Acceptance and Preparedness to be COVID Warriors: Self Narratives of Frontline Nurses of a Tertiary Care Center

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Abstract

AIM: Aim of this study is to gain insight into how frontline nurses accepted and prepared themselves before COVID posting.

METHODS: It is a qualitative and phenomenological study design. Eighteen in-depth interviews were conducted with the nurses who provided care to confirmed COVID 19 patients in a tertiary hospital of North India from September to November 2020. The interviews were transcribed and analyzed using Colaizzi’s phenomenological method. The consolidated criteria for reporting qualitative research (COREQ) were followed in this study.

RESULTS: In this study, the reported experiences were divided into five main themes: (I) Getting ready to be at the frontlines (II) Family and peer support (III) I Can Handle it! (IV) I have to be Strong! (V) Training is key to confidence. The risk of infection, fear of being a source of infection to the family, the worry of staying away from family, uncertainty, and nervousness related to personal protective equipment were the most common thoughts that disturbed the participants. However, taking a good diet, practicing yoga and meditation, having a sense of serving their country and community, faith in God, family support, faith in the organization, and good training helped the participants to prepare for the COVID posting.

CONCLUSION: Despite facing various challenges, the nurses showed great strength and resilience. To promote a resilient health system, supportive supervision and adequate administrative support, training and workshops, peer group support, counseling cells, and spiritual support may be considered.

Keywords: Acceptance, COVID-19, nurses, pandemic, preparedness

Introduction

The outbreak of coronavirus disease 2019 (COVID-19) has left a detrimental effect on every aspect of human life, especially on the global healthcare system and health care workers (The Coronaviridae Study Group of the International Committee on Taxonomy of Viruses, 2020; Babore et al., 2020; Xiang et al., 2020). It was recommended that people follow social distancing, minimize outside activities, and stay at home. However, on the other hand, the health care workers have taken the role of brave frontline soldiers fighting the war against COVID-19. Healthcare workers (HCWs) face extraordinary stress due to the increased workload, increasing number of patients, increased working hours, fear of danger, and lack of knowledge (Liu et al., 2020; Spoorthy et al., 2020). Along with the high workload, HCWs face many psychological stressors. They live under constant fear of transmitting the virus to their family and loved ones, especially to the young children and the elderly at home (Liu et al., 2020; Shaukat et al., 2020).

Amid this global pandemic, everyone talks about the urgent and critical need for a vaccine, ventilators, and personal protective equipment. However, no one is talking about how well HCWs, especially nurses, have prepared themselves physically and mentally for their COVID duty, and the state of mind of the nurses and their close family members before they stepped out onto the battlefield against COVID. To an outside observer, HCWs look strong and resilient in the face of the unknown. They inspire others with their commitment and dedication to work every day to keep others safe, at significant personal risk (Jose et al., 2020).

The literature on the health consequences of COVID-19 is proliferating, but little is known about how health care workers prepared themselves both physically and psychologically for their COVID placement at the early stage of the pandemic. This study aims to gain insight into how frontline nurses accepted and prepared themselves for their first COVID placement. The findings may help healthcare organizations prepare to meet their healthcare personnel’s needs and address potential stressors.
Research Question
How did the nurses prepare themselves and accept their first COVID placement?

Method

Study Design
This is a qualitative and phenomenological research. The consolidated criteria for reporting qualitative research (COREQ) were followed in this study (Tong et al., 2007).

Sample
A purposive criterion sampling technique was used to assess the perception and experience of nurses who provided care to the COVID-19 patients in the isolation ward or intensive care unit (ICU) of a tertiary care center, in North India. The data collection and interview took place from April to July 2020. The sample size was determined by data saturation, that is, at the point where no new themes from participants’ experiences emerged. Data saturation was achieved at around 18 interviews.

Data Collection Tools
A telephonic semi-structured interview was conducted based on an interview guideline, consisting of questions related to the preparedness of the nurses who provided care to COVID patients. The interview guide was prepared based on objectives by consulting five experts in the field of nursing education and research and a telephonic discussion with two nurses who had already completed duty in COVID-19 units. The interview questions included the following:

- What were your thoughts/reactions when you came to know you were being posted in the COVID ICU/ward?
- When did you inform your family? Was it immediately, or after some time? What was their reaction?
- How did you prepare yourself mentally?
- How did you prepare yourself physically?
- Are you satisfied with the training you were provided before COVID duty? What aspects were lacking?

Data Collection
The nurses who consented to participate in the study were enrolled through purposive sampling. None of the nurses declined to participate after initially consenting. One of the authors (JK), a postgraduate female, registered nurse, and who did not have any previous relationships with the nurses, interviewed them. Semi-structured, audio-recorded, in-depth telephone interviews at a time convenient for the participants were conducted from September to November 2020. The interviews were conducted on a one-to-one basis; no observer was present. The study objectives were explained with the help of a participant information sheet. The interview guide was not pilot-tested; however, the data collection guide was thoroughly discussed among the authors before the data collection. The researcher gave brief counseling at the end of the semi-structured interview if the participants exhibited any emotional problems. Active listening, reflective clarification, and all other communication principles were used while collecting data. The interview was recorded and was transcribed. The total duration of each interview was 40–60 minutes. Data saturation was achieved at around 18 interviews, which was mutually agreed upon by two researchers. No participant dropped out from the study. The transcripts were not returned to the participants for comments or correction, and no repeat interviews were carried out.

Statistical Analysis
The conversation during the interview was transcribed and analyzed using the phenomenological analysis method. Two female researchers independently listened to the recorded interviews, and extracted meaningful statements, and formulated the themes manually. The steps of Colaizzi’s descriptive phenomenological analysis method was used to analyze the data: familiarization of data, identifying significant statements, formulating meanings, clustering themes, developing a detailed description, producing the fundamental structure, and seeking verification of the fundamental structure (Morrow et al., 2015). Ongoing discussions were held till the consensus on the themes was reached, and the third researcher verified the themes. The formulated themes were discussed with nine participants for verification. Demographic characteristics of the nurses were analyzed using the IBM SPSS Statistics for Windows, version 23 (IBM Corp., Armonk, N.Y., USA).

Ethical Considerations
Ethical clearance was obtained from the Institute Ethics Committee, and permission was obtained from the COVID-19 Research Committee (Approval letter reference no: NK/6411/Study/746). An online consent form was developed for the participants. They were asked to tick “Yes” if they were willing to participate in the study. The participants were assured of the confidentiality/anonymity of the obtained data. A participant information sheet was provided to the participants.

Results
In this study, 18 in-depth interviews were conducted with the nurses posted in the COVID unit to gain insight into their thoughts on their COVID posting and how they prepared themselves for this posting. Out of the 18 participants enrolled in the study, 5 were male, and 13 were female nurses aged between 22 and 45 years with an average age of 29.2 ± 5.4 years. The majority of the nurses (14) possessed a bachelor’s degree or a diploma, and three were postgraduates. Ten nurses were married, and eight were single. The working experience ranged from three months to 19 years, with an average of 6.03 ± 4.6 years. Out of the 18 nurses, 13 had ICU experience. The majority of the participants (10) had been informed of COVID posting 4–7 days before the interview.

The reported experience of the nurses were categorized into five themes: (I) Getting ready to be on the frontlines, (II) Family and peer support, (III) I can handle it! (IV) I have to be strong! and (V) Training is key to confidence. The themes formulated from the interviews, transcribed verbatim, are shown in Table 1, and are described verbatim.
Theme 1 Getting Ready to Be on the Frontlines

All 18 nurses were mandatorily appointed to work in the COVID unit. None of them volunteered for duty. Fear, anxiety, worry, and surprise were the most common first reactions among participants when they knew they were being posted in the COVID unit. Moreover, uncertainty and the fear of being in PPE were the first thoughts of some participants. Some nurses said they were not surprised because they were the junior-most in their respective placement area, so they were prepared, as juniors were sent first on COVID duty. Some reported fear of contracting the infection or being a source of infection for their family, and thoughts of young children were the first to disturb their minds. A few participants reported that they were excited to go on duty and thought that it would be a good learning experience.

Quotes Related to Theme 1

“I was very scared. I was just thinking about my family that I have to stay away from them for 21 days. That I might not bring any infection to the family.”

– 36 years old, 8-year nurse

“I was excited I came to know about my duty in COVID area. I wanted to experience how it feels to work in the frontline. Under what stress and conditions, the health care professionals are working.”

– 22 years old, 4-month nurse

“In our ward, the junior nurses were sent first. So, it was not shocking news for me when my posting order came. However, being the mother of a 2-year-old, I was worried about my baby.”

– 45 years old, 19-year nurse

“Initially, I was a little nervous regarding PPE for 6–7 hours. Also, shift timings (2:00 a.m. to 8:00 a.m.) sounds a little bit odd as it is peak sleeping time.”

– 32 years old, 10-year nurse

Theme 2 Family and Peer Support

The majority of the participants reported that they informed their family after a day or two about their COVID posting. The most common first responses of family members were fear, anxiety, worry, and shock. Participants cited that their family was also worried for the young children and the elderly at home, not only for themselves. One interviewee said her mother told her to quit the job. However, on reassuring her about PPE and other safety measures, family members became calm. All the participants agreed that they got good support from their family during duty and quarantine days.

Quotes Related to Theme 2

“I informed my husband and daughter by telephone before I reach home. My husband came and picked me from my ICU itself. I told him about my upcoming COVID placement as soon as I reached home. My daughter started crying. I console them, don’t worry, nothing will happen. But for a while, I also cried along with them.”

– 45 years old, 19-year nurse

“They were also scared and nervous initially. But later, they supported saying that “not everyone gets a chance to do this. So, go ahead.””

– 32 years old, 9-year nurse

“Not immediately. I informed my family two days before. My mother was anxious. She asked if there is any way to refuse duty; if not, then quit the job. But I consoled her that we are safe with PPE.”

– 25 years old, 3-year nurse

“As my wife is also in the nursing profession, our major concern was who will look after our children if she also gets deployed for COVID posting.”

– 31 years old, 7-year nurse

Theme 3 I can Handle it!

Some participants cited that the fact that no healthcare worker posted in the COVID unit in their institution had tested positive to date, gave them the strength to perform their duty. Some participants said reading materials and watching videos about donning/doffing gave them confidence. Some participants also reported that keeping faith in their practice and taking this posting as their professional responsibility helped them prepare mentally. Some participants also reported that trust in God gave them a sense of safety.

Quotes Related to Theme 3

“Many thoughts were going on in mind, but I have faith in our practice in OT and regarding donning and doffing I read about it. After reading about it, I gained confidence that we can handle it.”

– 28 years old, 5-year nurse

“Mentally, I prepared myself that whenever my turn comes, I will do my best to serve my patients with high passion.”

– 36 years old, 14-year nurse

“Our COVID hospital has been working since March. Fortunately, real-time remote audio-visual aided doffing supervision in our hospital is a blessing. There has not even a single HCW who became positive after working in our COVID ward to date. So, I was fearless, and I am mentally prepared to do duty in COVID.”

– 27 years old, 5-year nurse
“If God is with us, who can be against us? The words from the Bible give strength to my mind. I discuss it with our parish priest, and he said, “don’t worry. God and angels with you.” He also prayed for me.”

– 45 years old, 19-year nurse

“I took it as an opportunity for new learning. I read about donning and doffing and watched videos, but there was much hype about PPE and its discomfort on its social media. My only concern was if I can handle and work in PPE.”

– 27 years old, 6-year nurse

### Theme 4 I Have to Be Strong!
Almost all the participants said they started taking vitamin C supplements, a good diet, and hydration before duty. Some of the participants were doing yoga meditation regularly. One interviewee said he started using a respirometer to prepare himself better as he was afraid of wearing the N95 mask.

### Quotes Related to Theme 4

“took high protein diet, fish, chicken, vegetables, lemon, gargles twice, steam inhalation, etc.”

– 45 years old, 19-year nurse

“Being frank, I bought a 3-ball respirometer and started using it. I was afraid of wearing N95.”

– 32 years old, 10-year nurse

### Theme 5 Training Is Key to Confidence
Almost all the participants were delighted with the training and simulation provided to work in the COVID ward of the hospital. They reported improved confidence after training. However,
some participants reported that the training lacked real-time experiences of health workers. Besides, most participants reported that they feel hospital attendants and sanitary attendants also need in-depth training focusing on doffing, disinfection protocols, and biomedical waste management.

Quotes Related to Theme 5

"Very much satisfied with the training session. Especially, we gained much confidence after attending the training session."

– 31 years old, 5-year nurse

"I am satisfied with myself, but hospital attendants and sanitary workers are poorly trained. Both mentally and about their job."

– 28 years old, 5-year nurse

"It lacked explaining the experiences of previous duty members being posted there and the loopholes with their correction. (Example - what to do if your shoe cover comes off while removing leg covers)."

– 25 years old, 2-year nurse

"Yes. I got an orientation class a day before placement. But I felt there should be better and supervised training of H/SA focused on doffing, BMW management, protocols for cleaning and disinfection of area."

– 27 years old, 4-year nurse

Discussion

Healthcare workers worldwide are facing significant challenges in accepting their role in managing the COVID-19 pandemic. Evidence from the previous pandemics and other affected countries shows a high infectivity rate among HCWs, leading to apprehension among them (Maunder et al., 2003, 2006). However, HCWs have been the pillars of management of similar pandemics. Their preparedness is essential to maintain their mental health, physical health, and contribution to healthcare. Hospitals and healthcare sectors had accepted this change even without having any protocols or science or evidence. Hence, the present study was conducted to assess the frontline nurses’ acceptance process and preparedness before starting their duty in the COVID units.

This qualitative study was conducted during the initial phase of the pandemic. While being aware their professional commitment, the frontline nurses interviewed in this study reported fear and anxiety related to first-time exposure to such situation, self-contamination, fear of transmission to self and family, fear and anxiety about severity and fatality of the disease if affected, and also discomfort related to PPE. Some also expressed concern related to long periods of separation from family members, especially children. Their stress may also be due to the limited healthcare services available to the patients. Nurse-led initiatives to provide psychological support is essential to overcome these challenges. (Koundal et al., 2021; Mohanty et al., 2018; Thakur et al., 2019). A few participants reported that they were excited to go on duty and thought it would be a good learning experience. These findings are consistent with previous SARS situations in which HCWs reported high levels of fear of contagion and infecting family members, emotional disturbance, uncertainty, and stigmatization (Maunder et al., 2003, 2006).

Similarly, in other studies, nurses have reported their concern on the risk of being infected, transmission to family members, stigma about the vulnerabilities of their job, and restrictions on personal freedom as key concerns (Fernandez et al., 2020; Koh et al., 2012; Xiang et al., 2020). Koh et al. (2012) have reported that many health care professionals were willing to accept the risks associated with the pandemic situation; others perceived the risks associated while working during the pandemic as very high. Shoukat et al. (2020) have reported in a review that the HCWs were mentally challenged due to the fear of physically getting affected by COVID and the prolonged usage of PPEs.

Literature related to the impact of COVID 19 on physical and mental wellness and preparedness is coming to light, but the challenges faced by their family members and loved ones, and how they cope with them, are still behind the scenes. The present study also highlighted how family members of frontline nurses experienced fear and anxiety related to their loved one contracting the virus and transmission to family members, especially to the vulnerable ones such as children and the elderly. Family members also had a concern regarding the absence of the HCW for an extended period, felt more by family members of female nurses with young children. Despite this, all the participants agreed that they received good support from their family during their days of duty and quarantine. The stress and fear of family members may impact the mental health of the HCW. Similar findings were suggested by a Chinese online-based cross-sectional study, which reported a high prevalence of anxiety and depression symptoms among family members of HCWs during the COVID-19 pandemic. Therefore, as with HCWs, the mental health of the HCW’s families need urgent attention (Ying et al., 2020).

Another issue highlighted in this study is the childcare crisis where both the parents are employed in health care. Even the support of relatives may not be available due to strict quarantine. In this situation, the children of HCWs may face additional emotional instability due to both parents’ absence and the adverse effects of confinement (Wang et al., 2020; Souadka et al., 2020). Some Moroccan hospitals suggested that if both the spouses are health workers, only one of them should be deployed for COVID management, to help alleviate strain on their households (Souadka et al., 2020).

It is necessary to address these psychological symptoms and the stress of HCWs, as they can turn into physical symptoms leading to absenteeism and poor health. There should also be some strategies to boost moral support to the family members of frontline health workers, such as providing suitable protective
equipment, work schedules, and accommodation to the HCWS, and communicating reliable information and support to family members of the HCWS. The provision of reliable and transparent epidemic information to the family members of HCWS is essential to boost the morale and resilience of the HCWS (Ying et al., 2020).

In this study, it was found that the frontline nurses used psychological and physical strategies to prepare themselves for duty, prevent illness, and sustain the quarantine period. Psychological preparation involved structured training, reading materials, and watching videos about donning/doffing. Some participants also reported that keeping faith in their practice and taking this posting as their professional responsibility helped them prepare mentally. Some participants reported that trust in God also gave them a sense of safety. Past literature shows that HCWS adopted similar coping strategies such as being sustained by religion, feeling sense of serving their country and community, having faith in the organization, and seeking peer and family support to deal with the highly stressful situation caused by the pandemic (Babore et al., 2020; Raven et al., 2018).

Personal resilience, or a person’s capacity to “bounce back” or recover quickly from a stressful event, may help nurses cope effectively and endure the burden caused by stressors. In the context of the COVID-19 pandemic, personal resilience may help nurses effectively endure the stress caused by the pandemic (Labrague & Santos, 2020).

Physical preparation included taking vitamin C supplements, a good diet, and hydration before duty. Some of the participants practiced yoga and meditation regularly. One interviewee said that he started using a respirometer to prepare himself better as he was afraid of wearing the N95 mask.

Though preparedness is an important aspect, they need to adopt the strategies from reliable sources. Fortunately, subjects of this study did not adopt any harmful strategies. They reported the consumption of a good diet and vitamin supplements. However, literature or media reports have brought to light that many HCWS were consuming drugs such as HCQ or azithromycin. Without prescription, these drugs may harm their health. Colunga Biancatelli et al. (2020) quoted that ascorbic acid is a crucial vitamin necessary for the immune system’s correct functioning. They present the current evidence for the use of vitamin C and quercetin, both as prophylaxis in high-risk populations and for the treatment of COVID-19 patients. Complete and balanced nutrition is essential to maintain the body’s biochemical balance and improve immunity to help overcome the high metabolic burden of illnesses and enhance the recovery process (Dhandapani et al., 2015a, 2015b). Consuming foods that are good sources of immuno-supportive nutrients, planning meal times, meals, portions, and having a cut-off time for eating, and most importantly, having a positive attitude could help tackle the adverse health effects of quarantine (Muscogiuri et al., 2020). There is a plethora of evidence that breathing exercises have beneficial effects on the respiratory system. They postulate a therapeutic potential of yoga toward COVID-19 prevention and management (Nagarathnam et al., 2020; Saoji et al., 2019).

Another important aspect that helped participants prepare for their COVID posting was the institute’s training and simulation. The RT-RAVA doffing approach and timely COVID testing strategies in conducted in the institute enhanced the safety of HCWS. (Dhandapani et al., 2021; Sahoo et al., 2020). In the present study, all the participants reported a high level of satisfaction with the training and simulation provided to work in the COVID hospital. They reported that the training and administrative support improved their confidence and helped them to better prepare for this duty. They also suggested including the real-time experiences of health workers in the training session and in-depth training for hospital and sanitary attendants, with more focus on donning, disinfection protocols, and biomedical waste management. Mounting evidence has shown a positive link between higher levels of organizational support, training, and positive outcomes in nurses (e.g., work performance, job satisfaction, innovative behaviors) and patient satisfaction (Belfroid et al., 2018; Labrague & Santos, 2020). Along with training, the authorities must focus on strategies to boost their mental health before initiating their duties. Peer group support, COVID warrior online support group, counseling cells, and spiritual support may be considered.

Study Limitations
In this study in-depth interviews with the participants and have used Colaizzi’s phenomenological analysis in this study. The recorded interviews were listened to by two researchers independently to avoid bias and obtain valid themes. Ongoing discussions were held till both the researchers agreed upon the themes; each theme was verified by the third researcher after reviewing interview transcribed verbatim. The verification of the themes with nine participants helped us to make the results more valid.

A limitation of this study was that all participants were interviewed by telephone, as they were enrolled for this study during their quarantine period after COVID duty. It was not easy to build rapport with participants over the phone, and non-verbal cues could not be obtained.

Conclusion and Recommendations
The findings of the study throw some light toward the necessity of physically and mentally preparing the HCWS before they accept or volunteer for duty in high-risk areas. The contagious nature of the COVID-19 pandemic has been a cause of physical and mental burden on the HCWS and their family. Hence, the hospital’s administration must analyze strategies that can help to improve the morale of the nurses and other HCWS engaged in the pandemic managing system. Strategies to meet the physical and emotional needs, which are mandatory to improve the productivity of HCWS, must be tested and implemented across the healthcare sectors. To promote a resilient health system, it is essential to consider supportive supervision, exemplary administrative support, training and workshops, and
strategies to boost the mental health of HCWs before initiating their duties, peer group support, COVID warrior online support group, counseling cells, and spiritual support. In conclusion, the experiences of HCWs in settings such as the COVID outbreak must not be forgotten, but translated into a set of recommendations for health care organizations preparing for, or responding to, outbreaks of serious infections.

Ethics Committee Approval: Ethics committee approval was received for this study from the ethics committee of COVID-19 Research Committee (Approval letter reference no: NK/6411/Study/746).

Informed Consent: Informed consent was obtained from participants.

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