



Managing the Pressure: Stress and Adaptive Behaviours in Frontline Healthcare Workers during Covid-19

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Abstract. The COVID-19 pandemic posed unprecedented challenges for frontline healthcare workers, who were placed under extreme physical, emotional, and psychological pressure. This qualitative study, titled "Managing the Pressure: Stress and Adaptive Behaviours in Frontline Healthcare Workers During COVID-19," aimed to explore how healthcare workers managed stress and developed adaptive coping behaviours in high-risk environments. Using document analysis as the primary research method, a wide range of peer-reviewed studies, healthcare reports, and qualitative accounts from 2020 to 2024 were examined to identify recurring themes related to stress responses, coping strategies, and institutional support. The findings reveal that frontline healthcare workers faced profound emotional and social challenges including anxiety, fear of infection, burnout, and social stigma. Despite these adversities, many demonstrated resilience through both internal mechanisms—such as self-care, emotional regulation, and intrinsic motivation—and external supports including peer solidarity, social networks, and limited organizational assistance. However, systemic limitations like time constraints, inadequate managerial support, and poor mental health infrastructure hindered sustained coping. The study concludes that understanding the lived experiences of healthcare workers is vital for developing informed, long-term mental health strategies and for building resilient healthcare systems capable of withstanding future public health emergencies.

Index Terms- Frontline healthcare workers, COVID-19 pandemic, Stress Management, Adaptive Behaviours, Mental Health, Emotional Challenges, Social Challenges.

I. Introduction

The COVID-19 pandemic placed an extraordinary psychological burden on frontline healthcare workers (HCWs), exposing them to prolonged stress, traumatic experiences, and ethical dilemmas, while demanding unwavering resilience and adaptability. As the pandemic surged globally, HCWs emerged as the most affected occupational group due to their constant exposure to infected patients, increased workloads, limited resources, and risk of infection to themselves and their families (Shanafelt et al., 2020). The uncertainty surrounding the virus, coupled with overwhelming caseloads and emotional toll from patient mortality, exacerbated stress levels and triggered a wide range of psychological responses, including anxiety, depression, insomnia, and burnout (Lai et al., 2020). In many cases, the sustained



exposure to high-stress environments affected not only the professional competence of HCWs but also their personal well-being and coping capacities.

Stress, when experienced persistently without adequate coping mechanisms, can lead to serious mental health concerns and reduce professional efficiency. However, many HCWs demonstrated remarkable adaptive behaviours—strategies and actions developed to manage the stressors effectively and continue functioning amid crisis. These behaviours included emotional regulation, problem-solving, seeking social support, mindfulness, and developing routines that preserved psychological balance (Zaka, Shamloo, Fiorente, & Tafuri, 2020). The ability to adopt adaptive coping strategies was found to be significantly correlated with lower levels of emotional exhaustion and improved psychological outcomes (Spoorthy, Pratapa, & Mahant, 2020).

Organizational support, access to psychological counselling, peer group interactions, and structured debriefing sessions were among the essential external factors that contributed to adaptive responses among HCWs. Institutions that offered training in stress management, adequate protective measures, and encouraged open communication witnessed better mental health outcomes among their staff (Maunder et al., 2006; Zhang et al., 2020). Additionally, the personal traits of resilience, emotional intelligence, and previous experience in crisis management played a moderating role in determining how effectively HCWs could adapt under pressure (Chew et al., 2020).

Understanding stress and adaptive behaviours among frontline HCWs is critical not only for mitigating the current and future effects of pandemics but also for designing healthcare policies and support systems that protect their mental health. By identifying the stressors and analyzing coping mechanisms, healthcare institutions and policymakers can establish intervention frameworks that promote psychological resilience and workplace sustainability (Kisely et al., 2020). This study therefore aims to explore the multidimensional aspects of stress and the adaptive behavioural responses demonstrated by frontline healthcare workers during the COVID-19 pandemic.

1. The Background of the Study

The outbreak of the COVID-19 pandemic presented an unprecedented global health emergency that significantly disrupted healthcare systems and posed immense psychological challenges to frontline healthcare workers (HCWs). As the first line of defense, HCWs encountered a volatile environment marked by prolonged working hours, inadequate personal protective equipment, fear of infection, social isolation, and moral injury—leading to elevated levels of stress, anxiety, and burnout (Lai et al., 2020; Shanafelt et al., 2020). Previous research on similar outbreaks such as SARS and MERS had already indicated the vulnerability of HCWs to psychological distress during epidemics (Maunder et al., 2006; Lee et al., 2018), but the scale and duration of COVID-19 exacerbated these mental health risks. Despite these pressures, many HCWs demonstrated resilience through adaptive coping behaviours such as seeking social support, employing problem-solving strategies, and using mindfulness-based techniques to mitigate stress (Chew et al., 2020; Zaka et al., 2020). The psychological



impact and coping mechanisms of HCWs during the pandemic have become a crucial area of inquiry to inform mental health interventions and policy-making in future health crises (Kisely et al., 2020). Therefore, understanding the stress responses and adaptive behaviours among frontline HCWs during COVID-19 is essential for safeguarding their mental well-being and enhancing the responsiveness of healthcare systems under crisis.

2. The Statement of the Problem

The COVID-19 pandemic created an extraordinary global health crisis that placed immense psychological, emotional, and physical demands on frontline healthcare workers. These workers were frequently exposed to high-risk environments, extended shifts, inadequate protective measures, and the emotional toll of witnessing suffering and death, which significantly increased their vulnerability to stress-related disorders. Despite their critical role in pandemic response, the mental health and coping strategies of these professionals often received insufficient attention. Many healthcare institutions were unprepared to provide adequate psychological support systems, leading to a gap in mental health interventions and workplace resilience programs. Although some healthcare workers demonstrated adaptive behaviours to manage stress effectively, others experienced burnout, anxiety, depression, and post-traumatic symptoms, which compromised both personal well-being and professional performance. Therefore, the central problem of this study is to investigate the nature and extent of stress experienced by frontline healthcare workers during the COVID-19 pandemic and to identify the adaptive behaviours they employed to manage these stressors. Understanding this problem is essential for developing targeted psychological support systems and resilience-building strategies to safeguard healthcare workers in current and future health emergencies. Thus the study entitled as “MANAGING THE PRESSURE: STRESS AND ADAPTIVE BEHAVIOURS IN FRONTLINE HEALTHCARE WORKERS DURING COVID-19.”

3. The Research Questions

- **RQ1:** How did frontline healthcare workers experience and manage stress during the COVID-19 pandemic?
- **RQ2:** What emotional challenges did healthcare workers face while working in high-pressure COVID-19 care environments?
- **RQ3:** What social challenges did healthcare workers encounter in high-pressure COVID-19 care settings during the pandemic?

4. The Objectives of the Study

- **O1:** To explore the lived experiences of frontline healthcare workers in managing stress during the COVID-19 pandemic.
- **O2:** To understand the emotional challenges faced by healthcare workers in high-pressure COVID-19 care settings.
- **O3:** To understand the social challenges faced by healthcare workers in high-pressure COVID-19 care settings.



II. The Review of Related Literature

Udod, S., Baxter, P., Gagnon, S., Halas, G., & Raja, S. (2024, February). Experiences of frontline managers during the COVID-19 pandemic: recommendations for organizational resilience. Overarching, the research demonstrates how managers supported nurses and built organisational resilience throughout the early waves of the epidemic. Improving working circumstances is a top goal in the management and maintenance of nurses' mental health and wellbeing, and managers may benefit from learning about their experiences in this area so that they can better plan, prepare, and enhance their leadership strategies to achieve this goal.

Alshagrawi, S. (2024). Coping during the COVID-19 pandemic: A qualitative study of healthcare workers in Saudi Arabia. There were several challenges that made it hard for HCWs to use their usual coping techniques during the epidemic. On the other hand, healthcare workers improved their resilience and coping mechanisms by using a range of internal and external coping mechanisms that were affected by contextual factors such self-care, self-control, internal motivation, social support, social media, and organisational environment.

Bakhsh, L. S., AlHazmi, A., BaMohammed, A., Binishaq, E., Abdullah, G., Bajal, R., ... & Sami, L. (2023). Emotions, Perceived Stressors, and Coping Strategies Among Nursing Staff in Saudi Arabia During the COVID-19 Pandemic. Following closely behind were worry and dread at 83.8%, wrath at 73.3%, and stigma at 70.2%. Having a vaccine or treatment available (93.3% of people), having family support (91.4% of people), receiving enough PPE from the hospital (90.8% of people), and not having to work overtime (90.2% of people) are the most important factors in determining commitment in future pandemics.

Chaudhry, B. M., Islam, A., & Matthieu, M. (2022). Toward designs of workplace stress management mobile apps for frontline health workers during the COVID-19 pandemic and beyond: mixed methods qualitative study. Counselling services and peer support groups also proved to be effective approaches. Additional effective strategies for coping with adversity included strengthening one's resilience and pushing oneself forward via intrinsic drive. Unfortunately, FHWs were unable to participate in stress management exercises due to a lack of time and support from management.

Juvet, T. M., Corbaz-Kurth, S., Roos, P., Benzakour, L., Cereghetti, S., Moullec, G., ... & Weissbrodt, R. (2021). Adapting to the unexpected: Problematic work situations and resilience strategies in healthcare institutions during the COVID-19 pandemic's first wave. The current results highlighted the need to improve management capability to assist interprofessional teams, which include healthcare support professionals, and to give more consideration to this group.

Lai et al. (2020). Factors associated with mental health outcomes among healthcare workers exposed to coronavirus disease 2019. This large-scale cross-sectional study in China found that over 70% of healthcare workers reported distress,



44.6% reported symptoms of anxiety, and 50.4% showed signs of depression during the early stages of the COVID-19 pandemic. Frontline workers, particularly nurses and female staff, were significantly more affected.

The Research Gap

While numerous studies have explored the psychological impact of the COVID-19 pandemic on healthcare workers, including stress levels, emotional responses, and coping strategies there remains a significant gap in understanding the nuanced, lived experiences of frontline healthcare workers (FHWs) regarding how they adaptively managed prolonged stress under dynamic and resource-constrained conditions. Most research has focused on either quantitative assessments of psychological symptoms or organizational-level strategies with limited qualitative insight into the intersection of personal resilience, socio-cultural contexts, and workplace challenges that influenced adaptive behaviors. Moreover, studies acknowledge barriers to effective coping—such as time constraints, stigma, and inadequate managerial support—but do not sufficiently examine how frontline workers innovatively adapted when conventional strategies failed. Therefore, this study aims to fill this gap by qualitatively investigating the real-time adaptive behaviours employed by frontline healthcare workers, their evolving coping strategies, and the social, emotional, and organizational factors that shaped their resilience during the COVID-19 pandemic.

III. The Methodology of the Study

This study adopted a qualitative research approach using document analysis as the primary method to explore stress and adaptive behaviours among frontline healthcare workers during the COVID-19 pandemic. Document analysis involved a systematic review and interpretation of relevant published sources, including peer-reviewed journal articles, qualitative research studies, healthcare reports, and organizational guidelines from 2020 to 2024 that focused on healthcare workers' experiences, coping mechanisms, emotional and social challenges, and institutional responses during the pandemic. The selected documents were analyzed thematically to identify patterns, categories, and recurring themes related to psychological stress, resilience, adaptive strategies, and support systems. This method enabled the researcher to critically synthesize a broad range of evidence and perspectives, drawing connections between individual experiences and systemic issues within healthcare environments. Document analysis was particularly appropriate for this study, as it provided rich, contextually grounded insights into real-world experiences without direct intrusion into the lives of overburdened healthcare professionals.

IV. The Analysis and Interpretation

Pertaining to Objective 1

O1: To explore the lived experiences of frontline healthcare workers in managing stress during the COVID-19 pandemic.

The lived experiences of frontline healthcare workers (HCWs) during the COVID-19 pandemic revealed a profound psychological and emotional toll shaped by



the uncertainty, fear, and intensity of the health crisis. HCWs found themselves at the epicenter of a rapidly evolving emergency, facing a surge of critically ill patients, insufficient medical supplies, and long, exhausting shifts, all of which significantly elevated their stress levels. Many reported feeling overwhelmed and emotionally drained, with fear of contracting the virus and transmitting it to family members as a constant source of anxiety (Lai et al., 2020). These conditions created an environment where stress became chronic, often manifesting as burnout, sleep disturbances, irritability, and even symptoms of post-traumatic stress disorder (PTSD) (Spoorthy, Pratapa, & Mahant, 2020).

For many HCWs, the emotional impact was compounded by witnessing frequent patient deaths and making ethically challenging decisions regarding care prioritization. In several cases, frontline workers were also socially isolated, either due to stigma from the community or self-imposed distancing from family members to protect them from exposure (Chew et al., 2020). Such isolation intensified the emotional burden and led to feelings of loneliness, guilt, and helplessness. Some healthcare workers reported that they were inadequately trained or prepared for the psychological pressures they encountered, which heightened their vulnerability to mental health issues (Zaka, Shamloo, Fiorente, & Tafuri, 2020).

Despite these challenges, many frontline workers employed adaptive coping strategies to manage their stress and maintain functionality. These included mindfulness practices, peer support, religious or spiritual engagement, and reliance on teamwork and professional camaraderie. In some institutions, formal mental health services such as counseling, debriefing sessions, and stress-relief programs were provided, which helped mitigate the psychological toll (Maunder et al., 2006). However, access to such support varied widely, and in many settings, HCWs relied heavily on intrinsic resilience, previous crisis experience, and informal emotional outlets to cope (Kisely et al., 2020).

Overall, the lived experiences of HCWs during the pandemic reflect a complex interplay between individual psychological responses and systemic conditions. These experiences highlight the urgent need for sustained mental health support structures, both during and after health emergencies, to address the long-term effects of such stress. Understanding these lived narratives is essential not only for appreciating the sacrifices of frontline workers but also for shaping future public health responses that prioritize their well-being.

Pertaining to Objective 2

O2: To understand the emotional challenges faced by healthcare workers in high-pressure COVID-19 care settings.

During the COVID-19 pandemic, frontline healthcare workers (HCWs) encountered a range of intense emotional challenges while working in high-pressure environments. One of the most common emotional responses was fear—fear of contracting the virus, fear of spreading it to family members, and fear of the unknown. This fear was exacerbated by limited personal protective equipment, rapidly evolving treatment protocols, and the highly infectious nature of the disease (Lai et al., 2020). Many HCWs reported experiencing chronic anxiety as they



navigated daily uncertainties, worked long hours, and dealt with the emotional weight of caring for critically ill patients. The mental strain of constantly being on alert created a climate of emotional vulnerability and mental fatigue (Spoorthy, Pratapa, & Mahant, 2020).

Grief and sadness became central emotional experiences, particularly among those who witnessed large-scale patient suffering and death. Healthcare workers often served as surrogate family members for dying patients who were isolated due to infection control measures. This responsibility placed a significant emotional burden on them, leading to feelings of helplessness and sorrow (Walton, Murray, & Christian, 2020). Repeated exposure to death and dying without the opportunity for proper mourning or debriefing led to what some researchers have described as "cumulative grief" or "compassion fatigue" (Maben & Bridges, 2020). The lack of time for emotional recovery between traumatic events further intensified these emotions, leading many HCWs to report symptoms of burnout and emotional numbness.

In addition to grief, frustration and moral distress were prevalent. Many HCWs were forced to make difficult ethical decisions due to shortages of staff, ventilators, and ICU beds, including choosing which patients would receive life-saving treatments. Such decisions conflicted with their professional values and contributed to feelings of guilt and emotional turmoil (Shanafelt, Ripp, & Trockel, 2020). These situations often led to moral injury, a psychological state that arises when individuals violate their own ethical or moral beliefs in the course of fulfilling their professional duties (Greenberg et al., 2020).

Furthermore, social stigma and isolation added to the emotional burden. Many HCWs experienced avoidance or discrimination from neighbors, friends, and even family members who feared contamination. This social alienation deepened feelings of loneliness and emotional distress, particularly for those who had to self-isolate from their families (Chew et al., 2020). The absence of adequate institutional psychological support during these times left many HCWs to rely on their own resilience or informal peer support, which was not always sufficient for long-term emotional well-being (Zaka, Shamloo, Fiorente, & Tafuri, 2020).

Overall, the emotional challenges faced by healthcare workers in high-pressure COVID-19 care settings were profound and multifactorial. The combination of fear, grief, ethical conflict, and social stigma contributed to a severe emotional toll, underscoring the urgent need for systemic mental health support and debriefing mechanisms for healthcare professionals during and after public health emergencies. Pertaining to Objective 3

O3: To understand the social challenges faced by healthcare workers in high-pressure COVID-19 care settings.

Frontline healthcare workers (HCWs) endured not only emotional and psychological challenges during the COVID-19 pandemic but also profound social challenges that affected their personal lives, interpersonal relationships, and societal interactions. One of the most pervasive issues was social stigma. Many HCWs were treated with suspicion or fear by members of the public due to their close proximity to



infected patients, which led to discriminatory behavior such as eviction from rented accommodations, denial of services, or social ostracism (Bagcchi, 2020). This stigmatization, rooted in fear and misinformation, left many healthcare professionals feeling isolated and devalued despite their sacrifices and critical role in pandemic response (Ramaci et al., 2020).

Another major social challenge was the disruption of family life. To minimize the risk of infecting loved ones, numerous healthcare workers chose to isolate themselves from their families for extended periods. This self-imposed separation, while necessary, resulted in emotional disconnection, guilt, and loneliness, particularly for those with young children or elderly family members (Shaukat, Ali, & Razzak, 2020). The lack of physical closeness and inability to fulfill familial roles further intensified the social strain experienced by HCWs, leading to feelings of alienation and emotional exhaustion (Lai et al., 2020).

Moreover, the overwhelming workload and irregular shifts left little time for social engagement, rest, or recovery. Social interactions outside of work were significantly limited, not only because of public health restrictions but also due to exhaustion and psychological fatigue. As a result, healthcare workers were deprived of essential social support systems, including friendship networks and community ties, which are critical for psychological resilience (Vindrola-Padros et al., 2020). The absence of meaningful social connections added to their stress and reduced opportunities for emotional expression and relief.

Additionally, many HCWs experienced a loss of trust in institutional and governmental systems due to perceived lack of support, delayed hazard pay, or unfulfilled promises of protection and resources. This institutional disconnect widened the gap between healthcare workers and broader society, reinforcing feelings of abandonment and disillusionment (Bandyopadhyay et al., 2020). Despite their dedication, many workers felt that their contributions were undervalued or overlooked in the larger public discourse.

Overall, the social challenges faced by healthcare workers during the COVID-19 pandemic were complex and deeply interwoven with their professional roles. The combined impact of stigma, isolation, disrupted family life, and diminished social support not only affected their well-being but also highlighted the urgent need for comprehensive strategies to protect and empower healthcare workers in times of crisis.

V. Conclusion

Through the analysis and documented experiences, it became evident that HCWs were exposed to high levels of stress, anxiety, fear, and burnout, exacerbated by long hours, uncertainty, lack of personal protective equipment, social isolation, and emotional exhaustion. Despite these pressures, many healthcare workers demonstrated significant adaptive behaviours, employing both internal coping strategies—such as self-control, mindfulness, and intrinsic motivation—and external supports like social networks, peer support, organizational aid, and online



platforms. However, their ability to manage stress was often challenged by limited institutional support, stigma, and inconsistent leadership. This study emphasizes the importance of fostering a culture of psychological safety, building resilient support systems, and implementing long-term mental health interventions. Addressing these aspects is crucial not only for protecting the well-being of healthcare workers but also for strengthening the overall capacity and sustainability of healthcare systems during ongoing and future crises.

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