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The difficulties encountered by ICU nurses during the provision of care for COVID-19 patients. In Punjab, Pakistan: A Qualitative study

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Abstract: Background: The critical care unit nurses, who are on the front lines of fighting COVID-19 and defusing the crisis, encounter a variety of problems when providing care to COVID-19 patients. **Objective:** To investigate the difficulties encountered by ICU nurses during the provision of care for COVID-19 patients. **Methods:** In this qualitative descriptive study, 13 nurses working in intensive care units were chosen using purposive sampling. Data were gathered through semi-structured face-to-face interviews. After recording and transcribing the interviews, the concepts were retrieved using the content analysis method. **Results:** The nurses cited the four following problems in providing care for COVID-19 patients: Lack of institutional support' overburden, 'living with ambiguity, and 'psychological threat due to novice disease'.

Conclusion: The present study portrayed a clear understanding of the challenges faced by nurses working in intensive care units during the crisis of the COVID-19 pandemic based on their lived experiences.

Introduction: The COVID-19 disease is quickly spreading over the world, with 216 nations afflicted until September 9, 2020. On March 11, 2020, the World Health Organization officially declared that the prevalence of COVID-19 has reached a global pandemic stage(WHO, 2020). The new coronavirus is a strange virus with unknown origins, varying symptoms, and implications. Some affected individuals display no or only minor symptoms, while others suffer from catastrophic complications such as pneumonia, respiratory distress, hypoxaemia, and even death (Chen, Hu, et al., 2020; Ji et al., 2020). According to the Worldometer's COVID-19 data, 1% of all patients with active COVID-19 (60,785) is critically ill and requires urgent care (Worldometers, 2020). According to a report by the International Council of Nurses, during the first wave of the response to the COVID-19 pandemic, health care systems focused on increasing the capacity and potential of intensive care units (ICUs), which resulted in increased working hours for intensive care providers and the use of various rotating-shift patterns. Furthermore, in similar crises such as severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS), health care providers, especially nurses, were exposed to severe and debilitating stresses, which included fear of infection, stigma, a lack of human workforce, and a lack of trust (Lee et al., 2018; Maunder et al., 2003). Lee et al. discovered that health care personnel who worked during the MERS pandemic in 2015 experienced post-traumatic stress disorder both during and after the epidemic (Lee et al., 2018). Similarly, similar problem was found in the SARS pandemic in 2003, as health care providers were severely stressed by the unknown nature of the disease, its high contagiousness, and their enormous workload (Maunder

et al., 2003). In the affected countries, ICU nurses play a critical role in defusing the COVID-19 pandemic (Chen, Liang, et al., 2020). Health care providers' health status can affect the provision of continuous and comprehensive patient care, as well as how to deal with public health crises and pandemics (Chang et al., 2020). A wide range of problems put substantial psychological and physical strains on nurses during the provision of care for patients with COVID-19 in the ICU (Park & Park, 2020; See et al., 2018). In Italy, nurses faced a unique and aggravating position because of their incapacity to save patients and the possibility of passing the disease to their family members, which could have hampered patient treatment (Kaniadakis, 2020). Furthermore, nurses have a higher risk of developing psychological issues such anxiety, sadness, insomnia, and stress (Liu et al., 2020). They may also confront a range of obstacles owing to being in a stressful scenario that they have never encountered before (Liu et al., 2019). In a research by Sun et al., nurses caring for COVID-19 patients experienced several psychological issues, including weariness, discomfort, and helplessness caused by the intense workload throughout the shifts (Sun et al., 2020).

Despite the lack of studies examining the challenges faced by ICU nurses throughout the provision of care for COVID-19 patients based on their experiences, Shen et al. revealed that ICU nurses face several difficulties, including working in an unfamiliar environment, lack of experience in caring for infectious patients, anxiety about being infected, heavy workload, extreme exhaustion, and depression due to failure to treat critically ill patients (Shen et al., 2020). Fernandez et al. conducted a systematic analysis of 13 qualitative researches on nurses' experiences during the COVID-19 pandemic, concluding that health care systems should respond effectively to the challenges and perceived issues of COVID-19 caregivers. Otherwise, nurses are likely to endure substantial physical and psychological problems, which can lead to

burnout and a scarcity of nurses (Fernandez et al., 2020). As a result, measures to address these difficulties appear necessary. However, further research is needed to gain insight into these problems and thereby support changes in the current situation in order to enhance nurses' working conditions, offer safe and quality care for patients, and ultimately assure patient safety. Given that limited information is known about the obstacles faced by ICU nurses when providing care for COVID-19 patients, it is critical to perform a study to better understand the existing challenges based on the nurses' lived experiences. A thorough understanding of these challenges in the current critical situation can assist health care authorities in implementing appropriate measures to overcome limitations, meet the challenges faced by nurses, and provide quality and safe patient care, allowing essential actions to be taken to reduce both the length of hospital stay for critically ill patients and the mortality rate caused by COVID 19. As a result, the current qualitative study was done to investigate and characterize the obstacles that ICU nurses face when providing care for COVID-19 patients.

Methods: 2.1Study Design: In the current study, a qualitative descriptive technique was employed to investigate the obstacles faced by ICU nurses while providing treatment for COVID-19 patients.

This approach was chosen because it gives first-hand data linked with a phenomenon, such as comprehending the expertise and insight of health care experts regarding a little understood event or phenomenon (Turale, 2020). According to Sandelowski, this approach is the best option for researchers who want to provide a direct description of a phenomena or event (Sandelowski, 2010).

2.2 Study sample and sampling Technique: Purposive sampling was used to enroll 13 rotating-shift nurses who worked in medical ICUs at a coronavirus (COVID-19) teaching Hospital Punjab Pakistan. The center features three intensive care units (ICUs) with 27 beds and equal occupancy rates, where 50 nurses worked. Since the coronavirus epidemic, the center has committed all of its beds to COVID-19 patients.

The inclusion criteria were as follows: ICU nurses with at least one year of critical care experience, experience caring for COVID-19 patients, no history of COVID-19, and a willingness to participate in the study and communicate their findings.

2.3 Data collection: A researcher conducted semi-structured, face-to-face interviews to obtain data. Participants were asked to report their experiences with the main question of the study. 'What problems did you face as an ICU nurse while caring for COVID-19 patients?'

The interviewer then delved deeper into their experiences by asking more exploratory questions such 'What do you mean?', 'Please clarify', 'Could you be more explicit?', 'Why?', and 'How?' All interviews were done with participants in clinical field classrooms while adhering to personal protection and coordination norms. The researcher attempted to maintain participants' anonymity while still providing them with the greatest level of comfort. With the participants' permission, the researcher taped all conversations during the interviews. Each interview lasted 30 to 45 minutes, and each participant was interviewed once. The interviews continued until the data was saturated.

It is worth noting that data saturation occurred with 11 nurses, and two additional interviews were undertaken to ensure the saturation.

2.4Data Analysis: Content analysis, based on the Granheim & Lundman approach (Graneheim & Lundman 2004), was used to analyze the data. Following every session, the recorded interview material was carefully listened to multiple times, verbatim transcribe on paper, and then entered into Microsoft Word. The transcripts were carefully examined, and the semantic units were found and encoded. The original codes were generated at this point as both explicit and implicit codes. After that, codes were combined and grouped based on commonalities. The greatest homogeneity within categories and the greatest heterogeneity across categories were attempted to be achieved.

Results: Thirteen ICU nurses in all took part in the study; their demographics included gender (ten female and three male nurses), work experience exceeding one year in a critical area, and education (nine post-RN and four diploma nurses).

3.1 Theme 1: Lack of Institutional Support

The organization's ineffectiveness providing support to nurses was one of the ideas that were taken from the nurses' experiences. The four subthemes of this subject were "Discrimination in providing protective gear," "Excessive workload," "Poor organizational support," and "Shortage of personal protective gear."

Data analysis revealed that the hospital's lack of financial assistance, inability to compensate staff, and lack of support overall showed poor organizational support for ICU nurses.

“We anticipate visits from officials who will inspire us and raise our spirits. No hospital management or university deputies have inquired, "What are you doing here?" since the corona virus outbreak. What kinds of issues are you dealing with? This demonstrates how little the system cares about its workforce. (Female nurse P10)”

Lack of leave, a scarcity of nurses, and long shifts were indicators of an overwhelming workload for nurses caring for COVID-19 patients.

“Our shifts are actually killing us—they're not boring, but killing. We have been informed that we must stay in the hospital throughout this crisis and have not been granted leave. They also fail to provide us with adequate downtime (Female nurse P4).”

One of the major issues experienced by the ICU nurses caring for COVID-19 patients was the lack of personal protective equipment and prejudice in the provision of protective equipment.

“When we sit down or get up, the overalls they provide us start to shred! These don't completely cover our heads, hands, or feet; they are either too big or too tight (Female Nurse P 07).”

“Here, doctors predominate. The best equipment is provided to doctors, but not to nurses. A nurse is obligated to use whatever tools are provided to them (Female Nurse P 06).”

3.2 Theme 2: Overburden

Nursing professionals also highlighted physical weariness as a concern. The two subthemes of "Physical complications" and "Exhausting protective covers" made up this topic.

The diminished capacity and attention when using personal protection equipment, the intolerable weight of the equipment, the difficulty eating or drinking, and the inability to use the restroom because of the protective gear were among the several issues that nurses highlighted.

“The weight of protective gear and covers limits our capabilities. Work attention is quite difficult when wearing these outfits (Male Nurse P12).”

“We get quite exhausted from our garments during the shift. Furthermore, especially on night shifts, we are unable to eat or use the restroom while wearing these. Excuse me, but a lot of

women get UTIs, and some have slow-moving bowel syndrome, which makes them constipated (Female Nurse P 8)".

"We really are worn out. Every female nurse on this ward has stress-related spots all over them, and some of them have hormonal issues. Our skin is severely harmed by the medical caps and mask (Female Nurse P5)."

3.3 Theme 3: Living with Ambiguity. The principle of embracing uncertainty was also taken from the data analysis. "Unclear nature of the disease," "Fearing oneself and family being infected," and "Desire to quit the job" were the three subthemes that made up this subject.

"Since there is no known cure and you are unaware of the prognosis, the primary cause for concern is the lack of knowledge regarding this illness. You are aware of what several ailments will bring about. For example, you recover from the flu in ten days, but you have no idea what else this illness can cause. You are also unaware of its clinical picture. Do fever, cough, and dyspnea represent the true symptoms or not? You're not really sure. Numerous people of this type have not shown any of these symptoms. One patient reported having simply diarrhea. I've been experiencing diarrhea for the past four days. (Male Nurse P11)"

"We worry about our loved ones and worry that we could unintentionally become sick, bring this unknown disease home, and infect our spouse, kids, father, and mother. (Male Nurse P1)".

"It's unclear what will happen or how long this situation could persist. We all felt dissatisfied with our jobs as nurses and wished we could work somewhere else to escape this environment (Female Nurse P5)".

3.4 Theme 4: Psychological Threat Due to Novice Disease

The psychological toll that the illness took on the nurses was another difficulty that was drawn from their experiences. A form of domestic distress among the nurses may have resulted from the disease's prevalence and from caring for COVID-19 patients, which meant losing one's peace of mind, ending one's personal life, having little contact with family, and family members' obsession with fearing infection.

“Our family is worried that if we bring the virus home, they might get sick. They think that since we are all contaminated, we could also infect them. They appear to be afraid of us”. . (Male Nurse P1)Based on the experiences of the nurses, it appeared that psychological disturbances such anxiety, restlessness, melancholy, fear, worry, anxious moods, and hostility were more common when COVID-19 stress was present.

“Our coworker was hospitalized after contracting an infection. He had no immune system disorders that I am aware of. His bedtime sickness worries me since it means that someone who should have a strong immune system has been ill and has to be hospitalized. (Male Nurse P11)”

4: DISCUSSION

This study used a qualitative descriptive technique to investigate the difficulties ICU nurses had when providing care for COVID-19 patients. Four themes—"physical exhaustion," "living with uncertainty," "psychological burden of the disease," and "organization's inefficiency in supporting nurses"—were identified as difficulties experienced by ICU nurses.

As this pandemic spreads throughout many nations, nurses are faced with a variety of difficulties, including a lack of funding, inadequate personal protective equipment (PPE), an

increase in patients, a shortage of labor, an unprepared health system, and an unbreakable cycle. These difficulties put a burden on nurses' bodies and minds and raise difficult ethical dilemmas (Chen, et al., 2020; Maben & Bridges, 2020; Turale et al., 2020). The ineffectiveness of the organization un providing support to ICU nurses was identified by them as one of the major obstacles during the new coronavirus outbreak. People's perceptions of the organization's support, along with their overall sentiments and beliefs, indicate that the organization appreciates its members' collaboration and cares about their well-being and future. Nonetheless, the experiences of the nurses indicated that the organization did not try very hard to meet the expectations of the nurses regarding the care of COVID-19 patients. The factors that corroborate the aforementioned challenge include inadequate organizational support, an excessive workload, a lack of personal protective equipment, and prejudice in the provision of protective equipment.

The absence of personal protective equipment, including medical masks, N95 respirators, protective gowns and shields, latex and disposable gloves, protective eyewear, and specialized protective gear, was a complaint voiced by ICU nurses.

In their heroic battle against COVID-19, nurses tried to preserve lives and give care. For weeks, many of them worked lengthy shifts without taking any days off. The majority lacked appropriate personal protective equipment (PPE) and were at risk of contracting COVID-19; regrettably, a number of them lost their lives to the illness.

Other comparable epidemics have encountered a scarcity of personal protective equipment as a result of heightened demand, inadequate planning, resource allocation, and a lack of crisis-focused orientation.

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