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It Was Like Going to a Battlefield: Lived Experience of Frontline Nurses Supporting Two Hospitals in Wuhan During the COVID-19 Pandemic

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Abstract

Introduction: The literature indicates that pandemics significantly impact the mental health of frontline health workers. While the effects of COVID-19 on the mental health of frontline nurses have been studied, their lived experiences remain insufficiently explored.

Objective: This study aims to investigate the lived experience of nurses who were deployed to support Wuhan during the COVID-19 pandemic.

Methods: This study adopted a qualitative study design. A purposive sample of fifteen nurses were recruited from a group of nurses who supported Wuhan during COVID-19 pandemic. The data was collected during May and June 2020. Data collection occurred in May and June 2020, employing semistructured interviews conducted via telephone. Interpretative phenomenological analysis (IPA) was utilized to analyze the collected data by two independent researchers. This report follows the COREQ checklist.

Results: Frontline nurses supporting Wuhan likened their experience to being on a battlefield. Four superordinate themes emerged: (1) mobilization for combating COVID-19; (2) rapid adaption to a dynamic high-stress environment; (3) navigating psychological distress; and (4) the journey home.

Conclusion: This study offers comprehensive insights into the lived experience of nurses deployed from other provinces to assist COVID patients in Wuhan. The findings indicate that despite facing a variety of challenges, these frontline nurses were capable of rapid adaptation and successfully fulfilled their roles. Recommendations for future preparedness in public health emergencies are provided. Additionally, follow-up research is warranted to explore the long-term effects of frontline experience on the mental health of the nurses and their family members.

Keywords

nurse practitioners, qualitative research, COVID-19, disaster medicine

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Introduction

Since the emergence of the Coronavirus Disease 2019 (COVID-19) pandemic, over 494 million confirmed cases and around 6.1 million deaths have been reported globally (WHO, 2022). At the beginning of the outbreak, the pandemic presents unprecedented challenges to the health systems and society in general (Legido-Quigley et al., 2020), with health facilities disproportionately affected by inadequate healthcare workforce capacity and medical resources such as hospital beds and personal protective equipment (PPE) (Emanuel et al., 2020; Ranney et al., 2020). In response to the unprecedented demands created by the pandemic, government agencies globally have made urgent changes to health service delivery by redesigning healthcare systems and relocating the medical resources to support the most infected areas (Her, 2020).

In February 2020, at the early stage of the pandemic (WHO, 2020b), Hubei province, China, was the epicenter of the outbreak and saw an exponential growth of cases. Health care systems in Wuhan, the capital of Hubei province, were overwhelmed by the increased demand on their services. To reinforce the local health care workforce, medical personnel and military health staff were dispatched from elsewhere in China. Approximately 42,000 clinicians were relocated to Hubei to respond to the pandemic, including around 29,000 nurses (The State Council The People's Republic of China, 2020).

Clinical staffs were at increased risk of becoming infected themselves, with estimated infections among heath care workers being responsible for between 8% and 10% of cases (International Council of Nurses, 2020; WHO, 2020a). In addition to the increased risk of infection, health workers experienced various mental health issues, including insomnia, anxiety, depression, stress disorder, somatization, and obsessive-compulsive symptoms resulting from the exposure to the highly infectious environment, heavy workload, and isolation from social support (Huang et al., 2020; Li et al., 2020; Sun et al., 2020; Zhang et al., 2020). These findings are consistent with previous studies on the physical and psychological effects on health workers during Ebola and SARS pandemics (Greenberg et al., 2015; Maunder et al., 2004).

Literature Review

There are qualitative studies conducted to understand the lived experience of frontline nurses during COVID-19 across countries (Zipf et al., 2022). However, few studies have investigated the nurses who were deployed from other locations to support the epicenter. Therefore, it remains unknown if their experience is similar. In addition, these studies did not specify for which kinds of patients (i.e., with mild symptoms or severe symptoms) the nurses provided care. As suggested by previous studies (Gandhi et al., 2020), mild and severe patients need different levels of care. Therefore, investigating the experience of nurses who provided care for these two cohorts of patients would add value to current research evidence. Understanding such experiences may be useful both to help determine how health workers may be better supported postpandemic and to assist with planning for future pandemics. Furthermore, deployment experiences of the nurses are associated with role transitions between their normal and frontline working experience; it is imperative to consider the psychological and emotional experiences associated with such shifts. A pivotal framework for understanding such experience is the role exit theory (Ebaugh, 1988). This theory elucidates the complex process individuals undergo when detaching from roles that are deeply embedded in their self-identity, offering a lens through which to examine the nuanced emotional landscapes navigated during such transitions. Therefore, this study is interested in the lived experience of nurses who were deployed from other locations to support Wuhan during the early stage of the pandemic, which is a potentially important area to explore considering the importance of reallocation of medical resources during COVID-19.

Therefore, this study is the first study of its kind with the aim of examining the lived experiences of nurses who voluntarily transferred for clinical service to Wuhan during the peak of the COVID-19 outbreak. The research question is: what was the lived experience of frontline nurses who were deployed from other provinces to support COVID patients in Wuhan?

Methods

Design

As this study investigates the in-depth experience of the nurses who were deployed to support COVID patients in Wuhan, a phenomenological position was considered most suitable. Interpretative phenomenological analysis (IPA) (Smith et al., 2009) is a qualitative research approach that combines phenomenology with hermeneutics. The focus of IPA is to understand the meaning-making of the personal experience of the participants. The central focus is on the meaning of the experience rather than objective data of the event itself. Thus, IPA involves a double hermeneutical process: first, the participants are attributing meaning to their experiences; second, the researchers are trying to understand the meaning construction of those participants. Therefore, in order to enhance the trustworthiness of the research process, it is necessary that the researchers try to set aside their own beliefs, thoughts, and preconceived notions about the phenomenon under investigation, a process called "bracketing" (Smith et al., 1999). IPA was used for its phenomenological, double hermeneutic, and ideographic underpinnings (Smith, 1996). For the past 25 years, IPA has been used extensively for exploring both patients' illness experience and carers' experience (Smith, 2011). The current study is

reported using the Consolidated Criteria for Reporting Qualitative Research (COREQ) (Supplementary File 1).

Sample Selection

A purposive sampling method was adopted. Participants with experience of being deployed from other provinces to provide care for COVID patients in Wuhan were recruited from Tianjin City in China. To establish various perspectives of the phenomenon, further selection criteria included both genders, nurses in different positions, and nurses serving different hospitals. A total number of 15 nurses were approached individually by a researcher (DL) with a formal invitation, informed of the study aims and methods. All 15 nurses agreed to participate, 11 participants gave written consent, and four participants gave verbal consent prior to being interviewed. The form of the consent (verbal or written) was chosen by participants based on their convenience. Participants had the option to withdraw from the study without having to give a reason.

Data Collection

Interpretative phenomenological analysis (IPA) (Smith et al., 2009) aims to understand the meaning-making of the personal experience of the participants. The central focus is on the meaning of the experience rather than objective data of the event itself (Smith et al., 2009). In line with this theoretical framework, data were collected through semistructured interviews. The interviews were guided by six interview questions (see Supplementary File 2). Questions were open-ended and designed to allow for flexible data collection whereby the same topic could be covered in a way that was guided by participants' own experiences and preferences. Interview questions were designed to cover different aspects of the nurses' frontline experience. The interview process started with an open question *what's your experience of going frontline and taking care of COVID-19 patients?* Each interview allowed participants to determine the initial focus of the conversation. To get in-depth information about their frontline experience, two more questions were asked if the participants did not provide in-depth information: *what was your typical day of working on the frontline?* and *how was your work in frontline different from your normal work before this pandemic?* The participants were then asked about the difficulties and the coping strategies for further information. To gain insight into the interpretation of their frontline nursing experience, participants were asked an additional question: *when you look back to the whole frontline nursing experience, what do you think it means to you?*

The interviews were conducted during May and June 2020. All interviews were conducted in Mandarin by the first author (XZ) who speaks fluently both in Mandarin and English. At the time of interview, the author was in Australia and the participants were in China, therefore all interviews were conducted via phone calls. Interviews were digitally recorded with participants' permission. Audio-recordings were subsequently transcribed verbatim and anonymized. The transcriptions were then translated into English by a professional service manually for subsequent analysis.

Analysis

The collected data were analyzed by two independent researchers (XZ & SE). The analyzing process followed the six steps as recommended by Smith et al. (2009). First, the researchers familiarized themselves with the data by reading and rereading each participant's narrative. Second, the researchers immersed themselves within the participant's story and made descriptive (i.e., description of the experience) and linguistic (e.g., metaphors, repetition) comments. Third, the researchers developed emergent themes for each report based on reflection on comments generalized in step two. Fourth, the researchers distilled emergent themes and organized them into superordinate themes. Fifth, steps one to four were repeated for each of the subsequent narratives. Sixth, superordinate themes for each narrative were compared across all fifteen interviews, whereby researchers developed the final set of superordinate themes. For each narrative, steps three to six were all followed by discussion among two researchers. To ensure the validity, a third research member (XB) examined all the interview recordings, comments, and the paper trial that delineated all the analytical steps to ensure that the themes were grounded in the original data and the analytical process were logical and credible.

Ethical Review

Ethics approvals were gained from review committees at both a Chinese university and an Australian university. All participants were given a copy of the Participation Information Sheet and had the opportunity to discuss participation before giving consent.

Results

Sample Characteristics

Fifteen nurses were recruited, including 11 females and four males; two of the nurses were head of nursing departments, and 13 were nursing staffs. The years of nursing experience ranged from 3 to 31 years (mean = 12.5, SD = 8.5). The interview duration ranged from 32 to 58 minutes (mean = 42; SD = 9). All 15 nurses went to Wuhan to support frontline services for the first 38 days. After this time, Hospital A was closed and eight of the nurses returned to their home city. The seven remaining nurses worked at the Hospital B for another two weeks before returning home. Hospital A was a temporary hospital rebuilt from a sports venue to contain mild COVID-19

Table 1. Superordinate Themes (S) and Emergent Themes (E).

S1 : Mobilization for combating COVID-19
E1 : Duty and professional responsibility
E2 : Navigating uncertainty
S2 : Rapid adaptation to a dynamic high pressure environment
E1 : Challenges
E2 : Useful resources
S3 : Navigating psychological distress
E1 : Confronting psychological distress
E2 : Hesitancy in seeking professional support
E3 : Autonomous coping strategies
S4 : The journey home
E1 : Mixed emotions upon completion
E2 : Recognition and reflection
E3 : Reintegration into family life
E4 : personal growth and professional reflection

cases; while hospital B was an existing hospital and was assigned to serve COVID-19 patients who were critically ill.

Research Question Results

Participants naturally reported their frontline experience in a chronological order, namely leaving for Wuhan, working in Wuhan, and going back to hometown. The experience of working on the frontline during the onset of COVID-19 was like being on a battlefield. Four superordinate themes were identified in relation to the participants' lived experience of supporting COVID patients in Wuhan: (1) mobilization for combating COVID-19; (2) rapid adaptation to a dynamic high pressure environment; (3) navigating psychological distress; (4) the journey home (see Table 1).

Superordinate Theme 1: Mobilization for Combating COVID-19

Emergent Theme 1: Duty and Professional Responsibility

All 15 nurses were deployed from different hospitals in Tianjin City to Wuhan in Hubei province. All of them volunteered to go to work at the frontline, did so because they felt they were needed. Their motivation was related to the responsibility they felt as a nurse and their ability to contribute to this health crisis:

> I felt that because I was young, I should stand up … the notice was issued on the first day of the Chinese New Year, this showed that the situation must be particularly urgent. Clinical staffs were definitely needed on the frontline. (P4)

> The hospital leader asked me to organize a team; and the team would not go if I didn't go. I therefore didn't hesitate, 'it was time for a war'- that's what I thought. (P5)

Emergent Theme 2: Navigating Uncertainty

When the nurses were told that their destination was Wuhan, they reported feelings of uncertainty about their future (how much time would they spend there, and will they return safely?). They felt ill-informed about the frontline situation, including the seriousness of the disease, the available working environment, and their specific tasks.

> …we didn't expect to stay so long on the frontline (P5). Then when I saw Wuhan … I thought: 'What kind of effort do we need to make this city come alive again'" (P6). "At the start I was thinking: 'am I capable of taking care of those COVID-19 patients?' A lot of things were unknown to me at that time. (P7)

Superordinate Theme 2: Rapid Adaptation to a Dynamic High-Pressure Environment

Emergent Theme 1: Challenges

After they arrived in Wuhan, the nurses were designated to Hospital A (for mild patients) and then to Hospital B (for severe patients). When they started, they were confronted with various challenges. Many of these nurses did not have experience of working in infectious or respiratory specialties. They needed to *upskill in a different specialty*. As mentioned by a nurse: "*COVID-19 is a respiratory disease, but my clinical specialty was in surgery"* (P7).

Nurses also had to provide adequate care while wearing personal protective equipment (PPE), which included at least two layers of masks, three layers of gloves, goggles, and protective clothing. They needed to wear the PPE for 6–8 hours avoiding eating, drinking, and going to toilet. This experience caused physical exhaustion and hypoxia, and challenges with communication. A participant mentioned that: "*When I wore PPE, I was deprived of oxygen. I felt panting and back pain as well…my eyes and my face were swollen*" (P1).

Participants also reported that communication with local patients was challenging due to **different accents**. As all those nurses were not from Hubei province (where Wuhan city is located), it was difficult for them to understand the Wuhan dialects: "*For example, sometimes there were some people who were about 60 years old. Sometimes we spoke to them in Mandarin, and sometimes they didn't understand*" (P15).

Emergent Theme 2: Useful Resources

Reflection and Debriefing. The nurses identified several resources that were useful for coping with the challenges. Reflection on daily nursing experience and debriefing with colleagues was identified by the participants to be useful for adapting to working in a different specialty. As stated by a participant: "*…we would summarize our work experience in this shift and share it with everyone*" (P7).

Relaxation as Much as Possible. To mitigate the physical exhaustions caused by heavy workload and wearing PPEs, many of the nurses reported that it was useful to take short breaks, engage in relaxation exercises and deep breathing during work hours and try to eat and sleep as much as possible after work. As mentioned by a participant: "*I might be out of breath. Then maybe I sat there for tens of seconds for some relief. After I eased, I continued to work*" (P6).

Building Rapport with Patients. Building rapport with patients was reported to be useful for enhancing communication. The nurses held various group activities, such as celebrating birthdays and organizing group exercises among patients. These activities brought closer the relationship between nurses and patients. The nursing work was smoother, and some patients were willing to help with translating Wuhan dialect and Mandarin afterwards. One participant noted: "*…we held a birthday party for patients who had their birthday in February. It was indeed a very good icebreaker. After that, the relationship between doctors and patients was much closer, the nursing work was much smoother as well"* (P2). *I felt that the atmosphere between doctors and patients was like a big community rather than a hospital"* (P15).

The Use of Technologies. The participants also reported that the use of technology was helpful in responding to COVID-19. The increasing use of simple information communication technologies (ICTs; e.g., walkie-talkies) and the improvement in the medical equipment (wireless blood oxygen finger clips and ECMO machines) improved their caring quality with patients, reduced their workload and the risk of infection. This was highlighted by a participant: "*[transiting around facilities may] increase the risk of infection. We were equipped with a walkie-talkie to avoid this as much as possible*" (P9). In addition, mobile apps such as WeChat and videoconferencing were also founded to be instrumental in facilitating 24/7 communication with patients and among nurses: "*[mobile phone] …we set up a group for patients, and we communicated with them in the group when we were resting. They could ask us any questions they had…. team members had brief meetings on WeChat [before shifts], and then everyone started to discuss what to be cautious about, because it was difficult to communicate after entering Hospital A*" (P4).

Temporary Hospitals. Furthermore, participants identified that from the government level, the conversion of sports venues into temporary hospitals was effective in containing the spread of COVID-19; otherwise the existing medical system would be overwhelmed. A participant remarked: "*I think the form of Hospital A proved to be helpful. You see, after it was established, the epidemic in Wuhan was quickly under control, and it was really very effective*" (P2).

Support from the Government. Several participants also highlighted that the government helped in taking care of their family members, allowing them to serve on the frontline without worrying too much about their family members. One participant noted: "*The government's support to our medical staff was substantial. Beyond facilitating our day-to-day needs, they extended support to our families back in our hometowns as well*" (P9).

Traditional Chinese Medicine. Traditional Chinese medicine was reported by all nurses to play an important role in response to COVID-19: "Chinese medicine really played a very important role, we used tailored prescriptions for different patients (e.g., severe patients and mild patients) and for different purposes (e.g., prevention and treatment). Medical staff took it as well" (P11).

Superordinate Theme 3: Navigating Psychological Distress

Emergent Theme 1: Confronting Psychological Distress

Participants reported that psychological distress was prevalent among nurses, manifesting as stress, insomnia, anxiety, depression, and loneliness due to fear of being infected, heavy workload, and social isolation while in Wuhan. Participants also reported that they observed varying degrees of anxiety, depression, and loneliness among patients. The nurses also experienced homesickness while working in Wuhan.

I faced the danger of being infected, and the psychological burden at that time was very heavy" (P10). "Each time when I was going to enter the hospital, I became nervous and started to have diarrhea. My heart rate increased to 134 before entering the hospital… I missed my child, [then] one day, my child started to have a high fever. At that time, my mood was getting worse every day" (P3). "I was a leader of the nursing team. I was more anxious, because I was responsible for the safety of the whole team, those nurses did not know how dangerous it was" (P2). "You can't imagine the kind of psychological pressure to bring back every single [member] of my team members (P5).

In contrast to Hospital A, where patients exhibited mild symptoms and retained the ability to perform routine activities such as walking, eating, and exercising, leading to eventual discharge, the situation in Hospital B was markedly different. This facility was dedicated to treating individuals with severe and critical conditions, primarily characterized by lung infections and other complex health issues. Nurses in Hospital B reported experiencing significantly increased levels of stress and emotional distress. The severity of these patients' conditions necessitated extensive use of life-support equipment and significantly limited their capacity for normal daily activities. The nurses articulated a profound sense of powerlessness in the face of patient suffering, compounded by an inability to provide effective intervention. Additionally, they experienced heightened feelings of isolation and loneliness, attributed to the solitary nature of their work in these high-intensity care environments.

> At that time, my mood fluctuated with the patients' mood, and I was particularly vulnerable, and I would cry for no reason. [although I know] the situation of the outside world, but

when I was isolated in a small room and I couldn't do other activities, I was very lonely" (P13). "I was very lonely… I preferred not to [go to] other rooms to chat, because I worked in the critically ill area, I might infect others if I were infected (P14).

Emergent Theme 2: Hesitancy in Seeking Professional Help

When psychological problems were observed by administrators of Hospital A, a mental health professional team was sent there to help. However, all those nurses reported reluctance to seek professional help for mental health problems, as they did not think their problems were serious enough to receive psychological support.

Two professional psychologists provided consultations for everyone [staff] at a fixed time, but I felt that although I was under pressure and fear [I didn't think it was necessary] …to a certain extent, I thought I could manage it (P6).

Emergent Theme 3: Autonomous Coping Strategies

The nurses employed their own coping strategies to mitigate psychological distress. These included talking with family members/friends via video chat, trying to do some leisure activities (e.g., reading novels, watching movies, listening to music, and exercising at the hotel), and utilizing medication to manage insomnia.

I was very stressed, but after I talked to our hospital leaders, my mood was better. In addition, I had insomnia, which was managed by taking sleeping pills every day (P5).

Superordinate Theme 4: The Journey Home

Emergent Theme 1: Mixed Emotions Upon Completion

All nurses reported complex feelings of happiness, excitement, emptiness, and reluctance to leave when **finishing their work in Wuhan**. All nurses reported that they were very **proud** that they had fulfilled their job and were very **excited** that they could go back home and meet their family members again: "*I was very excited and very happy at the end of the day. I felt very honored to be able to witness the last day–I finally "knocked down" the Hospital A (laugh)*" (P8).

After supporting Wuhan for 1–2 months, nurses reported that local people were very grateful for them, and they had built very good rapport with patients and local medical staffs; thus they were **reluctant to leave**: "*When I left Wuhan, I was very happy and felt that I could finally go home. But I didn't want to leave. I felt really worried. I want to see all the patients discharged from the hospital, I really regarded Wuhan as my home at that time*" (P11).

Additionally, several nurses reported that fighting intensively on the frontline gave them a **sense of mission** and **clear self-identification**, and they felt **empty and at loss** when returning to their normal work: "*When the Hospital A was closed, I felt that it was indeed a relief in my heart, but I felt that this period of time was over, and that this period of time had a lot of impact on each of us, so …I felt a sense of emptiness in my heart*" (P4). "*Then when I finally left B Hospital, I was extremely reluctant to go. Because I felt like I retired, and I felt like a retired soldier*" (P13).

Emergent Theme 2: Recognition and Reflection

All nurses talked about the welcoming ceremony held for them when they arrived at home city, they reported that the local government celebrated their return with high-standard ceremony, celebrating each of their **triumphant return as a hero**. They felt proud of themselves and at the same time felt that it was once a lifetime experience.

Then when I got off the airplane, the scene was very grand and shocking. I felt that we made our own contribution to fighting this epidemic, and then the people in our hometown used their way to express their gratefulness" (P6). "When we got off the plane, our city leaders all went to welcome us. How many times in our life can we have such an honor! (Laughs) (P3).

Emergent Theme 3: Reintegration into Family Life

However, some participants also reported the difficulty of **returning as a family member** after coming back from the frontline. Many of them and their families felt sad and traumatized from the experience. "*After I returned from the front line, my dad told me "your mother cried every night since knowing you went to Wuhan". I didn't expect the impact of this incident on her was so substantial (choked)*" (P4).

Emergent Theme 4: Personal Growth and Professional Reflection

When the participants reflected on the overall experience, they all reported that they experienced **personal growth**. They noted an increased sense of gratitude towards life, a deeper appreciation for their family members, and a belief in their enhanced potential for career development. "*For me, I think it was an unforgettable experience of growth, because I had the honor to participate in this frontline experience, I suddenly understood the importance of this profession, I hope to do a better job in my career*" (P4).

Discussions

This study is the first to thoroughly investigate the lived experiences of frontline nurses prior to, during, and after their placement in Wuhan during the COVID-19 pandemic. The participants likened the deployment experience to going to battlefield. The metaphor of "going to a battlefield," as described by the participants, encapsulates not only the extreme challenges faced by frontline nurses during the COVID-19 pandemic in Wuhan but also their extraordinary resilience, adaptability, and growth.

This vivid imagery conveys the intense psychological and emotional landscape these nurses navigated, akin to soldiers in combat, highlighting the extremities of their work environment and the profound sense of duty that propelled them into the epicenter of a global health crisis. Just as soldiers face physical and psychological threats, the nurses contended with the risk of infection, the trauma of patient loss, and the relentless pressure of crisis healthcare delivery. The findings suggest that, akin to soldiers returning from war, nurses may be at risk of developing PTSD or similar stress-related conditions due to their frontline experiences. The metaphor underscores the urgent need for comprehensive support systems for these nurses. This includes not only immediate crisis support but also ongoing mental health services to address the longer-term effects of their deployment. Preventative measures and early interventions are crucial to mitigate the risk of PTSD and ensure their wellbeing.

Challenges and Useful Resources

Building on the metaphor of the battlefield, the results revealed specific challenges frontline nurses faced and the resources that proved instrumental in navigating these challenges. Consistent with existing literature, this study identified a range of work-related and environmental challenges, such as heavy workload, the need to upskill in a different specialty, fear of infection and isolation (Al Thobaity & Alshammari, 2020; Zeydi et al., 2021). Meanwhile, the findings highlight the resilience and adaptability of nurses in these circumstances. Effective strategies included reflective practice and debriefing to facilitate adaptation to new specialties. Building rapport, typically emphasized in psychotherapeutic settings, proved crucial in establishing trust with distressed patients, enhancing work efficiency, and bridging linguistic divides. Furthermore, this study emphasizes the value of technology in patient monitoring, communication, and peer debriefing. The increased investment in telehealth during the pandemic, as observed in many governments, such as Australia, USA, UK and China, aligns with current findings. It is recommend that organizations, particularly in high-demand healthcare systems like China's, invest in comprehensive and robust telehealth infrastructures during and beyond pandemic conditions (Thomas et al., 2022). This study also observed the efficiency of temporary hospitals in China. These facilities efficiently managed non-critical COVID-19 cases, alleviating pressure on the healthcare system (Chen et al., 2020). This approach could be beneficial for other governments in similar crises. Additionally, it was noted that the psychological impact on frontline nurses concerned about their families, especially when both partners work in healthcare. Government support for these families appeared to alleviate such concerns. Lastly, in line with prior research investigating the effectiveness of traditional Chinese medicine in managing COVID-19 (Xiong et al., 2020; Yu et al., 2020), this study indicates that the nurses perceived it as beneficial.

Psychological Distress

Despite the tangible challenges presented by the harsh conditions, nurses were found to experience significant levels of psychological distress. Consistent with prior research (Aydogdu, 2023), this study found that frontline nurses experienced psychological distress, including stress, anxiety, depression, and loneliness. Additionally, nurses deployed to the epicenter were found to experience homesickness. Nurses caring for severely and critically ill patients reported heightened stress and feelings of powerlessness, due to frequent exposure to tragic scenes and more isolated working conditions. Head nurses also encountered increased stress due to greater responsibility for their team's safety. This highlights the need for specialized attention and tailored psychological support for these nurse subgroups. While existing literature advocates for mental health support for frontline nurses (Vizheh et al., 2020), the current study found that many preferred self-management of psychological distress. This tendency could be attributed to the perceived mildness of symptoms or to the stigma associated with seeking mental health support in China (Chen, 2018). Meanwhile, a portion of nurses were open to sharing their psychological distress with their head nurses. Therefore, support strategies should be culturally sensitive, such as implementing community-based support tailored to nurses, and efforts should be made to diminish the stigma surrounding mental health in the nursing profession.

Deployment Experience

Understanding the full scope of the deployment experience, from preparation through to the aftermath, provides valuable insights into the multifaceted nature of their roles during the pandemic. The deployment experience in the current study was characterized by initial uncertainty, followed by a period marked by responsibility, healthcare work, and innovative coping strategies for various challenges, culminating in personal and professional growth, aligning with findings from previous findings (Zipf et al., 2022) . However, we also observed feelings of emptiness and loss among some nurses upon returning to their usual roles. This phenomenon aligns with the role exit theory (Ebaugh, 1988), which describes the process of disengaging from a role central to one's self-identity. Nurses, having served in high-stress, high-impact frontline roles during COVID-19, developed a strong sense of mission and identity as essential workers. Returning to routine work likely triggered a disengagement process, impacting their sense of identity. These findings suggest that governments and healthcare systems should extend training beyond clinical skills to include emotional resilience and strategies for managing role transitions. Institutions should also develop clear transition plans for healthcare workers returning to regular duties post-crisis.

Strengths and Limitations

This study provides a comprehensive exploration of the lived experiences of frontline nurses who were deployed to support COVID patients in Wuhan. Its strengths lie in its comprehensive qualitative approach, capturing the intricate details of the nurses' motivations, challenges and coping mechanisms in the face of unprecedented crisis. The richness of the data, drawn from first-hand accounts, provides a deep and empathetic understanding of the nurses' experiences. Additionally, the participants included those who cared for mild as well as severe patients, nurses and head nurses, providing insights for special support for these subgroups of nurses. This research contributes significantly to the body of knowledge on lived experience of healthcare professionals during pandemics, offering valuable information for healthcare systems globally in preparing and supporting their staff in future health crises.

There were several limitations worth noting in this study. First, the interviews for this study were conducted in Mandarin; then the transcripts were translated into English and then analyzed by researchers. The process may lead to inaccuracy in expression of the original ideas of the participants during translation and analysis. Second, the research team had expertise in psychology, telemedicine, public health, education, and nursing which would have influenced the interpretation of information obtained during the study. Third, the interviews were conducted via phone calls; it was more difficult to build the rapport with the participants, and non-verbal clues could not be obtained. Fourth, even though the sample size is appropriate for an interpretative phenomenological analysis (IPA) study, the reader must be cautioned not to interpret the results as generalizable.

Implications for Practice

This study supports health system to understand the experience of frontline nurses who were deployed to support COVID-19 epicenter and therefore to support them with efficient resources to reduce the associated physical and mental health burden. In addition, the data collected in this research also provide frontline nurses with effective coping strategies to manage diverse challenges which might confront them while providing healthcare.

Conclusions

This study demonstrated that nurses who were deployed to support Wuhan likened their frontline experience to being to a battlefield. They volunteered to support Wuhan because they felt they were needed by their country. While experiencing challenges they were able to cope by using diverse coping resources. They reported that supporting Wuhan during the COVID-19 pandemic was once-a-lifetime experience for them. Future research is warranted to investigate the after-event impacts on the frontline nurses.

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Supplemental Material

Supplemental material for this article is available online.

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