Lived Experience of Medicine Nurses Caring for COVID-19 Patients

A Quality Improvement Perspective

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ABSTRACT

Background: The COVID-19 pandemic has overwhelmed health care systems globally. To understand how health care systems can best support frontline health care providers caring for patients in similar situations, it is necessary to gain insights into their experience.

Purpose: This quality improvement study explored the lived experience of Canadian frontline medicine nurses caring for COVID-19 patients during the first wave of the pandemic.

Method: A qualitative interpretive phenomenological approach was conducted. Forty-three eligible nurses participated in semistructured interviews and online surveys. Full transcription and thematic content analysis were performed.

Results: Three overarching themes were deduced: (1) a traumatic experience, (2) living through the experience, and (3) achieving transcendence.

Conclusion: Several recommendations were identified. These recommendations aim to aid health care systems in emergency preparation planning and future pandemic responses while supporting frontline health care providers' resilience and well-being.

Keywords: Canadian health care system, COVID-19, nurse experience, qualitative research

In late 2019, a novel coronavirus broke onto the world stage. COVID-19 quickly swept across the globe, shutting down economies and overwhelming health care systems internationally. By mid-March 2020, Canada had initiated nationwide lockdowns to mitigate virus transmission and allow the health care system time to organize and prepare for the impending demand.[1] As of April 2021, many Canadian hospitals continue to run at or above capacity to accommodate the increased demand.[2] As with prior disaster situations, nurses are on the front lines, spending the greatest amount of time with patients, and experience numerous concerns including safety, stress, and burnout.[3-5] Nurses' safety and well-being can influence not only patient care but also the control of any outbreak.[4-6] To support nurses effectively, it is important to gain insights into their lived experience. This study was conducted to examine the lived experiences of Canadian frontline medicine nurses caring for COVID-19 patients in the early stages of the pandemic.

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METHODS

Study design and conceptual framework

This qualitative study used an interpretive hermeneutic phenomenological approach as described by Diekelmann[7] to explore the experience of medicine nurses caring for COVID-19 patients.[8] This framework was selected because it focuses on participants' experiences and interprets their shared perspectives as themed patterns in the research, without separating or bracketing the researchers' understanding from the meaning.[7,8]

Context

During the first wave of the pandemic, a tertiary care center in southern Ontario, Canada, prepared for the impending influx of COVID-19

patients by converting a 34-bed medicine unit into a designated COVID-19 unit exclusively for positive COVID-19 patients who did not meet intensive care unit (ICU) admission requirements, for example, patients who did not require ventilators or intensive critical care monitoring.

Several new policies and tools were introduced to support the unit's health care providers. A resiliency team consisting of a spiritual care provider and a social worker were introduced to help staff cope with stress and anxiety. A no-visitor policy was enacted by the hospital to slow the community spread of COVID-19 and protect vulnerable patients within the hospital. Nurse-to-patient ratios were decreased (1 nurse cared for 1-2 patients), and a clustered care strategy was used to mitigate nurses' risk of COVID-19 exposure. Unit scrubs were available to all nurses and were laundered by the facility. A rapid intubation team and a critical care response team (consisting of respiratory therapists and ICU nurses) connected with the charge nurses every shift and evaluated patients for risk factors that would necessitate intensive care. In addition, unit safety huddles occurred twice a day between management, infection control practitioners, educators, and staff to discuss policy updates, safety precautions, and education and to address any other concerns or questions. COVID-19 information was compiled and centrally located on the corporate intranet for all hospital staff members to access.

The designated COVID-19 unit remained in this space for 4 months, during which a COVID-19 staff outbreak occurred. In July 2020, the designated COVID-19 unit was moved to another ward due to the decreased bed demand at the time. The authors conducted this study 4 months after the unit had converted back to acute medicine.

Participant selection

Nurses who worked a total of 3 or more shifts on the designated COVID-19 unit between March and July 2020 were recruited through purposive sampling. A total of 43 eligible nurses out of a potential 75 volunteered to participate in this study (see Supplemental Digital Content, Figure, available at: http://links.lww.com/JNCQ/A894). The authors worked on the designated COVID-19 unit alongside the participants during the first wave of the pandemic. This existing relationship enhanced the level of trust and openness during interviews and improved the credibility of this qualitative study.[9]

Data collection and analysis

Eligible participants were contacted by the authors via email and in person. The voluntary nature and study objectives were explained to participants, and informed consent was obtained verbally and in writing. The areas of interest in the study were included in the formulation of 11 open-ended questions. Data were collected over 2 weeks through semistructured interviews and online surveys. Interviews of approximately 15 to 30 minutes in duration were performed over the phone with individuals, while in-person focus groups consisted of 2 to 4 people. With participants' permission, all interviews were audio recorded and later transcribed verbatim. All responses were de-identified, aggregated, and analyzed together. All audio recordings and transcripts were saved on a password-protected computer. Data collection occurred concurrently with data analysis and continued until data saturation had been achieved.

Final analysis was conducted using Diekelmann's method, that is, independently reading the transcripts to gain an understanding of the meanings conveyed, reviewing the transcripts as a team, validating meanings through team discussion to reach consensus, identifying recurring themes by comparing the transcripts, and presenting these themes with examples from the text.[8,10] Conflicting opinions about the interpretation of meaning were resolved by reviewing the original transcripts. An audit trail was maintained to ensure that all analysis steps could be traced back to the original interviews and surveys. Throughout this study, we followed the Standards for Reporting Qualitative Research guidelines and the Standards for Quality Improvement Reporting Excellence 2.0 guidelines.[9,11]

Ethical considerations

The internal ethics board of the tertiary care facility deemed this project to be a quality improvement activity and stated that this aggregate and anonymized data could be published as quality improvement information and was thus exempt from a formal ethics review.

RESULTS

After extensive analysis, 3 major themes and 4 subthemes were revealed. These themes are described in the following text and are strengthened by the participants' quotes.

Theme 1: Traumatic experience

Participants recalled numerous emotions from their experience caring for COVID-19 patients. Sentiments of fear, anxiety, and anger were frequently stated by participants when describing their initial feelings, stemming from a lack of knowledge of the disease process at the time. Many concerns centered on potentially infecting family members and loved ones with the disease while the nurses' level of personal safety was secondary: "I was anxious. There wasn't a lot of knowledge about COVID-19 and I was scared that I would be bringing it to my family."

The anxiety was heightened by a general sentiment of stigmatization from external and internal sources, which resulted in a decrease in morale. Participants described experiences including being avoided by other staff, recalling cleaning staff sanitizing behind them when they were on other units, and feeling discrimination from businesses due to their occupation. One nurse commented, "The isolation was the hardest part. People would see you in the elevator and be like, 'Oh no, it's okay I'll just wait for the next one' because they knew where you worked."

In the initial stages, participants indicated that social media and media coverage were overwhelming, which heightened their feelings of anxiety and fear. Participants often compared their situation with that of New York and Italy, which were the most affected at the time: "Social media made me afraid to see other health care workers in other countries who were getting sick. It negatively impacted my feelings towards what was going to happen."

Theme 2: Living through the experience

Seriousness of the virus

Although participants reported being initially fearful, many attained a new comprehension of the virus' severity once they cared for their first COVID-19 patient. Many participants felt a strong sense of duty to care:

> All people have needs and deserve the same level of care. It's no one's fault if they are sick, they depend on you to help them. As a nurse you have to remain confident in your ability to look after them even in new and challenging situations.

Participants also described feelings of increased empathy toward their patients due to the isolation they faced, given that visitors were not allowed in the unit at the time:

> I always felt myself to be very compassionate, but this really put it into perspective. It could have been my family member or myself in the hospital bed. So I think it made me more compassionate and sympathetic towards my patients and their families.

Changes in practice

As participants became more familiar with COVID-19, their practice and setting changed. Participants stated that some aspects changed for the better while other practices suffered. Positive aspects reported were decreased nurse-to-patient ratios, improved team-based nursing, using modern digital tools to connect patients with their loved ones, and better infection control practices such as donning and doffing personal protective equipment (PPE) safely. One nurse commented, "We worked together more because we were trying to preserve the PPE [. . .] it forced us to work more as a team and brought us closer together because of that."

Negative aspects included patients needing to remain in their rooms due to isolation protocols and utilizing a clustered-care strategy for which nurses had mixed feelings. These practice changes resulted in participants feeling like they were simply doing the best they could at the time:

> [The patients] are all alone in the room. They can't have any visitors. They have people coming in who are covered head to toe in PPE. They can't see your face, they can just see slits of eyes [. . .] I really felt for the patients who were alone.

The participants also reported that the conversion to a designated COVID-19 unit allowed them to refine their knowledge and assessment skills related to the respiratory system. However, some participants felt that other aspects of their practice (eg, wound care, time management) became "rusty." This was especially felt by the newly graduated and new nurses on the unit: "My management of the respiratory system definitely got better, but I think my other skills lacked. When we switched back to medicine there was a bit of a learning curve again."

Concerns for safety

The initial practice changes were met with uncertainty as the efficacy of certain PPE was not yet widely accepted. As participants used the PPE and obtained more education, their confidence grew. This education was cited as a source of comfort despite the many updates and staff safety concerns. One nurse stated, "There was plenty of education by our clinical educator regarding PPE and safety [. . .] I remember getting updated every few hours with new information." Participants' confidence was constantly tested as staff compared their supplied PPE with what was seen globally in the media: "Those paramedics wearing hazmat suits and hepafilters within the suits and N95s, it felt like a slap in the face. Like we weren't important enough to be protected properly."

Further safety concerns arose when a staff outbreak occurred, resulting in several staff members contracting COVID-19. Participants who contracted COVID-19 expressed that the emotional experience was far more devastating than the physical symptoms and had long-term repercussions. This outbreak caused feelings of low morale and distress in most participants: "The whole process took an emotional toll on me. I had to make some adjustments to life as a result of the stress and anxiety that's arisen from what I went through."

Communication challenges

Communication was acknowledged by participants to be of critical importance throughout their experience, though opinions were mixed on the effectiveness. Communication occurred primarily through internal emails, safety huddles, and informative web pages on the corporate intranet. Through safety huddles, communication was positively received, as most participants felt supported by their direct supervisors and the huddles provided a forum for nurses to ask questions. One nurse commented, "Our huddles were good as long as you were here. Especially for full-timers, the huddles were good every day. They were informative."

Communication challenges were noted by nurses who did not attend safety huddles as they felt that new information was not effectively reaching them: "One thing I noticed working a lot of night shifts was that I didn't benefit from safety huddles. There was minimal communication to night shift about the changed policies." Participants were often directed to the COVID-19 corporate page to seek clarifying information, though they felt it lacked relevant information pertaining to their unit specifically.

Most education provided to the staff was focused on essential workplace policies; however, some participants commented that an impromptu COVID-19 pathophysiology education session led by a respirologist was beneficial: "I felt the most successful when we had an education session with one of the lead physicians on at the time. That was the most education about the whole disease process."

Working with the team

Participants unanimously reported that the team dynamic of nurses, physicians, and other allied health members was one of the highlights of their experience. Team relationships were frequently mentioned as one of the main factors that strongly supported them through this time. One nurse stated, "We were stronger as a team, which impacted the way we cared for patients and the way we cared for each other. So I'm really proud of that."

Participants also benefited from highly specialized critical care teams such as the rapid intubation team, as they supported unit nurses when critical care was required: "The rapid intubation team was amazing, they would check in every day [to see] if there was anyone who was at increased risk for developing worse symptoms."

Theme 3: Achieving transcendence

As the COVID-19 unit was moved elsewhere in the hospital due to the decreased bed demand, participants felt an overarching sense of accomplishment and gratitude. Some participants had faced challenges at work and at home, insurmountable worries, discrimination, and isolation, which many had never previously encountered. Through their shared experience and increased knowledge, participants felt they overcame these challenges and achieved a feeling of transcendence. A strong sense of camaraderie was present among most of the participants. One nurse commented, "It was definitely trying times. Is it an experience I want to go through again? I don't think so. But is it an experience that I learnt a lot from and I am grateful for? Definitely." Another stated, "I feel proud to be a nurse and to have helped out on the frontlines."

DISCUSSION

Summary of findings

This study used qualitative methods to analyze the lived experience of frontline medicine nurses caring for COVID-19 patients during the first wave of the pandemic. Through the themes deduced, recommendations can be made to support health care providers in similar situations.

Recommendations

Ensure clear communication to frontline staff

In this study, communication was identified to be of critical importance. Daily safety huddles have been shown to promote safe practice environments, trusting team relationships, and positive psychological safety.[12,13] Ensuring that unit-specific information is easily accessible and methods of communication are standardized could enhance communication among staff members, especially for those who are unable to attend safety huddles or interact consistently with their direct managers. Such strategies could include logging the huddle minutes, considering virtual attendance options for safety huddles, providing timely and updated emails to all staff members to address concerns and alleviate confusion, considering structured night shift huddles led by designated charge nurses, and ensuring management visibility to both day and night shift teams. In disaster situations, it is important that communication to the frontline staff is timely and pertinent.[6]

Support staff's well-being

Literature supports the concept that mental health is directly correlated to perceived stress.[14] Because of the stressors of the pandemic, frontline nurses are at an increased risk for developing mental health issues and can develop a stress disorder 1 to 2 years after the experience.[5,6,14] In this study, the staff outbreak that occurred dramatically decreased morale and altered the nurses' views on safety and personal risk. In addition, participants reported feelings of discrimination in the workplace and community. Discrimination not only is demoralizing but can also negatively impact one's resilience and ability to cope.[5] These considerations should be addressed as the emotional toll and moral stressors of the pandemic have notably impacted the lives of frontline staff.[15-17] One method to support staff's well-being is to promote a culture of self-care and have ethical, psychospiritual, and resiliency resources available to all.[5,17,18] Utilizing resiliency teams to support nurses has been shown to reduce burnout and improve staff well-being.[19] Therefore, supporting nurses' mental health is especially important during crises as these situations can affect their resiliency, staff morale, and influence patient care quality.[5,6,20]

Encourage teamwork

Although coping is unique to each individual, positive team dynamics were listed as a protective factor against stress and burnout and improved resilience.[5,16,21] Strategies to promote teamwork include developing a safe psychological space for health care providers to get to know each other, encouraging colleagues to check in on each other's well-being, consider holding weekly meetings regarding staff feelings, and to consider team-building activities.[5,21] Hospital systems should note the importance of encouraging teamwork to promote resilience and consider this factor when determining the location of future designated outbreak wards.[22]

Consider clustered care as a strategy for staff safety

Clustered care was recommended because of the global strain on PPE during the first wave of the pandemic and to promote staff safety. In this study, clustered care was met with mixed feelings. Some nurses felt they were providing higher-quality care with these focused interactions, while others felt conflicted because of the perceived decreased time spent at the bedside. This approach has its benefits, including maximizing PPE usage and decreasing risks of self-contamination; however, it can result in moral distress for some nurses during times of crises.[19,22] Therefore, the strategy of clustered care should be used with clinical judgment.

Ensure proper training and education to staff is provided

In this study, knowledge was identified as an empowering factor. Many participants who attended the impromptu COVID-19 education session found this to be highly beneficial. Providing nurses with knowledge enables them to conduct safe and evidence-based practices and removes the associated anxiety of the unknown.[12] Another method to increase knowledge and ensure proper training is to consider specialized support teams as these teams can promote collaborative

best practices for safe patient care. Finally, newly graduated nurses account for a portion of the nursing workforce and often begin their careers in medicine units.[23] It is important to recognize that these nurses may require enhanced support and education from the health care system when working in high-risk areas.[14,23]

Ensure staff safety and safe working environments

Maslow's hierarchy of needs would suggest that frontline nurses cannot properly care for others if their own safety needs are not met.[24] Methods to support frontline nurses' safety include ensuring appropriate nurse-to-patient staffing ratios, sufficient and evidence-based PPE, unit scrubs, and adequate break areas for nurses to rest and recharge safely.[6]

Provide supportive leadership from management

The impact of supportive management is highly correlated to the perceived stress of frontline staff and is a protective strategy against nursing burnout.[21,25] Early intervention that includes positive interactions between management and frontline nurses can ensure that nurses feel recognized, valued, and could decrease their perceived stress.[25] Because of the health care system's emergency response, management assumed additional responsibilities to their workload. Therefore, direct management of these units may require additional resources from a systemic level to best support their staff. This could include having assistance with conducting day-to-day unit operations so that unit managers can fully focus on pandemic response.

Consider changes to emergency preparation policy and procedures

Strategies to improve emergency preparedness should be considered to alleviate staff stress and promote best safety practices. Health care systems could consider preselecting units to be designated for future pandemics, provide emergency training to staff, reflect on current practices, streamline the development of standard work, and ensure that the environment is flexible to meet future demands.[26]

Limitations

Participants were interviewed 4 months after their experience on the COVID-19 unit, thus there is potential for recall bias. The authors mitigated recall bias by utilizing open-ended questions in the interviews and survey. Member checking was not performed since the authors were included in the group that experienced the phenomenon.

CONCLUSION

In the last 20 years, SARS, H1N1, Zika virus disease, and swine flu have impacted health care systems globally. This study explored the COVID-19 pandemic and is one of the first to examine the unique experiences of Canadian frontline medicine nurses. These lived experiences provide reliable data for establishing safe emergency practices that can be adopted to better prepare health care providers for future disasters while also supporting their well-being and consequently enhancing patient care. 2020 was certainly the year of the nurse.

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