Original Article

Experiences of Nurses in Caring for Patients with COVID-19: A Qualitative Research

Abstract

Background: The Covid-19 disease was raised as a fundamental public health problem worldwide, and nurses were exposed to many problems and challenges at the front line of fighting this disease. Therefore, the present study aimed to explain the experiences of nurses who took care of Covid-19 patients. **Materials and Methods:** This study was a conventional content analysis qualitative study using Granheim and Lundman approach. The study participants included 20 nurses working in Corona referral hospitals in Isfahan, Iran. Participants were selected using purposive sampling and in-depth semi-structured interviews were conducted from September 2020 to March 2021. To assess the trustworthiness of the obtained data, credibility, dependability, confirmability, and transferability criteria were used. **Results:** Data analysis led to the production of 700 primary codes, 15 sub-sub-categories, 5 sub-categories and 2 main categories. These two main categories consisted ofpsychological reactions and organizational challenges. Negative emotional experiences and positive emotional experiences were placed in the category of psychological reactions and expectations from superiors, lack of facilities and resources and insufficient quality of care in the category of organizational challenges. **Conclusions:** The results of the present study showed that managers and policy- makers should prioritize the nursing empowerment to ensure effective epidemic fight and the psychological and financial support of Covid-19 ward nurses.

Keywords: *Coronavirus, Covid-19, nurses, nursing care, qualitative research, Iran*

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Introduction

Covid-19 is still a major public health problem worldwide including Iran, as it caused a great impact on the healthcare system.[1] The medical staff always plays the most important role in the treatment of patients in the face of infectious diseases, and thus, their health is endangered or they may even lose their lives.[2] In the meantime, nurses work at the front lines of the health care system, and provide long hours of direct care to patients with Covid-19 and as a result, are at greater risk of acute and critical conditions.[3] The rapid spread of Covid-19, the prolongation of this health crisis, the high rate of infection, the lack of care equipment, especially at the onset of the pandemic, changes in the behavior of the virus, as well as reinfection in the later stages are among the factors that can lead to reduce the quantity and quality of nursing care.[4,5] Results of the study by sun *et al* showed that the psychological experiences of nurses during Covid-19 can be categorized into the following four categories: negative emotions in the early stages including fatigue, discomfort and disappointment, fear, and anxiety, individual adaptation methods including life adjustment, altruistic actions, team support, increased love and gratitude development of professional responsibility and self-reflection.[6,7]

The experiences of nursing staff who took care of Covid-19 patients are of particular importance for designing action plans.[3] Limited research can be identified to explore the experiences of Covid-19 nurses in Isfahan, Iran. Moreover, the experiences of nurses in each cultural context could be different. Knowing these experiences can be useful to improve the working conditions of nurses, ensure better crisis management, and ultimately improvement of the quality of patient care. The present study was therefore conducted to explain the experiences of nurses in caring for Covid-19 patients in Isfahan, Iran.

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Materials and Methods

This is a qualitative study with a content analysis approach. 20 nurses were selected using the purposive sampling method in the Covid-19 referral hospitals of Isfahan, Iran, including Al-Zahra, Amin, and Khurshid hospitals from September 2020 to March 2021. Inclusion criteria were having at least six months of working experience in the nursing profession, experience in caring for Covid-19 patients, and the ability to describe and recall experiences of caring for Covid-19 patients.

After explaining the study objectives, emphasizing the confidentiality of the information to obtain written informed consent, data were collected through in-depth semi-structured interviews. Interviews were conducted individually by the principal researcher. The place and time of the interviews were determined by the participants. Most of the interviews were conducted at the nurses' workplace and in different shifts. The interview started with a general question about the experience of caring for Covid-19 patients that were then investigated in depth by probing questions. The interview questions, consisted of queries like "What experience do you have while caring for Covid-19 patients? What feelings did you have while caring for these patients? What problems and challenges have you experienced while working with these patients?" The duration of the interviews was between 30 and 60 minutes, with an average of 40 minutes. The interviews continued until no new data were generated. Data analysis was then performed simultaneously with data collection using the qualitative conventional content analysis method proposed by Graneheim and Lundman. In the first step, the interviews were transcribed verbatim using Microsoft Word Office. The researcher coded important words and then similar codes were placed in subcategories. Finally, the subcategories were grouped into the main category. Both data management and analysis were performed using MAXQDA 10 Software.

To increase the credibility of the study results, in-depth interviews were conducted at different times using various data collection methods including interviews and field notes. The participants were also selected with maximum variation in terms of age, gender, educational level, and working experience. Codes, subcategories, and categories resulting from the interviews were returned to the participants in a printed format to read and correct as necessary. For confirmability to be achieved, the data analysis process including coding was stated clearly and in detail. A clear and full description of all stages of the research process, sampling, and the characteristics of the studied population was conducted so that the transferability can be reached.

Ethical considerations

The present study was approved by the appropriate ethics committee of Isfahan University of Medical Sciences (IR.MUI.RESEARCH.REC.1399.344). The study objectives were explained to the participants and all participants read and signed the informed written consent form.

Results

The majority of participants were women, married (80%), with a history of having a Covid-19 infection (60%). The majority of nurses had experienced working in the Intensive Care Unit (ICU) (35%) and 25% in the Emergency Department. Moreover, the mean (SD) of the participant's age and years of working experience in the Covid-19 ward was 33.75 (4.95) and 5.50 (2.41) months, respectively. Data analysis led to the 700 primary codes, 15 sub-sub-categories, 5 sub-categories, and 2 main categories. These two categories included psychological reactions and organizational challenges. Categories, sub-categories, and sub-subcategories are shown in Table 1.

Psychological reactions

Nurses had both negative and positive emotional experiences during the covid-19 epidemic. This category consists of two sub-categories.

Negative emotional experiences

Worry and anxiety

The participants stated that they feel anxious and worried due to various causes. This worry and anxiety has persisted not only in the workplace but also at home. Their biggest concern has been related to the transmission of the disease to their families, themselves, the unknown nature of the disease, and the implementation of new treatments. "*I*

Table 1: The sub-sub categories, subcategories, and main categories extracted after data analysis

Main categories	Subcategories	Sub-subcategories
Psychological reactions	Negative emotional experiences	Worry and anxiety
		Anger
	Positive emotional experiences	Persuading a sense of responsibility
		Altruism
		Feeling useful
Organizational challenges	Expectations from superiors	Lack of financial support
		Lack of appreciation and empathy
		Lack of job security
	Lack of facilities and resources	Lack of facilities and poor quality of equipment
		Lack of specialized manpower
	Inadequate quality of care	Lack of inter-professional collaboration
		Poor staff training
		Lack of holistic care
		Ineffective patient-staff communication
		Lack of treatment guidelines

didn't like to go back home, I felt that I get this disease now and I am transmitting it to home with myself and affecting my family"(P3).

"We were all worried about the exact nature of Covid-19 and this virus and what it is going to do to our bodies"(P1).

"*Every day a new drug and a new treatment were used. When I wanted to give a new drug to the patient, I was much stressed*"(P10).

Anger

The participants stated that one of the emotions they experienced especially at the onset of the Covid-19 pandemic was anger. "We were really nervous, we were under pressure in every way, didn't see the managers next to us, and they just paid short visits to the departments"*(*P11)

"*At the onset of the disease, we did not have enough equipment and had to wear a mask and a piece of clothing throughout the shift, and this really made us angry*"(P14).

"Our workload was too much. Colleagues were sick, some of them had resigned, and we had to cover shifts. We were nervous, we might yell at each other during the shift"(P15).

Positive emotional experiences

The participants stated that their positive feelings during this period were including responsibility, altruism and the feeling of being useful.

Responsibility *"I felt more responsible for taking care of these patients who had no companions. I knew what their families were suffering from the infection now, and I felt responsible*"(P7).

Altruism "*I stayed and worked with love because of my patriotism and the fact that I can't be indifferent, so, I was more satisfied"(*P5).

Feeling useful *"Many colleagues left the field, which made me enter it voluntarily. I felt that I was useful and I felt self-satisfaction*"(P16).

The results of this category show that during the prevalence of the Corona epidemic, negative and positive emotional experiences were intertwined and existed together. In such a way that negative emotions such as worry and anxiety were more pronounced at the beginning of the Corona epidemic and with the passage of time and the subsidence of negative emotions, positive emotional experiences appeared more.

Organizational challenges

One of the challenges that nurses faced during the Corona epidemic was organizational challenges. This category consisted of three sub-categories that are explained below.

Expectations from superiors

This category consisted of the following subcategories: lack of financial support, lack of appreciation and empathy, and lack of job security.

Lack of financial support *"Financial payments motivate us to work. They may keep the subordinates mentally refreshed for a while by paying a fee and overtime"*(P17).

Lack of appreciation and empathy *"The presence of the manager has a great effect on the morale of the staff. When I, as a nurse, see the head nurse accompanying us, we get more motivation"(*P2).

Lack of job security *"Many of us were contractual workers, and were employed as 89-day workers during the pandemic, just in the hope that they would change our job status in the future and find job security*"(P 20).

Lack of facilities and resources

Most of the participants complained about the lack of facilities and inappropriate quality of equipment and the lack of specialized manpower.

Lack of facilities and poor quality of equipment *"The coveralls had very poor quality, as if they had sewn garbage bags and delivered them to us. We were drenched in sweat in these clothes and it was difficult for us to breathe"(*P15).

Lack of specialized manpower *"They increased the number of ICU beds and non-ICU staff entered the ICU ward. The anesthesia and the operating room technicians could not do the nursing work properly, which in turn led to missed care*"(P9).

Inadequate quality of care

The participants stated that the quality of care was not sufficient. Lack of interprofessional collaboration, poor staff training, lack of holistic care, ineffective staff-patient communication, and lack of clinical treatment guidelines were among sub-subcategories.

Lack of interprofessional collaboration *"It would be much better if they consult with the nurses themselves. The nurse is more aware of the details of the patient and the disease condition"(*P8).

Poor staff training *"There is poor staff training. At first, we did not even know how to wear a simple dress. We did not know how we should dress and in what order we should dress"*(P9).

Lack of holistic care *"Unfortunately, due to the workload, we focused on the patient's body and did not provide holistic care*"(P8).

Ineffective staff-patient communication *"We had the least contact with the patients, although it is correct in terms of the health protocols, but this is not correct in terms of ethics and humanity"*(P1).

Lack of clinical treatment guidelines *"Everybody who entered the door said something. Sometimes it happened that we did not have a specific source and guidelines to refer to"*(P4)

The results of this category indicate that meeting the needs and expectations of employees, and providing the necessary resources and equipment directly or indirectly affected the quality of care for patients with Covid-19.

Discussion

Explaining the experiences of nurses who took care of Covid-19 patients is of particular importance for designing operational plans to improve the quality of nursing care for such patients. The findings showed that these experiences are categorized into two main categories including psychological reactions and organizational challenges. In the category of psychological reactions, various negative and positive emotions were included. The worry and anxiety of the nurses were mainly due to contacting the infection and transmitting it to the family. This worry led to the limitation of the nurses' communication with their family members. This fear and worry were so severe that the nurses avoided getting close to, sitting at the table, hugging and kissing their family members and children, and preferred being alone. These negative emotions can affect the quality of life of nurses and the quality and quantity of patient care. The results of other studies also showed that nurses were worried about the risk of infection transmission to their families,[6-8] which is consistent with the present study.

Besides their negative emotions, nurses explained their positive emotions. According to the participants, positive emotions came from having a sense of being responsible, useful, and altruistic. The nurses stated that despite hardships and dangers facing them in the Covid-19 ward, they had satisfaction and motivation to continue this difficult path since they were able to be useful in such conditions, play a stronger role and help patients in situations even in the absence of their families. Other studies also referred to the inner satisfaction of Covid-19 ward nurses as one of their positive experiences that were obtained in a selfless and enjoyable atmosphere.[2,9]

Another category included organizational challenges, which included expectations from superiors, lack of facilities and resources, and insufficient quality of care. The main expectations of the participants from the superiors included financial support, appreciation, and empathy. They stated that the financial payments, including arrears and corona bonus, were insufficient and delayed. They also complained about the discrimination between doctors and nurses in terms of payment methods. According to them, financial and non-financial incentives lead to more motivation to continue the career path and effective social support is important during pandemics.[10] The results of various studies showed that the use of financial and non-financial rewards plays an important role in increasing the nursing practice, therefore hospital officials should use non-financial rewards in addition to financial ones.[11,12]

The lack of equipment, especially at the onset of the disease, as well as the poor quality of personal protective equipment, were among the practical significant challenge facing the nurses. The long-term use of personal protective equipment caused nurses to suffer from headaches, nausea, and allergic reactions, mainly due to the low usability of the equipment. Also, reports show that long-term use considerations have not been taken into account in the design of many of these devices. Other studies also investigated protection-related problems of nurses such as dehydration, shortness of breath, nose and face sores, non-prioritization of and delayed distribution of personal protective equipment.[13,14] About inadequate quality of care, participants complained of a lack inter-professional collaboration. According to participants, since nurses spend more hours with the patient and are thus more aware of their condition, nurses' participation in clinical decisions and asking for their opinion in the treatment process can increase the quality of care, reduce the length of hospital stay and hospitalization costs, and thus increase job satisfaction.[15,16] Green also emphasized the need to improve professional communication to improve the quality of patient services.[17]

It was also explored that insufficient quality of care was related to poor staff training. Many participants stated that they were not satisfied with the level of training and did not have enough skills to work with breathing aids and equipment, and the incorrect use of these devices may lead to patient harm. The participants stated that most of the care services were limited to the physical aspects and they could not establish effective communication with the patient. They considered high workload, fear of disease, and adherence to health protocols as barriers to this effective communication. More efforts have been made to have a diverse group of nurses in the study. However, the time limitation for some nurses to participate in the study, and the inclusion of both nurses with and without a history of Covid-19 disease were among the possible limitations of the study.

Conclusion

The results showed managers should participate in the treatment process, implement continuous training programs for nurses and strengthen their skills to prepare for pandemics, and meet the demands and expectations of nurses through psychological and financial support to improve the quality of nursing care in epidemics such as Covid-19. Considering that the emergence of negative emotions has a negative effect on the psychological state of nurses and the quality and quantity of nursing care. Therefore, it is important to pay attention to the feelings

and emotions of nurses during epidemics and provide them with psychological support.

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Conflicts of interest

Nothing to declare.

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