Understanding Redeployment During the COVID-19 Pandemic: A Qualitative Analysis of Nurse Reported Experiences

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Abstract

Introduction: The COVID-19 pandemic disrupted healthcare working conditions causing the redeployment of nurses. Redeployment refers to assigning healthcare workers to units or specialty areas where they do not regularly work.
Objective: The purpose of this study was to explore the lived experiences of redeployed nurses during the COVID-19 pandemic from April 27, 2020 to May 7, 2020.
Methods: Data collection occurred through a cross-sectional survey with demographic items and a single open-ended item. This open-ended item was part of a larger study regarding work conditions during the initial COVID-19 surge in the spring of 2020 in the Midwest United States (US). This analysis was performed separately due to the volume of qualitative responses and details provided. The survey was posted in private social media groups, and 298 nurses participated, 117 shared open-ended responses. Participants were asked what type of unit they worked on before COVID-19 and what unit they were deployed to.
Findings: Twenty-three (19.7%) reported deployment to COVID-designated units. Twenty-eight (23.9%) participants reported deployment to a unit outside of their specialty. Sixteen (13.7%) reported deployment from a non-critical care unit to an intensive care unit. Three major themes developed from the open-ended responses: (1) challenges related to their scope of practice and specialization, (2) challenges with interpersonal dynamics, and (3) challenges related to the environment.
Conclusion: The described challenges caused some nurses to report primarily negative experiences regarding redeployment during the COVID-19 pandemic. The findings add to the existing literature regarding redeployment and the vulnerability hospitals and their staff face during a disaster or pandemic-related events, such as COVID-19. Ultimately, aiding in the development of new policies to facilitate effective pandemic response in the future that would support nurses to participate in redeployment in a safe and nontraumatic way, is necessary.

The COVID-19 pandemic resulted in an unprecedented disruption in nurse and healthcare working conditions. One significant issue experienced among frontline healthcare workers was the redeployment of nurses to various patient care units within the healthcare system. Redeployment refers to reassigning healthcare workers to alternative units or specialty areas. Before COVID-19, nurse redeployment was associated with poor nurse and patient satisfaction, decreased productivity, and impaired nurse-patient relationships

(O'Connor & Dugan, 2017). Additionally, there is an association between redeployed nurses and an increase in staff turnover.

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Nurse redeployment is not a new practice, though the circumstances of the COVID-19 pandemic amplified the problematic nature of reassigning specialized healthcare workers to alternate and often unfamiliar environments. Redeployment has been historically used to address staffing shortages (O'Connor & Dugan, 2017) and is often referred to as "being pulled" or "floating" to other units. Under normal circumstances, redeployment helps manage varying patient census and acuity. To comply with best practice, there is an effort to float nurses between like units, that is, a neonatal intensive care unit nurse floating to postpartum care to work in the nursery, however, this is not always possible. Some nurses are redeployed to unfamiliar units or specialty areas, leading to a level of discomfort. The Joint Commission's (2004) position is clear regarding redeployment assignments; nurses redeployed to alternative environments should be assigned to units with similar patient populations and skill requirements. Additionally, floating nurses should possess the appropriate credentials to practice in their redeployed environment.

In 2009, The American Nurses Association (ANA) released a revised position statement regarding the rights of nurses when considering a patient assignment. The ANA (2009) is clear, that nurses have the right based on professional and ethical responsibilities, to accept, reject, or object to a patient assignment that puts patients or themselves at serious risk. The position statement goes on to specifically speak to redeployment or floating of a nurse. Before floating a nurse from one unit to another, management must consider the level of expertise, patient care delivery system, and any patient care requirements needed. If redeployment is necessary, the nurse should be assigned to a comparable clinical area (ANA, 2009). The obligation of professional nurses to raise concerns regarding any patient assignment that is not consistent with patient safety is supported by the Nursing Scope and Standards of Practice and licensure requirements (ANA, 2009).

Background

According to the Centers for Disease Control and Prevention (CDC), as of January 13, 2021, there were 329,593 deaths involving COVID-19 in the United States (US), with 210,460 (63.85%) occurring in an inpatient hospital setting (Centers for Disease Control and Prevention [CDC], 2021). The purpose of the redeployment of nurses during the COVID-19 pandemic was to alleviate staffing shortages due to the increase in patients and acuity levels. Temporary intensive care units (ICUs) in post-anesthesia care units (PACUs), operating rooms (OR)s, and step-down units were created to meet the demand of critical patients diagnosed with COVID-19.

As there was such a high level of patients diagnosed with COVID-19 at the height of the pandemic, the virus impacted staffing ratios. To meet staffing needs, nurses were redeployed to these temporary ICUs. As some nurses did not

have critical care experience, The Society of Critical Care Medicine (SCCM) recommended tiered staffing for mechanically ventilated patients. SCCM suggested ICU nurses take on teams of three non-ICU nurses and oversee the care (Halpern & Tan, 2020). However, deploying healthcare personnel to unfamiliar areas with a lack of critical care or emergency care skills can alter typical healthcare safety measures, compromise patient outcomes, and risk the professionalism of nursing (O'Connor & Dugan, 2017). While there has been much discussion about redeployment stress, few formal studies have described these practices and interventions or reported the impact of redeployed nurses from non-critical care environments to higher acuity environments.

Awareness of the impact of redeployment during the pandemic is increasing. The National Institute for Health Research (NIHR) in Great Britain announced a multimillion-dollar investment for projects that investigate the long-term impacts of COVID-19. One of the chosen grant projects includes the investigation of the impact of redeployment during COVID-19 on nurse well-being, engagement, and retention (Lawton, 2020-2022; Award ID: NIHR132041). The findings from this study can add to the existing literature regarding redeployment and the vulnerability American hospitals and their staff face during a pandemic. Ultimately, aiding in the development of new policies to facilitate effective pandemic response in the future that would support nurses to participate in redeployment in a safe and nontraumatic way.

Aim

The purpose of this manuscript is to report the qualitative findings of a parent survey study. The research question guiding this work was to explore the traumatic stress experienced by American frontline nurses during the initial surge of the COVID-19 pandemic in the spring of 2020. With healthcare professionals' mental health and debriefing of environmental concerns being points of focus in the pandemic's aftermath, understanding these experiences is essential. Data will enhance the ability of health systems to support redeployed workers and create policies and practices that promote a positive and safe work environment.

Review of Literature

Raith et al. (2021) conducted a retrospective analysis after they repurposed a 23-bed neuro-intensive ICU in the United Kingdom. The ICU capacity increased by 21.7% to 28 beds, including 18 COVID-specific within 10 days. This increase in ICU capacity led to a change in nurse-to-patient ratio from 1:1 to 1:4 or 1:6, complying with the SCCM's recommended model of nurse-led teams. A condensed ICU training program was developed for redeployed nurses including a brief unit orientation and an introduction to mechanical ventilation. In an attempt to create personal protective equipment (PPE) breaks, ICU and non-ICU nurses

rotated every 2 h. The researchers found a decreased ICU mortality rate from COVID-19 (41.4%) compared to the overall mortality rate in England, Wales, and Northern Ireland (43.2%). However, there was no discussion regarding nursing's perception regarding their redeployment during the COVID-19 pandemic.

In one New York facility, ICU beds were increased from 104 to 283 by the opening of a temporary ICU. Brickman et al. (2020) trained 413 nurses in critical care in 10 days using a newly developed 3-hour curriculum incorporating the cardiac, pulmonary, and renal system functions, anticipated therapies, and procedures for COVID-19 patients. Additional training included ventilator management, medications and infusions, continuous renal replacement therapy, documentation, hemodynamics, shock, and critical care skills. Redeployed nurses were from the following units: medical/surgical, PACU, procedure areas, stepdown units, and the OR. Educators designed the critical care orientation to the level of experience each nurse had. This program is undergoing evaluation and analysis of training efficacy and reception. Similarly, at Emory Healthcare in Atlanta, Georgia, educators developed a redeployment tool to help relocate staff members based on their specific skill sets. Additionally, they developed a training program on critical care competencies for those nurses redeployed to COVID-19 testing units (Brickman et al., 2020).

Multiple health systems stopped elective or scheduled surgeries during the pandemic. This created a large pool of available perioperative nurses. Massachusetts General Hospital (MGH) transitioned perioperative areas within the hospital to surge units. MGH used a nurse partnership model in which redeployed RNs were matched with ICU nurses. Procedural nurses and Certified Registered Nurse Anesthetists (CRNAs) working in areas such as endoscopy, cardiac catheterization, interventional radiology, and offsite ambulatory surgery centers, were transitioned to the newly created ICU (Retzlaff, 2020). The transition to the ICU setting was more seamless for PACU nurses (Retzlaff, 2020).

CentraCare St. Cloud Hospital in Minnesota also found that the transition for PACU nurses to the ICU was relatively easy, indicating that all redeployed PACU nurses had an ICU background (Retzlaff, 2020). Even with an ICU background, all were required to participate in education and shadowing experiences. However, the Minnesota hospital required less training for the nurses who did not redeploy to the ICUs (Retzlaff, 2020). These nurses were sent to various areas with a range of responsibilities, such as assisting with patient care activities on a dialysis unit or nursing home or assigned to assist with critical tasks such as asking screening questions, providing masks, and taking temperatures at admission. All redeployed staff completed orientation checklists to monitor and ensure competency and were provided supervision as needed by staff RNs on the units (Retzlaff, 2020).

San Juan et al. (2021), completed a systematic review analyzing 20 papers, of which five were pertinent to the U.S.

health system. Themes found in the study results included redeployment components such as redeployment implementation strategies and learnings; redeployed staff experiences and strategies to address their needs; redeployed staff learning needs; training formats offered and training evaluations; and future redeployment and training concerns. Some of the main findings regarding redeployed staff experiences and strategies to address their needs included the finding that staff anxiety and stress was heightened by lack of support and working night shifts. Additionally, having the opportunity to opt-out of redeployment or self-isolate without divulging personal information was a common theme found from the reporting staff (San Juan et al., 2021).

Panda et al. (2021) analyzed the strategies used for the redeployment of healthcare workforce by hospital leaders across the globe during the COVID-19 pandemic surge. Nine hospital leaders from five countries were interviewed (the United States, the United Kingdom, New Zealand, Singapore, and South Korea). The leaders' responses were categorized into three main themes, process, leadership, and communication which represented effective practices and lessons learned when preparing and executing workforce redeployment plans (Panda et al., 2021). The theme of the process discussed the attempt to balance the clinical surge demands while also attempting to place the redeployed staff in positions with similar skill sets or capabilities. The theme of leadership described the need to have one main source of contact for each designated unit. Participants believed this would assist the training and on-boarding of staff, and the ability to customize learning to each individual. The final theme of communication highlighted the need for transparency. Daily contact with staff regarding educational opportunities, resource utilization, and trends in data or testing seemed to promote a supportive culture among the deployed staff.

Prior to COVID, VanDevanter et al. (2014) completed a mixed-methods study that explored nurses' experience in the immediate disaster of Hurricane Sandy in New York City and the subsequent deployment. The data revealed major challenges experienced by the nurses related to practice, psychological challenges, and decreased accessibility to usual resources, such as peer and supervisory support, which increased their overall stress of the deployment experience. VanDevanter et al. found sub-themes including concerns about working in an unfamiliar environment, limited orientation to the new unit, professional liability, lack of consistency of assignments, schedule uncertainty, assignment load, psychosocial challenges, experiencing distress, concerns about future employment, and management of the deployment period.

Methods

Design

The research study was a cross-sectional survey design that included previously reported data regarding Trauma

Screening Questionnaire (TSQ), a publicly available screening questionnaire to identify individuals at risk for developing post-traumatic stress disorder (PTSD). This parent survey examined results among American frontline nurses, demographic items, and a single open-ended item; "If you have been pulled to another unit, please describe your experience." The aim of the parent survey was to describe working conditions during the initial surge of the COVID-19 pandemic. This data from the open-ended item was examined separately due to the volume of qualitative responses and the details provided by participants. The data were collected within a two-week period during the spring of 2020.

The survey was circulated in online social media groups for practicing nurses on the frontlines. Social media was used as it allowed for rapid sampling of participants, which was necessary due to the time-sensitive nature of the study of COVID-19-related work conditions. As such, there was no opportunity to calculate a total response rate. The research team posted the survey link in groups that were identified as being for practicing nurses by first contacting the group administrators for permission, then posting. Participants did not have to interact with the research posting on social media, but were able to click a secure link to be directed to the survey. Due to the nature of social media, participants were able to share the link if they chose to do so. This resulted in a convenience sample. Postings were open for responses from April 27, 2020 to May 7, 2020.

Sample

Study inclusion criteria involved nurses in current clinical practice in an acute care setting in the United States, English speaking, and having access to the internet. Acute care was defined as the care of inpatients for acute conditions in a hospital setting. Of the 298 nurses who participated, 117 shared open-ended responses.

Institutional Review Board

Institutional Review Board exempt status determination was obtained through Oakland University. An information sheet was embedded within the first page of the survey, allowing participants to click on a statement affirming their consent to continue with the research or to discontinue their participation. If participants indicated they did not wish to participate in the study, they were redirected to the end of the survey and advised to close their browser window.

Data Analysis

Data analysis of demographic information occurred through descriptive statistics using SPSS (version 26, IBM Corp: Armonk, NY). Data analysis occurred through manual thematic analysis. The framework developed by Braun and Clarke (2006) was used as the framework for data analysis.

The process included five stages, beginning with data familiarization. During this stage, the first and second authors met to read and reread responses together. This stage was conversational, with the second author serving as a note-taker to the process. Secondly, the authors coded data, examining the data set for comments with similar features or characteristics. Grouping of similar data points occurs in this phase (Braun & Clarke, 2006). Four codes were initially used to organize the data into groups; (1) comments related to training, (2) the environment, (3) team dynamics, and (4) specialization.

Following the discussion, coded data were separated into themes. Themes used: (1) scope of practice/specialization issues, (2) interpersonal dynamics, and (3) environment. Ultimately, the code of training was determined to be inextricably related to the concept of nurse specialization, and these codes were themed together. The authors did not impose a threshold for the percentage of comments related to a particular topic in identifying themes, but rather focused on identifying like experiences and detail, consistent with Braun and Clark's recommendations. As comments were identified for inclusion in the final manuscript, refinement of themes resulted in further definition and clarity of theming, without changes made during this phase.

Trustworthiness

Trustworthiness was established through the assurance of credibility, transferability, and dependability (Shenton, 2004). The credibility of the analysis was achieved through an iterative review process among the authorship team. The first and second authors frequently met to perform the initial coding, with the third, fourth, and fifth authors reviewing this process and critiquing the work in subsequent meetings. A robust discussion occurred regarding areas of concurrence and disagreement.

Theme construction was refined through this process. Transferability was achieved by including a large ($n = 117$) group of participants from various health systems and work environments. Dependability was achieved by using a single data collection process for all participants, with all data being collected in a short period of time. This is relevant due to the contextual factors of the pandemic influencing the participants' experiences.

Findings

Participant Characteristics

Of the 117 participants, six (5.1%) identified as male and 111 (94.9%) as female. Participants were 22–61 years of age with a mean average of 37.5 years. The average practice years were 9.6 years. Participants were largely Caucasian ($n = 108$, 92.3%). The homogeneity of the participants may be attributable to social media sampling. Participants were asked what type of unit they worked on before the COVID-19 crisis and

what unit they were deployed to. Twenty-three (19.7%) reported being deployed to COVID-designated units. Twenty-eight (23.9%) respondents reported being redeployed to a unit outside of their specialty. Sixteen (13.7%) reported being redeployed from a noncritical care unit to an ICU.

Participant Response Results

Qualitative data was themed into three major redeployment-related challenges experienced by the nurse participants: (1) challenges related to the scope of practice and specialization, (2) challenges with interpersonal dynamics, and (3) challenges related to the environment. The data revealed these challenges caused nurses to report negative experiences regarding deployment during the COVID-19 pandemic, ultimately leading to distress.

Nurse Specialization. Nurses who participated in this study revealed the importance of their scope of practice, specialization, training, and experience. They also emphasized having strengths in specialized clinical areas was essential to providing quality care and improving patient outcomes. Nurses receive specialized, on-the-job training and further develop expertise from personal patient experiences. Sub-themes related to challenges with the scope of practice included working in an unfamiliar environment, limited orientation or training, and issues related to assignments. Redeployed nurses expressed concern for caring for patients outside of their usual population or acuity without training or orientation provided.

> I have now been deployed to the medical ICU with two days of orientation. I am learning on the fly how to take care of vented, and other critical patients.

Another nurse who was redeployed to an ICU expressed concern over the lack of communication regarding resources and support.

> Minimal orientation, figure it out as you go sort of deal, the hardest part was just figuring out who to contact for things.

Some nurses reported on the specific orientation or training they received for the new units they were assigned to.

> I am a PACU RN and our unit was reassigned to work med/surg and ICU with 4 hours of computer modules and 2 12-hr orientation shifts on the unit. First we were told we would be using a team-based approach with an experienced floor RN taking the patient assignment and then delegating tasks to us as nurse extenders. This quickly turned into us taking full assignments ourselves.

In addition to no training, participants also reported on the lack of access to essential resources and equipment they usually would have access to perform their role successfully.

> I got pulled to our ICU (I am an ER nurse) with no training on the unit and no access to their charting system or supplies.

Another emergency department (ED) nurse transferred to an ICU reported they received minimal training prior to caring for ventilated patients, which is a skill specific to intensive care nurses.

> I personally was given a 4 hour shadow and then was told I would be taking care of 2 ICU patients. I have never worked ICU before and the charting was 100% different than the ER charting. All my patients since then, except for 2, have been vented.

The nurses who were redeployed to the ICU, but were utilized as a patient extender and not required to give direct care to the critical care patients, reported an increase in comfort level with the deployment.

> I was also pulled to the ICU (I am a med-surg nurse) to be a floater and assist with donning/doffing, gathering supplies, turning patients, ect. but was not assigned a patient team. I thought this was a good use of staff resources and did not put me or other patients in an unsafe situation.

Nurses who were transferred from critical care units to work on COVID-specific units expressed concern over the potential of a large patient assignment they were not comfortable with, even with critical care experience.

> It was a good experience surprisingly. The assignments are only up to three patients which helped tremendously. If the assignments were 4-6 patients a piece, it would have been incredibly overwhelming as an ICU nurse.

As healthcare professionals, nurses are at the front lines of delivering patient care. Nurses are usually one of the main advocates for patients; however, due to the pandemic, nurses reported barriers to patient advocacy.

> If you speak up about a patient needing a test or inappropriate conditions your moved to a different unit or fired.

The change in clinical practice expectations and working conditions had a participant questioning her career as a nurse.

> A few progressive units have been turned into "clean ICU units" with rooms and staff that lack appropriate supplies and training. I believe administration is asking for those nurses to practice out of their scope of practice. However many nurses on this floor feel they have to "step up" instead of saying they are not comfortable with such working conditions. Seeing such behavior in a pandemic, the judgment calls of hospital administrators makes me want to rethink a whole new career.

The participants' responses related to the specialized skill sets that nurses possess were similar. They expressed discomfort with redeployment to environments that were a poor fit for their existing competencies. Factors that led to nurses' lack of perceived comfort included the lack of training they received, the poor communication between administration and nursing staff, and caring for critically ill patients who required advanced nursing skills.

Interpersonal Dynamics. In this study, nurses reported their personal experiences with other nurses and healthcare professionals during the pandemic. These nurses shared both positive and negative experiences regarding the general access to support and communication. One participant expressed that their entire hospital closed, resulting in the redeployment to a new hospital. They were assigned to an ICU and did not know any of their new coworkers. This nurse reported.

> I spend most of my shifts close to tears. I have no relationships with any of the people I work with and spend most of my 12 hours alone and quiet.

Some nurses were deployed to other units on occasion, while others were deployed every shift they worked, some for weeks and even months, usually due to their home unit being closed. It became apparent that participants in this study find comfort in their routine and usual coworkers, and felt out of place at newly deployed units.

> Every day I come in not knowing what setting I am going into, the type of patients, and where things are. If you don't work on that unit whether you like it or not you are an outsider. They do not know how you work and cannot tell when you are overwhelmed or need a break like your co-workers. As a pulled staff member you hate asking for help and you do not know their floor culture.

Other nurses had similar negative feelings towards redeployment during the COVID-19 pandemic. One nurse explicitly reported feeling like an outcast and didn't feel supported. Another nurse went on to explain the effect the pandemic had on their day-to-day work life.

> I just feel like everyone is so burnt out that the team dynamics and safety measures that used to exist are being overlooked.

Many nurses went on to explain how their traumatic experiences at work followed them to their home life.

> I could tell staff on that unit were burned out—sick of this being their reality day in and day out. I had nightmares that my patient was screaming for help from his room but I couldn't hear him.

Working during the pandemic affected some nurses not only emotionally but also physically.

> Next two days had to call in and had virtual appointment with dr bc I got a yeast infection from working conditions.

The redeployment aspect of the COVID-19 pandemic did not seem to have a negative impact on every nurse within this study. Some nurses reported mixed feelings.

> Sometimes it is ok, others not. Sometimes staff on that floor are friendly and others I felt bullied. I felt helpless at times because I didn't know where things are.

Some nurses reported positive experiences when being redeployed during the pandemic.

> I can really feel the teamwork during this time.

It was common for nurses to report not being comfortable working with a different patient population, acuity, or new unit. However, the interpersonal relationships they came into contact with during their time of redeployment seemed to allow a positive outlook on the situation.

> Every time I have been pulled to another unit it has been a great experience. Everyone is kind and helpful.

Participants of this study highlighted the importance of interpersonal relationships and team dynamics for nurses when redeployed. One participant reported a positive experience due to the increase in management and coordinator support.

> My unit was closed because of staff illness. We were the first Covid floor. Now I'm still on a Covid/ rule out Covid floor, but we have extra management/ coordinator support while here. It's been a good experience with the management.

Multiple nurses reported a team-based approach within this study. Nurses with no critical care experience were appreciative to have support from a critical care nurse; however, the inconsistency in expectations and the poor communication was also apparent by participants.

> I was "Mandatorily" redeployed to assist in an ICU setting with no additional training. I am to be paired with ICU nurses and assist in caring for up to 6 ICU patients per shift. I have not been told when I will be allowed to return to my home unit.

The team-based approach during the pandemic was not helpful to all nurses on the frontlines.

> No one could help me because they didn't know how because they aren't ICU trained. It was terrible and I felt like I was on an island all alone.

Healthcare is always a team approach, with multiple care providers and assistive staff working together towards a common goal of health promotion. The COVID-19 pandemic caused the redeployment of nurses, resulting in the loss of some of their most valuable resources, including nursing assistants. Many nurses reported they were the only ones required, or even eligible, to enter patients' rooms.

> Given inappropriate assignments for my skill set. Lack of PPE in addition to bare minimum assistance from supporting staff. Required to perform total care on all patients

The change in interpersonal dynamics coupled with limited orientation and training compounded nurses' concerns regarding the new environment that lacked familiarity.

Environment. Nurses generally work three, 12-hour shifts a week in the same environment with similar patient populations, creating a consistent work environment. Several barriers and concerns with the hospital environment during the COVID-19 pandemic were identified. The change in environment and usual resources were limited, disrupting the participants care of patients.

> I was pulled from my current covid ICU to a makeshift ICU unit. I had to call my own unit many times for equipment that was lacking on the floor I was pulled to

Many nurses reported a lack of essential resources to protect themselves and their patients. Some even had to be resourceful and find equipment on their own to ensure proper safety precautions were upheld.

> I was not given goggles or a gown. I brought my own goggles from home and my own N 95 from home. I was able to secure a gown from a coworker.

The sudden change in the acute care working environment disrupted care activities, as a simple understanding of the layout of hospital units and the location of necessary resources was disturbed.

> Not knowing where supplies are kept is an issue. Not working with the same staff/shuffling staff between units is frustrating.

The COVID-19 pandemic was reported as a difficult working condition, and for some nurses, the only positive was the idea of being around a familiar environment and people.

> I was dreading going back to work there, the only positives in my mind were seeing nurses/nurse aides I used to work with, I knew the layout of the floor, and where some supplies/equipment were stored.

Not all nurses dreaded the idea of redeployment. It seems the unknown of when, to where, and what the deployed experience would be like caused the most concern.

> I have been fine with switching units. The staffing assignments and patient ratios vary greatly so the uncertainty is very stressful.

The redeployment caused emotional and mental stress on nurses working during the COVID-19 pandemic.

> There were so many redeployed staff that they outnumbered the people who actually worked on the unit so very few people could be resources for equipment or supplies. It was the first time in 25 years of nursing that I literally felt like someone could die because I couldn't care for them properly, and my background is ER/Trauma downtown so that says a lot. This shift gave me the first panic attack I have ever had.

A sudden change in one's environment or usual surroundings can be stressful, but nurses had to overcome this in addition to caring for COVID-19 patients.

> It was a stressful day not only dealing with covid 19 patients, their families over the phone, but also all new charting.

Due to the nature and infectivity of COVID-19, the hospital environment drastically changed the way some healthcare providers were able to care for patients.

> My first pull was to a unit who had staff watching the COVID pts. on iPads from outside the room.

The participants' abrupt changes in specialty areas, team dynamics, and work environment were the main barriers that prevented the fulfillment of their newly assigned redeployment roles.

Strengths and Limitations

The authors recognize several limitations in this work. Though rich in examples and details, data was collected in a single survey collection, limiting the ability to ask clarifying questions to the participants in the study. During data analysis, it was determined it would have been helpful to understand the practices regarding redeployment at each institution, that is, whether or not the hospital was following Joint Commission best practices for redeployment. Additionally, there is very little published evidence surrounding redeployment and the psychological impact on deployed staff, limiting the context available for analysis of the data. The limited previous evidence surrounding this topic also resulted in the inability to have a more structured framework for data analysis. Future research would benefit from further

qualitative data collection and the use of validated instruments on distress and burnout.

Clinical Implications

COVID-19 has required rapid, and at times, drastic, changes to the way hospitals function. The large influx of patients forced changes to staffing models and overall hospital setup. Nurses endured the brunt of these changes and reported finding they were requested to work in specialty units they felt inadequately trained for. The nurse commentary revealed three major concerns associated with redeployments; (1) working outside of one's specialty area, (2) the impact of interpersonal dynamics, and (3) challenges presented by the environment. Despite the complexity of these issues, much can be done to improve the experience of redeployed healthcare staff.

Participants were concerned with working outside of their specialty area. While nurses are licensed as general practitioners of their profession, many specialize in a particular area of healthcare or with a specific patient population. Nurses may go on to receive certification as specialists in their respective areas after satisfying requirements that include years of practice or completion of an advanced training program. Nurses working in critical care environments are required to achieve certification in advanced cardiac life support (ACLS) which prepares them to respond with emergency intervention, whereas nurses practicing in lower acuity environments may not need this certification. Nurse specialization to the level of certification has been linked to improved patient outcomes (Kendall-Gallagher & Blegen, 2009; Nelson et al., 2007).

While this study did not focus on specific certifications of nurses, the concern that nurses expressed regarding care quality and patient safety when working outside of their specialty area necessitates greater conversation. Redeployment practices should honor the skill sets of specialty nurses. Doyle et al. (2020) recommended that redeployed staff be delegated care tasks such as hygiene, rather than being expected to provide specialty care. Redeployed staff were found to be able to provide adequate and timely care when redeployed in a more task-based model.

Health systems may be well served to engage in staff sharing across similar units. In this model, similar units have shared employees that rotate, serving patient populations with similar needs and acuity levels. This practice would be consistent with The Joint Commission (2004) recommendations on staff redeployment, with nursing staff caring for patients that are appropriately matched to their skills and training. Kroh and Hurlock-Chorostecki (2009) reported a shared staffing initiative between two ICUs resulting in nurses reporting higher levels of morale and job satisfaction. Furthermore, as census requirements fluctuated, critical care staffing needs were better met and patient outcomes were not negatively impacted when evaluated through retrospective analysis.

Staff sharing across units addresses the concerns related to working with familiar coworkers. Amid a large majority of negative comments regarding redeployment experiences, working with familiar coworkers was identified as a positive experience by many participants. Alternatively, redeploying nurses and their support personnel as teams may also aid in providing some comfort to redeployed staff members on new units.

If staff sharing or team redeployment models are not feasible, health systems must ensure that nurses receive adequate orientation and are equipped with sufficient training to provide safe patient care. In this study, nurses reported caring for patients of increased intensity from their typical patient assignments without preparation they perceived to be adequate. Brickman et al. (2020) showed that rapid training and deployment of non-ICU nurses into the ICU environment was feasible. They demonstrated this could be completed relatively quickly, and in their case, it was a 3-hour curriculum followed by in-person supervision by seasoned ICU staff. Although follow-up data is not yet available, this type of training system could successfully be implemented into a hospital educational curriculum, over a longer period of time, in anticipation of future increased ICU needs. Hettle et al. (2020) asserted that redeployment practices should focus on sustainability regarding both quality patient care and staff wellbeing.

Establishing a pool of nursing staff who are willing to be redeployed in times of need, and who would receive annual or bi-annual competency checks, could keep their skills up to date and decrease the number of staff who need rapid training in times of crisis. Establishing a pool of nurses who are willing to accept this redeployment is important because research has shown that "frequent floating can lead to staff dissatisfaction and compromise patient safety because a dissatisfied employee may not deliver the same level of care as a satisfied one" (Hendron, 2011, n.p.). Health systems must recognize the skills that registered nurses (RNs) possess in their specialty areas. Every RN is not trained to care for every level of care, and they cannot easily transition from one level of care to another, specifically when moving from non-ICU care to ICU care. Understanding the training required to competently practice within various levels of care should be used to plan for deployment to a more fit unit, mirroring their current practice.

When possible, supplies should be stored and organized in a similar manner from unit to unit (O'Connor & Duggan, 2017). Working in an unfamiliar environment and needing additional time to locate needed supplies can decrease nurse productivity in the redeployed environment (O'Connor & Duggan, 2017). Providing an orientation to the new unit is a needed step for nurse leaders to take when assigning redeployed staff to their units. Consistency in the set-up of unit supply stations can create a sense of familiarity and would aid in this orientation process. Consistent communication regarding the estimated length of the redeployment, as well as a chain of command for expressing concerns, is also needed. Consistency in

documentation requirements in the electronic health record (EHR) would also benefit redeployed staff. This was a concern of numerous study participants. Documentation of care is integral to safe patient care, communication between team members, and reimbursement.

Future research should address the mental stress that redeployed nurses have described. Many of the responses from this survey demonstrated that being deployed to an unfamiliar unit, which required a different set of skills, caused emotional and mental stress. This increased stress may contribute to future challenges in nurse retention from their current positions or even the profession as a whole. It is important to consider the context of the greater survey study that was completed by the research team. With healthcare professionals' mental health and debriefing of environmental concerns being points of focus in the pandemic's aftermath, understanding these experiences is essential. The inquiry aimed to employ the TSQ to assess the prevalence of traumatic stress among American frontline nurses following the initial COVID-19 surge in the United States. Of participants, 185 of the 298 (58.7%), had a positive score on the TSQ, indicating a risk for PTSD (Hernandez et al., 2021). On the TSQ, the participants' mean total score was 5.88, the median was 6.0, and the mode was 7.0. In clinical practice, 6 is considered a "positive" screening and would prompt a clinician to perform diagnostic interviewing for potential PTSD. This data will enhance the ability of health systems to support redeployed workers and create policies and practices that promote a positive and safe work environment.

Conclusion

The results of this qualitative study add to the existing literature regarding redeployment and the vulnerability hospitals and healthcare staff face during a disaster or pandemic-related events, such as COVID-19. Crisis response includes debriefing. This data can serve as a debrief to assist in understanding nurses' experiences of redeployment during the COVID-19 pandemic. Hospitals and healthcare institutions must develop a redeployment program to support nurses during a future disaster or pandemic. Healthcare staff who are redeployed should feel valued and supported. Accessibility to resources, information, and open communication can be helpful to reduce uncertainty. Attention to the implications of the redeployment process is necessary to support staff with changes. The findings of this analysis can assist in the formation of new policies to facilitate effective pandemic response in the future that would support nurses to participate in redeployment in a safe and nontraumatic way.

Declaration of Conflicting Interests

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