# Stress perceptions of nurses serving in home healthcare services during the COVID−19 pandemic: A qualitative research

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## ABSTRACT

**Objective:** To investigate the stress perceptions of nurses serving in home healthcare services during COVID-19.

**Methods:** This study was qualitative research with a phenomenological design. Data were collected and recorded through in-depth interviews with 6 nurses working in Muş State Hospital, Home Healthcare Services Unit using a form consisting of 12 questions on an online platform between May 2021 and July 2021. The audio recordings were transcribed by the researcher and content analysis was performed by creating codes, categories, and themes.

**Results:** The interviews yielded 10 categories and 59 sub-codes. These codes were addressed under the theme of "COVID-19 pandemic". Under this main theme, nurses expressed the problems they experienced in issues such as stress, support mechanisms, and family and social problems during COVID-19. They mentioned that they experienced high stress in this process, as well as social isolation and negative thoughts of society about them and that they could not spare time for themselves and their families.

**Conclusions:** Nurses working in home healthcare services frequently express negativities such as high stress, isolation from society, and increased workload. Therefore, actions should be taken to raise awareness of society on these issues, increase the number of personnel, conduct more research, and share the results with the public.

**KEYWORDS:** Home Healthcare Services; COVID-19; Nurse; Stress; Social isolation; Workload

# 1. Introduction

COVID-19 is a highly contagious disease due to a novel coronavirus with a prolonged incubation period[1]. Owing to the rapid spread of COVID-19 worldwide, a pandemic declaration was made by the WHO on March 11, 2020[2]. Thereupon, governments have taken many drastic measures to prevent this outbreak[3].

With an immense global challenge like the COVID-19 pandemic, healthcare workers are an indispensable resource for every country[4]. As the "gatekeepers" of the healthcare system, nurses on the frontlines of the COVID-19 pandemic have played a key role in identifying suspected and confirmed COVID-19 cases by carefully assessing symptoms and exposure history[5]. The COVID-19 pandemic not only affects nurses' physical health, but also their mental health and leads to problems such as sleep disorders, depression, and traumatic stress[6,7].

Stress arises as a result of threatening and forcing the emotional

### Significance

COVID-19 pandemic is considered one of the most important infectious diseases of the 21st century. Nurses, who are at the forefront of the fight against this epidemic, are experiencing significant problems. This study showed that nurses experience high stress, are isolated from society, and that the support of policymakers and raising community awareness are necessary.

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and physical limits of an organism and shows various physical and psychological symptoms. For this reason, the concept of perceived stress comes to the forefront, which expresses the level of stress that the person evaluates as too intense and uncontrollable for him/her[8]. Since nurses' perception and interpretation of events will vary, the impact of the events encountered during the COVID-19 period on nurses will vary from person to person and their behaviors will be different as a result. A relevant study found that healthcare providers caring for patients during severe acute respiratory syndrome and Middle East respiratory syndrome were under extraordinary stress due to high risk of infection, stigmatization, inadequate staffing, and uncertainty, and comprehensive support during and after outbreaks were of high importance[9,10]. Another study reported that frontline healthcare providers treating COVID-19 patients had greater risks of mental health problems such as anxiety, depression, insomnia, and stress[11].

There is limited data on the stress suffered by nurses working in home healthcare services during and after COVID-19. This study aims to investigate the stress perceptions of nurses serving in home healthcare services during COVID-19.

## 2. Subjects and methods

### 2.1. Study location and period

This study was conducted with nurses employed in home healthcare services department of a public hospital in eastern Turkey between June 2021 and July 2021.

### 2.2. Study design and population

This study was designed as qualitative research with a phenomenological design to determine the stress perceptions of nurses. The population of the study consisted of nurses serving in home healthcare services during COVID-19.

### 2.3. Inclusion and exclusion criteria

The study included nurses working full-time in home healthcare services affiliated with a public hospital in the region and who gave their consent through the voluntary consent form. Nurses who were not directly involved with COVID-19 patients and were on leave were excluded from the study.

### 2.4. Sample size and sampling procedures

This study used the convenience sampling method. Home healthcare nurses who interacted with patients the most during Covid-19 were selected and 6 nurses were included in the study.

### 2.5. Data collection tools and procedures

Data were collected through a structured questionnaire developed after an extensive literature review and in-depth interviews using an online platform. Participants were informed that participation in the study was voluntary. They were also informed that all information collected would be kept confidential and analyzed collectively. The information obtained from them was only used to evaluate information about nurses' perceptions of stress during COVID-19.

The study was conducted using a structured interview form consisting of 12 open-ended questions such as "Explain the events that caused you to stress during the pandemic process by giving an example", "Did the protective equipment such as gowns, masks, and visors that you wore while providing care during the pandemic cause you to stress?"[9,11,12,13]. The interviews were completed in approximately 30-60 minutes.

### 2.6. Data management and analysis

The audio recordings were listened to and the interviews were transcribed to analyze the data obtained from the qualitative research. After the transcription of the data, they were checked by the researchers through repeated listening. Categories and codes were created in line with the interview form.

### 2.7. Ethical considerations

This study was conducted after obtaining ethical approval from Muş Alparslan University scientific research and publication ethics committee (No: 27.04.2021-10794). Institutional permission was also obtained from Muş State Hospital. All information gathered from the participants in the study was kept confidential.

## 3. Results

### 3.1. Participants' views on perceptions of stress

This qualitative study, conducted with six nurses serving in home healthcare services unit of a public hospital, yielded fifty-nine sub-codes under nine categories following content analysis. The findings are given under the theme "COVID-19 Period". The detailed information of participants is presented in Table 1.

**Table 1.** Participant information.

| Participants | Sex | Educational status | Professional experience (Years) |
|---|---|---|---|
| Nurse 1 | Female | Bachelor | 16 |
| Nurse 2 | Female | Associate | 14 |
| Nurse 3 | Male | Bachelor | 7 |
| Nurse 4 | Male | Master | 7 |
| Nurse 5 | Male | Bachelor | 7 |
| Nurse 6 | Male | Bachelor | 7 |

Four of the nurses stated that the most stressful issue during the pandemic was the fear of infecting their family, coworkers, and close circles (Table 2).

"*...most importantly, I was afraid of infecting my family. At first, we didn't know what the progress would be like ...*" (Nurse 1, Female 35).

"*...What if we get sick? or if we get sick and something happens to someone because of us, how can we bear the burden of this? Since we were health workers, we were on the front line, and we had the biggest risk, we had a lot of stress to protect ourselves, protect our family, protect our spouse, protect our friends ...*"(Nurse 4, Male 31).

Nurses stated that society had a negative perspective towards them during the pandemic and that they were isolated (Table 2).

"*...When we went somewhere, they would start talking about 'but you work in a hospital' or at the entrance of an apartment, I heard a lot of people saying 'there are health workers in this apartment, they go to and from the hospital a lot'. This was seen as a problem ... there was a lot of exclusion ... because I was working in a hospital and being in a patient environment, they were also seeing us as diseased ...*" (Nurse 5, Male 30).

"*...At the beginning of this process, people really saw us as a virus. While we were struggling in the chaos, people were running away when they saw us. There was a perception as if we were transmitting the virus ...*" (Nurse 1, Female 35).

We observed that sweating was the factor that caused the most stress and made care difficult for the participants due to dressing for protection against the virus (Table 2).

"*...I felt like an alien when I wore this outfit ... one must know what it is like not seeing in front of the goggles or to wear that outfit in that hot weather. When we did a procedure, we could not see fully, in fact, we could not see exactly what we were going to do to the patient because of the humidity due to the steam, that is, we could not do our job properly. This was a huge source of stress ...*" (Nurse 5, Male 30).

Most of the participants stated that patients and their relatives thanked them when they visited homes to provide healthcare as the filiation team (Table 2).

"*...they were grateful to us. After all, while some of them could not find care in the hospital, we were going to their homes. They said they were pleased with this and thanked us ...*" (Nurse 4, Male 31).

"*...patients and relatives were thanking us, they were grateful to us ...*" (Nurse 6, Male 30).

## 3.2. Participants' views and suggestions on the psychological effects of the pandemic

We observed that the participants remained aloof, distant, and socially isolated in their relations with their environment during the pandemic (Table 3).

"*...I had to distance my family relationships, for example, we did very, very few visits to relatives ... at home, for example, when we normally approach our children, we were much, much more distant ... you know, we normally hug our children, sometimes my children hug and kiss me when I return from work. I kiss them before going to bed or in the evening during the normal day. I have reduced these to a large extent. Even my children said 'you don't kiss us anymore' …*" (Nurse 1, Female 35).

**Table 2.** Participants' views on stress perceptions.

| Category | Code | N1 | N2 | N3 | N4 | N5 | N6 |
|---|---|---|---|---|---|---|---|
| Events that cause stress | Fear of contagiousness | * | * | * | * | * | * |
| | Gone | | * | | | | |
| | Social isolation | | | * | * | * | |
| | Uncertainty | * | | * | | | |
| | To be on the frontline | | | | * | * | |
| Society's perspective on healthcare | Positive | | | * | | * | |
| | Negative | * | * | * | * | * | * |
| Difficulties experienced due to clothing while giving care and treatment | Perspiration | * | * | * | * | * | * |
| | Inability to see clearly | | | * | * | * | * |
| | Inability to breathe | * | | | * | * | |
| | Discomfort | | | * | | | |
| | Decreased communication with the patient | | | * | * | | |
| | Wound formation on the face | | | | | * | * |
| | Weakening | | | | | | |
| Behaviors of patients and their relatives | To respect | * | | | | | |
| | Acknowledgment | | * | * | * | * | * |
| | Disrespect | | * | | * | | |
| | To be scared | | | * | | | |
| | Praying | | | * | | | * |

**Table 3.** Opinions and suggestions of participants on the psychological effects of the pandemic.

| Category | Code | N1 | N2 | N3 | N4 | N5 | N6 |
|---|---|---|---|---|---|---|---|
| Relationship with the environment | Keep distance | * | * | * | * | | |
| | Stay away | | * | | * | * | * |
| | Social isolation | | | * | | * | |
| Problems regarding the removal of leave rights during the pandemic | Psychological distress | * | * | * | * | * | * |
| | Insufficiency | | | | | | |
| | Stress | * | * | * | * | | |
| | Victimization | | | * | | * | * |
| | Burnout | | | | | * | |
| | Guilt | | | | | | * |
| Emotions that arise when inadequacy is felt during pandemic | Regret | * | * | * | * | * | * |
| | Anxiety | * | | | | | |
| | Incapacity | | * | * | | | |
| | Inability to cope | | | * | | | |
| | Pessimism | | | | | * | |
| | Despair | | | | | * | |
| | Anger | | | * | * | | |
| Institutional support methods | Keep in touch with my loved ones | * | * | * | * | * | * |
| | Watching movies | | | * | * | | |
| | Listening to music | | | | | * | * |
| | To exercise | | | | | * | * |
| | Taking time for yourself | | | | | * | * |
| | Reading articles and books | | | | | * | |
| | Being alone with nature | | | | | * | |
| | Social media tracking | | | | | | * |
| | Not getting corporate support | * | * | * | * | * | * |
| Positive consequences of the pandemic | Developing hand hygiene awareness | * | | | | * | * |
| | The importance of interpersonal distance | * | * | | | * | * |
| | Awareness of online life | | | * | | * | |
| | The value of freedom | | | * | | | |
| | Awareness of meaning of life | * | | | | * | |
| | Importance of empathy | | | | | | |
| Negative consequences of the pandemic | Having stress | * | * | * | * | * | * |
| | Disruption of psychology | * | * | | | | |
| | Having an economic loss | | | * | * | * | * |
| | Having mood disorders | | | | * | | |
| | Segmenting relationships | | | | | | |
| | Increased workload | | | | | * | * |
| | Experiencing fear | * | | | * | | |
| Suggestions | Everyone must continue to abide by the rules | * | | | | | |
| | Vaccinations should be started earlier | | | | | * | |
| | Schools must open late | | * | | | | |
| | Financial aid should be | | * | * | | | |
| | Travel should be restricted | * | | * | | | |
| | It must be a full closure | | * | * | * | * | |
| | It must be an all-out struggle | | | | | | * |
| | Working conditions of healthcare workers should be improved | | | | | * | * |

All participants stated that they experienced psychological distress due to the ban on leave rights during the pandemic (Table 3).

"...*This situation caused so many problems for me. Because I also have a child with autism. Schools were closed for a long time as you know. There were times when I had to take leave but I couldn't take leave ... psychologically I felt very bad ... I couldn't find a caregiver and I had a lot of trouble psychologically ... I was very stressed.* ... (Nurse 1, Female 35).

"...*There was a lot of trouble. For example, my child was sick and I was going to take him out of the province in order to treat him ... I couldn't go ... so I felt incompetent for my children, for my family, that is, I felt that I could not be with him at a time when he needed me. ...*" (Nurse 2, Female 33).

The nurses reported feeling sadness the most when they felt inadequate and ineffective (Table 3).

"...*Not being there for my wife during the difficulties she experienced*

*during pregnancy wore me and her out, not being able to support her made us sad and made her feel like I was in the military. ...*" (Nurse 5, Male 30).

We observed that the participants did not receive institutional support during the pandemic and were in contact with their close environment in order to feel better (Table 3).

"*...I tried to distract myself with such things as listening to music, doing sports, you know, spending time with friends, which I do as a hobby. I tried to listen to music and do sports more. I couldn't see my family anyway, but I was trying to motivate myself more by talking to them via video or phone ... I tried to rest and spend more time on myself. ...*" (Nurse 4, Male 31).

All participants stated that they experienced stress during the pandemic (Table 3).

"*...this was a period that caused stress for everyone ... I felt like I was trapped for the first time, I mean, I was like in a prison, you know, it had a great effect on me, I couldn't go anywhere, you couldn't do anything ... because there was the disease everywhere, so it wore us all out psychologically ... the obligation to wear masks ... these curfews affected me a lot ... so it was a very psychologically exhausting process for me in the same way as the whole society ...*" (Nurse 1, Female 35)

Another nurse stated that their workload increased during the pandemic, that it was a very heavy burden and also lead to economic difficulties (Table 3).

"*...People have already experienced economic distress very deeply ... the spiritual situation was the same way. We could not go to a place of worship, that was also a problem ... we stayed away from our family, and we felt distant from our friends. When we had a funeral, we could not go to condolence, we could not go to a feast ... in the hospital environment, our workload increased a lot and there was a heavy burden for us. ...*" (Nurse 5, Male 30).

The majority of nurses also stated that the pandemic had positive consequences (Table 3).

"*...Actually, we became aware of online life and realized that we can now do everything online ... I think this is very positive in terms of quality of life, we realized that education can actually be online in some cases, you know, we learned that there is no need to relocate for that ...*" (Nurse 5, Male 30).

"*...it taught us a little bit about social distancing ... it taught us to be a little bit distant from people. social distancing or wearing a mask ... we learned to wash our hands more ... it had positive results in terms of hygiene. ...*" (Nurse 1, Female 35).

Regarding the pandemic, nurses made suggestions such as a full lockdown and starting vaccination earlier (Table 3).

"*...we have not done what other countries have implemented and got results. For example, there should have been a full lockdown ... vaccination could have been accelerated a little more ... we do not know exactly which drug we should use for COVID ... has the public been fully informed? Maybe it could have been done better. The public could have been better informed. Unfortunately, this did not happen at first ...*" (Nurse 5, Male 30).

## 4. Discussion

As we understand from the nurses' descriptions of their experiences in the fight against COVID-19, their biggest concerns were the responsibility to alleviate the suffering of patients and the need to make a concerted effort to protect all people from the virus. In the face of the pandemic, health workers feared infection and worried for their families, yet they still resorted to joining the fight, assumed their responsibilities, focused on their tasks with dedication, and demonstrated a spirit of unity and professionalism.

This study concluded that the most stressful reason for nurses during the COVID-19 pandemic was the fear of infecting their social circles. Another relevant study also reported that nurses experienced fear of infection due to the contagious nature of the virus, unknown routes of transmission, and close contact with patients[11]. Other studies have also revealed that nurses who have frequent contact with infected or potentially infected patients are worried about contracting the disease themselves and infecting others[11,12,14]. These results are parallel with our study.

Society had both positive and negative perspectives on health professionals during the COVID-19 period. The motivation of nurses was observed to increase when they were considered indispensable to overcoming the pandemic. However, society also had a negative view of nurses as they stigmatized them and saw them as viruses or germs.

The protective equipment worn by nurses while providing care during the pandemic caused psychological and physical problems for them. Liu *et al.* found that in addition to providing care to patients, wearing protective equipment for long hours caused physical distress, especially for nurses who had to stay in isolation wards for the entire shift, and that working intensively for long hours exposed healthcare providers to the risk of decreased immunity[11].

The fact that the patients and their relatives thanked the nurses and were grateful when the nurses went to the homes to provide care as the filiation team made the nurses happy. During this period, the nurses had to distance themselves from their families in order not to be a transmission route. Unfortunately, the ban imposed on the rights of nurses to take leave has led to a huge amount of stress, burnout, and a sense of inadequacy.

Under such circumstances, nurses experienced emotions such as sadness, anxiety, inadequacy, pessimism, helplessness, and anger. A study reported that nurses normalized their stress by reminding themselves of the nature of their duties and that they were not facing such threatening events for the first time[11,15].

As if that were not enough, nurses did not receive any institutional

support to reduce their stress during the pandemic, and they calmed themselves mostly by talking to their close environment and getting help and support from them. A study conducted in China found that a lack of support for healthcare workers was a great source of stress for nurses[11,15,16]. In their study, Liu *et al.* demonstrated that healthcare workers used multiple support systems and self-adjustment skills to reduce stress[17].

Interestingly five participants stated that the pandemic actually had positive consequences as well while one participant reported no positive consequence. Some studies have found that nurses experienced fear and anxiety as common symptoms resulting from uncertain situations and stress[15,17].

Within the scope of the study, nurses made various suggestions regarding the COVID-19 pandemic. These suggestions include economic aids, improvement of working conditions of health workers, travel restrictions, total struggle, and the most frequently stated opinion was that there should be a full lockdown. Nurses complained about the fact that the public did not follow the rules during the COVID-19 pandemic, making things more difficult. A relevant study concluded that the public did not follow the instructions given by the government to combat COVID-19 and this worsened the situation to a great extent[15,17,18].

Our study concluded that nurses are under an intense workload, this workload has increased even more due to the pandemic, they are socially excluded, and their social lives are restricted. Health professionals should conduct more research on this issue. Infectious diseases can spread very quickly and easily in a globalized world. Based on experiences such as severe acute respiratory syndrome, Middle East respiratory syndrome, COVID-19, and Monkeypox, policymakers should take precautions against possible pandemics and make preparations for their effects on healthcare professionals.

## Conflict of interest statement

The authors report no conflict of interest.

## Funding

## Acknowledgments

## Authors' contributions

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