”. To address the challenges and provide care for patients with COVID-19, nurses took steps to ensure the safety of both patients and themselves by enhancing the care infrastructure. This involved establishing a basic support system, such as providing PPE, allocating human resources, and conducting training for employees after recruitment. These actions were necessary to help nurses adapt to the demands of the pandemic. Bambi *et al.* (2020)<sup>[9]</sup> also emphasized the need to develop standards for shift scheduling and prioritize managing nursing staff shortages. Another measure employed by nurses to maintain patient safety was breaking the chain of virus transmission. According to the nurses in this study, they achieved this goal through education and adherence to recommended health protocols. Increasing awareness and health literacy are crucial factors in promoting overall health and encouraging individuals to actively participate in their healthcare.

The third category of the present study focuses on “Improving the patient’s physical health” and is divided



**Figure 1: The caring process in patients with COVID-19**

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into two subcategories: “Managing the physical condition of patients” and “Increasing the knowledge of patients/families about COVID-19”. Nurses in this study, as specialists at the forefront of the fight against COVID-19, strove to enhance the physical health of patients through comprehensive and effective care. Management of the patients’ physical conditions involved providing routine nursing care as well as specific respiratory and medicinal care. Additionally, by educating and informing patients and their families, nurses made a significant contribution to raising awareness about COVID-19. But due to the newness of the disease, nurses faced challenges in implementing evidence-based interventions. Research has shown that nurses were not adequately prepared to provide specialized care to COVID-19 patients due to a lack of proper training. This knowledge gap poses a risk to the safety and quality of care provided to patients.<sup>[16]</sup> Therefore, it is crucial to ensure that nurses have the necessary clinical skills during times of crisis. Their clinical skills in caring for COVID-19 patients can be observed through their care delivery and implementation of interventions and protocols.<sup>[17]</sup> Nurses who care for COVID-19 patients must have the ability to monitor, analyze, interpret, and respond to a wide range of information about the patient’s condition. Systematic patient monitoring is essential for carrying out the care process during a pandemic. As a result, clinical management of the patient, such as oxygen therapy and drug administration, becomes crucial.<sup>[18]</sup> According to Umeda and Sugiki (2020), nursing care for COVID-19 patients in Japan involves a variety of tasks, including equipment checks, monitoring hemodynamic and breathing conditions, managing anticoagulants, observing patient conditions, managing sedatives and painkillers, preventing pressure ulcers, and maintaining health.<sup>[19]</sup>

The fourth category of the present study focuses on “Encouraging” and consists of two subcategories: “Eliminating loneliness” and “Helping to solve problems”. Diseases that require hospitalization, especially in the ICUs, have a negative impact on the mental well-being of patients even after discharge. Studies have shown that up to 2 months after leaving the hospital, half of hospitalized patients with COVID-19 experience psychological distress.<sup>[20,21]</sup> From the nurses’ perspective in this study, providing psychological and emotional support in addition to physical care is essential. Early identification of psychological symptoms and the implementation of appropriate interventions, such as consulting with mental health specialists, are effective in preventing irreversible damage to the patients.<sup>[22]</sup>

The final category of the present study titled “Feeling satisfied despite the burden of care” consisted of two subcategories: “Burden of care” and “Feeling satisfied”. The findings of this study demonstrated that nurses, despite facing physical and emotional pressures due to the burden of care, accepted the conditions and felt satisfaction in

providing care to patients with COVID-19. These results are consistent with Sun *et al.*’s (2020)<sup>[23]</sup> qualitative study, which found that nurses initially experienced negative emotions during the pandemic but gradually replaced them with positive feelings of care. Additionally, our results indicate that receiving appreciation from patients and society was significant for nurses providing care to COVID-19 patients. This appreciation helped them establish deeper relationships with patients and develop a sense of duty. Lee and Lee (2020) investigated the experiences of nurses caring for COVID-19 patients and found they experienced professional growth by discovering the value and meaning of their work while receiving social support.<sup>[24]</sup> The present study also highlighted the promotion of nursing status and the emergence of a new image of nursing after the COVID-19 pandemic. Data analysis revealed that the challenges posed by the pandemic provided opportunities for understanding the nature of the nursing profession and promoting. Similarly, two other studies have found that the COVID-19 disease has facilitated the professional development of nurses, leading to increased passion for their jobs, pride in their profession, and recognition from the general public.<sup>[15,23]</sup>

## Conclusion

In conclusion, the present study highlights the satisfaction experienced by nurses despite the burden of nursing care in the context of providing care to COVID-19 patients. The study also underscores the importance of appreciation from patients and society, as well as the promotion of nursing status and the emergence of a new image of nursing following the pandemic. Nonetheless, the study’s limitations should be taken into consideration. The patients with COVID-19 face various physical and mental challenges. Providing care in unstable conditions increases the work pressure on nurses. Despite these difficulties, nurses are striving to maintain patient safety by strengthening the care infrastructure, breaking the chain of virus transmission, and improving patients’ physical health. In addition to attending to patients’ physical well-being, focusing on their mental and psychological condition and providing relevant nursing interventions are essential aspects of care. The nursing care process for patients with COVID-19 involves protecting and supporting them, ultimately resulting in a sense of fulfillment for nurses. The findings of this study can serve as a guide for developing nursing students’ curriculum and offering retraining courses for nurses. Furthermore, nursing policymakers can apply the processes identified in this study in clinical settings to improve both the quality and safety of nursing care provided to COVID-19 patients, while also laying the necessary groundwork for enhancing nurses’ performance and knowledge. However, it is recommended that future studies be conducted to ensure that the best care processes are implemented during the pandemic.

This study had several limitations. Like any other qualitative study, the results may not be generalizable to other communities or contexts. Another limitation was the single-gender participation. Therefore, it is recommended that future research be conducted with larger sample sizes, including participants of both genders.

### Acknowledgements

The authors would like to thank the participants for their willingness to participate to this study.

### Financial support and sponsorship

Tehran University of Medical Sciences

### Conflicts of interest

Nothing to declare.

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