Fieldwork in the Time of Corona: Personal and Institutional Experiences of Healthcare Workers in COVID-19 Management

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Received Date: 13 October, 2021; Accepted Date: 20 October 2021; Published Date: 26 October, 2021

Abstract

Background: Frontline health workers’ mental, physical, and social health along with their quality of life has deteriorated severely due to, a) shortage of medical staff due to a large number of the workforce contracting COVID-19, b) unavailability of Personal Protective Equipment (PPE), and c) uncooperative patients. This study was conducted to understand the individual-level impact of leading the medical response to the COVID-19 pandemic in Pakistan. The study particularly focused on unearthing the impact of the medical pandemic response on the health workers’ mental, physical, and social health, and quality of life.

Methods: A total of 11 participants were interviewed for the study. The in-depth interview guide comprised of questions on the participants’ initial reaction to the pandemic as part of the response team, and their social, professional, and personal experiences of being a member of the healthcare workforce during the pandemic.

Results: The findings showed that all participants were highly committed to take an active part in the battle against the COVID-19 pandemic. The thematic analysis of the interviews resulted in two major themes of 1) Institutional and 2) Personal Constraints (especially fear) which were impeding healthcare workers and officers in performing their jobs effectively.

Conclusion: For the healthcare workers, psychological factors such as fear of contracting the virus, fear of bringing the virus home, anxiety of falling sick, fear of death, and nervousness had become a norm. To support the mental health of the workers, psychological interventions, specifically, online or group counselling and cognitive behavioural therapy are recommended.

Keywords: Health workers; COVID-19; Mental health; Pandemic response

Introduction

Background

In March of 2020, when the COVID-19 pandemic arrived in Pakistan for the first time, it instilled great fear in not only the masses but also the healthcare workers and government officials, all of whom were facing a deadly virus about which very little was known. First identified in China in December of 2019, by then, the disease had affected millions around the world and had taken thousands of lives. As the COVID-19 cases began to rise in Pakistan, to limit exposure, a country-wide lockdown was imposed by the government restricting the mobility of people to their homes, save for the outside visits to fulfil essential needs including medical care and groceries. Owing to the nature of their work and moral duties, healthcare professionals could not isolate themselves or minimize interactions with patients and, in fact, had to assume the frontline position is combating the COVID-19 pandemic in extremely challenging, adverse conditions [1]. Having to shoulder the snowballing burden of COVID-19 pandemic, the healthcare system of Pakistan adjusted its focus, prioritizing COVID-19 testing, management, and treatment. The federal and provincial
governments, health facilities and healthcare providers shifted their resources towards the pandemic and deprioritized other elective services [2].

COVID-19 Management

Despite placing all focus on the pandemic victims, the rise in cases was such that within a couple of weeks most government as well as private hospital reached their maximum capacity [3]. Additionally, the hospitals soon began running out of resources essential to managing COVID-19 patients. The lack of Personal Protective Equipment (PPE) and the inefficient management of COVID-19 due to lax safety measures rendered the frontline workers stressed and anxious [3,4]. Consequently, within 3 months of the COVID-19 outbreak in Pakistan, 1,240 doctors, 333 nurses and 628 paramedics had contracted the coronavirus [5]. A study found that the HCPs working in COVID-19 wards were facing difficulties in providing optimum care not only due to the institutional challenges mentioned above, but several personal constraints were also identified [1].

Mental Health Impact of COVID-19 Management on Health Workers

Additional to the lack of resources, poor handling of COVID-19 patients, and inadequate conditions of the isolation wards, HCPs deeply felt the absence of a psychological support system in such challenging times. They complained that the hospitals had no helplines or other measures in place to assist emotionally and mentally drained healthcare workers that were made to work uneven, long hours in face of the pandemic. Moreover, they were in constant fear of contracting the virus and found it challenging to even seek support from friends and family members out of the fear of transmitting the virus. This further inculcated the sentiments of powerlessness, fear, and loneliness in these workers, pushing them into a depressed state [1]. These health workers, in the absence of proper safety gear and health facilities’ lack of preparedness, were at a heightened risk of infection when compared to the rest of the population. Working in such risky conditions could compromise the HCP’s immunity and cause them physical distress that could lead to a depressed psychological state as well [6,7]. Moreover, a 43% prevalence of anxiety/depression among frontline physicians of Pakistan was reported [8]. This highlighted the need to address mental health of doctors caring for patients during this pandemic; control modifiable factors associated with it and explore the effectiveness of interventions to promote psychological well-being of physicians.

Experience of Female Health Workers

Being a nurse or female health worker predisposed one to greater risk of mental distress [6]. It is important to note that women constitute almost 70 percent of the frontline health workers, including 96,000 lady health workers, 28,000 community midwives, approximately 62,651 nurses and a considerable number of female doctors [9]. Furthermore, in Pakistan, women play a disproportionate role in management of the household, and infection of female health workers could risk spreading illness to more at-risk groups—such as older persons and children within health workers’ families [9].

Experience of Violence

Several accounts of violence against healthcare providers also surfaced, wherein it was reported that patients were behaving more aggressively and impatiently than usual, which put the healthcare worker’s safety at risk and worsened the strain on them [3,10]. A recent study conducted in the 3 provincial capitals (Lahore, Karachi & Peshawar) found that 41% of the healthcare workers experienced some form of violence while serving in the COVID-19 facilities. More commonly experienced forms of violence included verbal (33.1%), being falsely accused (12.9%), being stigmatized (12.4%) while less commonly reported forms included physical violence (6.5%), being threatened (6.2%), damage to facility (1.7%) and being shown a weapon (0.6%). According to experiences of the interviewees, the major cause of violence was the misconception spread on social media that COVID-19 was a concocted conspiracy and people are being unnecessarily tested and admitted [10].

Suggested Coping Strategies for Health Workers

Coping strategies suggested varied amongst the contrasting sociocultural settings and appeared to differ amongst doctors, nurses and healthcare workers. Implemented changes, and suggestions for prevention in the future consistently highlighted the need for greater psychosocial support and clearer dissemination of disease-related information. Studies highlighted future research priorities in the maintenance of wellbeing amongst frontline healthcare workers. Change needs to start at the level of policy-makers to offer an enhanced variety of supports to healthcare workers who play a critical role during largescale disease outbreaks. Psychological implications are largely negative and require greater attention to be mitigated, potentially through the involvement of psychologists, raised awareness and better education. The current knowledge of therapeutic interventions suggests they could be beneficial but more long-term follow-up is needed [6]. Systemic support, adequate knowledge and resilience were identified as factors protecting against adverse mental health outcomes. The evidence to date suggests that female nurses with close contact with COVID-19 patients may have the most to gain from efforts aimed at supporting psychological well-being. However, inconsistencies in findings and a lack of data collected outside of hospital settings, suggest that we should not exclude any groups when addressing psychological well-being in health and social care workers. Whilst psychological interventions aimed at enhancing resilience in the individual may be of benefit, it is evident that to build a

resilient workforce, occupational and environmental factors must be addressed. Further research including social care workers and analysis of wider societal structural factors is recommended [11].

**Study Rationale**

Owing to the supply-chain issues, depletion in the workforce, and pressure from government and the general populace, it has been reported that the managing medical officers have become unempathetic and unaccommodating to their frontline workers. To understand this phenomenon and exploring mechanisms to address the aforementioned issues, we will be conducting an exploratory qualitative study to understand the individual-level impact of managing and leading the medical response to the COVID-19 pandemic in Pakistan. The study will particularly unearth the impact of the medical pandemic response on the health workers’ mental, physical, and social health, and quality of life.

**Objective**

The core research objective is to understand the impact of COVID-19 on frontline healthcare workers and their attending officers, narrowing down on the effect on their mental, social, and physical health, as well as their overall quality of life due to their demanding working conditions.

**Methodology**

**Study Design**

Using an exploratory qualitative design, In-Depth Interviews (IDIs) methodology was employed for data collection.

**Study Population and Sampling**

The study was conducted among COVID-19 frontline health workers and attending officers from Karachi who were either currently active in the field or had been active in the last year. Participants were purposively-sampled to ensure homogeneity in the study sample, and were recruited by the implementing consultant. Owing to saturation of information, a total of 11 IDIs were conducted with a total of 11 participants, seven health workers and four attending officers. The distribution of IDIs and participants is presented in Table 1 below:

<table>
<thead>
<tr>
<th>Participants</th>
<th>Number of Women</th>
<th>Number of Men</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health workers</td>
<td>05</td>
<td>02</td>
<td>07</td>
</tr>
<tr>
<td>Attending Officers</td>
<td>01</td>
<td>03</td>
<td>04</td>
</tr>
<tr>
<td>Total</td>
<td>06</td>
<td>05</td>
<td>11</td>
</tr>
</tbody>
</table>

**Table 1: IDI Distribution by Participants Sex.**

**Data Collection and Management**

Implementing consultant developed a semi-structure interview guide in Urdu focusing on the participants’ initial reaction to the pandemic as part of the response team, and their social, professional, and personal experiences of being a member of the healthcare workforce during the pandemic. The guide also specifically probed upon the impact this had on the participants’ mental, social, and physical wellbeing. The guide was employed in the interviews by the Consultant, and data were collected through audio-recording of the interviews that were later transcribed verbatim by an associate under the supervision of the Consultant. Furthermore, the consultant was responsible for the entire data management of this study, under the supervision of the study investigator. Data were stored electronically in password-protected encrypted computers of the investigator and the consultant.

**Data Analysis**

All of the audio-recorded interviews were transcribed verbatim for analysis. Data analysis was conducted manually by the technical consultant, and was guided by an emergent thematic content analysis [12,13]. Transcripts were read several times to develop themes and new codes based on the actual words of the study participants. Data analysis was conducted on the basis of three types of coding: sub themes, themes, and categories. The identified codes, themes, and patterns were reviewed alternately to minimize bias and to ensure reliability.

**Ethical Considerations**

The study ensured that the rights, safety and well-being of the participants were prioritized throughout the research process. Informed consent was obtained from all the participants participating in the study. The research participation was completely voluntary with the study participants verbally informed about their right to either withdraw from the study at any point and/or to refuse to respond to question(s) in either of the workshops.

**Results**

**Sociodemographic Characteristics**

Mean age of the participants was 33 indicating that most of the participants were young adults (Table 2). Of the total 11 participants, seven were health workers while four were attending officials. Within the seven health workers, five of the participants were women while the remaining two were men. Contrasting, three of the four attending officials were men. Approximately, 64% participants were married or had ever been married with all of them having children; the mean number of children amongst the participants was 2.14. Most of the interviewees had attained higher formal education with 45% having an undergraduate or a graduate degree, and the remaining 55% had completed their matriculation or intermediate studies. Out of the 11 participants, six were still currently active in the field while the remaining five had lost their jobs at various points in the last few months. The six
active participants were employed by the government and a private hospital, part of the Indus Health Network [14-18]. Participants who weren't currently active in the field had also served with these two entities during their active period in the last year.

<table>
<thead>
<tr>
<th>Sociodemographic Characteristic</th>
<th>Mean (SD)/Frequency(n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Age</td>
<td>33.00 (5.54)</td>
</tr>
<tr>
<td>Biological Sex</td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>45.45% (05)</td>
</tr>
<tr>
<td>Women</td>
<td>54.55% (06)</td>
</tr>
<tr>
<td>Ever Married</td>
<td>63.63% (07)</td>
</tr>
<tr>
<td>Mean Number of Children</td>
<td>02.14 (0.63)</td>
</tr>
<tr>
<td>Education</td>
<td></td>
</tr>
<tr>
<td>Matric</td>
<td>27.27% (03)</td>
</tr>
<tr>
<td>Intermediate</td>
<td>27.27% (03)</td>
</tr>
<tr>
<td>Bachelor's</td>
<td>36.36% (04)</td>
</tr>
<tr>
<td>Master’s</td>
<td>09.09% (01)</td>
</tr>
<tr>
<td>Occupation (Participant Type)</td>
<td></td>
</tr>
<tr>
<td>Health workers</td>
<td>63.63% (07)</td>
</tr>
<tr>
<td>Attending Officers</td>
<td>36.36% (04)</td>
</tr>
<tr>
<td>Health workers Field Status</td>
<td></td>
</tr>
<tr>
<td>Currently Active</td>
<td>71.42% (05)</td>
</tr>
<tr>
<td>Active Period in the Last Year</td>
<td>28.57% (02)</td>
</tr>
<tr>
<td>Attending Officers Status</td>
<td></td>
</tr>
<tr>
<td>Currently Active</td>
<td>25.00% (01)</td>
</tr>
<tr>
<td>Active Period in the Last Year</td>
<td>75.00% (03)</td>
</tr>
<tr>
<td>Employment of Active Participants</td>
<td></td>
</tr>
<tr>
<td>Government</td>
<td>50.00% (03)</td>
</tr>
<tr>
<td>Private Hospital</td>
<td>50.00% (03)</td>
</tr>
</tbody>
</table>

Table 2: Sociodemographic Characteristics of Study Participants.

**Summary of Thematic Analysis**

Owing to the passage of time since the onset of the pandemic, participants were able to reflect upon their experiences as individuals and as healthcare workers separately. Due to the nature of their work and as a precondition to enduring as healthcare workers, participants possessed accurate knowledge about COVID-19, precautions, symptomatology, and vaccination. They shared that the initial panic caused by the pandemic was the toughest time for them as it was a period where there was a mass spread of a new disease resulting in a lockdown for public safety causing an unprecedented sense of dread in the communities. This was perpetuated by the lack of awareness and precautions around COVID in general communities alongside a sense of denial and suspicion around the disease as well. This social climate was immensely challenging to navigate for health workers as individuals as they were one of the few occupational groups who were actively working as part of the response team for COVID-19. The health workers felt pride in doing this job as they felt uniquely positioned to help people in this time of uncertainty. However, the exposure through testing and screening people for COVID-19 with people being uncooperative and not following COVID-19 guidelines such as physical distancing, demotivated the health workers and added on to the burden of navigating the aforementioned social climate as individuals.

“At that time [pandemic onset], we felt that we are doing good work by providing an essential service of care to prevent people from contracting the virus.”

*Former Health worker - Male Participant 01*

**Theme 1: Institutional Constraints**

Participants reported that some isolation centres were set up inside the hospitals by modifying the normal wards for COVID-19 patients. These isolation wards did not meet the criteria or SOPs defined for handling COVID-19 patients. The participants mentioned that the government was not proactive at the beginning of the COVID-19 outbreak in Pakistan, and they were very late in disseminating information and official directives as well as allocating the necessary financial and institutional resources. Therefore, the sudden surge in COVID-19 patients in the country, especially in Karachi, created a panic in the health-care sectors and failed to provide any standard facility for the patients. Going through these situations, all participants found themselves in mental distress and extreme pressure from contaminated and unsafe working conditions. They reported shortage or unavailability of PPE as one of the major causes of frustration and distress. The majority of the participants considered this situation “insane,” as many of them were putting their lives at significant risk. The participants said, at early stages, that they used regular glasses, sports goggles, and plastic sheets to protect the face and plastic bags as the gown, risking their lives in the field. The participants also witnessed many of their colleagues getting infected with COVID-19 infection due to lack of administrative support. Moreover, the participants reported that the PPE that they received was of poor quality.

“I worked in the field for 11 days as it was on the 11th day when I was infected by COVID myself, and had to isolate myself for 28 days.”

*Former Health worker - Male Participant 02*
Participants revealed that the majority of the patients were illiterate and belonged to low-income families. They were scared to provide correct information about their illness, and would hide their symptoms and their travel history and provide misleading information about their previous contacts and families. The participants illustrated that they were exhausted due to the overwhelming workload, with many uncertainties prolonging their stay and duties. Obligations for them included not just the additional workload created by the pandemic but also concerns of infection for themselves and their families, dealing with modern and continuously changing measures and PPE, taking care of patients who were severely ill and taking good care of colleagues who had already fallen ill.

“If the mask gets torn and we couldn’t replace it then we felt really afraid of contracting the virus from patients and we’d also get really scared of touching patients as we weren’t sure of finding a sanitizer afterwards, hence there was a constant fear that something will happen to us.”

Active Government Health worker – Female Participant 03

Moreover, participants reported that hospitals did not have any interventions or help, which could provide psychological and social assistance for them during the COVID-19 pandemic. Moreover, they felt there was no one to listen to them and help out with present fears, anxiety, and stress.

Theme 2: Personal Constraints

Participants were also struggling to attain sufficient support from family members due to the risk of infection involved. The pressure from family further caused depression and lack of confidence among them. However, the participants reported that they often got psychological support from their colleagues and discussed their problems with them. Moreover, the participants revealed that, initially, they were very nervous and lacked the confidence to work with patients with COVID-19. They stated the novel nature of the “virus” itself and its unknown nature, properties, and behavior as some of the major causes of their nervousness.

“Patients sometimes became physically aggressive and pushed us away as at that time there was a mass panic due to the rumor that COVID positive patients are killed by injection to prevent the virus from spreading.”

Active Government Health worker – Female Participant 01

Furthermore, participants reported that they were relatively young and had no previous experience of working in isolation wards or training in dealing with health emergencies such as the pandemic. However, they were hyperactive and ensured that they must not catch the virus. This constant mental stress accelerated the state of fear and anxiety while doing their duty in the field. There was a lack of sufficient testing for the workers who were at high risk of contracting the infection, hence the participants emphasized upon “aggressive testing” and “aggressive vaccination” of COVID-19 for the workers as the solution to mitigate their mental distress. Participants also reported feelings of interpersonal isolation and the fear of passing the virus to their families. They expressed serious concerns and fear when they returned to home from work. The majority of the participants revealed they were residents of a small apartment, and they did not have any space to self-isolate after the duty. Treating COVID-19 patients affected their individual lives, especially women, to purposely take volunteer leave from work due to pressure from their immediate family to avoid any direct contact with COVID. Furthermore, participants also expressed their feelings of being isolated all the time as they were supposed to keep distance from their family, friends, and even their colleagues so that they may not become a source of transmitting the infection.

“Our families getting infected because of us was the biggest constraint to navigate and our biggest fear as well. This fear was always in our heads resulting in a grim mental state for all of us.”

Active Private Health worker – Female Participant 05

Discussion

Gender Implications

Considering that women play a disproportionate role in household management, infection of female health workers risk spreading illness to more at-risk groups-such as older persons and children-within the health workers’ families. Women’s essential role as frontline health responders should be recognized not by imposing restrictions on their essential work, but rather by prioritizing that they receive the safety equipment needed to effectively mitigate the risks of COVID-19 infection. It is also important to recognize the role women play as frontline workers countering COVID-19 in their communities demonstrating women’s capacity for leadership in Pakistan. The government should work with civil society partners to conduct regular studies and assessments on the differential impacts of COVID-19 on women from historically marginalized groups, such as younger women, women with disabilities, migrant women, transgender persons and older women, and use findings to inform, adjust and reprioritize pertinent policy priorities.

Conclusion

Despite the positive role of media in spreading the awareness on preventive measures, the myths related to COVID-19 could not be successfully erased out of the minds of communities. The general factors related to quality of care reported were quite similar to the ones reported in previous studies including delay in care due to high burden and low resources, unavailability of beds and medicines, mistakes in care and poor communication between
healthcare workers and patients. These factors were compounded during the peak months of the outbreak due to the tremendously increased burden on an already weak healthcare system. The lockdown, as a response, to the pandemic resulted in catastrophic loss of life and income for these fragile communities with people losing jobs and their sources of income with increased expenditure, specifically for healthcare, driving communities to extreme actions [2]. For the healthcare workers, psychological factors such as fear of the contracting virus, fear of taking the virus home, anxiety of falling sick, fear of death, and nervousness had become a norm for them. The lack of facility of psychological support coupled with the poor conditions in the field heightened the risk and fear. Although, infection rates have slowed down in Pakistan alongside mass vaccination, the threat of another wave remains. Healthcare workforce needs to be provided adequate PPEs with optimum infection control practices so that they feel protected and safe. Management needs to take their field workers in confidence and make sure that the workers are provided with medical coverage for themselves and their families in order to reduce their work stress and insecurities. Based on this, it is recommended to adapt and deploy psychological interventions, specifically, online or group counselling and cognitive behavioural therapy to support mental health of the frontline health workers.

References


