

Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

FISEVIER

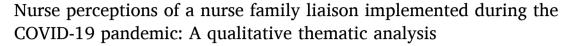
Contents lists available at ScienceDirect

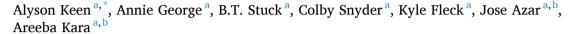
# Intensive & Critical Care Nursing

journal homepage: www.sciencedirect.com/journal/intensive-and-critical-care-nursing



# Research Article







<sup>&</sup>lt;sup>b</sup> Indiana University School of Medicine, United States

## ARTICLE INFO

Keywords:
Academic medical centre
COVID-19
Family-centred care
Qualitative
Nurse family liaison role

# ABSTRACT

Objective: Stress among family members of hospitalised intensive care unit patients may be amplified in the context of a global pandemic and strict visitor restrictions. A nurse family liaison role in the COVID-19 units was implemented to serve as a connection between the care team and a designated family member. Our objective was to describe the experience of a nurse family liaison role implemented during the COVID-19 pandemic from the perspective of nurses who functioned in the liaison role and intensive care nurses who worked with the liaisons. Research method/design: This was a qualitative study using thematic analysis involving a one-time semi-structured interview. A convenience sample of nurses were invited to participate. The analytic approach involved (1) becoming familiar with the data; (2) finding meaning in the data; (3) organising meaningful statements into patterns to generate themes.

Setting/participants: Nurses who functioned in the liaison role and intensive care nurses who worked with the liaisons in an adult academic health center in the Midwest United States.

Main outcome measure: To describe the psychosocial experience of nurse family liaison role implementation. Findings: The sample (n=11) mean age was 36 years (range 26–49) and the majority were female (n=10; 90%), White/non-Hispanic (n=11; 100%), Bachelor prepared (n=10; 90%), and had an average of 10 years of experience as a nurse (range 4–25). The major themes identified by participants were living in a pandemic, establishing the role and workflow and experiencing human connection.

Conclusion: Hospital organisations should consider how they can provide family-centred care, specifically within the context of a global crisis such as a pandemic. Participant descriptions of the role indicate that liaison implementation alleviated nurse moral distress and fostered development of close family connections. Findings can help inform implementation of similar roles in hospital settings.

## **Implications for Clinical Practice**

- Organisations implementing new roles should leverage multiple strategies and allow for role adaptation to meet the needs of the environment and patients.
- Clinicians pioneering novel roles should be open and flexible to using different approaches to adapt to their role, and foster relationships by clearly demonstrating the value they bring to the care team.
- Additional resources and support may be needed for nurses to cope with the emotional distress inflicted by the pandemic and the increased exposure to end of life situations.
- Hospitals should consider how they can enhance family-centred care by leveraging nurses and other clinicians in family-centred roles to foster empathy and advocacy for families to shape the hospital culture.

<sup>\*</sup> Corresponding author at: 1701 N. Senate Ave., Indianapolis, IN 46202, United States. *E-mail address*: akeen2@iuhealth.org (A. Keen).

#### Introduction

Communication with the loved ones of patients in the intensive care unit (ICU) is a challenge that has been exacerbated by the coronavirus 2019 (COVID-19) pandemic. Providing progress updates on patient condition (Doucette et al., 2019) and facilitating family presence by any means (e.g., physical, virtual, or healthcare staff serving as a surrogate) (Lopez-Soto et al., 2021; Voo et al., 2020) are essential to reduce the stress and uncertainty associated with having a loved one in the ICU. In addition to providing direct patient care, nurses provide medical information and psychological support for the patient's family member(s) throughout the ICU experience (Doucette et al., 2019). Updating family members who are not physically present can be difficult when direct patient care is the priority (Doucette et al., 2019). Communication deficits between the healthcare team and the patient's family member(s) have been previously described, revealing ICU patient family members' dissatisfaction related to inadequate information sharing and emotional support (Edward et al., 2020; Torke et al., 2016). Such deficiencies further burden an already uncertain and stressful experience for families (Al-Mutair et al., 2013; Azoulay et al., 2018).

Stress among family members of patients in the ICU exists (Fumis et al., 2015; Petrinec & Daly, 2016; Sundararajan et al., 2014) and may be amplified in the context of a pandemic (Montauk & Kuhl, 2020). Psychologic symptoms, such as anxiety and depression, are common among family members of ICU patients both pre and post pandemic. (Cattelan et al., 2021; Harlan et al., 2020; Johnson et al., 2019). As the COVID-19 pandemic spread, visitor restrictions were implemented in hospitals across the world, including ours. Inpatient units dedicated to the care of patients with COVID-19 quickly began experiencing a high volume of calls from patient family members. Lack of timely responses and updates led to family reports of dissatisfaction to nursing staff. Additionally, nurses shared feelings of moral distress when attempting to provide high quality, holistic care to both patients and their families.

Our healthcare organization quickly learned to adapt and respond to changing knowledge, leading to modifications and expansion of visitation policies throughout the pandemic. Although safety was the highest priority when restricting visitation, more harm than benefit may have resulted from stringent visitation policies (Andrist et al., 2020; Siddiqi, 2020). A survey of 134 ICUs in the United Kingdom during the pandemic identified 100% reported restricted visitation (e.g., no visitation at all or end of life/vulnerable patient visitation only) and 97% reported performing daily family updates (Boulton et al., 2021). Despite daily updates, investigations have identified that families have an increased need for communication during the pandemic (Hugelius et al., 2021). Barriers to provider/family communication, such as reduced communication channels and absence of family have also been noted (Wittenberg et al., 2021), warranting the implementation of family-centred roles.

Family-centred roles and programmes to facilitate communication between the care team and family members of hospitalised ICU patients have been previously implemented. For family members and surrogate decision makers of patients with high predicted mortality, a randomized controlled found that a communication facilitator reduced symptoms of depression among family members and improved outcomes including decreased costs and ICU/hospital lengths of stay (Curtis et al., 2016). Similarly, a stepped-wedge, cluster randomized controlled trial using a family support intervention found improvements in surrogates' perceived quality of communication and patient centeredness and shorter length of ICU stays among those who received the intervention (White et al., 2018). Quasi-experimental evaluations of family support interventions have additionally found improvements in family satisfaction with decision-making (Naef et al., 2021), communication with the care team, and quality of care (Shelton et al., 2010). In the context of COVID-19, families have reported a high degree of satisfaction with communication quality and frequency using a family engagement navigator (Taylor et al., 2020a) and a family liaison team (Lopez-Soto et al., 2021).

To improve family communication and alleviate nurse distress, an interprofessional team was convened by the facility's Associate Chief Nursing Officer and Patient Experience Director to brainstorm solutions. During this time all elective procedures had ceased, leaving a nursing workforce available for utilisation. The team strategised a plan to redeploy these perioperative and ambulatory staff members as 'nurse family liaisons', to serve as a daily connector between the care team and a designated family member (i.e. spokesperson) on the units where the care for patients with COVID-19 was cohorted. Registered nurses were selected for the role who were experienced in family interactions and were perceived to have high quality communication skills by their leaders. Standard work of the liaison role included obtaining a daily patient report (via interprofessional huddles and/or bedside nurse), prioritising which families to contact each day in collaboration with the charge nurse, providing a daily patient status update to the spokesperson (including assessing for priorities/concerns), and escalating unmet needs to appropriate clinicians.

The nurse family liaison role was highly collaborative and was quickly deployed using Agile Implementation (Boustani et al., 2020) based on competencies and communication services of an existing Perioperative Family Support Nurse role. To develop a minimal viable service (i.e., nurse family liaison role "must haves"), a five-person project team ran short, daily, iterative implementation sprints focused on learning how best to serve emerging needs. Within a week, key functions and processes for the role were defined and a process for training additional liaisons was established. Establishing the role in ICU and progressive care unit (PCU) environments was prioritised based on sprint feedback. A total of 21 liaisons were deployed to six ICUs and two PCUs. Supporting teams provided necessary technologies, training in ethics and therapeutic communication, and guidance on how to identify appropriate resources (e.g., social work, case management, and chaplaincy). Throughout the duration of the role, continuous feedback and performance improvement was supported through daily huddles, virtual meetings, and unit rounding. While family-centred roles similar to the nurse family liaison have been evaluated, the experience of clinicians functioning in and alongside these roles is unknown. This qualitative study explores the experience through the lens of clinicians working in these teams.

#### Methods

This was a qualitative study using thematic analysis and the consolidated criteria for reporting qualitative research (COREQ) was used for reporting (Tong et al., 2007). We conducted a one-time semi-structured interview inquiring about the experiences of a nurse family liaison role implemented during the COVID pandemic from the perspective of nurses who functioned in the liaison role and ICU nurses who worked with the liaisons. The study was approved by the local Institutional Review Board (IRB# 2005902668).

# Objective

The objective of this study was to describe the experience of a nurse family liaison role implemented during the COVID-19 pandemic from the dual perspectives of nurses who functioned in the liaison role and ICU nurses who worked with the liaisons. Knowledge gained from this study will facilitate an understanding of the unique contribution of this role during the pandemic.

### Setting/Participants

The site was a large (800 bed) adult, urban, academic health centre in the Midwest United States. Convenience sampling was used, and

participants were eligible for inclusion if they had functioned in the nurse family liaison role or if they were an ICU bedside nurse who had worked with a nurse family liaison (i.e., any exposure to a liaison in the work environment). An email was sent to all eligible nurses inviting them to participate. The email included an embedded survey link to gather demographic information. Recipients were informed that completion of the survey served as consent to study participation. Those who completed the demographic survey were contacted by the study team to schedule an interview or participate in a focus group.

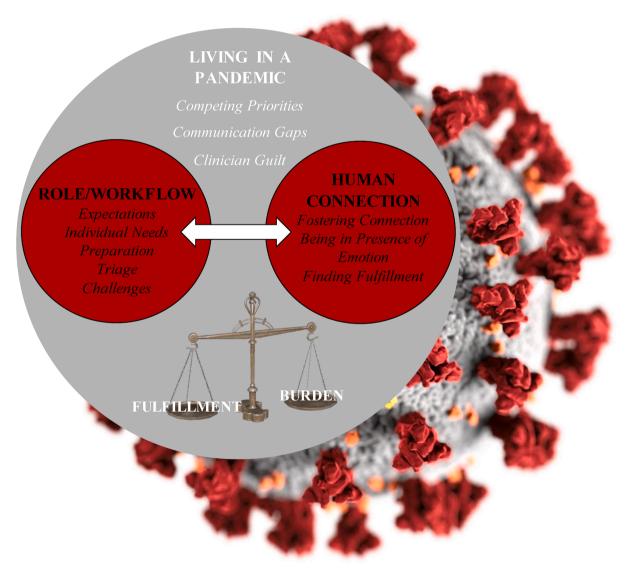
#### Data collection

Virtual interviews were scheduled as a focus group or 1:1 interview, depending on participant availability. Although combining use of individual and focus group interviews has been used intentionally to enhance phenomenon understanding and finding trustworthiness (Lambert & Loiselle, 2008), we used a combined approach to increase data collection feasibility. Interviews were conducted by a nursing PhD Candidate and Research Programme Manager, who has formal qualitative research training and experience. Interviews were securely audio

and video recorded and verbal consent was obtained prior to recording. A semi-structured interview guide was used for interviews beginning with "We are interested in your personal experiences and opinions regarding this role. Specifically, we would like to understand your experiences of functioning in [or working with] the liaison role, how it contributes to the COVID-19 pandemic, and how it could be improved." Sample questions from the interview guide were: "What has your experience been like in the [or working with] the nurse family liaison role?"; "What is the unique contribution of the liaison role?" Data were collected between September 2020 and November 2020.

### Data analysis

Interviews were transcribed word for word, verified for accuracy, and de-identified into a Microsoft Word file. The analytic approach involved (1) becoming familiar with the data; (2) finding meaning in the data; (3) organizing meaningful statements into patterns to generate themes (Sundler et al., 2019). Data analysis was conducted by team members with different vantage points including a nursing PhD candidate, a physician researcher with qualitative expertise, and a direct



<sup>&</sup>quot;Covid-19" by Unknown Author is licensed under CC BY-SA.

Fig. 1. Liaison Themes & Sub-themes.

<sup>&</sup>quot;Lab Scale" by Unknown Author is licensed under CC BY-SA

patient care nurse with ICU experience. All three research team members independently reviewed and identified meaningful statements in the transcripts (Monette et al., 2013) and a codebook (Guest et al., 2012) was created based on initial codes from the first four transcripts. Additional transcripts were then compared to the codebook, which was iteratively adjusted based on newly identified codes and patterns (Guest et al., 2012). In order to increase analysis credibility, team members met through a series of five 1-hour meetings to reach agreement on emerging patterns and themes until no new themes were identified. An audit trail was kept by the study team to increase analytic accuracy and document any critical decisions made. Descriptive statistics were used to calculate the frequencies and percentages of the demographic data of the sample.

#### **Findings**

#### Sample characteristics

The demographic survey was completed by 33 nurses, of whom 11 responded to the request to schedule an interview. The final sample (n = 11) included five nurses who functioned in the liaison role and six ICU nurses who worked with the liaisons. Focus groups ranged from 36 to 75 min (2 focus groups [n=3] averaging 48 min) and 1:1 interviews ranged from 21 to 57 min (average of 36 min [n=5]). The mean age was 36 years (range 26–49) and the majority were female (n=10;90%), White/non-Hispanic (n=11;100%), Bachelor prepared (n=10;90%), and had an average of 10 years of experience as a nurse (range 4–25).

Participants spoke about themes that were broadly differentiated between the logistics and processes surrounding the implementation of the role and the lived experience and emotions of the unique situation they were in. Both categories were enveloped within descriptions of the stressors precipitated or exacerbated by the pandemic. Fig. 1 depicts the fulfilment and burden that nurses experienced as they described living in a pandemic, establishing the liaison workflow, and experiencing human connection.

'Living in a Pandemic'

Participants reflected on the novel stressors posed by the pandemic as frontline healthcare workers. These reflections encompassed their own adjustment to issues as diverse as the uncertainties of clinical management, frequent changes requiring continuous adaptation, and changes in long established models of care. As the liaison role was implemented during the hospital's first wave, clinicians were having to quickly adapt to newly implemented policies and guidelines that were being modified by the hour in some cases. Participants described the uncertainty involved in treating COVID-19, ensuring personal protective equipment was donned/doffed correctly, and opening new nursing units with teams unfamiliar with one another. Participant 002 (ICU nurse) stated:

"When we first opened [new COVID unit] and did not have a nurse liaison and we had obviously no visitation at all, (we had) so many calls from family. The nurses were all in a new situation where they were still learning the lay of the land. We had no continuity of care or anything like that."

Competing priorities: How can I get everything done?

ICU nurses described the need to prioritise patient care due to the critical nature of their patients, leaving limited time to dedicate towards family member communication. To accommodate the opening of additional inpatient units, a new nursing model was adopted. The model leveraged ICU nurses as leaders of a team of non-ICU nurses. ICU nurses described the added complexity of leading nurses with no adult ICU experience, such as ambulatory or paediatric nurses, who they had never met before to support care for four to five patients requiring mechanical ventilation. As liaisons were deployed to the ICU units, they quickly empathised with the ICU nurses' desire to connect with the patient and

family and their inability to meet their desire due to competing priorities. Participant 001 (ICU nurse) stated:

"When all this (COVID) started, obviously families were very concerned about their loved ones and they would be calling multiple times a day. So the secretary gives the nurse a note ... if you are in two COVID rooms you are running back and forth. You don't have time to call those family members back."

Communication Gaps: The void created by the absence of family members.

Liaison and ICU nurses described family members being left in the dark once the pandemic set in. Liaisons recalled situations where family members had not heard from a clinician in days and were unsure of the status of their loved one. Because family could not be at the bedside, subtle cues in patient status (e.g., psychological state, mentation) were missed. Language barriers were an additional challenge when the primary language was not English. The liaisons enabled many communication gaps to be closed, while fostering inclusion of family members into the care team. Participant 009 (liaison) shared,

"A patient was constantly sleeping so you think he just sleeps all the time ... I would FaceTime with the daughter, she was like 'you know he is never like this. Is he on certain medications?'"

Clinician Guilt: I want to do more but I can't.

ICU nurses often expressed a sense of guilt related to their inability to spend enough time with patient families and one nurse described this as being "stressed in my heart [participant 002]." ICU nurses described being torn between patient care and communicating with families. They described distress when they could not disrupt patient care to take calls from the family or when they forgot to return their calls. The liaison brought relief to the ICU nurses because they knew families weren't being abandoned. Participant 006 (ICU nurse) described:

"It's a bad feeling when you have somebody call you four or five times a day and you're not able to take the call because you are busy with patient care ... you know there is some level of panic that is starting to escalate ... They don't know if it is because we are not taking care of their family member or don't care to talk to them or maybe it's because something really bad has happened."

'Establishing the role and workflow'

Participants spoke about processes that facilitated or impeded their ability to fulfil their roles. They described the evolution and their understanding of the liaison role and how they adapted workflows to best serve families and collaborate effectively. Liaison and ICU nurses discussed the importance of having a role solely dedicated to family. The liaisons could take as much uninterrupted time as they needed with family. This allowed them to serve as a bridge between the care team and the family, gaining a holistic perspective of the medical care, patient, and family. Participant 001 (ICU nurse) shared,

"They (liaisons) were able to be that one contact person for the families and they knew everything. It was amazing how much they knew."

Expectations: Sticking to a schedule that families could rely on

Setting expectations was described by both liaison and ICU nurses as a key component of successful family communication. A minimum of a once daily connection was established between the liaison and a dedicated family member (i.e., spokesperson) so the family member could feel confident that they would be updated and be ready for the call. Participant 010 (liaison) stated:

"I think they (families) were all appreciative just knowing the schedule. Like when I would call you at eight, the doctors haven't rounded yet but here is what happened overnight and once I hear the plan for the day ... then I would call them back."

Individual Needs: Getting a vibe for what each family wanted

The liaisons described how they developed a "vibe [participant 010]" for what each family needed and adapted their communication to meet those individual needs. They quickly learned how often to call each spokesperson and what their primary concerns were. Additionally, they knew which family members preferred video calls and others who needed an interpreter. Participant 010 (liaison) shared:

"He (patient's husband) wanted the big updates but he also wanted the little updates like did she open her eyes today or did she take anything by mouth? ... All those little things you probably would never even think to care about if you were sitting right next to her (the patient)."

Preparation: Gathering information from multiple sources to get the full patient picture.

The liaisons spent a sizeable portion of their time as data collectors-gathering information from the electronic health record, the bedside nurse, and additional care team members to provide an accurate, up-to-date report for families. Liaisons described how they prioritised issues for each day and to get overnight updates. ICU nurses shared that they often saw them researching patients in the health record and doing "their own version [participant 006]" of rounds with the team. Participant 006 (ICU nurse) shared,

"They (liaisons) were great about asking and anticipating questions because they had the time to get to know the family ... to know where they were emotionally and what sorts of questions they typically ask."

Triage: Knowing when to pull in other disciplines to consult with the family.

Triage was described by the liaisons as a means to filter and minimise incoming calls without stepping on the toes of other clinicians. Liaisons were able to satisfy most of the family needs; however, there were discipline-specific questions that the liaison would redirect. For example, questions about a patient transfer to a rehabilitation facility would be shared with the case manager and palliative care questions would be shared with the physician team. Participant 009 (liaison) described:

"Once you kind of got in the groove of things you knew how they (care team) operated and they kind of knew how you operated ... It gets to the point when you have to know when you should involve case management or the social worker and when you need to step out of it."

Challenges: Proving worth in a novel role.

Challenges described by the liaisons and ICU nurses were often related to establishing a workflow. Obtaining updates was difficult due to multiple teams rounding at different times, leaving liaisons "chasing" [participant 010] information. Early in the implementation, the liaisons and unit clinicians were uncertain of the role. Engagement increased as benefits of the role started to emerge. Participant 007 (liaison) shared the initial scepticism of the role,

"Once the staff on the unit figured out what we could do and how we could help them and their patients, we had buy-in like you wouldn't believe. But until then, there was a lot of scepticism."

'Experiencing Human Connection'

The liaison and bedside nurses shared the personal and emotional

toll, fulfilment, and realizations they arrived at by serving or interacting with these novel roles.

Fostering Connection: Bridging the gap between the family and the patient/

Participants described several ways in which they felt that contributions helped to build connections and the critical importance of these connections during a pandemic including building bonds, witnessing the power of the senses, and being there with patients when families could not. Liaison nurses discussed how they were able to build rapport and trust with families by providing ongoing updates and being a consistent bridge to the care team that the family could count on. Liaisons discussed the power of patients and family members being able to see and/ or hear each other through video calls. They watched emotion emerge from both patients and family members being able to see each other for the first time in several days or weeks. Patients that had not been responsive previously would start to open their eyes, turn their head to the voice of their loved one, and verbalize recognition of their loved one. Liaisons were able to be the eyes and ears for families, serving as a physical connection for the patient on their behalf. Participant 008 (liaison) shared:

"I would take the tablet and I would hold his hands so she (patient's mom) could see and I would pet his face for her because I know that's what she couldn't do. I know there was a bond there you know, as a mother and a child you couldn't be there."

Being in Presence of Emotion: Recognizing the emotional toll of the liaison role

Nurses described both the burden of bearing witness to the intense emotions inherent in intensive care units- emotions accentuated by the unique constraints of the pandemic. Participants described the critical state of patients and the challenges of managing emotions. Early in the pandemic, many patients with COVID-19 were on ICU units and many were intubated, with the most critical patients on extracorporeal membrane oxygenation (ECMO). Liaisons were involved in many end of life situations, where they facilitated final goodbyes at the bedside and provided support for families. Participant 007 (liaison) shared,

"There were a lot of stories where it was just sad ... The patient was doing fine ... He was awake and talking finally and then the next day he died."

Liaison nurses had many stories of witnessing tears during video calls and developing a deep understanding of the fear families were experiencing. The liaisons spent time reassuring family members that their loved ones were in good care and calming the fear of uncertainty. Liaisons described the toll extracted by the exposure to overwhelming emotional situations. Emotional conversations occurred frequently, and end of life calls often warranted liaison nurses stepping away to take a breath and collect themselves to be able to continue for the day.

Finding Fulfilment: Experiencing a lasting benefit from serving as a liaison.

In tandem with the challenges, nurses described the sense of privilege, role fulfilment and contribution they felt by serving in these roles. They described personal and professional growth that stemmed from this experience related to time saved for other clinicians, unique contribution of the role, and having a sense of purpose during the pandemic. ICU nurses described a "load being lifted" [participant 002] by the liaisons integrating into the care team as a liaison for the family. Policies and guidelines implemented to mitigate spread combined with treatment uncertainty, placed an impossible strain on ICU nurses to continue to provide care in the manner they had historically. Liaison nurses alleviated the strain felt by ICU nurses at the beginning of the pandemic, allowing nurses to solely focus on patient care.

Liaisons described the privilege that they felt being part of the patient/family connection and being invited into an intimate space. They

voiced the desire to help and the role serving as a means to contribute in a way that "filled their nurse('s) cup" [participant 008]. The liaisons felt honoured and humbled to hear gratitude from families, knowing that they were experiencing quite possibly the most difficult time in their life. Participant 010 (liaison) reflected on the role,

"You want to do anything to help. I felt like that (liaison role) was a good way for me to feel like I was being helpful and doing my part during a global crisis."

Liaisons described being forever changed due to patient/family interactions during the pandemic. They had a deeper understanding of the fear and anxiety that family members were experiencing, which allowed them to empathise more closely with patients and families.

#### Discussion

Participants discussed the stressors of living and working in a pandemic, issues related to establishing the role and workflow, and experiencing human connection. Both fulfilment from their unique contributions in the pandemic and the burden of bearing witness to grief and loss were described. Liaison implementation appears to have alleviated nurse moral distress and fostered the development of close family connections during the uncertainty of a pandemic. The liaison role was vitally important early in the pandemic, when visitation was the strictest and family members were only permitted in extreme cases (e.g., end of life visits). The liaison enabled family members to advocate for their loved one's care and preserve safety while hospitalised. Participants reiterated the importance of having the liaison to bridge family communication, foster family inclusion into the care team, and alleviate stressors for families, patients, and clinicians.

Our findings replicate those of previous studies implementing family support roles or evaluating ICU experiences during the pandemic. For example, our finding that the liaisons were able to find fulfilment by "lifting a load" off the ICU nurses' shoulders is similar to a programme evaluation by Taylor et al. (2020a) that found clinicians were able to dedicate more time to bedside patient care due to implementation of family engagement navigators. Similar to our finding that the nurse family liaison alleviated clinician guilt, a qualitative study found that a family support intervention provided reassurance to the clinical team because they knew that the family was looked after, leading to less moral distress (Naef et al., 2020).

Proximity of family members to their loved one plays a salient role in the patient/family relationship during hospitalisation. For example, our study finding that the liaisons served as a physical connection to patients on behalf of the family is similar to findings of a qualitative study of ICU nurse experiences caring for patients during the COVID-19 pandemic (Gordon et al., 2021). Nurses reported serving as a "surrogate" for patient families by holding patient's hands for families when they could not be present (Gordon et al., 2021). A thematic analysis by Lopez-Soto et al. (2021) including family and friends of critically ill hospitalised patients identified "being there" as a major theme, with friends/family members indicating a strong desire to be in close physical proximity to their loved one. This finding was also echoed in an article examining ethical issues related to COVID-19, recommending use of multiple strategies (e.g., physical, virtual, or healthcare staff as a surrogate) to facilitate family presence (Voo et al., 2020). Moreover, a systematic review of experiences and needs of families with a relative hospitalised in the ICU concluded that family member proximity to their loved one brings comfort and assurance that they are being cared for (Kynoch et al., 2021). Taken together, the notion of "proximity matters" echoed throughout the literature, emphasising the need for family presence in the ICU and family support roles likely helped bridge the proximity gap when hospital visitation was restricted during the pandemic.

As the liaison role implemented in a matter of weeks, there was uncertainty around role responsibilities and processes to retrieve patient

information for family updates. Comparable to implementation of a similar family-centred role (Taylor et al., 2020b), implementation strategies were leveraged such as developing education materials, promoting adaptability, assessing and redesigning workflow, and identifying and preparing champions. Liaisons integrated into the care team by learning rounding patterns and developing relationships with clinicians, helping them to adapt to their new work environment. Similar to our study finding of the importance of meeting the individual needs of family members, a randomized controlled trial examining outcomes related to ICU communication facilitators assessed individual family member needs and concerns as a core component of the intervention (Curtis et al., 2016). Organisations implementing a new role should leverage multiple implementation strategies and allow for role adaptation to meet the need of the environment and patient population.

Whereas our study focused on perceptions of nurses functioning in and working with nurse family liaisons, other studies have focused on family perceptions of communication practices. For example, a qualitative study exploring the experience and needs of family members with loved ones with COVID-19 on mechanical ventilation in the ICU found conflicted feelings about video calls (Chen et al., 2021). The study found that some family members perceived virtual connection with their loved one to contribute to their suffering (Chen et al., 2021), conflicting with the nurse perceptions in our study that video calls helped foster connection between the patient and family. Additionally, where our study found that the liaison role helped close communication gaps between the care team and family, a qualitative study examining family satisfaction of a liaison team identified communication breakdown, particularly with transfers and rapid patient deterioration (Lopez-Soto et al., 2021).

Our work is important as it uniquely presents the experience of implementation of a family support role, a nurse family liaison, from the dual perspective of nurses functioning in and working with the role. While it highlights the adaptability of the frontline workforce in the face of a pandemic, it also reinforces the importance of agility and vigilance by health care organization to iteratively learn and adapt to the continuously changing face of a global crisis. Our work describes the themes of living in a pandemic, establishing the role and workflow, and experiencing human connection capture the unique contribution of the role, while describing the conflict between fulfilment and burden that was experienced during the pandemic.

## Clinical Implications

Preparing for family updates involved gathering data from multiple sources including the electronic health record, interprofessional team rounds, and the ICU bedside nurse. They were careful not to disrupt or burden ICU nurse workflow by finding update times that were convenient for them. Liaisons were able to communicate their value through action, as the ICU nurses experienced less incoming call volumes, seeing liaisons facilitate video calls, and hearing the personal knowledge that the liaison possessed about the patient families. Clinicians pioneering new roles should be open and flexible to using different approaches to adapt to their role and foster relationships by clearly demonstrating the value they bring to the care team. It is also important to note that bedside nurses firmly viewed themselves as responsible for the communication and emotional support of family members. While this responsibility was challenging to fulfil in the midst of a crisis, necessitating a novel liaison role, health care organisations should be mindful about creating work environments that allow nurses to perform the roles that bring professional pride and joy.

Emotional burden was high for the liaisons due to interaction with family members who were afraid or anxious regarding care of their loved one or due to facilitation of end of life visits. Liaisons felt reward from calming family member fears and ensuring that families could say goodbye to their dying loved one. However, the frequency and intensity of emotions was much higher than they had experienced in previous

nursing roles, indicating that such roles may need additional resources and support to cope with emotional distress.

COVID-19 has threatened family-centred care, which has historically relied on family presence at the bedside (Hart et al., 2020). Nurses and other clinicians in family-centred roles may be ideal to foster empathy and advocacy for families to impact the larger hospital culture. Hospital organization should consider how they can provide family-centred care, specifically within the context of a global crisis such as a pandemic.

#### Limitations

Study limitations included data collection methods, single hospital setting, and potential participant bias. Because this study took place during the COVID-19 pandemic, engaging nurses to participate in a 60 min interview was challenging. Of the nurses that responded to the short demographic survey, only one-third scheduled and completed interviews. However, the research team did not observe any new themes emerge when coding the last few interviews. We used two approaches (e. g., focus groups, 1:1 interviews) for data collection, which may have limited individual responses. This study took place within one academic hospital setting in the Midwest, which may limit translation of findings to other healthcare settings and geographical locations. Additionally, participant bias may have been introduced due to participating nurses having interested in the study due to positive experiences with the liaison role. Family members were not included in the interview sample, with results pertaining only to nurse perceptions. Interviews with family members and a larger sample of healthcare clinicians may have led to more diverse experiences and data generation.

#### Conclusion

Perceptions of the liaison role were overall positive and support the unique contribution during the COVID-19 pandemic. Implementation of the liaison role was essential within our organization, bridging the communication and physical presence gaps that may have been detrimental to patient and family well-being in the early wave of the pandemic. Findings from this study can help inform implementation of similar roles in hospital settings.

## **Funding Source**

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

### **Declaration of Competing Interest**

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

# References

- Al-Mutair, A.S., Plummer, V., O'Brien, A., Clerehan, R., 2013. Family needs and involvement in the intensive care unit: A literature review. J. Clin. Nurs. 22 (13-14), 1805–1817. https://doi.org/10.1111/jocn.12065.
- Andrist, E., Clarke, R.G., Harding, M., 2020. Paved with Good intentions: hospital visitation restrictions in the age of coronavirus disease 2019\*. Pediatr. Crit. Care Med. 21, E924–E926. https://doi.org/10.1097/PCC.00000000000002506.
- Azoulay, E., Forel, J.-M., Vinatier, I., Truillet, R., Renault, A., Valade, S., Jaber, S., Durand-Gasselin, J., Schwebel, C., Georges, H., Merceron, S., Cariou, A., Moussa, M., Hraiech, S., Argaud, L., Leone, M., Curtis, J.R., Kentish-Barnes, N., Jouve, E., Papazian, L., 2018. Questions to improve family–staff communication in the ICU: a randomized controlled trial. Intensive Care Med. 44 (11), 1879–1887. https://doi.org/10.1007/s00134-018-5423-2.
- Boulton, A.J., Jordan, H., Adams, C.E., Polgarova, P., Morris, A.C., Arora, N., 2021. Intensive care unit visiting and family communication during the COVID-19 pandemic: A UK survey. J. Intensive Care Soc. https://doi.org/10.1177/ 17511437211007779.
- Boustani, M., Azar, J., Solid, C., 2020. Agile Implementation. Morgan James Publishing, New York, NY.

- Cattelan, J., Castellano, S., Merdji, H., Audusseau, J., Claude, B., Feuillassier, L., Cunat, S., Astrié, M., Aquin, C., Buis, G., Gehant, E., Granier, A., Kercha, H., Le Guillou, C., Martin, G., Roulot, K., Meziani, F., Putois, O., Helms, J., 2021. Psychological effects of remote-only communication among reference persons of ICU patients during COVID-19 pandemic. J. Intensive Care 9 (1). https://doi.org/10.1186/s40560-020-00520-w.
- Chen, C., Wittenburg, E., Sullivan, S.S., Lorenz, R.A., Chang, Y., 2021. The experiences of family members of ventilated COVID-19 patients in the intensive care unit: A qualitative study. Am. J. Hosp. Palliat. Care 38 (7), 869–876. https://doi.org/ 10.1177/10499091211006914.
- Curtis, J.R., Treece, P.D., Nielsen, E.L., Gold, J., Ciechanowski, P.S., Shannon, S.E., Khandelwal, N., Young, J.P., Engelberg, R.A., 2016. Randomized trial of communication facilitators to reduce family distress and intensity of end-of-life care. Am. J. Respir. Crit. Care Med. 193 (2), 154–162. https://doi.org/10.1164/rcm.2015.05-0900CC.
- Doucette, E., Sanzone, L., Albahouth, A., De Luca, W., Santella, G., Wang, K., 2019. The role of technology in enhancing a family-centered approach to care: Navigating nurse-family communication in the ICU. Can. J. Crit. Care Nurs. 30, 29–34.
- Edward, K.L., Galletti, A., Huynh, M., 2020. Enhancing communication with family members in the intensive care unit: A mixed-methods study. Crit. Care Nurse 40, 23–32. https://doi.org/10.4037/ccn2020595.
- Fumis, R.R.L., Ranzani, O.T., Martins, P.S., Schettino, G., Schmahl, C., 2015. Emotional disorders in pairs of patients and their family members during and after ICU stay. PLoS ONE 10 (1), e0115332. https://doi.org/10.1371/journal.pone.0115332.
- Gordon, J.M., Magbee, T., Yoder, L.H., 2021. The experiences of critical care nurses caring for patients with COVID-19 during the 2020 pandemic: A qualitative study. Appl. Nurs. Res 59. https://doi.org/10.1016/j.apnr.2021.151418.
- Guest, G., MacQueen, K.M., Namey, E.E., 2012. Applied Thematic Analysis. Sage Publications Inc., Thousand Oaks, CA.
- Harlan, E.A., Miller, J., Costa, D.K., Fagerlin, A., Iwashyna, T.J., Chen, E.P., Lipman, K., Valley, T.S., 2020. Emotional experiences and coping strategies of family members of critically ill patients. Chest 158 (4), 1464–1472. https://doi.org/10.1016/j. chest.2020.05.535.
- Hart, J.L., Turnbull, A.E., Oppenheim, I.M., Courtright, K.R., 2020. Family-Centered Care During the COVID-19 Era. J. Pain Symptom Manage. 60 (2), e93–e97. https://doi. org/10.1016/j.jpainsymman.2020.04.017.
- Hugelius, K., Harada, N., Marutani, M., 2021. Consequences of Visiting restrictions during the COVID-19 pandemic: An integrative review. Int. J. Nurs. Stud. 121, 104000, https://doi.org/10.1016/j.ijnurstu.2021.104000.
- Johnson, C.C., Suchyta, M.R., Darowski, E.S., Collar, E.M., Kiehl, A.L., Van, J., Jackson, J.C., Hopkins, R.O., 2019. Psychological sequelae in family caregivers of critically ill intensive care unit patients a systematic review. Ann. Am. Thorac. Soc. 16, 894–909. https://doi.org/10.1513/AnnalsATS.201808-540SR.
- Kynoch, K., Ramis, M., McArdle, A., 2021. Experiences and needs of families with a relative admitted to an adult intensive care unit: A systematic review of qualitative studies. JBI. evid. synth 19 (7), 1499–1554. https://doi.org/10.11124/JBIES-20-00136.
- Lambert, S.D., Loiselle, C.G., 2008. Combining individual interviews and focus groups to enhance data richness. J. Adv. Nurs. 62 (2), 228–237. https://doi.org/10.1111/j.1365-2648.2007.04559.x.
- Lopez-Soto, C., Bates, E., Anderson, C., Saha, S., Adams, L., Aulakh, A., Bowtell, F., Buckel, M., Emms, T., Shebl, M., Metaxa, V., 2021. The Role of a Liaison Team in ICU Family Communication During the COVID 19 Pandemic. J. Pain Symptom Manage. 1, 1–10. https://doi.org/10.1016/j.jpainsymman.2021.04.008.
- Monette, D., Sullivan, T., DeJong, C., 2013. Applied Social Research: A Tool for the Human Services. Brooks/Cole Cengage Learning, Belmont, CA.
- Montauk, T.R., Kuhl, E.A., 2020. COVID-Related Family Separation and Trauma in the Intensive Care Unit. Psychol. Trauma Theory. Res. Pract. Policy 12, 96–97. https://doi.org/10.1037/tra0000839.
- Naef, R., Massarotto, P., Petry, H., 2020. Family and health professional experience with a nurse-led family support intervention in ICU: A qualitative evaluation study. Intens. Crit. Care Nur 61. https://doi.org/10.1016/j.iccn.2020.102916.
- Naef, R., von Felton, S., Petry, H., Ernst, J., Massarotto, P., 2021. Impact of a nurse-led family support intervention on family members' satisfaction with intensive care and psychological wellbing: A mixed-methods evaluation. Aust. Crit. Care 34 (6), 594–603. https://doi.org/10.1016/j.aucc.2020.10.014.
- Petrinec, A.B., Daly, B.J., 2016. Post-traumatic Stress Symptoms in Post-ICU Family Members: Review and Methodological Challenges. West. J. Nurs. Res. 38 (1), 57–78. https://doi.org/10.1177/0193945914544176.
- Shelton, W., Moore, C.D., Socaris, S., Gao, J., Dowling, J., 2010. The effect of a family support intervention on family satisfaction, length of stay, and cost of care in the intensive care unit. Crit. Care Med 38 (5), 1315–1320. https://doi.org/10.1097/CCM.0b013e3181d9d9fe.
- Siddiqi, H., 2020. To suffer alone: Hospital visitation policies during COVID-19. J. Hosp. Med. 15 (11), 694–695. https://doi.org/10.12788/jhm.290010.12788/jhm.3494.
- Sundararajan, K., Martin, M., Rajagopala, S., Chapman, M.J., 2014. Posttraumatic stress disorder in close Relatives of Intensive Care unit patients' Evaluation (PRICE) study. Aust. Crit. Care 27 (4), 183–187. https://doi.org/10.1016/j.aucc.2014.04.003.
- Sundler, A.J., Lindberg, E., Nilsson, C., Palmér, L., 2019. Qualitative thematic analysis based on descriptive phenomenology. Nurs. Open 6, 733–739. https://doi.org/
- Taylor, S.P., Short, R.T., Asher, A.M., Muthukkumar, R., Sanka, P., 2020a. Family engagement navigators: A novel program to facilitate family-centered care in the intensive care unit during COVID-19. NEJM Catal. Innov. Care Deliv. https://doi. org/10.1056/CAT.20.0396.

- Taylor, S.P., Short, R.T., Asher, A.M., Taylor, B., Beidas, R.S., 2020b. A rapid preimplementation evaluation to inform a family engagement navigator program during COVID-19. Implement. Sci. Commun. 1, 1–10. https://doi.org/10.1186/s43058-020-00098-2.
- Tong, A., Sainsbury, P., Craig, J., 2007. Consolidated criteria for reporting qualitative research (COREQ): A 32-item checklist for interviews and focus groups. Int. J. Qual. Heal. Care 19, 349–357. https://doi.org/10.1093/intqhc/mzm042.
- Torke, A.M., Wocial, L.D., Johns, S.A., Sachs, G.A., Callahan, C.M., Bosslet, G.T., Slaven, J.E., Perkins, S.M., Hickman, S.E., Montz, K., Burke, E.S., 2016. The family navigator: A pilot intervention to support intensive care unit family surrogates. Am. J. Crit. Care 25 (6), 498–507. https://doi.org/10.4037/ajcc2016730.
- Voo, T.C., Senguttuvan, M., Tam, C.C., 2020. Family presence for patients and separated relatives during COVID-19: physical, virtual, and surrogate. J. Bioeth. Inq. 17 (4), 767–772. https://doi.org/10.1007/s11673-020-10009-8
- 767–772. https://doi.org/10.1007/s11673-020-10009-8.

  White, D.B., Angus, D.C., Shields, A.M., Buddadhumaruk, P., Pidro, C., Paner, C., Chaitin, E., Chang, C.C.H, Pike, F., Weissfeld, L., Kahn, J.M., Darby, J.M., Kowinsky, A., Martin, S., Arnold, R.M., 2018. A randomized trial of a family support intervention in intensive care units. N. Engl. J. Med 378 (25), 2365–2375. https://doi.org/10.1056/NEJMoa1802637.
- Wittenberg, E., Goldsmith, J.V., Chen, C., Prince-Paul, M., Johnson, R.R., 2021.

  Opportunities to improve COVID-19 provider communication resources: A systematic review. Patient Educ. Couns. 104 (3), 438–451. https://doi.org/10.1016/j.pec.2020.12.031.