Nurse's Perception Regarding Challenges in Home Care During COVID-19: A Qualitative Study

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Abstract

Background: The Covid-19 pandemic has posed several challenges to the world's healthcare systems, especially nursing, including home care nursing problems.

Objective: The purpose of this study was to explain nurses' perceptions of the challenges of home care in the Covid-19 pandemic.

Methods: The present study was a qualitative study with a conventional content analysis approach conducted from November 2020 to September 2021. Participants included 16 home care nurses who were purposefully selected based on eligibility criteria. After obtaining ethical authorization, the data were collected through semi-structured interviews. MAXQDA Version 10 software was used for data mangement. Data analysis was performed using *Granheim* and *Lundman* five-step method. *Guba* and *Lincoln* criteria were utilized for trustworthiness.

Findings: The seven main categories obtained in this study included “the onset of a new chapter: from avoidance to relapse”, “burnout”, “vortex of moral distress”, “social stigma”, “difficulty in breaking the transmission chain”, “care inhibitors related to patient and family” and “support deficiency: crisis of home care nursing agencies in crisis”.

Conclusion: The results showed that nurses working in-home care during the Covid-19 pandemic had experienced several challenges in various fields. Identifying these challenges in the Covid-19 pandemic can help improve the quality of home care nursing and strengthen the field for applied research and planning in this area.

Introduction

The covid-19 disease is spreading rapidly in the world[1, 2]. At present, 378 million people in the world are infected with Covid-19 disease, of which 5.67 people have died, and in Iran, out of 6.37 million infected, 132 thousand have died[3]. The widespread pandemic of Covid-19 and its consequences have affected all aspects of health services globally, including home care[2].

In Iran, at the discretion of the treatment team, with the consent of the families, the patient is transferred home to continue the care[4]. After the Covid-19 pandemic in Iran, home care was divided into two general categories: caring for Covid-19 patients and caring for patients without the disease[5]. Most people in the second group are vulnerable patients cared for at home due to some chronic diseases or complications caused by aging[6]. Home care nurses spend a long time with patients and perform many care and treatment measures, they help them perform most of the activities of daily living[7].

The Covid-19 pandemic poses many potential challenges to home care nursing due to the risk of transferring the virus[8]. However, according to the literature, home care nurses have received less attention than hospital nurses during the pandemic, and limited studies have been conducted on the

problems and challenges of these people[4]. Since some studies have mentioned the high workload and vulnerability of the nursing staff in-home care[9, 10], it seems that the new conditions have increased the vulnerability of these people. On the other hand, according to reports, some nurses working in hospitals have experienced safety concerns, anxiety, stress, fatigue[11], and fear and anxiety caused by infection of family members with this disease[12]. Studies also show that nurses at the forefront of the fight against Covid-19 disease in China have suffered a great deal physically and emotionally[13]. Home care nurses, like hospital nurses, seem to face many challenges. Because the home environment is designed to be lived rather than cared for, these individuals face different and unique challenges[14]. For example, one study found that home care nurses experienced a variety of care experiences during an outbreak of this disease, including " were on the front lines of the COVID-19 pandemic but felt invisible," " reported a heightened risk for virus transmission," and " received varying amounts of information, supplies, and training from their home care agencies", " relied on nonagency alternatives for support, including information and supplies" as well as " were forced to make difficult trade-offs in their work and personal lives "[15].

Studies in Iran on the problems and challenges of home care are minimal, and there is a need for further research in this field[9]. Existing studies paid less attention to precepting nurses' real challenges and problems in home care during the Covid-19 pandemic. On the other hand, home care nursing experienced during the Covid-19 pandemic in Iranian society is influenced by cultural and social factors. The home care nurse has a close relationship with family members and the patient, so it seems that he has a close relationship with the social structure and family customs and has his problems[16]. Precepting people's challenges and experiences provide valuable information for effective home care measures. Therefore, the present study aimed to explain nurses 'perception of the challenges of home care in the Covid-19 pandemic, because to date, most studies have focused on nurses' experiences in hospitals.

Materials And Methods

Study Design

The present study was performed using a qualitative method and a conventional content analysis approach based on the steps proposed by *Granheim* and *Lundman*. The conventional content analysis approach is a flexible method for analyzing textual data. It is used when there is not enough knowledge about a phenomenon and with an inductive approach emphasizes the creation and development of categories and the interpretation of written or spoken content. In this approach, categories and their names emerge from the data[17]. This article is based on the COREQ (consolidated criteria for qualitative research) checklist[18]. This study was performed in three home care nursing agencies affiliated with the *Iran University of Medical Sciences, Tehran, Iran*.

Participants

Participants included 16 home care nurses who were selected through purposive sampling, and the sampling was continued until data saturation (categories saturation table is attached to the article).

inclusion criteria included more than 1 year of work experience in-home care, a bachelor's degree or higher in nursing, the experience of home care in the Covid-19 pandemic, and a willingness to participate in the study. Exclusion criteria included reluctance to participate in the study and restrictions on cooperation. None of the nurses were excluded from the study. The first person in this study was the experienced one who, after explaining the objectives of the study and how to participate, tended to enter the study.

Data Collection

This study began in November 2020 after receiving the code of ethics and ended in September 2021. A semi-structured interview method was used to collect data. The interview guide was prepared and approved based on three pilot interviews. Interview times ranged from 30 to 60 minutes. Examples of questions used in the interviews were: "How would you describe home care for people with Covid-19?", "in your experience, what are the challenges and problems in caring for a patient at home during the Covid-19 pandemic?" All the interviews ended with this question: "Is there a question that came to your mind - but I did not ask?" Or "Is there anything else you want to add?" finished. The location of the face-to-face interviews was chosen based on the nurses' preferences. Due to the outbreak of Covid-19 disease and less contact with the participants, some of the interviews were conducted through WhatsApp or Skype software. The interviewer had experience conducting interviews in qualitative research. With the participants' permission, all interviews were recorded by a recorder and then typed word by word by the interviewer. MAXQDA 10 series software was used to manage the data while maintaining the confidentiality of the information. Further interviews were performed with the participants 1-2-4-7-10 to increase the trustworthiness and eliminate some ambiguities or questions. Of the 14 participants, no new data was collected compared to the previous participants, and all the concepts seemed to be well defined and explained. Then two additional interviews were conducted beyond saturation, and the data of these people were placed in categories.

Data Analysis

Data analysis was performed simultaneously with data collection through *Graneheim* and *Lundman* (2004) steps. The five steps of this approach include transcribing each interview word by word, the text was divided into condensed meaning of units, abestracting and coding condensed meaning of units, the codes were sorted by evaluating their similarities and differences in subcategories and categories., and Categories were created as expressions of the content embedded in the data (Table 1)[17]. The interviews were immediately recorded and transcribed. The transcripts of the interviews were read several times to immerse the researcher in the data. The words, sentences, and paragraphs relevant to the purpose of the study in each interview were considered meaning of units. meaning of units were coded using participant words or appropriate tags extracted from the data. The codes were constantly reviewed and compared. Similar items were placed in common categories and then the main categories were created.

Table 1
Steps of data analysis by *Graneheim and Lundman* (2004) method

	stages	Description (Action)
1	Collecting data	Conducting face-to-face and in-person interviews, conducting complementary interviews, an audio recording of interviews
2	Word-by-word transcript of each interview	Frequent listening to interviews and transcribing it word for word
3	Read the text of the interview to understand its main content and extracted the meaning units	Re-read the content to gain a general and in-depth perception of the participants' statements and extracted the meaning units
4	Determining and coding meaning of units	Examine participants' explanations and determine meaningful sentences and produce codes
5	Classification of primary codes	The obtained concepts were classified into specific categories (based on the similarity of the concepts).
6	Identify the content hidden in the heart of the data	Extracting important explanations and giving meaning to them with unique concepts (expressing the meaning of essential parts) and finally clearly and unambiguously express the challenges of nurses in the study.

Trustworthiness

The trustworthiness of the data in this study was evaluated based on the steps proposed by *Lincoln and Guba*[19]. To credibility, the researcher was involved with the research data for a long time and was present in the environment. The member checking method was used to ensure credibility, during which home care nurses were asked to confirm the conformity between the categories produced and their experiences. Two experts also used peer checking in the field of qualitative studies for the trustworthiness of data coding and classification. Scrutiny of data and related documents by two external observers and preservation of documents related to different stages of the research added to the dependability of the study. To ensure transferability, the researcher gave detailed explanations, such as a detailed description of the participants, the sampling method, the time and place of data collection, so that the reader could comment on the transferability of the findings. Recording all procedures taken to conduct the study and reporting the research process enhanced the confirmability.

Findings

A total of 16 nurses were interviewed. The mean and standard deviation of the age of participants was 31.25 ± 3.605 years. Demographic characteristics of the participants are reported in Table 2. The main findings of this study included 7 categories and 22 sub-categories (Table 3). Key topics had "the onset of a new chapter: from avoidance to relapse, burnout, the vortex of moral distress, social stigma, difficulty in

breaking the transmission chain, care inhibitors related to patient and family and deficiency of support: crisis of home care nursing agencies in crisis"

Onset of a New Chapter: From Avoidance to Relapse

From the interviewees' point of view, one of the challenges of home care in the Covid-19 pandemic was the onset of a new chapter: from avoidance to relapse, which included three sub- categories: dealing with emerging developments, vacating the field of care, and a gradual and re-orientation to care. Participants noted that before the outbreak of Covid-19disease, they experienced normal conditions in-home care and normally lived with the patient's family and cared for the patient. Suddenly emerging changes occurred, and they encountered an emerging and unknown disease. The nurses pointed out that at the beginning of the outbreak, they did not tend to care for patients at home personally, and some of them even refused to take care of patients at home and withdrew from care at home. The nurses also noted that they gradually returned to care over time.

"It suddenly seemed to change everything, the sudden arrival of Covid-19 changed all our routines and plans. I was not the only one who refused to go home to take care of the patient. Many of my colleagues left home care and resigned. But as time passed, we started caring for the patient again "(P10).

Burnout

From the nurses ' perspective, the second challenge of home care in the Covid-19 pandemic was burnout, which consisted of the mental pressure due to vulnerability, physical injury, and the stress caused by injury. According to the participants, burnout was one of the most critical and influential consequences on the care and life of nurses working in the home care part. Mental pressure due to vulnerability in nurses during the Covid-19 period took on wide dimensions such as anxiety, fear, worry, depression, and a sense of insecurity. Many of them had experienced a constant sense of uncertainty about environmental pollution or the possibility of the patient and the patient's family getting Covid-19.Participants stated that due to the lack of nurses in-home care and the family's request to reduce commuting to the home, nurses were subjected to long shifts and experienced high degrees of physical fatigue, leading to Covid-19 disease and severe symptoms ad complications. Many nurses expressed great fear and concern for others and their families (major concerns) to the Covid-19 disease.

"Its fear and anxiety on one hand, its physical fatigue in another hand that we believe it is part of our job, but we also have a family, and from here, we usually say that if it happened to me, it would be because of what I accepted to do, but what about my family? I was always afraid that nothing happened to my family "(P14).

Vortex of Moral Distress

From the participants' point of view, another critical challenge in-home care is the vortex of moral distress. The nurse experiences moral distress while caring for the patient, painful for her. This issue ultimately leads to moral distress for the nurse and further leads to helplessness and feelings of futility.

According to the participants, spiritual torture and descendant helplessness are essential components of the vortex of moral distress. The nurses stated that they felt ashamed, the pang of conscience, guilt, helplessness, disability, and futility in the face of the disease. She also resembled the outbreak of Covid-19 and its mutations to a progressive vortex from which there is no escape.

“From hearing people die and their suffering from Covid-9 disease, I felt guilty and the pang of conscience because I saw that people were still getting sick despite the vaccine. I was embarrassed that no medicine was efficient and that the patient was getting sick and we were sending him to the hospital. Lately, I was feeling helpless and disabled completely because of the Covid-19 and its unfinished mutations. I felt that my nursing skills no longer worked "(P16).

Social Stigma

From the participants ' perspective, social stigma was one of the challenges of home care in Covid-19 pandemic. One of the challenges that nurses experienced during this period was the suspicion of those around them about being vector and the resulting behaviors. The nurses also stated that they were being ignored compared to the hospital nurses so even the vaccination of these people was delayed compared to the hospital nurses. Nurses experienced a kind of isolation and rejection by the community and those around them due to the suspicion that they were vectors. This caused them to refuse to be nurses in the community.

"If anyone in the family knew you were a home care nurse of Covid-19 patient, they ran away. They always thought you were Covid-19 vector. In society, if someone knew that you were the home care of covid-19 patients, they would not take you a taxi. I was lonely and walking away. Now you say that ordinary people no longer know why the Health Ministry finally vaccinated us. But we also work with the Covid-19 patient, so what was the difference between the hospital nurses and us? " (P3).

Difficulty in Breaking the Transmission Chain

Nurses took steps to protect members involved in care from transmitting the Covid-19 virus and breaking the transmission chain challenge. The difficulty in breaking the transmission chain was one of the challenges of home care during the Covid-19 period for participants. One of the challenges the nurse faced in breaking the transmission chain was physical separation. To do this, nurses had to develop strategies in the confines of the home to isolate their presence, the patient, and the equipment. On the other hand, the implementation of the personal protection strategy had many difficulties (lack of equipment, difficulty of observance, and exhaustion) in the long shifts. Despite the many efforts of nurses in implementing these strategies, over time, nurses saw a gradual decline in observing protocols and the problems associated with them.

"We had to isolate ourselves from the rest of the members in the house. You know, the situation in the house changes completely due to its limitations. You know wearing those clothes in the house where we

used to have comfortable clothes was a separate issue, but these were for earlier. Now, it's not like that anymore. Both the family and we only wear masks and no longer dress like that" (P11).

Care Inhibitors Related to Patient and Family

Care inhibitors related to patient and family included family-related care barriers and patient-related care barriers. The nurses stated that some families were unable to provide adequate equipment for their patients in some cases due to shortages or high prices. Some families also emphasized the implementation of traditional medicine or some harmful culture and tradition, such as visiting the patient. Nurses in the challenge of patient-related care barriers pointed to non-adherence to treatment due to cognitive deficits, high fear of Covid-19 infection and death, as well as the occurrence of various problems and complications.

"The families behaved very emotionally. They did not think they were taking the Covid-9 themselves now; they kept coming to see the patient and did not keep their distance. The patient was restless, and we did let to care for him/her. When they met the family, looked worse, and the family wanted to test everything for the patient they heard from here and there that is good for Covid-19 such as herbal medicine and other things "(P5).

Lack of Support: crisis of home care nursing agencies in crisis

Lack of support; the crisis of home care nursing agencies in crisis was another challenge related to home care in the Covid-19 pandemic. One of the challenges for nurses in-home care was the crisis mismanagement of the agencies. Instead of crisis management, the agencies in the Covid-19 crisis fueled the problems and challenges of this period with mismanagement and lack of planning and anticipation. On the other hand, according to the nurses, the supervisors, who had an important role in controlling and managing the crisis as an observer, were not sufficiently qualified in this field. Nurses in the Covid-19 crisis announced they faced a lack of training despite the need for up-to-date training. In addition to all these challenges, nurses pointed to the lack of financial and legal support (non-timely and adequate payment, non-implementation of labor law, and incorrect sick leave and insurance law). Lack of logistical support (drug and equipment shortages) was another challenge for home care nurses, who, in some cases, rationed personal protective equipment. In addition to the lack of equipment, nurses in the Covid-19 crisis faced the challenge of lacking efficient human resources (doctors, nurses, and medical teams).

"Our agencies in Covid-19 was so badly managed that it looked like it was not in crisis. The equipment was rationed for us. We did not have a glove or a syringe. They were constantly increased our shift hours. " Whatever we said to the supervisor, she could not manage, only she was the sacrifice of his seniors. " (P12).

Table 2
Demographic characteristics of the participants

No.	Gender	Age	Marital status	Education	Working shift	Work experience in-home care (year)	Clinical work experience in hospital (year)
P1	Male	32	Single	Masters	in circulation	6	12–13
P2	Male	30	Single	Masters	Night work	5	9
P3	Male	36	Single	Bachelor (Supervisor)	in circulation	9	15
P4	Male	31	Single	Masters	in circulation	4	8
P5	Male	40	Married	Masters	in circulation	11	15
P6	Male	31	Single	Masters	24-OFF	4	10
P7	Male	28	Married	Masters	in circulation	2	4
P8	Female	27	Married	Masters	in circulation	2	6
P9	Female	29	Single	Masters	in circulation	3	5
P10	Female	30	Married	Masters	in circulation	4	9
P11	Male	28	Single	Master (Supervisor)	in circulation	6	7
P12	Female	31	Married	Masters	in circulation	9	10
P13	Female	30	Single	Masters	in circulation	4	8
P14	Female	35	Single	Masters	in circulation	14	5
P15	Male	35	Single	Masters	in circulation	15	9
P16	Female	27	Married	Masters	in circulation	2	6

Table 3
Categories, sub-categories, and some quotes of the participants

Category	Sub-Category	Participants statements
The onset of a new chapter: from avoidance to relapse	Facing emerging developments	"Before the Covid-19 outbreak, we lived with sick family members and commuted with them normally, but suddenly everything seemed to change, and all our routines changed. It was as if our home nursing was divided into pre-corona and post-corona eras. Everything changed suddenly. And we are faced with a new and unknown disease "(P8).
	Empty the care area	"When Covid-119 came early, I had no desire to continue working in-home care. At all, when they called me and asked to help the patient, I refused" (P1).
	Re-orientation and gradual care	"step by step, it became normal for us to go to the patient's house for care. We were not scared anymore. Step by step, we realized that the Covid-19 is less transmitted through the surface, and most of its transmission is respiratory. For example, we no longer need to disinfect our whole head and body. We went to the patients' homes easier for care "(participant 3). "Well, in the beginning, our income was very low, but well, because they seek the need to raise salaries, the income gradually increased. We also needed money, and step by step, we accepted and returned" (P2).
Burnout	Mental pressure due to vulnerability	"We were very scared and anxious at the very beginning of the Covid-19. We were all afraid of getting Covid-19, and since I did not know anything about it, we thought well that God knows what would happen to us later" (P7).
	Physical injury	"I think I got Covid-19 disease because of the long shifts and fatigue. At first, it was accompanied by hoarseness. Then, at night I went to rest. I had a high fever. From the third and fourth day onwards, I lost my sense of smell and taste. "It lasted for a month and a half. I had severe shortness of breath and was hospitalized in the ICU for a few days" (P8).
	Stress caused by injury	"Well, we have a family, and from here, they usually say that if it happened to me, it was because of what I accepted to do, but what about my family? I was always afraid that nothing would happen to my family" (P13).
The vortex of moral distress	Spiritual suffering	I always had a pang of conscience about being a vector because one of my family also took a covid-19. I told myself that I must have transmitted the disease to him "(P15). "I was ashamed of myself for being so ignorant of this disease. I felt guilty about why these drugs we give to patients do not work and are ineffective" (P10).

Category	Sub-Category	Participants statements
	Descendant helplessness	"I've felt useless about this disease since Covid-19 came. I feel bad for telling my family that I cannot do anything else. Take your patients to the hospital not to get worse. It seems that these diseases and mutations are not over, and it does not want to give up on us. You know, the Covid-19 has become like a vortex, where you have to sink more, and you will not get anywhere "(P14).
Social stigma	Perceived stigma	"Everyone, even our own families, was afraid that we would be vectors. It was enough once in the patient's house, something jumped in your throat, and you coughed. They thought you had Covid-19. Now swear to God to prove that food jumped into the throat(P2).
	Perceived discrimination (feeling ignored)	"We, the home nurses, were oppressed during the Covid-19. Everyone on TV was talking about the hospital nurse. No one named us at all. At the time of vaccination, we were included in the last group of medical staff that were vaccinated "(P10).
	Perceived rejection	"Many of us did not say at all that we were working in the ward, especially to the families of the patient at home. If we said, they would not let us go to their house at all "(P11). "For example, you used to go to a vegetable shop and say, 'I am a nurse, they treat you very respectfully, but from the moment the Covid-19 came, they ran away from us.' "Once a Snape driver found out that I was a nurse and working in the Covid-19 ward, he dropped me off for fear of being vector" (P12).
Difficulty in breaking the transmission chain	Physical separation difficulties	"As soon as we entered the house, we tried to separate the environment where we were supposed to stay from the others. For example, I told the family to prepare a separate room to take care of the patient and leave the patient there. "I also tried to stay in the patient's room a lot if they had Covid-19 disease, or if the patient was ill and we had to stay on top of him all the time, I would try to open the windows so that there was enough ventilation, but this was not possible in every house." P4).
	Difficulty implementing an individual protection strategy	"Especially in those early days, it was very difficult for us to bring food, dishes, spoons, and forks from home. It was very difficult to stay in the protective clothing in that house with a twenty-four-hour shift, we were constantly sweating, and we were in trouble" (P6).

Category	Sub-Category	Participants statements
	Gradual decline in observing protocols over time	"In the beginning, we were very careful that we were constantly washing our hands and our hands were always cracked, and the patient family was disinfecting me as soon as we got home, even they disinfected my backpack. But now, not like then, maybe we just wear masks, both we and our family, because we had been vaccinated, well, we seemed to be less observant" (P5). "step by step, we learned that the disease is not transmitted through surfaces and it is more respiratory, and if we put on a mask, it is enough, as if we were not scared anymore and it was normal for us" (P1).
care inhibitors related to patient and family	family-related care Barriers	"Every time we told the family that this bi-pep mask was vital for your patient, he would say, 'No, my patient is being bothered, and he would come and pick up the patient's face'" (P12). "The family tried everything they read on the Internet on the patient (with Covid-19 disease). Or I do not know which traditional medicine said that some sweat is good for the patient. They must give it to the patient, even if we say it might be harmful to the patient., And you should consult a doctor first, but they are doing their job "(P9). "Once I went over a patient's head, I accidentally found out that this patient was Covid-19 and the family did not tell the agencies and us about it" (P1).
	patient-related care Barriers	"Caring for Covid-19 patients at home was very difficult because I saw several new symptoms and complications from the patient that we had not encountered before. For example, most of these patients had cognitive problems and did not cooperate with the nurse" (P6). "Most Covid-19 disease patients were terrified because their disease was unknown, and they were all afraid to die" (P3).
Lack of support: crisis of center in crisis	Crisis mismanagement	"In my opinion, the nursing home care agencies at our home in Covid-19 were very poorly managed. They passed a new and hasty law every day and told us to implement it. "Suddenly, they called us and told us to go on an extra shift. If not, we will cut off our cooperation with you" (P13).
	Lack of supervisor competence	"The supervisor plays a vital role in helping the nurses. If I have a problem somewhere, I can get help from her. We did not know much in Covid-19. For example, I did not know how to work with By-Pep, but our supervisor was not very good either "(P8). "The supervisor must be able to communicate well with the patient's family. Many of them could not cope" (P1).

Category	Sub-Category	Participants statements
	Lack of information support: Lack of comprehensive training	"We did not have any training program in Covid-19. The previous training, we had was also canceled in Covid-19, and I did not receive any training at all. This increased our fear and anxiety at work that maybe I am doing now is wrong. Or because I do not know how to protect myself, I take Covid-19"(P9).
	Lack of financial and legal support: Compensation for inefficient services	"Our payment was very, very low. The same small amount of salary was paid with a total delay. I once took a Covid-19and went for sick leave. They told me we could not get you rest for more than three days and you must return to your office "(P14).
	Lack of logistical support: drug and equipment shortages	"Insurance did not cover home care early. All equipment had become very expensive and scarce early. For example, nursing care agencies had rationed masks and gloves for us" (P11).
	Lack of support for efficient human resources: Human resource mismanagement	"Early on, doctors were either crowded or scared in hospitals and did not visit home. Physiotherapists also did not come to the patient. The patient's family begged but did not come "(P4). "The number of nurses in the house was so low that the whole shift was forcing us to do so. On the other hand, because there was no human power from somewhere else, the nursing care agencies started hiring nurses who had no experience in-home care and with no training "(P16).

Discussions

Research on nurses' understanding of the challenges of home care is very limited. "The beginning of a new chapter: from avoidance to relapse," "burnout," "vortex of moral distress," "social stigma," "difficulty in breaking the transmission chain," "care inhibitors of patient-family," and "lack of support "crisis of home care nursing agencies in crisis" were the main findings of our study. The findings of this study showed that home care nurses experienced a new chapter of care, which initially refused to care for patients due to fear of Covid-19 disease but eventually returned to this care. Some studies show that caregivers at home during the Covid-19 period did not stop working and continued to work[15]. It seems that the nurses in our study were not prepared and trained to deal with the pandemic crisis and initially withdrew from care. It seems that crisis confrontation training can effectively deal with nurses in these situations[20].

In the present study, various aspects of burnout were explained, including psychological problems caused by vulnerability and injury, and various physical injuries in the nurses under study. Research findings showed that nurses expressed concerns about the Covid-19 disease and its transmission to others, including their families[21]. In our study, one of the main concerns of people was the fear of harming their

families. In most studies, nurses' experiences showed degrees of psychological trauma such as fear, anxiety, and depression, which are consistent with the results of our study[22, 23]. It seems that the psychological problems and injuries caused by the Covid-19 pandemic in-home care nurses need more attention to be identified in time and prevented before serious complications occur[16]. Nurses also experienced some degree of moral distress in spiritual suffering and descendant helplessness. Since no studies were consistent with this challenge, it seems that this is due to the existence of spiritual culture (feelings of shame and guilt) in Iranian nurses.

Social stigma was experienced in-home care nurses concerning the suspicion that nurses were carried by the family and the community and the feeling of being ignored by the community compared to other hospital nurses. Numerous studies confirm this finding[15, 21]. Given the high importance of home care and its effective role in controlling the pandemic in situations where hospital systems were crowded with Covid-19 disease[5], the importance of the media and even senior officials to home care nurses can play a role in strengthening the provision of quality and safe health services.

Nurses also tried to adhere to personal protection strategies despite their difficulties and the limitations of home. Some studies have suggested that nurses lack personal protection in-home care[15, 24]. Related to other findings, no related studies were found due to limited studies in this area. Since the home environment is an uncontrollable environment compared to the hospital, more attention should be paid to implementing protective strategies[4].

Family and patient-related care inhibitors were a unique challenge in our study. The culture of the Iranian people emphasizes strong family ties as a fundamental value. This has caused Iranian families to have more commitment and desire to take care of their family members at home[25]. However, families do not receive proper training for home care during discharge[26]. For this reason, in our study, nurses were challenged by inappropriate interventions, insistence on problematic actions, or families' implementation of traditional medicine. On the other hand, the lack of a definitive treatment method and the dissemination of false information in cyberspace encouraged families to implement an indefinite treatment method for the patient out of compassion[27]. On the other hand, the barriers created by the patient in the form of non-adherence to treatment, high fear of the disease, and the occurrence of unknown complications were a new finding in our study that was not found in a similar study.

Regarding the management and support problems of nursing home care agencies, it should be noted that the agencies were not prepared for a Covid-19 pandemic crisis and were completely taken by surprise. This issue created challenges along with the lack of rules and crisis planning in these agencies. High workload and shortage of nurses significantly impact on the quality of nursing care. In similar studies, the lack of nurses and care equipment was also mentioned as a challenge in-home care[4, 22]. The study also noted a lack of insurance support, financial support and non-timely payment of wages, inadequate coverage of labor law, and sick leaves[24]. Since crisis management is one of the most critical issues in controlling the situation[28], it seems necessary for nursing home care agencies to deal with crises to anticipate and design models to act accordingly in emergencies[29].

One of the limitations of this study is the dispersion and difficulty in finding samples due to the Covid-19 pandemic, which was removed by referring the researcher to different agencies for providing services at home and making the necessary coordination. Also, in qualitative studies, the sample size is small, and the possibility of generalized findings is limited. However, the results of this study add to the body of knowledge in this field.

Conclusion

The findings of this study showed that nurses experienced several challenges during the Covid-19 pandemic in 1398 so far, which greatly impact nurses' health and how to provide care to patients at home. Based on the findings of this study, it is suggested that in addition to conducting subsequent applied and in-depth research, it be used to develop comprehensive guidelines for monitoring home care nursing in the country under conditions such as the Covid-19 pandemic. Based on the findings of this study, it can be stated that identifying the challenges of home care and seeking effective and efficient solutions can help as a guide in policy-making and decision-making of officials, improving the quality of information, reducing stress and anxiety, and improving ty and high-quality performance in critical situations safely.

Declarations

Ethical approval and consent to participate

The protocol of this study was approve by the ethical committee of *Iran University of Medical Sciences, Tehran, Iran(*code of ethics: IR.IUMS.REC.1399.755*).*While explaining the study's objectives to the participants, they were assured that their information was kept confidential, and the principle of confidentiality was observed in all stages of the study until the submission of the report. Also, before each interview, informed consent was obtained from all participants.

Declarations section

We confirm that the manuscript has been read and approved by all named authors. We confirm that we have given due consideration to the protection of intellectual property associated with this work. In so doing we confirm that we have followed the regulations of our institutions concerning intellectual property. We further confirm that any aspect of the work covered in this manuscript that has involved either experiments on humans has been conducted with the ethical approval of all relevant bodies and that such approvals are acknowledged within the manuscript. It is confirmed that all procedures are performed in accordance with the relevant instructions and regulations.

Consent for publication

Not applicable.

Availability of data and materials

Additional data files in Persian are available from the corresponding author on reasonable request.

Competing interests

The authors have no conflict of interest.

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Authors' contributions

1. The first autor: Project administration, Supervision, Conceptualization, Methodology, Writing- Reviewing and Editing.

2. The corresponding autor*: Supervision, Investigation, Conceptualization, Visualization, Data curation, Writing- Original draft preparation, Software, Writing- Reviewing and Editing.

3. The third author: Investigation, Validation, Writing- Reviewing and Editing.

4. The fourth author: Investigation, data gathering, Writing- Reviewing and Editing.

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