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Original Article

# Challenges of health care workers caring for COVID-19 Patients in a Teaching Hospital, Nepal

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## Abstract

**Background:** When working in Coronavirus Diseases (COVID-19) wards and ICUs, Health Care Workers (HCWs) face numerous physical and psychosocial challenges. The purpose of this study was to look into the difficulties that HCWs face when caring for COVID-19 patients.

**Method:** A qualitative phenomenological study was used, and the study sample included 12 HCWs (8 nurses and 4 doctors) who worked specifically with COVID-19 patients. A semi-structured interview guideline was used for data collection, and Giorgi's method was used for analysis.

**Results:** During the pandemic, HCWs faced numerous challenges while caring for COVID-19 patients in a hospital. HCWs faced five major challenges: (i) increased workload and staff shortages, (ii) mental stress, (iii) social stigma and isolation, (iv) resource scarcity, and (v) a lack of specific skill training.

**Conclusion:** While caring for COVID-19 patients during the pandemic, health care workers faced numerous physical, psychological, and social challenges. As a result, these issues must be addressed in order to provide quality care in the hospital.

**Keywords:** Healthcare workers, COVID-19, Patients, Pandemic, Nepal.

## Introduction

Coronavirus disease (COVID-19) is rapidly spreading worldwide. According to the WHO COVID -19 weekly epidemiological update, as of January 31, 2021, there were 102,139,771 confirmed cases of COVID 19, with 2,211762 deaths worldwide. In South - East Asia, there were 12,856,723 confirmed cases of COVID-19, with 197,709 deaths (1). Because of the rapid evolution of this pandemic, it has resulted in a variety of healthcare-related issues among HCWs. Healthcare workers treating COVID - 19 patients are at risk, which leads to health problems such as stress, anxiety, and insomnia, as well as other issues such as increased workload, physical exhaustion, understaffing, and a high risk of infection, and many other challenges (2).

Several challenges exist in developing countries where resources are scarce, such as the provision of quality category I personal protective equipment, maintaining social distance, providing handwashing facilities, infection control measures, and many others. Unavailability and poor resource management have the potential to turn this COVID -19 pandemic into an unstoppable disaster. Finally, this has an impact on healthcare workers, causing them to experience physical and psychological exhaustion (3).

COVID-19 has infected a large number of health-care workers in China, India, and Nepal (4,5,6). Infection among healthcare workers is concerning, and it highlights the critical shortage of healthcare workers

  

not only to treat COVID -19 positive patients, but also to treat patients with other ailments. Furthermore, healthcare workers have complained about limited resources, such as having to use the same mask for more than a week and even reusing disposable masks after washing, which contributes to infection spread (6).

Evidence from Nepal indicates that healthcare workers caring for COVID -19 patients had psychiatric illnesses such as anxiety and depression disorders (7,8). They also face violence and threats as a result of fear, anxiety, inaccurate information, mistrust, and misplaced quotes on social media, which causes the public to panic about the situation, exacerbating the stigmatization of healthcare workers (9).

Because the COVID -19 pandemic has exacerbated stress and mental health issues among healthcare workers, there is an urgent need to investigate the challenges they face. Specific measures should be taken to protect healthcare workers' mental health and provide solutions to the challenges they face while working in stressful COVID-19 scenarios (10). As a result, the purpose of this study was to investigate the difficulties encountered by healthcare workers caring for COVID -19 patients in a teaching hospital. The study's findings may provide a new body of knowledge for healthcare organizations and the government to plan and intervene specific measures to protect the health of HCWs in the event of a future pandemic.

**Materials and Methods**

A qualitative phenomenological design was used to investigate the difficulties faced by healthcare workers caring for COVID - 19 patients at a Chitwan Medical College Teaching Hospital (CMC-TH) in Chitwan, Nepal. A total of 12 health care workers (8 nurses and 4 doctors) were purposefully chosen as study participants. Health care workers with at least two years of experience in their respective fields and who had worked with COVID-19 patients in Intensive Care Units (COVID ICUs) for at least two weeks (i.e. 12 working days) and were willing to participate in the study were eligible. Researchers created an interview guideline after consulting with a chest physician who works in this field. According to his feedback, the tool was modified as needed. The data was collected using a Nepalese language tool. Prior to data collection, a four-hour training session was scheduled for the researchers to become acquainted with and develop competency in the interview method.

Researchers collected data from the 1st March 2021 to the 15th March 2021 using a face-to-face semi-structured interview method, which was preceded by the questions "What are the challenges you faced while caring for COVID-19 patients in the ICU?" This allowed for a free flow of dialogic flow between researchers, allowing them to ask additional open-ended questions based on the emergent data during the interview. The following were the open-ended questions: 1. What physical difficulties did you face while caring for and treating COVID - 19 patients? 2. What mental difficulties did you encounter while working in COVID ICUs? 3. What social difficulties did you face during the COVID-19 pandemic? 4. Were there enough resources to keep things running smoothly and continuously? 5. Have you received any training in the care and management of COVID-19 patients? Further, probing questions were posed to the participants during the data collection process, such as "would you give me an example?" "could you explain it more about it?" and "how does this affect your work?"

Participants were identified during data collection, and the purpose of the study and their role during the interview were explained to them. The date and time of the interview were also chosen to be convenient for the participants. A reminder call was made to the participants the day before the interview, and the timing and location of the interview were confirmed. On the day of the interview, the participants provided written informed consent. Furthermore, permission was obtained from participants to record the interview on audiotape in order to effectively and efficiently document the participants' narration. The interview was conducted in Nepalese because participants felt more at ease speaking in Nepalese than in English. Each interview was held on the scheduled date in a calm and quiet environment with no interruptions. To avoid the problem of bad recording, each interview was recorded on two audiotapes. The information gathered from the participants was kept private on the researcher's password-protected desktop.

The audiotapes were then transcribed verbatim, and the transcripts were analyzed using Giorgi's method (11). Initially, the researcher read through the entire set of protocols several times to get a sense of the overall picture. Following that, significant meaning units were identified by the researcher from the participants' descriptions of the phenomenon and confirmed with experts to confirm the meaning of each response without any alteration of narration. Furthermore, meaning units relevant to participants' experiences were clustered into a number of general themes that appeared to be shared by all participants' descriptions.

The trustworthiness of the data ensured its quality. The researchers involved established credibility through in-depth interviews and cross-checking. Participants examined and confirmed the findings to ensure their dependability. For conformability, audit trial and

reflexivity were used. Thick description and purposeful sampling were used to ensure transferability.

Chitwan Medical College Institutional Review Committee (Ref No: CMC-IRC/077/078-225) provided ethical approval prior to data collection. For the current study, a voluntary participant contribution was made. The participants provided written informed consent. The identities of participants and the information obtained from them were kept private.

## Results

Eight of the twelve participants were nurses and 4 were doctors who worked in the COVID - 19 Intensive Care Unit at a teaching hospital and cared for COVID - 19 patients. They were assigned to COVID ICU at different times based on the schedule (12-hour shift for nurses and 24 hours shift for resident doctors). Prior to the interview, all participants had completed their assigned duty days. Each interview lasted between 10 and 15 minutes.

### Increased Work Load and Shortage of Staff

During the COVID - 19 pandemic, health care workers faced numerous challenges in managing patients in their workplace due to a sudden increase in patient flow and an insufficient number of staff. As a result, HCWs' workload increased. They attempted to manage such a situation by working long shifts during their working days. As a result, they felt uneasy, tired, and physically exhausted. *"In the beginning, there was less manpower and fewer staffs were interested, so I worked longer hours than allocated and I got sick," one of the participants explained and I needed to look after all work including dead body care, lab investigations, and other works as well, so all of this was challenging during my duty period" (N6). Similarly, another participant stated that "the number of staff available became insufficient to care for the large number of patients admitted to the hospital." We were not given any time to rest. We had to stand for long periods of time while caring for patients and administering IV lines, which made us exhausted. Furthermore, we were afraid to work because we had no ideas about COVID - 19 at the start. Later, we researched the disease and successfully treated COVID-19 patients" (P1).*

### Mental Stress

During the COVID-19 pandemic, participants reported dealing with psychological challenges such as fear, anxiety, and mental distress. They worked in an environment where the fear of infection was high due to the infectious nature of COVID-19. Participants were more concerned about contracting an infection while working with COVID - 19 patients, and they were afraid of infecting their family members and relatives. They also reported feeling stressed as a result of a lack of a proper visitor control system, a shortage of staff, a lack of proper resources, untrained staff, and additional responsibility. *"I was afraid of disease transmission to me when there was a lack of PPE like shoes, gowns, N 95 masks, and so on," said participant 12. "I used to find it difficult to work" (P4). Another participant 6 described the situation as follows: "There was fear among all to work in the pandemic situation, and staff posted in the unit was not adequately trained." Increased workload and responsibility to satisfy both patients and visitors cause me mental stress" (N6). Similarly, participant 8 stated, "I was afraid that others would get infected from me because I was doing my duty and traveling up and down from my house." (N8)*

### Social Stigma and Isolation

During the COVID-19 pandemic, participants mentioned social isolation, stigma, and discrimination. Because of the risk of infection, the neighbors and house owners avoided them, maintained a social distance, and forbade them from visiting their homes. Participants, on the other hand, saw this as a positive step toward ensuring the safety of their relatives and family members.

*"I was separated from my family, and I used to stay in the hospital when my duty was assigned to the COVID - 19 ward," participant 11 explained. When I was exposed to COVID patients for an extended period of time, I even stayed in the hospital for more than 7 days without returning home" (P3). Similarly, another participant 7 stated, "When I was infected with COVID-19, community members learned about my report and told me not to come home" (N7)*

Several participants, however, stated that they received support and cooperation from family and society and that they had no problems during the COVID - 19 pandemic. *"I was fortunate because everyone in the apartment where I was staying was educated, and I used to persuade my neighbors, and even after I became COVID - 19 positive, I stayed in home isolation rather than quarantine, and I wasn't having any social issues," Participant 9 explained (P1).*

**Table 1.** Socio-demographic characteristics of participants

| Variables | Number | Percentage (%) |
|---|---|---|
| **Age in Years** | | |
| 18-23 | 1 | 8.3 |
| 24-28 | 6 | 50.0 |
| ≥29 | 5 | 41.7 |
| **Gender** | | |
| Male | 4 | 33.3 |
| Female | 8 | 66.7 |
| **Marital Status** | | |
| Unmarried | 10 | 83.3 |
| Married | 2 | 16.7 |
| **Education Level** | | |
| Diploma Certificate | 2 | 16.7 |
| Undergraduate degree | 6 | 50.0 |
| Postgraduate degree | 4 | 33.3 |
| **Profession** | | |
| Nurse (N1, N2, N3, N4, N5, N6, N7, N8) | 8 | 66.7 |
| Doctor (P1, P2, P3, P4) | 4 | 33.3 |
| **Work Experience in Years** | | |
| 1-3 | 2 | 16.7 |
| 4-6 | 6 | 50.0 |
| ≥7 | 4 | 33.3 |
| **Number of Days Cared for COVID -19 Patients** | | |
| 12-30 days | 10 | 83.3 |
| ≥31 days | 2 | 16.7 |

#### Scarcity of Resources

Except for the availability of personal protective equipment, participants stated that most resources were available to care for COVID-19 patients. They repeatedly emphasized the inadequacy or low quality of PPE provided to them at the start of the pandemic. *Participants 12 stated, "At first, there was a lack of timely availability of PPE, which made management difficult, but by the later phase, PPE was adequately available" (P4). Similarly, participant 6 stated, "Few resources were available, but staffs were dissatisfied with them." The PPE was reusable, but the shoe cover was torn. There were only a few issues with the laundry. (N6)*

Participants also stated that they did not jeopardize patient care by making changes to PPE management. *"Because we had limited resources, it was difficult to follow all of the guidelines all of the time," participant 2 stated. We removed our gown for lunch and bathroom breaks during our 6-hour shift, but the mask was worn continuously for at least 24 hours, or until our shift was completed." (N2).*

#### Lack of Specific Skill Training

COVID-19 infections were unfamiliar to all HCWs at first, but timely training proved beneficial in updating their knowledge and skills. Participants stated that their organization played an important role in staff training by providing continuing medical education and discussion sessions, as well as publishing COVID-19 management protocols and videos on online social media. Prior to working in COVID -19 ICUs, almost

all participants received formal education sessions such as donning and doffing of PPE, infection prevention, and clinical management of COVID -19. During the pandemic, however, they did not receive any specific COVID - 19 training. *"There was no specific training," said participant 9, "but we could discuss COVID management and treatment in internal rounds." The WHO and government guidelines on the management of COVID-19 patients were constantly changing, but we were regularly updated by our consultants and were able to gain new knowledge in day-to-day practice." (P1). Similarly, participant 8 stated, "We had a protocol in place for the care of COVID - 19 patients." There were few formal education classes taken. There was no specific training for COVID - 19." (N8)*

**Discussion**

According to this study, the majority of healthcare workers experienced increased workload as a result of the increased flow of patients at the start of the pandemic. There were issues with COVID management for 19 patients. Furthermore, due to a lack of manpower, staffs were required to work overtime, resulting in physical exhaustion and stress among doctors and nurses. According to Yang's research, nurses have a significant amount of responsibility during the COVID-19 pandemic, including complete clinical assessments, monitoring of COVID-19 patients, and close collaboration with other healthcare professionals in providing care to COVID-19 patients. They also play an important role in providing psychological support to patients and their families (2). It suggests that healthcare workers, such as doctors and nurses, have increased responsibilities and workload during the COVID-19 pandemic.

Many employees in this study experienced mental stress as a result of various factors. Fear of acquiring COVID -19 is most evident among HCWs, particularly when handling and caring for COVID -19 patients, and fear was exacerbated when personal protective equipment was in short supply. Furthermore, the majority of the staff had difficulty counseling patients and visitors about the COVID - 19 condition and its consequences. Few HCWs reported mental stress while working in COVID wards and ICUs. Doctors faced increased violence and fear during the pandemic (9). In Nepal, 38% of COVID - 19 patients' healthcare workers experienced anxiety and depression (7). Similarly, in China, most healthcare workers are terrified because of the spread of infection and close contact with patients during care and treatment [2]. As a result of the contagious nature of the disease, the lack of proper PPE, and insufficient knowledge and skills to handle COVID - 19 patients, the majority of healthcare workers experienced fear and anxiety.

While working in COVID - 19 ICUs, nurses faced more social challenges than doctors. Neighbors and community members stigmatized them. The majority of the staff did not return home while working in COVID's 19 ICUs. They lived apart from their family members. As a result, they felt isolated. Few staff members were staying in rented houses, making it difficult to persuade the house owners. Evidence also showed that during the pandemic, healthcare workers preferred to work longer shifts and stay in hospital accommodations rather than return home, owing to the fear of infection spread and the limited facilities available at individual homes (3). People in India were afraid of contracting COVID-19 from healthcare workers, so HCWs were stigmatized (9). Almost everyone in the world was concerned about infection spreading to themselves and their families. Most of the staff were torn between going home and staying in the hospital while caring for COVID-19 patients. Aside from that, staying isolated was a difficult issue for the staff working in COVID-19 ICUs and wards.

Nurses reported a scarcity of personal protective equipment due to the long hours required to care for COVID - 19 patients. PPE was manageable but not satisfactory due to a lack of adequate, low-quality PPE and the availability of reusable PPE. According to an Italian study, only 13% of physicians have access to PPE when it is required (12). Healthcare workers in China faced numerous barriers to using PPE, including inappropriate PPE size, confusion and complexity of its use, malfunctioning PPE, and potential risk associated with improper donning and doffing practices (13). Already, developing and underdeveloped countries have less access to resources. During the early stages of the COVID-19 pandemic, personal protective equipment was insufficient to protect healthcare workers across the country, particularly in Nepal. As a result, while caring for COVID -19 patients, they were using disposable and substandard personal protective equipment.

Before working in COVID - 19 ICUs, almost all staff attended formal education sessions such as Donning and Doffing of PPE, Infection Prevention, and Clinical Management of COVID 19. Materials and videos were made available on the internet and through social media. Aside from that, no specific COVID- 19 training was provided to doctors and nurses at the national level during the pandemic. Healthcare workers in China encountered several issues when using personal protective equipment while caring for COVID - 19 patients, such as improper mask removal practice, difficulty removing shoe cover, difficulty removing second layer of gloves, risk of splash

pollution while taking off coverall, and so on (13). In a study conducted in South West Saudi Arabia, 99.72% of healthcare workers rely on CDC and WHO material for any emergencies, while others learn from other hospital guidelines and a few do not have any preparation. However, healthcare workers are fully prepared to combat the COVID - 19 pandemic (14). Many healthcare institutions and healthcare workers were unprepared to deal with the sudden pandemic, but they have consistently provided assistance in dealing with the pandemic. Training to deal with biological disasters is a critical requirement that nations and health institutions should include in their professional practices.

In developing countries, the COVID-19 pandemic has placed a significant burden on healthcare workers by increasing their workload and negatively impacting their physical and mental well-being, all of which is exacerbated by a lack of adequate staff, personal protective equipment, training opportunities, and so on (15,16).

This study adds to the body of evidence that protecting healthcare workers' physical and psychosocial well-being is critical to ensuring improved quality of care for COVID-19 patients.

## Conclusion

Healthcare workers who care for COVID-19 patients are at a higher risk of infection than the general population. They also face numerous physical, mental, and social difficulties. It is critical to care for HCWs who are on the front lines of the COVID - 19 pandemic. Taking care of their physical and psychosocial well-being will ensure that patients receive high-quality care. As a result, we recommend that the government and relevant authorities actively participate in the development and implementation of strategies to ensure the physical and psychosocial well-being of this critical cadre of healthcare workers. Such strategies, if designed and implemented in a timely, effective, and coordinated manner, will ensure that our healthcare workers are better prepared to face and brace any future pandemic or similar disaster.

## Limitations

We only used one study setting and had a small sample size for this study. As a result, it may not represent all healthcare workers. Furthermore, all interviews were conducted in a hospital setting, where the circumstances surrounding the interviews may have influenced the responses in an unknown way.

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