Research Article

A qualitative approach to the ethical challenges of Iranian nurses during the COVID-19 pandemic

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Abstract

Background: Nurses have vital roles during the COVID-19 pandemic but may face ethical dilemmas due to exposure to new illnesses and a lack of experience.

Aims: This study aimed to qualitatively investigate the ethical challenges faced by Iranian nurses during the COVID-19 pandemic. Methods: This qualitative study involved conducting semi-structured individual interviews with 15 nurses working in COVID-19 wards at a hospital in Yazd, Iran, from February 2020 to April 2021. The data analysis was conducted using thematic analysis techniques. Results: During the analysis, the researchers generated five themes: ethical principles, ethical decision-making, educational challenges, communication challenges, and workplace challenges.

Conclusion: The findings of this study demonstrate that frontline nurses in COVID-19 wards experienced their work as challenging and uncertain at the beginning of the COVID-19 outbreak. It seems that training programs in advance could help reduce this uncertainty.

Keywords: Thematic analysis, Ethical challenges, Ethics, Nurse, COVID-19.

Introduction

In late December 2019, a new coronavirus called SARS-CoV-2 caused an outbreak of a new viral pneumonitis named COVID-19 in Wuhan, China. This virus spread rapidly across the globe and posed significant threats to the global health structure and society.^{1,2} Because of this outbreak, hospitals had to swiftly adjust to deal with a dramatically higher admission of extremely ill patients, a condition that medical professionals did not fully understand. Nurses and other health workers are on the front lines of disease control during pandemics. As frontline workers, nurses may face ethical challenges due to exposure to new illnesses and a lack of experience in new situations.³⁻⁵ The COVID-19 pandemic has presented new ethical dilemmas for nurses in their daily healthcare roles.^{6,7} The term "ethical challenges" refers to ethical conflicts, ethical dilemmas, and other situations where difficult decisions must be made. Bahadori Jahromi and Alizadeh⁸ investigated ethical challenges in mining engineering and found justice to be an ethical challenge in the engineering system. In another study, Heydari and Meshkin Yazd⁹ highlighted various ethical challenges faced by healthcare professionals, including autonomy, avoidance of harm, usefulness, equality, moral uncertainty, moral distress, ethical tension, professional, communication, and educational challenges.

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analysis.

Objectives

The purpose of this study was to explore the ethical challenges faced by Iranian nurses during the COVID-19 pandemic.

Methods

The study used qualitative methods, specifically thematic analysis, to analyze data collected from structured interviews with nurses working in COVID-19 wards in Yazd city, Iran, between February 2020 and April 2021. The researchers continued sampling until they considered the data adequate and selected a sample of 15 nurses randomly [Table-1]. The interview process followed 8 systematic steps:

1) **Developing interview questions:** An interview was designed based on a clinical question, such as "What are the ethical challenges in the nursing profession during the COVID-19 pandemic?" The process involved designing interview questions and protocols, which were selected through a critical review of previous literature.

2) **Pilot interview:** To ensure that the protocols were clear, concise, and appropriate, a pilot interview was conducted. The authors found it helpful to identify possible challenges and develop the necessary skills for conducting future interviews.

3) **Determining sample size:** In qualitative research, sample size is defined by data saturation, which occurs when interviewee replies are sufficiently similar to eliminate the need for more data collection. In this study, a sample size of 15 interviewees was collected.

4) **Conducting interviews:** The interviews were conducted over a period of 14 months, from February 2020 to April 2021. The average duration of an interview was 48 minutes. The interviews were recorded with the permission of the interviewees to facilitate retrospective

5) **Transcribing interview data:** The process of transcribing interview data involved transferring audio files of interviews to a computer, after which they were transcribed into written transcripts in Farsi.

6) **Translating interview data:** all written transcripts in Farsi were subsequently translated into English for further analysis. These translations were then exported to the NVivo 12 Pro software.

7) **Analyzing interview data:** During the analysis of the interview data, a structured thematic analysis method was used. This method involves six phases: familiarization, coding, generating themes, reviewing themes, defining and naming themes, and writing up. Among these phases, coding is the most crucial one, as it helps to generate a list of phenomena that have implications for the research objectives.

8) **Reporting findings:** This paper indicates and examines all of the research findings.

Table-1. Demographic data of the interviewees (15 nurses)

Gender		Education level		Education	
Female	7	Graduate	6	Management	4
Male	4	Post-graduate	5	Non-management	7

In this study, we used the inter-coder reliability agreement method to assess the reliability of the interviews. For this purpose, a university lecturer who was knowledgeable about the research topic was asked to participate in the research as a collaborator. The researchers and the collaborator coded three interviews and used Equation-1 to calculate the percentage of inter-coder reliability agreement. According to Table 2, the reliability of the two coders for the interviews in this study is 82%, which confirms the inter-coder reliability as it is more than 60%.¹⁰

Equation-1. Percentage of inter-coder reliability agreement = $\frac{\text{Number of contracts x 2}}{\text{Total number of codes}}$ x100%

Item	Interview code	Number of codes	Number of agreements	Reliability between coders (Percentage)
1	\$3	22	9	82
2	S5	29	11	76
3	S9	21	3	89
	Total	72	29	80

Table-2. Calculation of reliability between the two coders

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Results

After conducting and transcribing the interviews, each interview was assigned a number. The material was analyzed using the thematic analysis method, and researchers picked pertinent information to address the clinical issue. The selected qualitative data was then coded, and data encoding was performed based on the interview and corresponding numbers. Researchers then selected a tag for each code and put together a set of sub-themes to complement the core themes. An overview of the data analysis process is shown in Figure 1. Main themes \rightarrow Sub-themes \rightarrow Preliminary codes

Figure-1. Data analysis process

Due to the high volume of data, a breakdown of all codes is not provided. However, the method of extracting one of the main themes is presented in Table 3.

Table 4 shows how the preliminary codes derived from the interviews were repeated, indicating their value. The final findings are also included in Table 5.

Table-3. An example of the primary themes extraction process		
Core theme	Sub-themes	Quotes
	Weak curriculum	During the COVID-19 crisis, it is crucial to make the necessary arrangements for
	and emphasis on	nurses to perform their duties without stress. However, the emphasis is still on
	traditional	traditional practices, making it difficult for nurses to cope with the current situation.
Communication	education	One of the significant challenges in the COVID-19 crisis is the absence of educational
Challenge		programs.
Chancinge	Socialization is	Many newcomers to the nursing profession start working without proper knowledge
	not implemented	of the healthcare system and management.
	enough.	Many nurses are not familiar with new physicians who have entered the hospital.
	Inadequacy of	Unfortunately, the issue being taught in the training sessions is not aligned with the
	educational	available tools.
	facilities and	The necessary equipment for training is either not available in the hospital or is not
	equipment	adequately used.
	Instructors have	Coaching is essential to articulate issues and provide solutions that are rarely seen in
	insufficient	the current situation.
	abilities.	Unfortunately, there is a lack of qualified instructors in the training classes.

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Table-4. Frequency of code repetition (sub-themes)

Basic codes	Frequency of code repetition	Basic codes	Frequency of code repetition
Far-sightedness	3	Conscious satisfaction	3
Teamwork	4	Conscious support	7
Heterogeneity of ethical behavior	3	Confidentiality	1
Ethical conflict	2	Honesty	6
Ethical regret	3	Loyalty	2
Ethical tickle	4	Respect for human dignity	5
Weak curriculum and emphasis on	3	Distributive justice	2
traditional education			
Lack of implementation of social	3	Normative commitment	2
socialization			
Inadequate facilities and equipment for	4	Being responsive	3
training			
The insufficient ability of educators	7	Work conscience	3
Weaknesses in clinical education programs	5	Self-control	1
Communication challenges between nurse	3	Good behavior	6
and patient			

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*	11	6	1
Communication challenges between nurse	2	Being open to criticism	7
and physician			
Communication challenges between nurse	4	Gaining God's pleasure	2
and nurse			
Communication challenges between nurse	4	Work order	4
and patient relatives			
Communication challenges between nurse	1	Preservation of human dignity	9
and the outside workplace			
Interaction between individual values versus	3	Observance of formal and informal	4
work values		norms	
Failure in team cooperation and work	2	Servant leadership	3
Inappropriate organizational structure	4	Avoid harmful behaviors	12
Lack of support from managers	9	Apply the necessary accuracy, skills,	8
		and knowledge	
Wrong professional-social identity of the	3	Healthy competition	14
nurse			

	Table-5. Main themes and breakdown of subthemes	
Main themes	Sub-themes	
Ethical principles	Conscious satisfaction, conscious support, confidentiality, honesty, loyalty, respect for human dignity, justice, normative commitment, being responsive, work conscience, self-control, being open to criticism, gaining God's pleasure, work order, preservation of human dignity, observance of formal and informal norms, servant leadership, avoidance of moral corruption, applying necessary accuracy, skills, and knowledge, healthy competition, foresight, and teamwork.	
Ethical decision making	Heterogeneity of ethical behavior, ethical conflict, moral regret, ethical tickle	
Educational challenge	Weak curriculum and emphasis on traditional education, Lack of socialization, inadequate facilities and equipment for teaching, instructors" insufficient capability, and weakness in clinical curriculum.	
Communication challenge	Communication challenges between nurse and patient, communication challenges between nurse and physician, communication challenges between nurse and colleagues, communication challenges between nurse and patient relatives, and communication challenges between nurse and other nurses in other hospitals.	
Workplace challenge	Interaction between personal values and work values Failure in teamwork, inappropriate organizational structure, Lack of support from managers, Inappropriate professional-social identity of the nurse	

Discussion

The following presents the ethical challenges encountered by Iranian nurses during the COVID-19 pandemic, as viewed from the perspective of the interviewees.

Ethical principles

During the COVID-19 pandemic, one of the ethical dilemmas faced by nurses was the preservation of ethical principles. The application of ethical principles by nurses offers several significant benefits, as it involves the integration of moral reasoning and practicality when dealing with ethical challenges. Maintaining responsibility in the nursing profession ensures that nurses are accountable for their decisions and actions, as failure to do so can result in ethical dilemmas. Other studies, such as Larkin et al.,⁷ have confirmed the findings of this study, emphasizing the necessity of preventing patient harm. Heydari and Meshkin Yazd⁹ have also identified themes such as independence, prevention of harm to patients, usefulness, and equality. The concept of consciousness, as investigated by Azadian,¹¹ is also congruent with the results of this investigation. The subsequent statements include a few instances quoted by interviewees:

"N1: The patient was unable to replace the protective mask"

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in a timely manner.

N13: Saving lives requires swift action. A patient suddenly collapsed, but my colleague took an extended period of time to approach and assist him."

Ethical decision-making

Nurses in the COVID-19 pandemic are confronted with yet another ethical dilemma: ethical decision-making.¹² Making ethical decisions not only promotes ethical behavior but also serves as the bedrock for exemplary nursing practices. In the midst of the COVID-19 crisis, nurses find themselves grappling with ethical challenges on a daily basis, necessitating them to make critical choices. Often, nurses in such situations experience a sense of unease and discomfort, sensing that something is amiss. For instance, they may find themselves torn between attending to a critically ill patient and fulfilling other timesensitive obligations, such as administering vital antibiotics to a sepsis patient. This moral quandary, known as ethics anxiety, arises from the inability to meet all the expected requirements. The following quotes from interviewees further illustrate instances of ethical decisionmaking:

"N7: As the diagnosis and treatment protocols for COVID-19 are continuously updated, I have dedicated myself to constant study.

N5: I will enhance the organization of nursing tasks for greater efficiency.

N12: I have honed my skills in providing healthcare to infectious patients."

Educational challenges

Nurses encounter ethical dilemmas and must be able to recognize these issues in order to uphold key principles in healthcare delivery. This proficiency is acquired through the study of theoretical concepts pertaining to moral principles.¹³ However, a study reveals that, despite frequently facing ethical challenges in critical situations, nurses often lack the necessary training to effectively address them. Some interviewees suggest that the curriculum in universities and hospitals lacks modern training resources and fails to provide adequate training in collaboration with other healthcare professionals. While there has been a recent increase in ethics education, it remains a relatively new issue in Iran. Al-Zahrani et al.,¹⁴ and Azadian¹¹ have both addressed the difficulties of teaching ethics in nursing.

"N3, N6: I previously worked in surgical nursing; however, the current situation with COVID-19 requires a strong understanding of internal medicine, which I am not familiar with.

N14: The patients were experiencing discomfort, yet I lacked the knowledge on how to provide solace to them."

Communication challenges

During the COVID-19 pandemic, nurses face the additional challenge of effectively communicating with healthcare teams and patients.¹⁵ Nurses bring their professional and personal values to their work environment, but the impact of these values on nursing practice is not fully understood. Ethical challenges can arise from conflicts between nurses, colleagues, and patients. The contagious nature of SARS-CoV-2 has resulted in minimal patient contact and limited communication. The study's findings also highlight the communication challenges between nurses and physicians. The perception of hierarchy in the medical profession can lead to conflicts of values and expectations, particularly in high-stress situations, which can ultimately affect patient care.

"N7: It was disheartening for me to conceal the truth from my patients at times in order to alleviate their anxiety and despair.

N11: I encountered a patient who, due to the loss of his family, displayed resistance to cooperating and had a diminished appetite.

N12: Each instance of connecting with my family through video calls brought a sense of tranquility and solace to me."

Workplace challenges

During the COVID-19 pandemic, Iranian nurses faced various ethical challenges, one of which was workplace difficulties. When entering the workplace, individuals bring their own set of core values. In the field of nursing, these core values encompass altruism, autonomy, human dignity, integrity, honesty, and social justice.¹⁶ However, there may be certain inconsistencies between a nurse's core values and the demands of the workplace. Saboneh et al.'s study throws light on these ethical problems in the

workplace, emphasizing the absence of managerial assistance.¹⁷

"Doctors ought to examine and study the patients' health directly, but to reduce the danger of infection, they asked nurses to view the patients' monitoring parameters (N9)."

"Some doctors even asked us to do it through phone calls (N14)."

This study had certain limitations, such as depending on the interviewers' findings from a small sample size in a single center. However, by employing combined or quantitative methods, the research findings can be enhanced in terms of validity and reliability. The data collection method utilized in this study involved in-depth interviews, while the data analysis process employed thematic analysis. The research findings shed light on the ethical challenges faced by nurses during the COVID-19 pandemic, specifically focusing on core ethical principles, ethical decision-making, and professional communication and interactions. These aspects are crucial in examining the main concerns.

The recent findings have shed light on several ethical considerations that differ from previous publications. These include the impact of teamwork failures, inappropriate organizational structure, and the variation in ethical behavior among colleagues. As one of the ethical challenges faced by nurses during the COVID-19 pandemic is workplace difficulties, it is recommended that nurses acquire the skills of ethical leadership through training courses and consultations with specialists who can assist in navigating organizational structures. To address the ethical challenge of educational obstacles, it is proposed that traditional ethics teaching be replaced with participatory teaching methods that encourage dialogue. Furthermore, there is a suggestion to prioritize more practical and realistic approaches, such as 'case-based' teaching, over conventional lecture-based techniques

Conclusions

To summarize, ethical principles serve as a set of practical guidelines for nursing professionals. These codes of ethics provide nurses with direction on how to engage in ethical behaviors that prioritize the well-being of patients. As a result, nurses can be equipped with these principles through specialized education, institutional support, team collaboration, and acknowledgment of their personal moral and religious values. Recognizing that values play a crucial role in an individual's ethical framework, it is recommended that managers value the input of individuals in the decision-making process.

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Competing interests

The authors declare no competing interests.

Abbreviations

COVID-19: Coronavirus disease-2019;

SARS-CoV-2: severe acute respiratory syndrome coronavirus 2.

Authors' contributions

All authors read and approved the final manuscript. All authors take responsibility for the integrity of the data and the accuracy of the data analysis.

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Availability of data and materials

The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request.

Ethics approval and consent to participate

All procedures performed in this study involving human participants were in accordance with the 2013 Helsinki Declaration. Informed consent was obtained from all participants.

Consent for publication

By submitting this document, the authors declare their consent for the final accepted version of the manuscript to be considered for publication.

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