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Post-COVID-19 pandemic lived experiences of nurses about evidence-based care: A phenomenological study

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Abstract:

BACKGROUND: During the COVID-19 pandemic, nursing care was very complicated and confusing due to the special conditions of this time period and due to the lack of objective evidence to provide evidence-based nursing care. The purpose of this study was to post-COVID-19 investigate nurses' lived experiences of evidence-based care in Iran.

MATERIALS AND METHODS: This research was conducted through a qualitative approach using Husserli's descriptive phenomenological method. The participants included nurses working in the wards of COVID-19. Sampling in this study was conducted using a targeted method. People were selected based on inclusion and exclusion criteria. A code of ethics and necessary permits were received. Data collection was performed using unstructured interviews. The time of the interviews varied between 30 and 60 minutes. All interviews were recorded and then transcribed. The method proposed by Colaizzi was used for data analysis. Lincoln and Guba's criteria were used for the accuracy and robustness of the data. Also, MAXQDA software was used for data management.

RESULTS: The main themes and sub-themes in this study include barriers (lack of mastery in searching for evidence, lack of prioritization of evidence-based care, lack of availability of sufficient evidence, and the complexity of the condition of the COVID-19 disease) and facilitators (need for new evidence, a different care context, the need for extensive training, and the need to improve the nursing care).

CONCLUSION: The findings of this research showed that based on the experiences of nurses, there are still barriers to patient care after the COVID-19 pandemic, and in addition, there are facilitators that are effective in the development of evidence-based care. We recommend that based on examining barriers and facilitators in this study, necessary planning should be performed to conduct applied research, develop clinical regulations, and better manage patients in the future.

Keywords:

COVID-19, evidence-based health care, nursing

Introduction

The COVID-19 pandemic was a sensitive and complicated period for the world.[1] The high rate of disease, the high number of hospitalizations, and the high mortality caused by this disease have created complex conditions.[2] Organizations providing health and care services during the COVID-19 era, compared to other organizations, suffered the most pressure caused by this disease.[3] The COVID-19 pandemic has seriously affected health care and services[4] to the extent that this pandemic has put the greatest pressure on the field of nursing as the front line of treatment.[5] During the COVID-19 pandemic,

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nurses were the pioneers in providing care services to patients.[6] According to the opinion of many nurses, the COVID-19 pandemic was a critical period for nurses; this period caused confusion in the provision of care and reduced the quality of nursing services.[7] To provide safe and quality nursing care to patients, it is necessary that these services are based on patients' needs, are up-to-date, and are based on clients' values.[8] Evidence-based care includes integrating nurses' experiences, patients' values, and wishes and combining these two items with the latest available evidence; this type of care leads to increased service effectiveness.[9] Although the willingness to provide evidence-based services among nurses is high, the implementation of evidence-based practice in nursing is at a low level.[10] Evidence-based services are the basis for innovation and creativity, providing targeted care and ultimately improving the health of patients.[11] However, evidence-based care, through answering care questions for nurses, will lead to time management, reducing the number of hospitalizations, and early discharge of patients from the hospital.[12] The available evidence has mentioned several barriers for nurses to implement and engage in evidence-based care and practice; the most important of these findings include lack of support from managers, the unfamiliarity of nurses with technology, lack of necessary infrastructure, lack of access to evidence, lack of enough time, and the resistance of patients and doctors.[13] Despite the studies that exist in the field of evidence-based nursing, there is still no study that examines the opinions and experiences of nurses in the field of evidence-based care in the era of COVID-19. To reduce the existing gap in the field of non-implementation of evidence-based practice, also considering the lack of evidence regarding the examination of the lived experiences of nurses in the field of evidence-based care during the COVID-19 pandemic, conducting research with a qualitative approach to collect and analyze beliefs nurses are needed. To reduce the existing gap in the field of non-implementation of evidence-based practice, also due to the lack of evidence regarding the examination of nurses' lived experiences in the field of evidence-based care during the COVID-19 pandemic, it is necessary to conduct qualitative research. One of the important necessities of conducting this study is the lack of available evidence about evidence-based care after COVID-19, as well as the vague necessity of the existence of the disease in the future and the need to explain the experiences and opinions of nurses. The guiding philosophy of this research was based on the naturalistic worldview to obtain the opinions and statements of the participants. The purpose of this study was to investigate nurses' lived experiences of evidence-based care after COVID-19 in Iran.

The research question based on the PIDER format includes nurses working during the COVID-19 pandemic (Sample), post-COVID-19 evidence-based care (Phenomenon of Interest), qualitative design (Design), interviews for data collection (Evaluation), and Phenomenology was the research method.

Materials and Methods

Study design and setting

This study was conducted using the qualitative research approach through Husserli's descriptive phenomenological method.[14]

Study participants and sampling

The participants in this research included 15 nurses who had experience working in the COVID-19 wards. Sampling in this research was performed using a purposeful method. For the purposeful selection of the participants, the interviewer went to the hospital of the care center for COVID-19 patients and selected the most suitable people in the medical ward of this hospital after coordinating with the relevant managers. Sampling continued until data saturation was reached.[9] The criteria for entering the study included having work experience in the COVID-19 departments, being literate in reading and writing, having the ability to communicate, and having enough time for an interview. Exclusion criteria will include unwillingness to participate in the study and limited cooperation. The research environment included hospitals and special wards of COVID-19 where nurses were working.

Data collection tools and technique

In this study, unstructured interviews were used to collect data.[15] The duration of data collection in this research was 4 months. The time of interviews was between 30 and 60 minutes. The place and manner of conducting the interviews were based on the satisfaction and convenience of the participants. After getting to know the nurses and explaining the main purpose of the research to the participants, the interviewer started asking questions based on the question guide. In this meeting, we tried to gain the trust of the participants by correct communication. Interviews were conducted face-to-face or via Skype. The place of the interviews included the office of the medical ward supervisor, the hospital's conference room, and the hospital's educational classroom number 4. Three repeated interviews were conducted. General questions used in the interviews included, "Please describe your experience with evidence-based care?" We used probing and follow-up questions to obtain more data and deepen the experiences of nurses[16] [Table 1] All the interviews were recorded and then transcribed verbatim by the interviewer, MAXQDA series 10 software was used to manage the data. To respect the privacy of the participants, the interviews were conducted privately and individually in a suitable environment, and they

were also assured that the information and all the interviews would be kept confidential.

Data analysis

Seven steps recommended by Colaizzi[17] were used for data analysis. Data analysis by M.S.M. and in collaboration with E.M. it was performed. These steps included Reading and rereading the transcript, Extracting significant statements that pertain to the phenomenon, Formulating meanings from significant statements, Aggregating formulated meanings into theme clusters and themes, Developing an exhaustive description of the phenomenon's essential structure or essence, A description of the fundamental structure of the phenomenon is subsequently generated. Validation of the findings of the study through participant feedback completes the analysis. Specific actions were carried out for each stage, which are briefly mentioned in Table 2.

Trustworthiness

The criteria of Lincoln and Guba (1985) were used for the validity and strength of the data. These criteria include credibility, dependability, confirmability, and transferability.[18] It was used to increase the credibility of long-term engagement with the data, frequent communication with the participants, continuous study of the interviews, deepening the text of the interviews, and removing all presuppositions at the beginning of the study. A detailed description of all the details of the research was used for the transferability of the data, and a review, description, and comparison of the data was used continuously. For the credibility of the results, the method of sorting questions (using more than two questions to investigate the phenomenon) was used. Also, it was used to increase the dependability, from the description of the peers, and re-check of the coding by two experts of qualitative research.

Table 1: The guide of questions used in interviews

General question	Additional questions
"Please describe your experience with evidence-based care?"	• "In your opinion and based on your experience, what issues prevented the implementation of evidence-based care in the post-COVID-19?" • "Please explain what are the contexts for implementing evidence-based care after COVID-19 based on your previous experiences?" • "Please give some examples of facilities for implementing evidence-based care?" • "Is there anything I haven't mentioned? Or do you want to explain?"

Table 2: The steps of data analysis in this study

Steps	Actions
Orientation	Transcribing and then continuing reading the text of the interviews to learn more.
Identify important phrases	Specifying the important statements of people line by line in all the transcribed text.
Formulation of meanings	Initial coding with new labels for important phrases from the previous step.
Clustering of themes	Clustering codes based on similarities and differences.
Extend comprehensive description	Providing a general description of all steps and obtaining sub-themes.
Creating a basic structure	Classification of sub-themes and placement of two main themes.
Rigor	Lincoln and Guba's criteria were used for the trustworthiness of the study.

Ethical consideration

This research is approved by the Research Ethics Committee of Yasuj University of Medical Sciences with ethics code number IR.YUMS.REC.1401.096. Necessary permits were obtained to start the research. While obtaining informed consent from the participants, they were assured that all their information would be kept strictly confidential. In addition, we must say that in presenting the final report of the study, the utmost care was taken to observe justice and confidentiality of information.

Results

The participants in this study included 15 nurses working in the COVID-19 wards. The mean and standard deviation of the age of the nurses was 33.786 ± 6.530. In terms of gender, 42.857% of participants were female, and 57.143% were male. 35.71% of the participants were single, and 64.29% of them were married. About 42.85% of nurses were working in the emergency ward, 35.71% in the ICU ward, and 21.44% of them were working in the COVID-19 internal ward. The average and standard deviation of the working months of nurses in the COVID-19 departments was 22.358 ± 2.50; Also, the average and standard deviation of the number of working hours in a week in the COVID-19 department was 5.136 ± 95.07 [Table 3]. Themes were obtained from 1100 initial concepts; the main themes of this study included "barriers" and "facilitators" of evidence-based care after the COVID-19 pandemic.

1. Barriers

The barriers included the lack of mastery in searching for evidence, lack of prioritization of evidence-based care, lack of availability of sufficient evidence, and the complexity of the condition of the COVID-19 disease.

1.1. lack of mastery in searching for evidence

According to the participants, one of the barriers to evidence-based care after the COVID-19 pandemic is the lack of mastery in searching for new evidence to implement evidence-based care and the lack of necessary infrastructure (N12, N8, and N10). They also

Table 3: Concepts, sub-themes and resulting themes in this study

Main themes	Sub themes	Primary codes	Quotation
Barriers	lack of mastery in searching for evidence	Lack of infrastructure, lack of knowledge to find evidence, lack of providing necessary training, lack of familiarity of nurses.	N10: *"In the hospital where I work, computers or free internet are not available to use for searching."*
	lack of prioritization of evidence-based care	Not supporting the managers, prioritizing treatment measures, focusing on the problems of lack of staff, and neglecting evidence-based care.	N3: *" We always made suggestions to the hospital manager, but he either didn't pay attention or said that he didn't have time to deal with these issues at the moment."*
	lack of availability of sufficient evidence	The vagueness of the disease situation, the lack of new and sufficient resources, the lack of evidence, not addressing the issue of COVID-19.	N7: *"We were in a situation where it was not known what the patients' condition would be and whether they would recover, so our focus was not on evidence-based care."*
	The complexity of the condition of the COVID-19 disease	High care pressure, confusion of treatment team, burnout of nurses, insufficient time.	N4: *"During the covid-19 pandemic, we were under so much pressure, so much work that evidence-based care was not important to us."*
Facilitators	Need for new evidence	The need for new evidence, the need for more research, the need for more evidence, the helpfulness of the evidence.	N14: *"Finally, because the issue of Covid-19 was new, we needed new evidence and information to provide care."*
	Different care context	The newness of care conditions, provision of grounds for updating care, change in care procedures, and creation of new care priorities.	N12: *"The situation caught the medical staff by surprise for the first time, so there was a need to have resources and articles available that nurses could refer to in order to provide effective care."*
	The need for extensive training	The need for evidence-based care training, strengthening awareness and evidence-based practice, the need for nursing to receive evidence-based care, and training that lays the foundation for nurses' attention.	N5: *"The need for evidence-based care training in the new Covid-19 pandemic was necessary so that these trainings are the basis of nurses' attention to proper care."*
	The need to improve the quality of nursing care	Focusing on the safety of care, improving the quality of nursing services, reducing the hospitalization rate, and early discharge of patients.	*N12: "We were trying to focus on issues such as patient safety and the non-spreading of injuries caused by the COVID-19 disease, for this reason it was necessary to have up-to-date and new evidence and information at our disposal."*

indicated that there is insufficient training to provide evidence-based services (N1, N11, and N2). Also, nurses stated that the lack of familiarity with evidence-based nursing principles continued during the epidemic period (N1, N7, N4, N10, and N3).

2.1. lack of prioritization of evidence-based care

According to participants' comments, evidence-based care was not prioritized and supported by managers (N9, N2, N11, and N5) after the COVID-19 pandemic. Nurses also stated that health systems are more focused on priorities and treatment measures, which is why this problem has prevented the implementation of evidence-based care (N14, N13, N2, and N6). According to nurses, what caused the neglect of evidence-based care after the COVID-19 pandemic are factors such as the lack of human resources and the management's focus on this issue, and the numerous challenges related to the situation created in this field (N14, N1, N8, N3, and N10).

3.1 lack of availability of sufficient evidence

According to nurses, another obstacle to not implementing evidence-based care is the lack of access to sufficient evidence after the COVID-19 pandemic. They expressed the uncertainty of the patient's condition and the uncertainty of the next condition as a care challenge for nurses to provide accurate and effective care (N5, N14, N3, N9, and N12), which still remains after the COVID-19 pandemic. They emphasized the inadequacy of available evidence for patients with COVID-19 as an important barrier to not implementing evidence-based care now and after the end of COVID-19 (N10, N7, N2, and N11).

4.1. The complexity of the condition of the COVID-19 disease

According to the participants, the complexity of the condition of patients with COVID-19 is an important factor in the lack of implementation of evidence-based care during the period of COVID-19 and beyond. They noted that the high pressure of care and the complex conditions of patients reduce nurses' willingness to provide evidence-based care (N1, N5, and N13). The nurses also noted that despite the end of the COVID-19 pandemic, the treatment team is still confused about the patients and their condition (N14, N2, N7, and N6). However, the burnout of nurses in the post-pandemic era does not allow them to have a reason to provide evidence-based services. Nurses considered insufficient time in the post-COVID-19 pandemic as a major barrier to non-participation in evidence-based care (N7, N4, and N10).

2. Facilitators

The facilitators included the need for new evidence, a different care context, the need for extensive training, and the need to improve nursing care.

1.2. Need for new evidence

In their comments, the nurses indicated that after the COVID-19 pandemic, we urgently needed new evidence on the care of these patients (N3, N7, and N11); they emphasized that more research on the care of patients with COVID-19 is needed. 19 is needed (N14, N10, and N8); nurses stated that new and existing evidence could increase nurses' willingness to provide evidence-based care (N3, N5, and N6).

2.2. Different care context

According to the nurses, the remaining effects of the COVID-19 pandemic were the factors that created a new and different platform of nursing care for the current era. Also, they stated that the newness of the situation increased the need to provide evidence-based care (N8, N2, N12, and N6). According to the participants, the need to update evidence-based care is felt in the period after the COVID-19 pandemic more than in any other period (N13, N12, N7, and N4). Changing care practices and creating new care priorities were also among the things that, according to nurses, have led to the necessity of evidence-based care in the post-epidemic period of COVID-19 (N6, N13, and N9).

3.2. The need for extensive training

According to the perspective of nurses, the need to develop education in evidence-based care after the COVID-19 pandemic is a serious issue. Nurses said it was important to recognize the need for evidence-based care education for patients in the post-pandemic period of the COVID-19 pandemic (N14, N1, N7, and N8). They also noted that increasing awareness and evidence-based practice in education would be useful and effective (N9, N4, N6, and N12). While pointing out the need of the nursing profession to provide evidence-based care, the nurses considered proper education to be the main facilitator of the implementation of scientific care in care after the COVID-19 pandemic (N1, N5, N13, and N3).

4.2. Need to improve the nursing care

The need to improve the quality of nursing care was one of the factors that nurses were interested in implementing evidence-based care in the post-COVID-19 period. Nurses believe that in the COVID-19 pandemic, sensitivities in the field of safe care have increased, and this sensitivity should continue in the post-COVID-19 period (N1, N6, N12, and N14). They stated that the implementation of evidence-based care improves the quality of nursing services (N7, N9, and N11). According to nurses, evidence-based care in the post-epidemic period of COVID-19 reduces the rate of hospitalization and early discharge of patients (N12, N13, and N14).

Discussion

The findings of this study showed that barriers to evidence-based care after the COVID-19 pandemic include a lack of mastery in searching for evidence, lack of prioritization of evidence-based care, lack of access to sufficient evidence, and the complexity of the disease state of COVID-19. Also, the facilitators are the need for new evidence, different care contexts, the need for extensive training and the need to improve the nursing care. In this study, we found that nurses perceive the lack of mastery in searching for resources as a barrier to evidence-based care. Based on the findings of the studies, the inadequacy of the personal and professional development process, insufficient facilities, individual-skill issues, and lack of sufficient knowledge are the barriers to evidence-based care.[19-21] In this study, we found that evidence-based care was not the first nursing priority in the post-COVID-19 pandemic. According to existing studies, not supporting evidence-based care, mismanagement, previous experiences, and low prioritization by managers are important obstacles to not implementing evidence-based care.[22] In this study, we found that lack of access to sufficient evidence during and post-COVID-19 pandemic was a major barrier to providing evidence-based care. In the available evidence, it is pointed out that the problem of publishing study results, limited access to sufficient evidence, inability to access resources, lack of access to research tools, and technology limitations are obstacles to the implementation of evidence-based care.[23,24] Based on the findings of this study, another barrier to evidence-based care in the post-COVID-19 pandemic is the complexity of the condition of patients with COVID-19. The results of the studies show that the nature of the disease and lack of attention to a specific area or disease is an obstacle to the Proper implementation of care based on evidence.[25,26] In this study, we found that the strong need for scientific evidence was an important factor in the implementation of evidence-based care after the COVID-19 pandemic; the existing studies emphasize that to provide evidence-based services, evidence, and resources should be useful and accessible.[27,28] The results of this study showed that the new context of care caused by COVID-19 has created conditions for greater use of evidence-based care in the post-COVID-19. Studies show that the change in treatment and care methods and the creation of a new context is an important platform for the implementation of evidence-based care. Evidence is.[29-31] In our study, the need for more training in implementing evidence-based care was an important finding. Studies show that for the correct and accurate implementation of evidence-based services, necessary, and sufficient training should be considered to increase

the level of knowledge and skills of nurses.[32-34] In this study, we found that the need to improve the quality of nursing care was one of the factors facilitating the implementation of evidence-based care in nurses in the post-COVID-19 pandemic. Studies have shown that evidence-based care will increase the safety and quality of care. However, the health of patients will also improve following evidence-based care.[35-37]

Limitation

One of the limitations of this research is the lack of time and interference of the interviews with the nurses' work. The researcher solved this limitation by explaining the objectives of the research and coordinating with the nurses for the time and manner of conducting the interview.

Conclusion

The findings of this research showed that based on the experiences of nurses, the existence of evidence-based care and attention to it in post-pandemic conditions of COVID-19 will focus nursing care. It also improves the quality and safety of nursing care. Evidence-based care based on patient values and preferences, nurses' experiences and their integration with scientific evidence along with teamwork leads to increased patient health, early discharge, and reduced hospitalization and length of hospitalization. By considering evidence-based care, nurses can improve patient outcomes, increase the quality of care, and enhance nurse professionalism in care. It is suggested that the findings of this research be used to formulate and implement applied research, planning, and policies for nursing practice, as well as to strengthen evidence-based education.

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Conflicts of Interest

The authors had no conflicts of interest in this study.

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