

The Lived Experience of Health Care Workers during the Coronavirus Outbreak: A Content Analysis Study

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Submitted: 26 September 2020

Accepted: 29 October 2020

Int J Behav Sci. 2020; 14(3): 161-166

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Abstract

Introduction: The Coronavirus Disease 2019 (COVID-19) pandemic in Iran is part of the worldwide pandemic of the COVID-19 caused by the Severe Acute Respiratory Syndrome (SARS) coronavirus. The present study has aimed to identify, through a qualitative methodology, the lived experiences of the Health Care Workers (HCWs) who are the most important group to keep others safe, alive, and healthy in the COVID-19 patients' ward in Iran.

Method: A conventional content analysis method was conducted on 11 HCWs involved with COVID-19 patients by purposeful sampling. Their experiences were explored through in-depth semi structured interviews.

Results: The conventional content analysis revealed five themes: 1- Experiencing psychological distress without sufficient psychological services; 2- Experiencing multiple stressors that gradually reduced; 3- Using coping skills; 4- Family and public support; 5- Media, Medical Community, and Government Officials role

Conclusion: It can be concluded that HCWs need bio-psycho-social-spiritual protection from family, public, media, officials and government.

Keywords: Content Analysis, Coronavirus Outbreak, Health Care Workers, Qualitative Study

Introduction

Coronavirus (COVID-19), the first to reportedly be seen in Wuhan, China, is an acute and highly severe respiratory symptom that has been observed by the World Health Organization (WHO) due to the high prevalence rate and its consequences on an international scale as a global epidemic [1].

In Iran, a geopolitically central nation in the Middle East, the coronavirus epidemic was officially announced on June 21, 2020. At present, the spokesman of the Ministry of Health stated that the latest definite number of cases of COVID-19 in the country is 204,952 with more than 9623 who have died from the disease, and about 83,837 who have recovered and discharged from hospitals [2].

At this time, it is critical for HCWs and researchers in all areas to be aware of the potential impact that the disease can have on different fields and the medical community as a whole [1,3]. The HCWs are at the forefront of all the efforts to curb the prevalence of this pandemic [4]. The report of the first published deaths of HCWs infected with the virus during the care

of infected patients indicated that the transmission of the virus to HCWs in health care centers is real and dangerous [3, 5]. The China Centers for Disease Control and Prevention reported at the time of the outbreak that of the 44,672 confirmed cases of coronavirus, 1,716 were HCWs [5].

The HCWs lived experiences during the COVID-19 outbreak is impacting their mental health. They face problems such as being vulnerable to catch the disease, facing rumors and misinformation about the disease itself, and seeing their colleagues get sick and dying [4]. The Wuhan HCWs experienced a high level of Obsessive-Compulsive symptoms, anxiety and interpersonal sensitivity compared to the HCWs in other departments [6]. The Chinese physicians and nurses at the time of the outbreak experienced symptoms of depression (50.4%), anxiety (44.60%), insomnia (34%), and anxiety or distress (71.5%). In general, HCWs who are exposed to COVID-19 are under great psychological stress [7].

Further, moral crises are also part of the lived experiences of HCWs as they deal with the suffering caused by the death of their patients and colleagues, and hard decision-making process that are a part of their experience [8]. The COVID-19 pandemic has put HCWs around the world at risk for many difficult moral decisions [9].

Other issues for professionals and employees were related to interpersonal experiences, especially their family relationships. A study during the COVID-19 outbreak showed that HCWs were impacted by fear of infecting and contaminating family, friends and colleagues. They also suffer emotionally from caring for their co-workers who got infected and the social stigma and interpersonal isolation [10]. A study in China found that 39.1% of HCWs, especially those working on the frontline, or being isolated, or had a family member or co-worker with the disease, showed signs of psychological distress [11].

Role pressures, insufficient equipment, and lack of protective clothing are other challenges which HCWs are facing. They are expected to work long hours under high pressure with insufficient resources and facilities [4]. Research in the United States show that the health-related needs and facilities created by COVID-19 are beyond the capacity of hospitals. Research on the H1N1 flu outbreaks in European countries also shows that treatment capacities faced challenges such as poor supervision and lack of equipment in the intensive care unit [12]. Lai et al. (2020) also showed that high work pressure reduced personal protective equipment, lack of specific medications, and feelings of insufficient support, and eventually led to high levels of stress in HCWs. The long hours which nurses and medical staff spent in the intensive care unit during the 2009 H1N1 flu epidemic in Australia has shown that it is difficult to wear personal protective equipment for long hours [13]. Also, in a study conducted in Pakistan, the HCWs were exposed to psychological pressures resulting from high risk of infection, lack of adequate facilities for transmission, and feeling overwhelmed and exhausted [14].

Social media during outbreak also played a vital role in the experience of HCWs. Lai et al. stated that extensive media coverage in this regard was part of the challenges for the medical staff. False information and rumors about COVID-19 on social media due to the free nature and ease of transferring correct or incorrect information added to the challenge this group is facing. In a study about the spread of the Coronavirus in Vietnam, La et al. found that the government, through the media, had the right tools to send information and manage COVID-19 well, despite the fact that Vietnam has a high probability of spreading due to its geographical proximity to China [15].

Furthermore, some of the experiences of the HCWs were related to the role of the authorities. Shanafelt et al. stated that they were concerned about whether their organization would meet their personal and family needs if they became ill especially issues related to their children.

Given the importance of HCWs in dealing with epidemics such as COVID-19 as a front-line effort, along with the fact that the HCWs are the most important group to keep others safe, alive, and healthy and as to the best of our knowledge no study has been found to explore HCWs deep experiences in Iran, the present study has aimed to identify, through qualitative methodology, the unique lived experiences of the HCWs, in the COVID-19 patients' ward in Iran that can help for a better management of this pandemic and future ones in Iran.

Method

Although the new strands of COVID-19 have special characteristics such as being highly contagious, however there are still many unknowns about this disease. In order to carry out this study, a qualitative research method of conventional content analysis was used to ensure the knowledge gained from the interviews based on the participants' unique personal experiences [16].

The purposeful sampling was used to gather data. Eleven HCWs from different health related backgrounds in Qom city, which was the first city involved with COVID-19 in Iran, participated in the study. The inclusion criteria were: 1- continuously working at least for five years in medical centers, and 2- Working at least for three weeks or more in the ward with patients suffering from COVID-19.

Researchers conducted face-to-face in-depth, semi structured interviews. Interviews lasted up to one hour. An interview guide was used for participants. Some of the interview questions were: what is your age? Work experience? Education? What are your difficulties and challenges at work? What are your worries and emotional reactions during the outbreak? What are your strategies to cope with these difficulties? All interviews were conducted by the third author who works as a psychologist in different hospitals. The interviews were audio recorded and transcribed verbatim for analysis. Participants signed a consent form and were assured of confidentiality. Conventional content analysis was utilized for the subjective interpretation of the contents of the written data. Codes and themes were identified through the systematic classification process [16]. Content and

themes analysis was used [17, 18].

To ensure credibility and accuracy in the description and interpretation of data, we actively engaged in debriefing sessions throughout the course of data analysis in order to obtain convergence [19]. Direct quotations from the data provide support for the findings [20]. The triangulation of different data sources (nurses and physicians) and data analysts (first and second author coded and analyzed the data) enhanced the credibility. As for confirmability, data and analyst triangulation was used, and an audit trail was maintained. For transferability, we used careful description of the context and the participants involved in this research. Lastly, for dependability, a careful documentation and description of

the processes of recruitment, data collection, and analysis, as well as taking a team approach was used [19].

Results

Eleven HCWs with the age range of 28 and 56 (M=41.54, SD= 8.79) were investigated in this study. Out of the eleven participants, nine were married and two were single. Seven participants were nurses and four were physicians. Seven participants were men and four were women. Their work experience ranged from 6 to 30 years (M=15.09, SD= 6.82) with an average work experience of 15.09 years. Six participants had Bachelor of Nursing (BSN), four were General Practitioners (GP) and one individual had MSc. in Nursing (MSN) (Table 1).

Table 1. Demographic Information of Participants

Participants	Sex	Age	Marital Status	Job	Work Experience(years)	Education
1	M	39	Married	Nurse	15	BSN
2	M	48	Married	Nurse	20	BSN
3	M	54	Married	Physician	20	GP
4	F	32	Sing	Nurse	10	BSN
5	F	40	Married	Nurse	14	BSN
6	M	37	Married	Physician	8	GP
7	M	47	Married	Physician	18	GP
8	M	36	Married	Nurse	10	MSN
9	M	56	Married	Nurse	30	BSN
10	F	40	Married	Physician	15	GP
11	F	28	Single	Nurse	6	BSN

Notes: M=Male, F=Female, BSN= Bachelor of Nursing GP= General practitioners MSN= Master of Sciences in Nursing

Five main themes which have emerged with some quotations from the data are indicated in table 2..

Table 2. Themes and Subthemes

Themes	Subthemes
1- Experiencing psychological distresses without sufficient psychological services	Psychological distresses lack of sufficient psychological services
2- Experiencing multiple stressors that gradually reduced	lack of sufficient knowledge and practice Experiencing work difficulties Isolation and distance Gradually reducing the pressure
3- Using coping skills	Utilizing strict cleanliness principles Using psycho-social skills Using religiosity and spirituality
4- Family and public support	Family support Public support
5- Media, medical community, and Government Officials role	Dual impact of social media on the HCWs. Expectations from the government Medical community

Theme 1: Experiencing Psychological Distresses without Sufficient Psychological Services

Participants discussed experiences related to psychological distresses like grief, depression, guilt, anxiety, worry, sleep disturbance, moral conflicts and dilemmas, helplessness and frustration. Most participants felt grief, and depression as a result of seeing sudden and lonely deaths of the patients; or when they had to give the news of the death of patients to their families. They talked about feeling guilty due to the probability of being a disease carrier and transmitting it to others, or from the inefficiency to treat patients effectively. They talked about becoming very anxious hearing about the death of co-workers or the likelihood of being infectious and

transmitting it to others. Also, they worried about the recurrence of the disease, so that they had negative thoughts and feelings of worries and anxiety even when they were off duty. Their families got anxious and had an impact on their work as well. Participants also talked about having difficulty sleeping as a result of difficult job expectations and psychological distresses. They discussed moral conflicts and dealt with existential dilemmas deciding to either be responsible to themselves or their family or keeping the job and being responsible to their patients and society. The majority of HCWs felt helpless and frustrated because they could not help some people due to the nature of this disease and felt frustrated. *"I feel sad, (pauses with grief), what a cruel world we live in, these*

patients die before your eyes, it is really difficult to tolerate. The worst thing is how to share the news of their death to their families." (11).

They complained that there were not enough mental health professionals and lacked sufficient psychological skills to manage their exhausting psychological distresses. "We couldn't manage our stress. I think we must have asked psychologists and counsellors to help from the very beginning, and their roles could have been very important." (7)

Theme 2: Experiencing Multiple Stressors

Participants stated that they experienced different sources of stresses. For example, they had lack of sufficient knowledge and practice because of the unknown nature of the disease. "The special condition of this disease, the type of its rapid spread, the unknown nature of this disease and the fact that even specialists couldn't identify the type of effect and the function this disease may have, this kind of obscurity is really tough..." (2).

They also experienced work difficulties like lack of protective equipment, lack of sufficient workforce, the great number of patients at the beginning of the outbreak, and frequent hand washing and wearing protective clothes. "One of the worst things dealing with these patients is putting on these kinds of clothes and masks." (3)

The HCWs exposure to patients with COVID-19 also made them isolate themselves and stay away from their families and friends. At time, their relatives distanced themselves from them due to the fear of getting infected. "We haven't gone anywhere since the outbreak of the coronavirus, just once my mother and I went to the neighbor's house, as soon as she saw me, she flew away from me and sat farther away" (4).

This is while the participants stated that after a few months, their knowledge and skills had improved, they became more prepared; better adapted to the situation, the protective and therapeutic equipment were increased; more officials visited the hospital and got a better understanding of the condition. Besides, the difficulty and the pressure being imposed on the HCWs got decreased as more volunteers supported them. Also, the number of workforces increased. "The special condition of this disease, the type of its rapid spread, the unknown nature of this disease and the fact that even specialists couldn't identify the type of effect and the function this disease may have, this kind of obscurity is really tough..." (2)

Theme 3: Using Coping Skills

The participants have utilized different strategies to cope and deal with the sources of stress. They utilized strict cleanliness principles by observing personal hygiene, having proper nutrition, trying to catch enough sleep as well as keeping necessary distance from other people. "I try to sleep well, i.e. I was careful that my sleep has the necessary quality. I try to eat well, I drink herbal tea, I take a shower every day" (3).

They tried to use psycho-social skills such as keeping themselves calm and relaxed; having positive self-talk; communicating with family members; not getting

mentally obsessed at home; trying to have a sense of humor; taking positive problem solving approaches; avoiding exaggerated information about the disease; and not tracking the news too much. Also, they talk about increasing awareness for themselves and their families to manage their stress about the disease. "I used to take deep breathing and practice relaxation techniques and now I do them whenever it is possible" (3).

The majority of participants talked about using religiosity and spirituality such as saying prayer, trusting God, believing that they will be rewarded by God because many patients prayed for them, and taking a good care of patients to please God. "I do my task and trust on God and say prayer" (3).

Theme 4: Family and Public Support

Most of the participants believed that their families and public support was very important for them. The families of the participants, especially their spouses, were severely involved to protect the HCWs. They helped HCWs by allowing them to process their feelings, providing nutritious food, as well as providing moral support. In order to protect their loved ones, some families at first were against the HCWs attendance at hospitals, but later they supported them after the level of awareness was raised. Some other families agreed with the HCWs attendance in hospitals from the very beginning and supported them in many different ways. "My wife was a great help for me, supported me a lot from the very beginning regarding nutrition and giving me support and strength" (8).

The public support was also a great help for the HCWs. Many people went to health centers and tried to decrease the work pressure of nurses by helping them with patience, bringing and serving food, donating money, preparing fresh juice, and anything else they were asked to do to help patients and nurses. "We received the highest level of support from these charities and the volunteer people. People were very nice and helpful and their presence made us feel so much better. God bless them. It was very good. You don't know what they did for us. For example, they provided three high-quality meals for us. They brought us different packages every day. They come here and are very helpful. I really appreciate them. It gave us a very good feeling." (5)

Theme 5: Media, Medical Community, and Government Officials Role

The media and the government officials had an important role during outbreak. The participants stated that the social media had a dual impact on the HCWs. Some of the participants explained that the media had positive effect because it created a positive image for the HCWs attributing a spiritual meaning (similar to attending the war) to the activity of the HCWs and broadcasting the images of the devotion and sacrifice of the HCWs. Even though being described as a hero pleased some individuals, it caused some negative inspiration for others because they thought this image was exaggerated and unrealistic. Some mentioned that they were doing solely their task, and didn't desire to be noticed. Also, some of them said that the media has increased their families'

anxiety by talking about the difficulty of their jobs. They also mentioned that the media caused them to feel more responsible and put more pressure on them. *"I am really glad that the media has caused a change in the people's attitude. Because they were compared with those going to the war, it was very good for me spiritually."* (2)

They talked about expecting the government and hospital officials to give people transparent, and sincere information, and do a better job with the dissemination of facts. They also expected the government to provide the necessary protective equipment's, and understand the level of difficulties the HCWs were dealing with. *"It would have been great if we were informed at the proper time and received earlier important information."* (1)

The participants said that they were satisfied with the package of financial incentives and the vacation package, which made them and their families feel appreciated and satisfied. However, these incentives had negative impacts on them as well because it created a sense of fear about the danger they had to face; seeing the unfairness in the amount of financial rewards for physicians versus nurses; and the higher level of job expectations feeling more pressure to perform better. *"I did not get a lot of money, but I was happy they gave me that money. However, I got a little frightened, I thought it must be a terrible disease that they gave us this extra money to keep us here... but one thing that really annoyed me was that the compensation for physicians and nurses were very different, it is not fair."* (4)

Discussion

This study was to explore HCWs experience during Covid-19 in Iran. Using content and thematic analysis, we summarized a number of themes from participant interviews.

The participants explained experience of psychological distress like grief, depression, guilty, anxious, worry, agitation, and conflict, dilemma, helpless and frustrated. Studies [21, 7, 14] showed that the HCWs suffer from psychological distresses while facing this pandemic diseases especially depression, anxiety disorders, sleep disturbance and helplessness. Experiences of such negative emotions in such a stressful time can be one of the sources that threaten the mental health of the HCWs at the time of the outbreak. The authorities mostly tried to give financial help for this difficult time and ignored psychological distress and didn't provide sufficient counselling services. The psychological distress of HCWs and their families were ignored which can have a great impact on the quality of their work. So, it is suggested to provide sufficient psychological protocols, group counselling, and routine psychological and counselling session even using online counselling to support HCWs and their families psychologically especially in the areas they might be distressed. Due to the experiences of multiple failures in helping patients, the HCWs need psychological help [9].

The findings show that HCWs faced a number of stressful resources. During the COVID-19 outbreak, long working hours, role pressure, equipment, workforce and protective clothing under a lot of pressure to work with

insufficient resources and facilities were experienced by HCWs [4]. Some stressors were somehow inevitable like lack of knowledge and practice because of the unknown and shocking nature of the disease or clothing and hygiene difficulties but the other difficulties can be reduced with proper management like providing sufficient personnel, equipment, and resources. They need to be supported and encouraged to spend their time with their families even virtually.

The participants used different coping skills to cope and deal with the sources of stress. The WHO guidance for HCWs (2020), emphasized on observing hygiene principles like putting on, using, taking off, and disposing of Personal Protective Equipment (PPE) properly [22]. Also it emphasized self-monitoring for signs of illness and self-isolation. Our finding indicated that this awareness and necessary PPE facilities were provided for them and they didn't face any problem. Using psychological skills mostly were useful but not enough and need structured education. Religious beliefs also can help to reduce stress [23] especially in cultures that religion and spirituality has been internalized.

According to the findings of this study, families and public support were the most helpful sources for HCWs. Xiao et al. indicated that the higher the level of social support, the lower the stress and anxiety of the HCWs [24]. In Iran as a collectivist society, the role of family and community support in increasing motivation and resilience and reducing their anxiety is very important. Also, public support helped a lot to HCWs. It was published by the WHO on April 18, 2022, emphasizing the role of volunteer and public forces in increasing patient care and reducing the pressure on medical staff. As the role of family and public support is important, we suggest educating these groups on their role in helping HCWs especially reducing their stress and work pressure by supporting their children, nutrition, calming, and decreasing work pressure.

In using the media to manage pandemic crisis, the dual impact need to be considered. La et al. found that the Vietnam government through the media, had the right tools to send information and manage COVID-19 well, so media should be used to give proper information, in right time and in a way to balance the anxiety and awareness and picturing a righteous picture of the HCWs. Shanafelt et al. stated HCWs are concerned about whether their organization would meet their personal needs if they become ill and their concerns should be noticed for better outcomes [8].

Financial and occupational incentives were effective for HCWs, even though some of them reported negative aspects like feeling being under pressure, unfairness and fear. Motivating is possible through financial and non-financial ways [25]. According to our findings, using financial motivation is helpful if unfairness, fear and feeling work pressure are managed well which need further studies.

Conclusion

Based on the results of the present study, it can be concluded that HCWs need support in different aspects.

They need psychological services because of the tremendous pressure they feel during pandemic diseases especially in the areas of stress management, coping with grief and sadness, health anxiety, and coping with depression and guilty feeling. They are confronted with different sources of stress that are partly manageable through proper, honest and early information about the disease by authorities, providing sufficient protective resources, along with financial and non-financial incentives. The media also can be a strong tool to give righteous information and a true and balanced picture of HCWs and appropriate education on death awareness. Family and public support can be great sources in a collectivist culture if they are truly informed and feel empathy, and these potential resources need to be educated through media and health centers.

Conflict of interest

All authors declare no conflict of interests.

Ethical Approval

The present study was approved by the Institutional Review Board of the Alzahra University.

Acknowledgement

The authors would like to thank all the participants who kindly gave their worthy time even though they were under great pressure.

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