THE EXPERIENCES OF EMERGENCY DEPARTMENT NURSES AFTER UNEXPECTED PATIENT DEATH IN A COMMUNITY BASED HOSPITAL: A FOCUSED ETHNOGRAPHY

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A THESIS SUBMITTED TO THE FACULTY OF GRADUATE STUDIES IN FULFILLMENT OF THE REQUIREMENTS FOR THE MASTERS OF SCIENCE IN NURSING GRADUATE PROGRAM IN NURSING

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Abstract

Background: Unexpected patient death is an unmodifiable event faced by emergency department (ED) nurses. Previous studies have reported how ED nurses cope with, and the consequences of, an unexpected patient death. *Purpose*: This study explored the experiences of ED nurses after unexpected patient death in a community-based hospital setting, as previous research focused on experiences of ED nurses in urban, or teaching, hospitals. *Design and Methods*: Focused ethnography allowed for the collection of thick rich data through ED site observation and the semi-structured interviews of six participants. Data were analyzed using thematic analysis where four themes and six sub-themes were construed. *Results*: Although ED nurses have varying ways of characterizing whether a patient death is unexpected, ED nurses experience unexpected patient death in a chaotic environment where there is an ongoing exchange of support between those around them. Complexity theory unveiled the emerging changes of what defines, and the roles of, junior and senior ED nurses. *Implications*: Implications for practice, policy, and research include the routine use of formal debriefing, working with local emergency medical services (EMS) for adjacent opportunities of support, and exploring the experiences of junior ED nurses, specifically.

Dedication

I dedicate this work to my family. To Chris, who taught me to breathe again, to be courageous enough to start this journey, and who knows the true meaning of unconditional love. This wouldn't have been possible without you. To our children Ethan, Owen and Rhys, thank-you for putting up with the chaos of this process. I hope I have made you proud. To my Mom and Dad, you truly are my biggest cheerleaders. And finally, to John. I know you have been by my side on this journey. Your legacy is greater than any of us could have imagined. I miss you and love you.

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The Experiences of Emergency Department Nurses After the Unexpected Death of a Patient in a Community Based Hospital: A Focused Ethnography

Chapter 1

Introduction

Canadians recorded almost 14.0 million emergency department (ED) visits in 2020-2021 (Canadian Institute for Health Information, 2023). In the same time frame, almost 55% of the 307,520 Canadian deaths occurred in a hospital setting, with 18,498 of those in the ED (Canadian Institute for Health Information, 2023; Statistics Canada, 2023). These ED deaths do not include patients who, although admitted as an inpatient to a different unit, died while waiting to be transferred to a physical bed elsewhere in the hospital. It is important to acknowledge that these numbers were collected during the first year of the Covid-19 pandemic and reflected a 7.7% increase in nation-wide mortality rates (Statistics Canada, 2022, p. 1), however, these statistics also articulate the amount of patient deaths that nurses encounter in the clinical setting. Whether the death is expected or not, ED nurses are frequently exposed to the grief of families who have just lost a loved one. This is often accompanied by the task of processing their own emotions that accompany the death of a patient in their care. As a nurse who spent twenty years caring for patients in the ED, I can attest to how overwhelming these moments can be. I have seen how the moment when an ED patient crosses the threshold between life and death can be surrounded by love, calm and a deliberate shared goal to allow a loved one to quietly slip from our world to the next, or chaos, noise and the abrupt ending of a life robbed from those left unprepared. For ED nurses, that moment, and those that follow, can be fraught with sadness,

helplessness, and anxiety, as well as compassion for the loved ones left behind (Kostka et al., 2021). Nurses, including those in the ED, have described feeling helplessness, frustration, anger, lack of resolution, shock, denial, guilt, powerlessness, fatigue and fear of the family's reaction after the death of a patient (Chen et al., 2023; Khalaf et al., 2018; Lindsay & Heliker, 2018; Mast & Gillum, 2018). While I no longer work as an ED nurse, due to my long tenure, this part of my life still contributes to my self-identity, in turn contributing to my interest in the phenomenon of this research project. Caring for patients who unexpectedly die, and their grieving families, was an unmodifiable, and challenging, part of my job. For these reasons, exploring how other ED nurses experience patient death, especially one that is unexpected, was of interest to me.

What defines a death as unexpected, or sudden, varies. Sessa et al. (2021) note that there is no universal definition, with medical communities around the world using measured time frames from significant symptom onset to death to characterize the passing of a patient as unexpected. For example, while the World Health Organization (WHO) defines sudden death as one that occurs within 24 hours of symptom onset, the Association for European Cardiovascular Pathology uses a six-hour window (Sessa et al., 2021). The researchers remark that these numbers are arbitrary and that the current medico-legal definitions fail to account for traumatic or violent deaths. Whether it be due to acute physical trauma, a critical turn in an acute or chronic illness, or for a yet-to-be discovered cause, unexpected death in the ED can occur for a multitude of reasons. For the purpose of this study, unexpected death will be defined as one that contains an element of surprise and that occurs suddenly and earlier than expected (Hui, 2015).

Background

Emergency department personnel consider the death of a patient to be one of the most common causes of critical events, described as "a self defined traumatic event that cause

individuals to experience such strong emotional responses that usual coping mechanisms are ineffective" (Magyar & Theophilos, 2010, p. 500), especially one that is unexpected or that of a child, and dealing with newly bereaved families in the immediate aftermath (Abu-Alhaiji & Gillespie, 2022; Adriaenssens et al., 2012; Allen & Palk, 2018; Cantu & Thomas, 2020; Caufield et al., 2022; Hogan et al., 2016; Kleim et al., 2015). Despite the often-short periods of interaction between ED nurses and those in their care, tending to patients and their families in the moments surrounding unexpected death have been described as emotionally demanding and intense (Bailey, 2011). Yet exposure to patient death is part of the routine and unmodifiable professional environment of the ED department.

As focus turns to the family after a patient death the emotions of professional caregivers are often ignored (Chen et al. 2019). There is much research regarding the nursing role as a 'helper' to a bereaved family, however, the feelings experienced by those in the helping role has only recently been investigated (Decker et al., 2015; Du et al., 2022; Hogan et al., 2016; Khalaf, 2018; Kongsuwan et al., 2016; Wolf et al., 2015). While investigation surrounding the experiences of nurses with patient death and the emotions that follow has increased, the breadth of inquiry has been with nurses in oncology, critical care, palliative care, and pediatrics (Broden et al., 2018; Chen et al., 2018; Hawes et al., 2022; Hildebrandt, 2012; Rodriguez et al. 2020). The focus on these areas in the literature can be explained by the fact that nurses in these settings often develop relationships with patients and families over time, unlike in the ED where interactions are typically time-limited, and the perception is that relationships are not as meaningful. Despite the general consideration that ED nurses emotionally and spatially disengage themselves from a patient once they have died, it has been found that this is not always the case (Scott, 2013). Due to the hectic environment of EDs, it may be expected that

nurses immediately shift their attention away from the deceased and onto those still in need of care. However, the care of an ED patient does not stop once they take their last breath. Regardless of the limited time an ED nurse may have connecting with their patient before they die, some describe how they still talk to, physically care for and carry out symbolic or meaningful actions as if their patients were still alive (Anderson et al., 2015; Bailey, 2011; Scott, 2013). This underscores the need to explore the experiences of ED nurses after the death of a patient, especially those that are unexpected.

Significance

The consequences of work-related stress on nurses are well documented, as is the impact on patient care. Patient safety, quality of care, patient experience and nurse productivity have been found to be inversely related to burnout (Jun et al., 2021). ED nurses report that they are often left on their own to cope and find means of support after the death of a patient (Shimoinaba et al., 2021; Zheng et al., 2018). Lack of institutional support after a critical event can lead to nurses taking extended time off or even leaving the unit where the event occurred (Anderson et al., 2015). This must be a serious consideration for those in management and government leadership roles as Ontario, where this study takes place, is already facing an ED nurse staffing crisis. There have been reports of closings, both temporary and permanent, of (mostly rural) EDs across the province (Wallace, 2023). There are no public government records showing objective data, however, Wallace (2023), reporting for The Toronto Star, reviewed local media coverage and hospital announcements. Wallace (2023) discovered that EDs across Ontario were closed for the equivalent of 184 days between February 2022 and February 2023 due to staffing shortages. These staffing shortages are not only impacting EDs in Ontario, but healthcare systems across Canada. In a news release from June 14, 2023, Health Canada (2023) noted increasing

workloads, high incidences of stress, anxiety, burnout, abuse, and depression as reasons that nurses are leaving the profession across the country.

The number of ED visits across Canada is consistently increasing, having risen by 7.9% in the last five years. The most recent data from 2022-2023 shows that visits are not only returning to pre-pandemic levels but are continuing to rise (Canadian Institute for Health Information, 2023). One of the reasons for this is that 1 in 10 Canadians state that they have no access to a primary care practitioner (Kiran et al., 2022). In May 2022, a statement from the Canadian Medical Association (2022) sounded the alarm bells about the decreasing number of graduating and practicing primary care practitioners, and the impact on patients as they turn to already overwhelmed EDs for care. In Canada's largest city, this becomes even more concerning after a published study showed that 1 in 5 family physicians in the Toronto area are looking to close their practice in the next five years (Kiran et al., 2022). While there are increasing demands on all EDs across Ontario, as noted, many of the ED closures in Ontario have been in community hospitals.

Health Quality Ontario (n.d.) defines a community hospital as one that will "provide emergency, general medical and surgical services to patients living geographically close to the hospital but may not be able to provide more complex care" (Health Quality Ontario, n.d., p. 3). Typically, community-based hospitals lack the same resources available to large, urban teaching hospitals. The current precarious state of EDs in Ontario, especially those outside of urban areas, needs to be acknowledged, as well as how best to support the nurses who work within them, including after the inevitable exposure to patient death. Therefore, the purpose of this study is to explore and understand the experiences of ED nurses after the unexpected death of a patient in a community-based hospital.

Research Question

What are the experiences of ED nurses after the unexpected death of a patient in a community-based hospital and what supports do they receive?

Chapter 2

Literature Review

A literature review was performed, and its findings were categorized into both internal responses and external supports that ED nurses use after the unexpected death of a patient. The themes were then broken down to explore the strategies and consequences of accessing these supports.

Search Strategies

The keywords used in the search strategy for this literature review included nurs*, emergency (department OR unit), grief OR bereavement, end-of-life, and sudden patient (death OR loss). Online databases CINAHL, Google Scholar, PubMed were used to access peer-reviewed journals published between 2012 and 2023 from varying international geographical locations. Only those available in full text were included. Abstracts were examined for topic relevance. Exclusion criteria included articles related to the effects of patient death on family members and those that did not include nurses as the main healthcare professional under investigation. After review, a total of 40 articles were included in this literature review. Internal (from within the individual) and external (those within the environment) strategies and resources used by ED nurses after sudden patient death are examined.

Internal Responses and Impact

Internal Strategies

ED nurses often do not take the time to process the events surrounding an unexpected death as they complete their shift. Self-imposed and environmental expectations to return to work often overshadow any need to recognize the emotional or mental impact these deaths may

incur. In the moments and hours after the event, ED nurses recalled stepping away to cry and seeking out colleagues to talk about the event, but almost immediately return to work caring for patients (Chen et al., 2023; Khalaf et al., 2018; Lindsay & Heliker, 2018; Mast & Gillum, 2018). Despite recommendations that ED nurses take time to mentally recover after the death of a patient, they are often prevented by the busyness of the environment and a culture of emotional management, sometimes referred to as emotional labour (Abu-Alhaija et. al., 2022; Gerace et al., 2021; Kirk et al., 2020).

ED nurses in the level 1 pediatric emergency department research by Clark et al. (2019) articulate taking on a feeling of numbness to complete their shift after the death of a patient. Nurses use this strategy to maintain an outward sense of professionalism and objectivity, as well as to feel prepared for other critical incidents that may present themselves within the remainder of their shift (Clark et al., 2019). Cumulative exposure to critical incidents in the ED over time, including patient death, has been shown to have a negative impact on nurse-patient relationships (Wolf et al., 2020). By compartmentalizing their emotions, ED nurses are removing the human component of patient care and strictly focusing on patient care tasks (Wolf et al., 2020). However, this can lead to a paradoxical situation as ED nurses have voiced that being unable to provide holistic care causes them distress (Caulfield et al., 2022). Wolf et al. (2020) questions the ability of an ED nurse who has assumed emotional numbing as a coping strategy after unexpected patient death. The authors query whether an ED nurse can return to their patient assignments and recognize escalating behaviours or decompensating cues of those in their care.

Voultsos (2021) remarks that emotional dissonance, where emotional responses become poorly regulated and burdensome due to the effort to express socially- or occupationally-required sentiments, occurs for nurses as they must maintain both professionalism and the demonstration

of a caring and compassionate attitude. A potential link between emotional dissonance and burnout has been found in the research by Tei et al. (2014). After performing functional magnetic resonance imaging (fMRI) on study participants to assess neural correlates of empathy and their relationships to burnout, researchers found parallels between the severity of burnout, emotional dissonance and levels of alexithymia (defined as the inability to describe or experience emotion, or the matching of expressed and experienced emotions) (Voultsos, 2021). Researchers also discovered reduced levels of empathy related brain activity (Tei et al., 2014). If there is indeed a link between emotional dissonance and burnout, investigating this further could benefit ED nurses as literature shows that ED nurses are experiencing high burnout levels (Adriaenssens, 2015; Cantu, 2020).

Zheng et al. (2018) found that patient death is a personal experience. The death of a patient can be perceived differently by each nurse, resulting in the individual assessment of whether their patient had a 'good death' or not. Research has frequently shown that the ED is not a place where a patient and their family can experience a 'good death', due to the loud and busy environment, inadequate privacy, difficulty finding appropriate space and resources, staffing shortages and the lack of time afforded to a dying patient and their family (Decker et al., 2015; Gerace et al., 2021; Hogan et al., 2016; McCallum et al., 2018). The concept and perception of a 'good death' among health care providers is not associated with one that is sudden. Nurses discuss desirability for control over the trajectory of a patient's death, one that is painless, and the appearance of a body appearing comfortable and having fallen asleep as criteria for a 'good death' (Anderson et al., 2015; Decker et al., 2015; Scott, 2013). They articulate a sense of peace and relief when a patient has had a 'good death' (Chen et al., 2023). Regardless of how the loss of life occurs, ED nurses describe cleaning, adjusting and staging the room, and positioning the

patient to give the appearance that a ‘good death’ has occurred (Scott, 2013). As the ED is perceived by both practitioners and society to be one where resuscitative and life-saving measures occur, those who have been a part of an unexpected death are left to sort through the emotional consequences. McCallum et al. (2018) looked at the experiences of ED nurses internationally, most of which were from urban or teaching hospitals. They found that the emotional consequences can be caused by a sense of professional failure as well as a perceived view of negative societal judgement and are more pertinent if the patient is young (McCallum et al., 2018).

Internal Consequences

The negative impact of repeated exposure to occupational stressors, such as sudden patient death, on ED nurses is well documented. The absence of effective support can lead to harmful self-managing behaviours such as self-blame, consuming alcohol, drug use, and unhealthy sexual behaviours (Elder et al., 2019; Wolf et al., 2020). At the extreme end of the spectrum, Wolf et al. (2020) reported the very concerning discovery of high levels of suicidality in their work exploring the effects of traumatic stress on ED nurses. Despite disclosing that they had worked with ED nurses who had committed suicide and at times had thought of suicide themselves, study participants expressed reluctance to seek help for their mental and emotional well-being due to a fear of appearing weak and their perception of poor care provided to patients experiencing a mental health crisis (Wolf et al., 2020). The build-up of occupational stress can also lead to the self-perception of decreased levels of nursing care (Yuwanich et al., 2016). This includes providing misinformation, non-holistic care, and delayed or sub-par quality of care to patients due to diminished concentration (Yuwanich et al., 2016). These negative coping strategies and the consequences of traumatic occupational stress are troublesome not only in

relation to the well-being of ED nurses, but the care they provide after dealing with repeated occupational stressful events within their shift.

The sudden death of a patient has been repeatedly linked to the symptoms and prevalence of secondary traumatic stress (STS) in ED nurses (Morrison & Joy, 2016; Ratrout & Hamdan-Mansour, 2020; Wolf et al., 2020). STS has been described as the stress acquired by caring for others who are the victims of a traumatic event in the desire to help the traumatized or suffering individual (Morrison & Joy, 2016). The resulting behaviours and emotions, which are similar to post-traumatic stress disorder (PTSD), of STS can also come as a result of simply obtaining knowledge about a traumatic event experienced by another (Morrison & Joy, 2016). Characterized as an occupational hazard, ED nurses working in a large acute ED were noted to be especially prone to STS as they care for patients who face trauma on a regular basis (Woo & Kim, 2021). STS has been linked to acute- and poly-stressors, such as unexpected patient death, numerous exposures to critical events or other stressful environmental ED concerns such as heavy workloads (Morrison & Joy, 2016; Woo & Kim, 2021). STS has also shown to cause increased absenteeism, sick leave, and decreased quality of care (Ratrout & Hamdan-Mansour, 2020). The percentage of nurses who show moderate to high levels of STS throughout the literature, internationally, is high (Ratrout & Hamdan-Mansour, 2020; Woo & Kim, 2021). This reflects that there are some similarities to experiences and consequences of traumatic professional experiences by ED nurses around the globe, regardless of geographical location or external cultural influences. Based on the definition, it can be argued that STS occurs not just from caring for a patient who has faced trauma, but by being present for and supporting the loved ones of patients who have died unexpectedly.

Wilson et al. (2019) found that the greatest net negative change in the Emotional Stress Reaction Questionnaire (ESRQ) positive negative emotions balance score was a result of patient death. Using nursing literature as a guide, the authors categorized traumatizing, or stressful, events in developing their shift observation recording tool. Administered to ED nurses working in a level-1 academic hospital, the questionnaire, which was completed at the beginning and then the end of a shift, reflects the emotional toll ED nurses experience in the immediate aftermath of patient death. ESRQ scores were significantly decreased if nurses were exposed to more than one traumatizing event within their shift, supporting the notion that the negative emotional effects on ED nurses were immediate and compounded by exposure to multiple occupational stressors. ED nurses in this study continued to work for the remainder of their shifts and showed competent and compassionate care despite the emotional turmoil that may have been felt. This was the only paper found that examines the real-time effects of patient death on ED nurses. This is an important gap in the literature to consider as ED nurses are often asked to reflect on their actions and emotions at a later date where memory, time and other experiences may cloud the magnitude and emotional impact of what occurred.

External Supports

External strategies

ED nurses often choose informal debriefing to cope with the death of a patient. This includes seeking peer support by talking with colleagues about the event and their feelings, engaging in self-reflection, and examining their role in the incident (Chen et al., 2023; Meller et al., 2019). Many also participate in a hot, warm or cold debriefing (Wolf et al., 2020). A hot debriefing occurs immediately after the event, a warm debriefing within a few hours, and a cold debriefing takes place a few days or weeks later (Lyman, 2021). Cold debriefs often allow for the

patient outcome to be shared with participants (Lyman, 2021). This could prove beneficial as the unknown cause of death of a patient can cause troubling confusion among professional caregivers (Chen et al., 2023). A hot or warm debriefing, also referred to as defusing, occurs in an unstructured manner where the aim is to decrease tension, help those involved to regain control, and emphasize the normality of stress reactions and abnormality of the event (Magyar & Theophilus, 2010). Often used as an educational tool, debriefing can potentially alter the behaviour of a team and positively influence future patient outcomes, provide an opportunity for nurses to acknowledge their emotions and experiences, as well as to gain knowledge for use in subsequent situations (Kessler et al., 2015; Schmidt & Haglund, 2017). Therefore, investigating which of these types, or any combination, of debriefing ED nurses find most beneficial after the sudden death of a patient could be considered.

ED nurses frequently note that debriefings have traditionally focused on objective aspects of a critical event as opposed to emotional components and subjective experiences (Kessler et al., 2015; McCall, 2020). There are varying reports about ED nurses and their desire to discuss their personal feelings during debriefing. Participants in the study by McCall (2020) note feeling uncomfortable speaking about their emotions with colleagues or debrief leaders for whom they do not have an established rapport. Clark et al. (2019) show that nurses prefer to focus only on clinical aspects for fear of being unable to continue with their work in a professional manner, yet those in the inquiry by Shimoinaba et al. (2021) demonstrated willingness to talk about their individual feelings and experience. Most ED nurses choose to discuss the death of a patient with colleagues as confidentiality issues, fear of conveying upsetting information, and a lack of understanding impede their ability to talk to friends and family (Clark et al., 2019). This is an

important consideration as ED nurses are voicing the need to have a ‘safe place’ in which to discuss the emotions connected to critical events.

Often physician-driven and objective-action focused, formal debriefing can be compromised by time constraints, physician availability and the lack of facilitator training (Kessler et al., 2015; Rose and Cheng, 2018). There have been findings suggesting that nurse-led debriefings lead to more effective session due to the perceived level of peer perspective understanding (Clark et al., 2019; McCall, 2020). Unfortunately, the busyness of EDs often make it difficult for debriefing sessions to occur resulting in inconsistency in their offering and attendance (Hammerle et al., 2017; Healy & Tyrell, 2013; Kessler et al., 2015; Lyman, 2021; Morrison & Joy, 2016; Rose & Chen, 2018). Less experienced nurses have shown to have a perception that debriefing is of lesser importance than their more tenured colleagues (Healy & Tyrell, 2013). The authors hypothesize this is due to exposure to fewer critical incidents and the fear of being viewed as unable to cope. As can be seen, the who, what, when and where of debriefing in EDs is still up for debate.

Abu-Alhaija and Gillespie (2022) state that ED nurses should be educated on the impact of work-related stress on personal health, how to recognize when an incident becomes critical for them, and ways to manage effective coping strategies. This notion is mirrored by Rodriguez-Arrastia et al. (2022), who emphasize the importance of training on emotional/psychological well-being, stress management, resilience building strategies, and training for the emotional and cognitive realities of the professional setting. Allen and Palk (2018) suggest the need to implement programming during ED orientation that focuses on what nurses will face in the ED, including patient death, and how to promote self-care and resilience, coping strategies, and stress management techniques. They hypothesize that resilience education during the orientation phase

of an ED nurse's training will not only provide tools to increase coping and resilience but will also open conversations about coping in the ED setting. The only current research that addresses death education for ED nurses and its impact after the sudden death of patients was published by Zhang et al. (2020). ED nurses in China attended a sudden-death course then evaluated their perceived effective behaviour responses. The study, however, does not examine the impact of death education on the ED nurse outside of the nurse-patient-family relationship. The authors conclude that death education will allow ED nurses to maintain a positive psychological mindset, yet there is no indication that the mental or emotional attitudes of nurses were fully assessed, leaving an opening for future research. The suggestion of providing ED nurses with knowledge of how to better prepare themselves for patient death is a common theme throughout the literature (Bailey et. al., 2011; Baldissera et. al., 2018; Shimoinaba et al., 2021; Wolf et al., 2020). The calls for such education come not just from researchers, but from ED nurses internationally, including Brazil, the United Kingdom, Australia and the United States (Abu-Alhaija, 2022; Allen & Palk, 2018; Bailey, 2011; Baldissera, 2018; Gerace et al., 2021). Interestingly, no proposals for resilience education for Canadian ED nurses were found during the literature review for this paper.

Professional Consequences

Traumatic events can have a negative impact on relationships between nurse colleagues, especially when management and staff nurses are not cognisant of the potential emotional consequences (Wolf et al., 2020). Over time, this can lead to a more toxic work environment, less mentoring for newer nurses, and decreased retention (Wolf et al., 2020). In the research of sudden pediatric deaths in metropolitan and regional EDs by Shimoinaba et al. (2021), senior nurses recall how appreciative they were of the emotional support and clinical guidance provided

to them by management and experienced nurses during their time as junior nurses after traumatic events. The benefits of peer support, where nurses feel they can discuss the critical event and their associated emotions with those whose understanding cannot be appreciated by others in their lives, is echoed throughout the literature (Anderson et al., 2016; McCall, 2020; Wolf et al., 2020). Research into evaluating the timing of these supports should be considered. Whether in a formal manner or not, understanding whether ED nurses perceive timing to be a factor regarding peer support after the unexpected death of a patient could prove beneficial. Understanding the most effective time for peer support to be provided could not only assist those involve in an unexpected death but also contribute to an environment that is more cohesive and supportive after any critical event.

It has been suggested that ED nurses need more resources to process the unexpected death of a patient in their care. Schwab et al. (2016) note that ED nurses frequently face exposure to human trauma and death in conjunction with heavy and stressful workloads, similar to their first responder counterparts. They go on to suggest an examination of strategies used by first responders after an emotionally stressful event could be of use in the ED setting, emphasizing that resources need to come from the individual, environmental and operational levels to maximize effective support. Unfortunately, staffing issues, heavy workloads, management, and the ED environment are frequent barriers to ED nurses receiving the support that they need after patient death (Healy & Tyrell, 2013).

Environmental obstacles can also impact support received by family members after the loss of a loved one. In the work by Giles et al. (2019), ED nurses in major regional, metropolitan and tertiary-level hospitals expressed their concerns regarding the inconsistency of support for family members after the loss of a loved one. The nurses discussed how access to professionals

who provide extra spiritual and emotional support, such as chaplains and social workers, are not always available. The frequency of this increases in the overnight hours, or in more rural locations, leaving ED nurses to fill extra roles. Filling extra roles after the death of a patient, thereby removing nurses from competing priorities within the ED, has been shown to be a repetitive theme in the literature (Hogan et al., 2016).

Most of the literature in this review has occurred at teaching, urban or large regional hospitals. While ED nurses from community hospitals were included in some studies, they were in the minority of the sample groups. The Ontario Hospital Association (n.d.) states that community hospitals differ from acute academic hospitals in that their services are tailored to its local community's needs, whereas acute academic hospitals address not only the needs of their local community, but provide specialized procedures, assessments, diagnostics and treatments for those on a regional and provincial level. This leaves an opening for inquiry to allow the experiences of community-based hospital ED nurses after the unexpected death of a patient to be explored. Understanding what resources and supports are available, how community-based ED nurses make use of them, and their impact are areas for consideration.

Chapter 3

Theoretical Lens

The theoretical lens of complexity theory was chosen for this research project, as it offered a lens to help understand the complex nature of the ED as well as the phenomenon under investigation. Within nursing research, complexity science has been used to examine relationships and policies in educational settings, healthcare systems, clinical education practice, nursing management, and to study discourses within the nursing profession (Olsson et al., 2019). A scoping review determined that in broader health care research, complexity theory has been most applied in exploring the attributes of interpersonal relationship interactions, the diversity of relationships, and how change occurs in health care systems (Thompson, 2016). In the same review, community-based hospitals were part of only one study, allowing for more exploration of the use of complexity as a theoretical lens in this setting.

Most research that addresses unexpected death in the ED is focused on hospitals in a teaching or urban center or contains participants from a mix of urban and regional sites (Adriaenssens et al., 2012; Clark et al., 2019; Giles et al., 2019; Hogan et al., 2016; Kleim et al., 2015; Wolf et al., 2015). The application of a complexity lens in a community-based ED specifically, has the potential to unveil findings that are more specific to the environment of community-based EDs.

Complexity theory looks to address the non-linear dynamics of complex adaptive systems (CAS'), defined as a network of agents that are constantly acting and reacting to the behaviour of other agents within a system (Sturmburg & Martin, 2013). It acknowledges not just the existence of, but the context of the inter-relationships between these agents, some of which can remain

latent, or undiscovered, until a change in the system condition exposes them (Kannampallil et al., 2011). Chinnis and White (1999) state that EDs should be conceptualized as CAS due to the diversity of health care professionals and 'dominant logics' that are encoded in the system. According to the authors, these cultural norms need to be questioned for evolution to occur. Looking at the behaviour of a system and not its parts, as is done in the traditional Newtonian approach, complexity theory recognizes that systems are adaptable and unpredictable (Wilson, 2009). As the number of system agents and the uniqueness of each relationship increases, so too does the complexity (Kannampallil et al., 2011). A complex system is one that is open, allowing for agents to interact not just with each other, but also with their environment (Chandler et al., 2015). The bi-directional flow of information between agents is a result of responses to the changes in that environment (Thompson, 2016). As a result, it is just as important to understand a system's environment as its agents (Sturmburg & Martin, 2013).

One of the important elements of complex systems is that of self-organization. Rules are established by habits, procedures, and incentives because of historically entrenched ways of acting (Paley, 2011). The resulting behaviours become encoded into the system, meaning agents are constrained by the system's history (Chandler et al., 2015). These behaviours have no required goals, plans, directions, or intentionality (Paley, 2011). Although there is continual transformation of a system over time, its history suggests an initial starting point to which change is sensitive (Chandler et al., 2015). Referred to as temporality, the constant evolution means that a system cannot be taken apart and reassembled in the same fashion (Chandler et al., 2015). Health care systems are in a state of constant evolution as they deal with target setting, and policies and practices that are frequently revised or reformed (Chandler et al., 2015). This

argument is reflected in Ontario EDs as they are monitored for physician initial assessment (PIA) times which contribute to government received funding.

Hospital sites endure temporary closures and changing local and global health concerns that contribute to shifting ways in which care is delivered (the recent Covid-19 pandemic being an example of this). This perpetual evolution is, in part, due to a system's feedback process (Chandler, 2015). Feedback loops can have negative or positive impacts. Positive loops speed up a change variable, whereas negative feedback loops work against variables and may inhibit change (Petrie & Comber, 2020). This can contribute to behaviours becoming encoded within a system. Misunderstanding these feedback loops can lead to unintended consequences (Paley, 2010). The feedback loops, or in this case 'dominant logics', of an ED can be seen through the notorious engrained ED beliefs, norms, behaviours, and expectations of those within it (Kirk et al., 2021; Person et al., 2013). Complexity theory can help examine how these beliefs, norms, behaviours and expectations impact the experience of ED nurses after sudden patient death. Kannampallil et al. (2011) note that system outsiders do not always understand relationships between agents and their influence on the system, meaning that important connections are missed or ignored. Temporality can also contribute to missed or lost findings as systems prioritize incoming information (Chandler et al., 2015). There is a greater chance of system improvement when feedback loops are better understood (Petrie & Comber, 2020). Having worked for sixteen years in the ED where this research took place contributed to understanding these relationships, while being mindful of the importance of reflexivity and maintaining my role as the researcher.

Nurses, physicians, allied-health professionals, paramedics, other ED staff, patients, and their family members play the role of agents in this conceptualization of EDs as a complex adaptive system. The concept of emergence describes what occurs when these agents work

together to form more complex behaviours within a system (Sturmburg & Martin, 2013). Due to the non-linearity of CAS', the size of stimulus is not proportional to the size of its impact (Sturmburg & Martin, 2013). Chandler et al. (2015) note that systems are more responsive to small changes that radiate through it. These emergent behaviours are not attributed to one specific agent, therefore finding the source of change is impossible (Sturmburg & Martin, 2013). This also articulates the point that there is no central control center in a complex system; control is dispersed throughout (Sturmburg & Martin, 2013). This may not fit the traditional viewpoint of EDs, yet Petrie and Comber (2020) reference recent work demonstrating that despite similar interventions and efforts of those in command, EDs still varied in their measurable performance. The authors argue that this is because, despite healthcare providers holding titles, there in essence is no "single locus of control" (Petrie & Comber, 2020, p. 1556).

Petrie and Comber (2020) use a complexity lens when looking at patient flow within EDs. The authors make the argument that EDs are more suited to be viewed as complex systems as opposed to complicated ones, where a system's problem may be analyzed by breaking it into its components and a predictable cause-and-effect outcome will lead to its repair. Widmer et al. (2017) point out that a reductionist way of thinking when looking at EDs due to their multiple, interdependent, and interacting components will lead to sub-optimal and unintended consequences when considering the challenges EDs face in the 21st century. Not considering the policies, interdisciplinary interactions, physical environments, technology, encoded ED culture, and other aspects of an ED during investigation can lead to limited findings when examining phenomena, potentially leaving latent issues left unexposed (Albsoul et al., 2021; Rusoja et al., 2023). The argument must also be made that, as a CAS, ED environments by nature, are in a constant state of flux and unpredictable due to staffing shortages, policies (at the unit,

institutional, and provincial levels), technology, and patient volume and acuity. The complexity lens allowed for examination of the greater environment; how the community-based ED research site is impacted by the rest of the hospital, the healthcare association it is affiliated with, the community and patient population it serves, broader socio-political factors, as well as the overseeing provincial healthcare system.

Using complexity theory not only opens the door to examining all the co-evolving factors associated with EDs but also aided in understanding the phenomena under investigation by removing the reductionist view of examining one 'fixable' component when looking at the perceptions and supports of ED nurses after the sudden death of a patient. It allowed for an examination of how ED nurses, other agents, and the ED environment interact and the impact of those relationships on the perceptions of those under study. After the unexpected death of a patient, the experience of an ED nurse is not contained within a silo. Previous works that focus on ED nurses after the unexpected death of a patient use reductionist approaches, focusing on how one element, strategy, or technique impacts their experience (Allen & Palk, 2018; Adriaenssens et al., 2012; Bailey et al., 2011; Clark et al., 2019; Shimoinaba et al., 2016; Wolf et al., 2020). However, there is need to understand how the complex nature of a community-based ED impacts those experiences.

As can be seen, a complexity lens offered a unique opportunity to examine the experiences of nurses after the sudden loss of a patient in a community-based hospital. Removing a reductionist viewpoint, having a researcher with an emic perspective, and focusing on an environment that has had little research done related to this phenomenon provided an opportunity for latent findings to be discovered.

Chapter 4

Methodology and Methods

Focused Ethnography

Ethnography in healthcare research is a methodological approach for data collection that allows researchers the opportunity to immerse themselves in the healthcare setting's practices, thereby opening the possibilities of future change and innovation within a discipline (Hayre & Hackett, 2021). Focused ethnography, which was the chosen methodology for this research, is context and problem specific, focusing on the shared experience and meaning attributed to it, of a sub-culture in a specific setting (Cruz & Higgenbottom, 2013). Frequently used by disciplines that are practice driven, such as nursing, focused ethnography is considered an effective way to gather information which can then be applied in practical manners (Wall, 2015). Early nursing scholars who embraced focused ethnography looked to address the ethical complexity of conducting research in medical sites as well as the limited time frames provided for access to these settings (Trundle & Phillips, 2023). Originating in the nineteenth century, ethnography is one of the oldest research methods in qualitative research (Wall, 2015). With its anthropological roots, early ethnographers used written description and records, as well as photography, to study non-European people and cultures considered primitive by Colonial and Imperial standards (Ryan, 2019). There has been backlash toward these early ethnographers, as their work presented those under investigation as inferior and primitive, and as a result, ethical safeguards are now in place to protect communities and individuals during ethnographic inquiry (Cruz & Higgenbottom, 2013).

The ethnography of today looks to explain behaviour patterns within a culture. In doing so, the researcher looks for patterns of knowing within the cultural context, aiming to understand "not only the 'what', but also the 'why' and the 'how'" (Crawford, 2019, p. 63). This is done by observing people in their own environment, conducting focus groups and interviews, and/or the use of written documents (Higgenbottom et al., 2013). Leaning towards an interpretive philosophical stance, researchers attempt to gain insight and understanding of the world and experiences of participants while co-constructing knowledge and truths (Kirk et al., 2021; Muir et al., 2022).

Ethnography is not an uncommon methodological approach in ED nursing research (Fry et al., 2012; Kirk et al., 2021; Rubio-Navarro et al., 2019; Taylor et al., 2015). Person et al. (2013) notes the importance of understanding an environment when attempting to understand the group being observed. Furthermore, Person et al. (2013) contend that an ethnographic approach can help to provide insights into the practice environment, relationships, and culture of the ED. The methodology allows for increased flexibility by providing the ability to explore those cultural contexts by using non-traditional ways (Wall, 2015). Focused ethnography uses a limited number of participants from a community that hold specific knowledge of an experience of a specific phenomenon (Cruz and Higgenbottom, 2013). Cruz and Higgenbottom (2013) argue that focused ethnography allows the researcher to bring an etic framework while still considering the emic view in a way that better assists in understanding the complexities of the phenomena under investigation. The authors also state that the methodology is not just a way in which a phenomenon can be studied but also provides an opportunity to increase the understanding of the nursing profession, and its place and role in society.

Reflexivity

Reflexivity provides an understanding for how a researcher's previous experiences, identities, and communication skills related to the population or environment under study may contribute to the interpretive lens (Cruz & Higgenbottom, 2013; Egger et al., 2020). To better understand my positionality, before the commencement of data collection, I wrote a reflexive memo that explored my experiences with unexpected patient death as an ED nurse (Appendix A). Reflexivity, and activities such as memoing, also allows for exploration of how the researcher, tools for data collection, and research methodology impact the research process and findings (Cruz & Higgenbottom, 2013). For this research project, I had insider knowledge of the cultural group as a nurse who worked for twenty years in the ED, with sixteen of those years in the ED where this study was conducted. During this time, I was exposed to many patient deaths that I considered 'unexpected'. While a researcher who is part of the culture under study does raise potential concerns for bias, insider status can lead to richer and deeper data collection (Muir, 2021). Cruz and Higgenbottom (2013) state that the transparency of a researcher who is using a focused ethnography approach is of particular importance for those who have had previous experience with the culture under investigation.

A more trusting and intimate relationship between the researcher and those under investigation can allow for the unveiling of more information, contributing to the validity of the study (Morse, 2015). Participants in this study were familiar with my past employment as an ED nurse at the research site, with some participants being previous colleagues. These previous relationships and understanding of my past experiences may have made participants more comfortable in my presence and therefore more willing to discuss the difficult topic of unexpected patient death. My understanding of the nuances of ED nurse culture, such as

language, the traditional roles and relationships between various healthcare providers and ED staff and understanding of the fundamental work of what was occurring within the environment may have contributed to richer findings and discussions during interviews than those that would have occurred with an 'outsider' researcher. Some of the interview discussions and events that occurred during observation created emotional responses in me. Notes were taken at those times regarding what was happening as well as a description of said response. These notes also contributed to my reflexive journal. By making these entries, it forced me to be aware of these feelings and examine how they may be impacting my analysis. Discussion with the members of my committee helped to ensure that constructed themes were from data and not emotionally driven, adding to the integrity of data collection and representation (Higgenbottom et al., 2013).

Despite the frequent use of focused ethnography in ED research, there was no research that used the methodology to examine the support ED nurses receive after the unexpected death of a patient before my study. Investigating nurses' experiences of unexpected death and the support they receive in a community-based ED were important to understanding the ED culture in community-based hospitals.

Study Design

Sample, Sample Size and Recruitment

Nurses were recruited from a community ED in Ontario, Canada. Nurses who were employed by the healthcare organization for a minimum of one year, had experienced unexpected patient death, and worked in the site ED full- or part-time were invited to participate in the study. Through a departmental email, nurses were recruited initially via purposive, and then through snowball sampling. This ensured that participants had knowledge and experience

with the phenomenon under investigation (Higgenbottom et al., 2013). The study aimed to recruit four to six nurses for observations and six to eight for interviews (inclusive of the nurses shadowed). Five nurses were recruited for observation of their work environment. Each nurse was shadowed for one eight-hour shift. Nurses who were observed then participated in a semi-structured interview within two weeks of the observation shift. One additional nurse was recruited to participate in an interview for the purpose of gathering further data. A total of six interviews were conducted. As data was collected, the importance of senior and junior nurses' experiences became apparent. Despite working to recruit more junior nurses, only two junior nurses participated in the study.

Although the term saturation is frequently used when determining sample size in qualitative research, Malterud et al. (2016) instead suggest the concept of information power. Information power "indicates that the more information the sample holds, relevant for the actual study, the lower amount of participants is needed" (Malterud et al., 2016, p. 1753). There are five considerations in information power; a) how narrow or broad a study aim is, (b) whether a sample is broad or dense, (c) if an established theory guides the research, (d) the strength of dialogue between researcher and participants, and (e) analysis strategy (Malterud et al., 2016). The study had a narrow aim, used a specific group of participants, was supported by an established theory, and used in-depth thematic analysis. Six participants are considered adequate for this study, given the considerations above, along with the thick descriptive observational data gathered shadowing 5 of these nurses (Cruz & Higgenbottom, 2013).

Data Collection

Data was collected via passive observation of nurses in the ED environment who were recruited and consented to participate in the study within the ED setting. This type of observation

is frequently used in focused ethnography as it allows for the collection of data where active participation is not permitted and works within the time constraints of the methodology (Higgenbottom et al., 2013). Observation occurred in eight-hour periods and was conducted outside of patient rooms to maintain privacy and patient confidentiality. No observation occurred in the triage area, preventing further contact with ED patients and their family members. Observations were recorded using field notes which were collected during site visits. These notes documented what was seen and heard during ED observation, answered questions, and contributed to my reflections of the experience and how they impacted data collection (Streubert and Carpenter, 2011). These reflections were completed at the end of each observation period.

Observations were followed by semi-structured interviews (Appendix B) with the nurses who were shadowed. These interviews were audio-recorded for transcription purposes. Interviews occurred in a quiet location that was mutually agreed upon. These information gathering techniques assist in explaining and/or describing a community, environment, situation, or culture in an ethnographic study (Ryan, 2019). Observation provided an opportunity for direct learning via social and physical involvement (Ross, 2016). Follow-up interviews provided the opportunity for clarification, validation or elaboration of previously recorded meanings and understanding of study participants obtained during observation periods (Robinson, 2012). Interviews after observation allowed for better conceptualization and helped to highlight relationships within the environment (Robinson, 2012).

Data Analysis

Data analysis occurred concurrently with data collection. Coding and thematic analysis assisted in data organization, and identifying hidden patterns, meanings and relationships within the data (Thorne et al., 2004). As initial interpretations of data were challenged through the

iterative, cyclical and self-reflective process, new insights helped guide the progress to abstract generalizations and explanation of these patterns (Pope et al. 2000; Higginbottom, 2004). Contributing to the rigor of the study, movement was constant, back and forth throughout the phases as needed, constituting a reflective and iterative process (Nowell et al., 2017).

There are six phases of thematic analysis in qualitative research as introduced by Braun and Clarke (2006). The first phase allows for engagement with data and to become familiar with information that may be relevant to the research question. During the second and third phases, initial codes are generated, sorted, and an analysis of how to combine them into themes is conducted. Data is reviewed to ensure that the coded data fits the patterns of emerging themes in the fourth phase. The fifth and sixth phases see themes named and defined based on facets of data, and finally, data is interpreted and reported. (Braun & Clarke, 2019; Byrne, 2022). Despite being presented in a "logical sequential order", thematic analysis is recursive and iterative, not linear (Byrne, 2022, p. 1398).

Once data from field notes and interviews were collected, intimate familiarization occurred through prolonged engagement. This was accomplished by manually transcribing hand-written field notes, and interviews, and re-reading these documents numerous times. Breaks, pauses and inflections were incorporated into transcriptions to provide context and indicate emotion. After observation shifts, I immediately reviewed field notes and added any reflections that I had regarding what was observed.

Initial codes were generated with the assistance of reflexive journaling and creation of an audit trail. This commenced after the completion of two observation shifts and interviews and was then repeated throughout data collection. After transcripts and field notes were read through in a systematic manner, codes were generated based on similarities in observational field notes as

well as behaviours and responses of participants during interviews. An example of an early code was ‘Chaos’. Although this single-faceted code was eventually incorporated into a theme, it was originally identified due to the repeated use of the word to describe the environment by participants, and similarly, my observational field notes illustrated this virtue as my written descriptions made note of the crowded and hectic environment of the ED. A chart was developed where codes were provided with a definition and examples from transcripts of how the codes were constructed. (Appendix C). After independently coding the first two interview transcripts, the committee and I discussed our findings for inter-rater reliability.

Once a preliminary coding scheme was established, codes were then sorted and analyzed how they may be combined to create a theme. Codes with shared meanings were combined to begin creating themes, or sub-themes. An early thematic map was created which identified two main themes, and two sub-themes, however through further engagement with the data these evolved in the resulting four main themes and their associated sub-themes. This process was one that was “active and generative”, due to prolonged data immersion and reflection, instead of one where themes passively emerged from the data (Braun & Clarke, 2019, p.591). Themes were then reviewed to verify that coded data fit within the patterns of the construed themes. In this phase, it is not uncommon to identify that some candidate themes may not address the research question (Byrne, 2021). This was the case with the theme “Varying Definitions of Unexpected Patient Death”, for example. Although not directly addressing the research questions, the data was still considered important to the research and included in the findings. Final themes were named and defined based upon the facets of data captured while also addressing the research question (Byrne, 2021). Complexity theory provided a lens to view patterns and relationships within the ED and informed the organization of themes.

Ethical Considerations

There are specific ethical considerations in ethnographic research due to the continual interaction between the researcher, as the primary data collector, and participants (Crawford, 2019). Close attention to ethics in ethnography contributes to the trustworthiness and rigor of a study (Ghimire, 2021). "Confidentiality, honesty and trust, reciprocity, neutrality…no violation of natural setting and maintaining integrity" (Ghimire, 2021, p. 82) are ethical factors that must be respected in ethnographic research. Participants were briefed regarding the purpose and nature of the study, provided the opportunity to ask questions before it commenced, and were notified of their ability to withdraw at any time. Informed written consent was obtained and was re-negotiated throughout the data collection phase. Anonymity and confidentiality were maintained using identification codes to decrease risk of harm to participants (Conroy, 2017). This was even more important considering the sensitive nature of the phenomenon, experiencing the sudden death of a patient. There was a high level of awareness regarding the vulnerability of patients and situations that occur in the ED. As patients are often assessed and treated in the hallways, no data was collected or included that directly involved observation of patient care as this would violate patient confidentiality. Field notes did not include any information regarding patients, but instead described the ED environment, the shadowed nurses and their interactions, equipment, noise levels, patient flow, and atmosphere. They also included data that added context obtained through informal conversations that occurred during observation periods.

Following review and permission of the Ethics Boards of the healthcare organization, ethics review was also completed by the Faculty of Graduate Studies at York University. All transcripts, field notes and interview recordings were kept in a password protected computer. Audio recordings obtained via digital recorder were deleted after they were verified. Hard copy

documentation was kept in a locked filing cabinet at York University at the office of Dr. Lisa Seto Neilsen and destroyed after analysis. Written consent was obtained prior to the commencement of observation periods and interviews.

Rigor

Rigor in qualitative research aims to represent the experiences of participants in an accurate manner (Streubert & Carpenter, 2011). Conducting participant interviews after observation provided an opportunity for member checking, thereby enhancing credibility. This ensured that an accurate description of their experience was obtained during the observation period (Cypress, 2017). The use of purposive sampling as well as recording thick description contributed to the transferability of the study (Cypress, 2017). Investigator triangulation was used to enhance the study's dependability. Member checking, as well as reviewing transcribed material with expert qualitative nurse researchers for theme validation, was also completed (Cypress, 2017). Reflexivity was practiced throughout the process using journal notes. This allowed for acknowledgment of how the research process and findings were impacted by the effect of the researcher in a transparent manner (Cruz & Higgenbottom, 2013). This is of greater importance when a researcher is familiar with, or has a personal connection with, the culture under investigation, as I do. Reflexivity promoted the validity of the phenomena under inquiry and decreased the opportunity for ideological expression, judgment, and preconceptions by the researcher (Cruz & Higgenbottom, 2013). These reflexive notes were part of an audit trail, which illustrated the way in which research conclusions were met (Streubert & Carpenter, 2011).

Chapter 5

Research Findings

This study explored the experiences of ED nurses after unexpected patient death in a community-based hospital. The results chapter is presented in two sections. The first section provides a description of the field site from data gathered during six 8-hour shadowing shifts. As data was collected throughout both night and day shifts, the reader is provided with a composite view of the ED research site. Having previously worked as an ED nurse at the field site for sixteen years, I knew that I was bringing insider knowledge to the project. Along with reflexive journaling, Spradley's (1979) nine observational dimensions was used as a framework to collect data during shadowing shifts. This allowed for the collection of thick descriptive data from an etic perspective. I was able to see the environment through a lens different than that of the ED nurse who had worked there for sixteen years, and instead, as a researcher. Observation notes regarding the domains of space, actors, activities, objects, acts (by individuals), events, time, goals and feelings allowed for a systematic approach to data collection. Data obtained using visual, aural and olfactory senses provides the reader with a more comprehensive picture of a chaotic community-based ED environment. Two separate pictures of the field site are examined through the lens of the researcher. The first is how I perceived the view of a patient who walks in through the main waiting room, and the second for those patients who arrive through the EMS entryway. These different views provide the reader with an overview of the environment ED nurses are immersed in and its impact on how they experience an unexpected patient death.

The second section of this chapter reveals the three themes that emerged from participant interviews and shadowing shifts relating to the ED nurses' experiences following an unexpected patient death. Thematic analysis was conducted using data from the interviews, and findings are

supported by field notes and verbatim participant quotes. These themes demonstrate how nurses' experiences are influenced by groups of agents within the system, the chaos of the system, and the recent changes to ED nurse staffing. While none of the participants were caring for a patient who unexpectedly died during a shadow shift, an unexpected death did occur during a shift allowing me to observe its impact on the ED environment. In addition, individual interviews allowed participants to contribute to the understanding of ED experiences after unexpected patient death, despite none occurring while being shadowed.

Participant demographics were gathered using the demographic form (Appendix E). All participants were female; two have been ED nurses for two years or less, one for six years, one for twelve years, and two for nineteen years or more. Only one participant works part-time, while the other five work full-time hours. Two participants work day shifts, two work nights, while two work a combination of both days and nights.

Participant Demographic Table

Variable	n	Percentage (100%)
Age of nurse		
20-29	2	33.3%
30-39	2	33.3%
40-49	1	16.5%
50-59	1	16.5%
Gender		
Male	0	0%
Female	6	100%
Length of time as a nurse		
0-4 years	2	33.3%
5-9 years	1	16.5%
10-14 years	0	0%
15-19 years	1	16.5%
20-29 years	2	33.3%
Length of time as an ED nurse		
0-4 years	2	33.3%
5-9 years	1	16.5%
10-14 years	1	16.5%
15-19 years	1	16.5%
20-29 years	1	16.5%
Days, nights, or combination of shifts		
Days	2	33.3%
Nights	2	33.3%
Combination	2	33.3%
Full- or part-time		
Full-time	5	80%
Part-time	1	20%

The Field Site: Situating and Engaging the Senses Where Unexpected Death Occurs

The field site is an ED in a community-based hospital where patients of all age groups receive care. Similar to other EDs this site has separate zones where patients are treated based on their level of acuity, which is determined by the severity of their illness and the level of medical care needed. A fast-track clinic and Green Zone see the least acute patients, Pink, Orange, Yellow and Offload Zones assess those who are considered sub-acute, while Blue and Trauma Zones

treat patients with the most acute conditions. There is constant movement of people in the ED. The space is filled with medical equipment (some unused) and patients on stretchers lining the hallways. All of this, along with the constant assortment of noises contributes to a sense of visual and auditory disorder. As one participant stated “What does it look like? (.) Oh my God, it’s chaotic” (Participant #1).

Patients Who Walk in Through the Main Waiting Room

Patients access the department between two sets of double automatic sliding doors. After entering through the first set of doors, patients enter their name and presenting complaints into one of two kiosks housed within the vestibule. A triage number is printed on a small piece of paper, which patients take with them as they go through the second set of doors into the main waiting room. Patients are then called by said number into one of two side-by-side triage rooms by a triage nurse for an initial assessment. The triage rooms each contain two computers, a machine for vital signs assessment, portable plastic drawers filled with basic first-aid supplies, and papers covering the walls with guides for medical treatment and phone numbers. Patients then move out of the triage area to registration, a separate space in the main waiting room, to provide their demographic and health insurance information.

Based upon the presenting complaint and level of acuity, patients are then placed in the various coloured zones inside the ED. When the wait time is prolonged, resulting in a delayed assessment by a physician, advanced medical directives permit the triage nurses to order blood tests, administer certain medications, and perform electrocardiograms (ECGs), which are conducted in an open space behind the two triage rooms. This open space contains a large blood drawing chair, a stretcher with a privacy curtain, along with a third triage station set against the wall where EMS can triage their patients. Permeated by a musty smell, the main waiting room

consists of hard black chairs attached together by silver metal bars. With 3-4 chairs in a row, there are 22 chairs in total. Every seat faces forward allowing the triage nurse to observe the individual sitting in it. The seats, and aisles beside them, are rarely empty. They are filled with patients, both ambulatory and in wheelchairs, as they await their turn for assessment. A smaller waiting room separated by a heavy wood door and a small pane of glass sits at the back of the main waiting room. Designated for patients who will be seen through the fast-track clinic (a zone for the least acute patients), eight chairs identical to those in the main waiting room line its walls. The majority of patients who enter through the main waiting room are assessed and treated in Green Zone or the fast-track clinic. These two zones are made up of three hallways that create a 'T' shape. The zones contain a mixture of individual rooms, some of which were once designed for one patient that now house two, while others have been converted into extra waiting or assessment spaces. At the end of one hallway sits four large plastic recliners separated by privacy curtains.

Sitting at the intersection of the t-shaped hallways and enclosed by glass, the shared nursing station for Green Zone and the fast-track clinic is used by a unit clerk, as well as ED and consulting physicians. Nurses sit or stand in the hallways with their computers on wheels (COWs). Patients and their family members are often milling about in the hallways as they ambulate to various medical tests, approach ED staff to ask questions or discuss their care or are simply observing what is happening within the zone. A single nurse in Green Zone can be responsible for upwards of 30 patients at one time when the department is short-staffed. Noises of various tones and intensity are heard throughout this space. The sound of a doorbell frequently ringing cuts through the other noises of IV pumps beeping, telephones ringing, intermittent overhead ED and hospital-wide announcements, the oscillation of the voices of patients, visitors

and hospital staff, as well as the sound of stretchers moving as patient service representatives (PSRs) transport patients throughout the hospital. This doorbell is for a locked wooden door that can only be opened by ED staff and separates Green Zone from the main waiting room. This is the only entry/exit point for all patients and visitors to the ED, outside of a door that separates the fast-track clinic from the fast-track clinic's waiting room. Faded coloured circles on the floor provides direction from the Green Zone entryway to the corresponding-coloured zones.

Patients Who Enter Through the EMS (Emergency Medical Services)/Paramedic Doors

Patients who arrive with EMS, whether on a stretcher or ambulatory, enter through a large garage with automatic doors that comfortably fits four ambulances with room for several more to fit in the driveway behind. Patients are brought through two sets of heavy metal double doors, the first of which requires an access code. Once inside the second set of doors, Offload and Yellow zones are to the immediate left, Blue Zone is directly ahead, and Trauma Zone and a hallway specifically for patients seeking help for their mental health lie to the right. Depending on the presenting complaint patients are then either walked, or wheeled in a wheelchair, to the EMS triage desk, or parked in a stretcher, wheelchair or regular chair directly adjacent to the EMS entryway. Patients brought in by EMS can be tucked against the hallway walls alongside ED patients also being treated in the hallways and so there is a lack of privacy for patients due to their proximity. The delays in offloading EMS patients contribute to the amount of people and noise in the hallways as each patient brought to the ED is accompanied by two paramedics, and often, family members. The combination of visual and auditory chaos creates an environment that is "overstimulating" (Participant #5) and feels like "being in a tornado" (Participant #6).

Pink and Orange Zones are accessed by walking through and past Blue Zone. Blue, Yellow, and Pink Zones consist of single patient rooms, the majority of which have doors instead

of curtains at their entryways. Some of the rooms in Yellow and Blue Zones have attached anterooms for patients who need to be placed in isolation. These anterooms provide a safe place for healthcare personnel to don and doff their personal protective equipment (PPE) thereby assisting in the prevention of the spread of infectious diseases and hospital acquired infections. Patients in Offload and Orange Zone are often admitted to the hospital, however, can sometimes wait for days for an inpatient bed to become available. As a result, the hallways are congested with patients on stretchers as each zone surges past its capacity, as well as the personal and medical items needed to care for them. There is so much medical technology collected at the end of the Yellow Zone hallway that the anteroom for the last patient room is inaccessible, and the hallway can only be navigated in places by walking single file. The delay in moving patients from the ED to inpatient wards has created a smell of stale body odour and urine that fills the hallways of these zones.

Blue Zone and the charge nurse desk make up the main hub of the department. They are separated from Green Zone via a heavy wooden door that is often propped open and is the first area seen when one walks in through the EMS doors. Situated in the Blue Zone nursing station the heavy, thick, plastic canisters returning to the ED through the pneumatic tube system frequently create a loud bang as they land in a metal-lined container. The recurrent noise goes seemingly unnoticed by the ED staff. Blue Zone holds six patients in separate bays/rooms, although it is permanently set up to accommodate nine patients, with oxygen tanks, portable monitors, IV poles and stretchers crowding the hallway. Participant #2 states that these surges in capacity “happen all the time now”.

A short hallway running parallel to the mental health hallway contains three desks for ED staff and connects the back of the triage area to this central hub. The mental health hallway

contains two locked seclusion rooms with windows that face the mental health hallway and the stretchers lining it. This hallway is separated from the ambulance entrance and charge nurse desk by a portable folding wall. Across from the charge nurse desk and beside the EMS entrance is the Trauma Zone. This self-contained area has three bays side-by-side with a surge space that sits directly in front of a hopper, a large sink used to dispose of clinical waste such as urine, feces, or emesis. While the two end bays have curtains that can be pulled to create visual privacy, there is nothing for the middle or surge spaces. When short-staffed, this zone is often the first one to close so that the Trauma nurse can assist in Green Zone, where the majority of patients are seen and assessed. The sounds in these central areas mimic those in Green Zone yet are also joined by the constant alarms of cardiac monitors and critical care medical devices. The charge nurse desk is a frequent site of planning as allied health professionals, physicians, the unit manager, and ED nurses work with the nurse in charge on patient discharges, admissions and plans of care.

This is the environment in which participants are immersed when experiencing unexpected patient death and where observation shifts occurred. The ED nurses' interviews made it possible to examine those experiences in said setting from an insider’s perspective, which resulted in the development of themes during data analysis.

Themes

Themes were identified upon analysis of the data gathered through observation shifts and interviews. Complexity theory aided in highlighting emerging themes in understanding the experiences of ED nurses after unexpected patient death in a community-based hospital. The first theme examines groups of agents within the ED environment and the existing dynamics of support between them. The second theme looks at how chaos impacts the environment and information that exists for ED nurses after a patient has died unexpectedly. The third theme

explores how staffing changes within the ED are shifting what is considered an experienced nurse, the roles which less experienced nurses assume, and how these changes impact the experiences of ED nurses after unexpected patient death.

Varying Definitions of Unexpected Patient Death

Although not a question on the initial interview guide, each participant was asked to explain their definition of unexpected patient death. This was done as the result of a conversation that occurred during an observation shift with a non-participant nurse. The nurse, with several years of ED experience, stated that they had never experienced a patient die unexpectedly, while a second non-participant nurse said their definition had changed throughout the course of their ED career. The definition of unexpected patient death also varied between participants. All participants identified the difficulty in articulating their definition, instead identifying characteristics of patients whose deaths qualified them to be unexpected. This included considering the patient's past medical history, age, initial medical presentation upon ED arrival, and code status.

As identified by Participant #2, there is "a spectrum" on which ED nurses characterize a patient death as unexpected or not, as opposed to a singular static definition. This was mirrored by Participant #4 who identified that what is considered unexpected death can vary from patient to patient and that "it's a very fluid definition". Participant #1, a senior nurse, stated that unless previously being deemed palliative before coming to the ED, the death of every patient in the ED is unexpected. Although Participant #3, a junior nurse, stated that her definition of unexpected patient death was based upon whether there were "precursors" (i.e. medical history and the medical presentation of the patient when care was assumed), she noted that she considers all patients potential candidates for an unexpected death.

> **Participant #3:** [Age is not really] a big role for me, like it could be, it could be a young person, it could be an older person, but something has drastically changed.
> **Interviewer:** Ok
> **Participant #3:** And it could be in their chart. It could be not in a chart, but I look at everyone like they could be an unexpected death. I don't know if that's healthy or not. I look at everyone when I assess them. I'm like, I'm just gonna, I never, I don't know. I don't know if you guys are gonna, just-
> **Interviewer:** [This is it].
> **Participant #3:** [Is this it]. But I-I don't know. Unexpected death (could be) anyone.

Unexpected patient death was not only defined by objective history and medical presentation of patients, but also by their subjective personal experiences and opinions. This included what participants viewed as the 'quality of life' of the patient before they die, the health status of their own loved ones, and the emotional impact of the death on an ED nurse. Participant #2 stated "My dad is amazing. He looks amazing. He has no health problems. But even in his 70s, I would still say, (that if he died) that's shocking. I have to think about where my parents are at". Participant #6 considers how well she can "accept" the death of a patient.

> **Interviewer:** So, what I hear you saying is that your emotions play a little bit into it too, and maybe how you react to the death also kind of affects the threshold for what is, for you, is considered expected or unexpected. Is that fair?
> **Participant #6:** Yeah. Acceptable, (makes air quotes) like, in quotations. What am I physically and mentally able to accept as opposed to not accept. Does that make sense?
> **Interviewer:** Yes.
> **Participant #6:** What I can, like, what the weight that you can bear as an individual and as a nurse. Expected, not expected. Accepted, not accepted. It's kind of interchangeable.

Also contributing to the subjectivity of what defines a death as unexpected, participants identified that how they characterize a patient death may differ from that of the patient's family.

> **Interviewer:** So, I'm going to challenge you a little bit. So, if you have someone that comes in and they are full code, but they happen to be on a vent(ilator) at home. They're immobile. Is that something that are you still factoring in? The medical side of things, along with the code status? Is that in combination (with), or is it still very separate?
> **Participant #4:** (.) That's a good question. I guess, I don't know. I think so, because, well, (.) I guess it would still (.) medically versus somebody else. For every family member it is, it's unexpected. Every family member would consider it unexpected.

Understanding that each participant, and those around them, had their own definition of unexpected patient death, and obtaining that definition, was of importance when exploring their experiences. Definitions were noted to be based on various personal and professional factors, subject to change over time, and varied between participants and others within the ED setting.

Existing Dynamics Of Support Between Agents

The ED consists of many groups of agents that ED nurses interact with throughout their shifts. These interactions can be short-lived or prolonged, one-time or repeated throughout the shift or over years. These groups include ED nurses, paramedics, ED physicians, physicians from other services, allied health care professionals, patients, family members/visitors, police and firefighters. The context of these encounters impact nurses' experiences following an unexpected patient death, and how their behaviours and perceptions have emerged over time. In their interviews, ED nurses identified four main groups of agents that impact their experiences; ED nurse colleagues, EMS/paramedics, other ED staff, and the family of a patient who has died unexpectedly.

Guiding, Supporting, and Teaching (ED Nurse Colleagues)

All participants stated that they turn to other ED nurses for emotional support after a patient dies unexpectedly as they believe their own families cannot relate to their experiences. The nurses articulated how they informally debrief, and if needed, follow up with each other in the hours and days after the shift ends. The informal debriefs include discussing any known medical history of the patient, pre-hospital treatment if transported to the ED by EMS, resuscitative interventions, and an emotional assessment. After one Code Pink, Participant #6 recalled texting with other ED nurses once her shift ended.

> **Participant #6**: I remember texting some of my coworkers though and following up with them. Like, how are you doing? And they felt the same way. I can't stop crying and, like, you just-, it keeps playing in your head.

It is not necessary for ED nurses' coworkers to be currently working in the ED; they could be nurses with prior ED experience. Participant #1 discussed how she reaches out to a former ED nurse she worked alongside for many years, remarking, "even though she doesn't work in the emerg or anything, I know she understands."

Despite not participating in the resuscitation efforts, nurses who are present in the ED give their colleagues the time they require before returning to patient care and are receptive to discussing the event. These conversations occur in the zones where patients line the hallways, IVs and heart monitors continue to beep, the voices of patients, families and practitioners are heard, and the previously described smells of the ED are present.

> **Participant #3**: After our codes we try to debrief. Doesn't always happen. I don't- It's supposed to happen every single time but doesn't always happen. And people just kind of, go back to where they need to be and, where if, say, you were the nurse, like, covering (?) and the other nurse was helping, you just kind of check in with them and say, like, how did it go? Are you OK? Take some time because I'm already covering. I don't mind covering for much longer. And then you just end up talking about it with your (shift) partner and yourself, if they want to talk about it.

More experienced ED nurses expressed their desire to protect junior nurses after the unexpected death of a patient. Participant #4 described how she "guides and supports" junior staff after a patient dies unexpectedly. This includes being available to help with the tasks that need to be performed after all patient death, such as calling the patient's family if not already present, assisting in wrapping the body, helping with documentation, speaking with the coroner (if needed), and calling the provincial organ and tissue donation organization. All participants acknowledged that the same assistance is not offered to nurses who are considered senior, or more experienced. This means that senior nurses are completing post-death tasks plus still caring

for the patients in their zone, even if that zone is above census. Senior ED nurses also explain that they want to support junior nurses emotionally. Senior nurses acknowledged that many junior nurses have not had previous experience with an unexpected patient death, as many of the recent hires are new nursing graduates or have minimal clinical experience.

> **Participant #2**: I think you tend to look out for those people more because maybe it's the first time they've had a code. Maybe it's the first time they've witnessed a death or had to even bag a body. Sometimes they don't even know how to do that, do you know what I mean? And they're scared or they don't know what to do or whatever. So, I think you just have to be supportive. You tend to watch out for those people a little bit more.

Participant #1, another senior nurse, had a similar perspective as Participant #2. She explained that the intention of providing emotional support to junior staff is not only to assist them in the moments after an unexpected death, but to help in the development of coping skills.

> **Interviewer**: When I was in the department you talked about wanting to take a lot of these junior staff under your wing. You feel this need to kind of be the Mama bird to make sure that they're doing OK-
> **Participant #1**: [Mm. Yep].
> **Interviewer**: And that sort of thing. And I kind of hear you saying that after some of these codes that don't necessarily end well, that that's kind of part of what you do in terms of making sure that they're OK. It's not necessarily making sure that, yes, you've had your breaks. Yes, 'I'm helping you to do an ECG', like, with a task. But it's also kind of making sure that they're processing some of these difficult moments.
> **Participant #1**: Yeah. Yeah, because it's difficult. And I don't want that [experiencing an unexpected death and not knowing what to do] to change them and then to bring it home. It's going to happen. It's, unfortunately it is part of where we work and just like, helping them with, like, coping skills to get through it.

The same participant goes on to explain how she encourages new ED nurses to take a break after an unexpected patient death instead of immediately returning to work to allow them to mentally process the events of the Code Blue.

> **Participant #1**: One of the other things that I usually ask is, is this your first death? Is this the first time you did CPR? Because all these people are new, so that might have been the first time they actually did CPR on a real person. There are so many new people. And, you know, it affects everybody differently. So yeah, because they have so many new staff, I find they just need a break, and some a lot of times, they'll just say no, no, I'm

> good and I'll be like, um no. I think that you should just go, just take, you know, take 10 minutes. Just, you know, go for a walk outside. And then they do.

Senior nurses are also ready to incorporate teaching moments while providing emotional support to their less experienced colleagues. A junior nurse was noted to be very upset during an observation shift as her patient had suddenly medically decompensated. In order to provide opportunities for learning, the charge nurse assured her that she would have informed her if the nurses' actions had contributed to the patient becoming increasingly ill. This was said in conjunction with words of kindness and empathy. Junior staff recognized the actions of the senior nurses and use them as an emotional resource after unexpected patient death. Participant #5, an ED nurse of one year, stated “Usually, the charge nurse is very good, and you can go talk. We have very good charge nurses."

Part of the Team (EMS/Paramedics)

EMS (paramedics) were observed to be a frequent presence in the ED as they transport patients of varying medical and psychological acuity from the community. When asked to describe a typical ED shift, Participant #1 stated “I arrive and there are usually at least two EMS sitting there.” During one observation shift, five EMS crews and their patients sat along the hallways waiting for a space to be offloaded to. Upon arrival, EMS provides a verbal report to the triage nurse and then wait alongside their patient in the hallway until an appropriate assessment space is available. Ambulatory patients with low medical acuity may be escorted to the waiting room allowing EMS to return to the community in a timelier manner. During shadow shifts, it was noted that EMS may be waiting with and tending to their patients in the hallways for hours if there is no suitable space ready, adding to the congestion of the environment. As a result, they can become an extended part of the ED team. An example of this was demonstrated

during an observation shift after a patient had been waiting for hours to be offloaded to an ED bed and EMS engaged the charge nurse in creating an immediate plan of care for the patient.

> **OBS2** – Participant #2 talking with EMS, collaborating to make a decision about whether a patient can go home without seeing physician from EMS stretcher. Considerations: safety, reason for coming to ED, current symptoms, home supports for pt.

EMS can also become an extended part of the ED team while resuscitative measures are being performed. ED nurses noted that the majority of unexpected patient deaths are patients who arrive by EMS. Participant #5 recalled "the most deaths I've had have been the EMS ones." EMS will sometimes stay to assist with a Code Blue or Code Pink if the patient they transport is in the midst of actively receiving life saving measures. They can also serve as an extended team member for patients who were not initially brought to the emergency department by EMS. Participant #6 described an event where EMS joined in the treatment of a patient who was brought in with family through the main waiting room. EMS was involved in retrieving medical tools, decision making, and CPR.

> **Participant #6** – "You just kind of feel helpless. And thank God EMS, like, EMS, are really, really good. You know which ones that you can really be, like, hey, I need you. And I yelled, go get an IO (intraosseous) kit. You go into autopilot where you're like, OK, now we're resuscitating this kid. It's unexpected but this is what we're going to do as a team."

The support that EMS provides is not just tangible, as in physical and hands-on assistance, but can also be emotional in nature. One senior ED nurse recalled how EMS provided emotional support after an unexpected patient death.

> **Participant #1**: "It was <u>really</u> bad. The whole situation was bad. The beginning to the end, and then because we didn't have a debrief, it makes you think, well, what could I have done better? But really, honestly, EMS <u>again</u> were great because they actually talked me off the roof because they were, like, we do this all the time."

This is an example of how the relationship between EMS and ED nurses can extend beyond the expected context and inter-relationships traditionally consisting of professional transfer of patient care.

The difference in relationships between EMS and junior and senior nurses was seen during observation and revealed in participant interviews. Senior nurses are more likely to receive support from EMS as relationships develop due to the amount of time working in the department. There is also increased opportunity for interactions throughout a shift with senior nurses as they are more likely to be assigned to Triage, Blue or Red Zones compared to their junior counterparts. These zones not only receive acutely ill patients from EMS, but their hallways are frequently filled with EMS and their patients who are waiting for ED beds to become available.

"It Lingers For Everyone" (Allied Health Professionals) (Participant #3)

There are many allied health professionals within the ED that contribute to ED nurses' experiences after an unexpected patient death. As was observed during a shadowing shift, resuscitation efforts are performed in a patient's room by nurses, doctors, and respiratory therapists. ED nurses recognized the contributions and effects on their colleagues who are not physically present in the patient's room yet are still involved in their care. During a Code Blue or Code Pink, unit clerks are in the vicinity helping to order various tests or making urgent phone calls regarding treatment. Participant #3 stated that PSRs are waiting to assist with transferring the patient within the department or to a test, or to be an extra set of hands assisting to retrieve urgently needed items for treatment. After a patient dies, PSRs also move the patient from the stretcher to the morgue gurney, transport them to the morgue, and clean the room where the

patient died. Due to the number of patients who are waiting to be seen at any time, rooms will rarely stay empty for long. Participant #1 discussed the impact of these unexpected deaths on their co-workers, acknowledging how profound their seemingly routine tasks go unrecognized.

> **Participant #1**: We always forget about the PSRs. Like, the other staff, we never, I don't know. But those people who were part of it too, the clerks. You know, we sometimes forget. We just think of the actual people that are in the room. And it's not just about them. It's about everybody that's around. So, they were all part of it as well.

Participant #3 noted the bidirectional flow of support and consideration between themselves and their non-medical co-workers.

> **Participant #3**: I've come on to shifts before for, say nights or days and as I'm going to get scrubs from the thing, and if I run into one of the cleaners [PSR], some of them have become close enough for the, like they'll chat with you about the previous shift and say, oh, they're having, you know, an OK day. I hope it continues for you guys or, you know, it's hellfire out there, just you know. Like yeah, just heads up. Sometimes if there's a code and it's a kid they'll be like, you so know what? Things are really not good out there. This happened last night and everyone's like, they'll let you know. Everyone is affected by it when it's a code. And then some-
> **Interviewer**: [Sorry to interrupt] you. When you say everyone, do you mean the PSRs-?
> **Participant #3**: [Yeah, yeah]. It really lingers not just for the nurses and doctors. It lingers for the PSR that come by to help us, you know, find what we need.

ED nurses relayed that the ED social worker supports the patient's family during the time surrounding and following an unexpected death. This only happens during ‘business’ hours on weekdays, as recognized during observation shifts, since that is when they are present due to their schedule. When the ED social worker is present and supporting families ED nurses are still available to engage with the family and answer questions. Participant #1 stated “we do have a social worker, but I find from a medical standpoint, it's better if someone who understands things is in there to explain.” The ED social worker is not only present to provide emotional comfort to the family of the deceased, but their ED colleagues as well. When asked about what occurs within the ED after an unexpected patient death, Participant #5 responded “social work will always say, if you guys need to come talk and things, like, that our door’s open.” Participant #6

recalled that she has used the ED social worker for support. “I can talk to the social workers. They are lovely. We can just chit chat with our social workers.”

“The Worst Day of Their Life” (The Family of a Patient Who Has Unexpectedly Died) (Participant #6)

Participants described how their focus immediately turns to the bereaved family after a patient dies unexpectedly. Preparation for supporting a family starts even before they enter a room to see their family member. This can include clearing a body and the room of medical equipment, if the coroner is not involved.

> **Participant #6**: And before the family is there, it's like, OK, what does this patient look like? Because it was unexpected, they can be, there can be a complete mess. So, my mind is like, the aesthetics of it. I want them cleaned up. I don't want them looking (.) scary for their family, you know? We would make sure that the body is kind of, in a nice proper type of way, there's not stuff all over the room, try and tidy up as much as possible because the family is going to be there, and that's going to be their last minutes with their person, right?

In cases where families are not present in the room during resuscitative measures, they are escorted by another ED staff member to the Family Room, which sits in the center of the chaotic ED, where they await news of their family member. Participants who fill the role of charge nurse identified that they are present with the physician when families are told that a patient has died. Participants stated that ED physicians leave the room shortly after the family has been notified. The charge nurse then provides emotional support and answers all questions, including those about medical interventions that have occurred, and how to proceed making post-mortem arrangements. The family members are finally accompanied through the noisy hallways filled with stretchers, patients, and medical equipment to see the patient who has died. Additionally, participants reported that they intentionally alter their behaviour while around bereaved families.

> **Participant #6**: You almost feel guilty. Like, (.) if the patient's family is right in front of me and then I'm chatting and you feel guilty expressing joy almost, like, in front of the nursing window, because right now they're going through a terrible time and then they're looking at us and, (mimics laughter), you know? So, I think being aware of that, but I think it just feels really heavy and it kind of humbles you because they're having the worst day of their life.

This demonstrates how ED nurses strive to demonstrate emotional support through nonverbal communication, not just through their words.

ED nurses reflected how previous interactions with bereaved families have led to changes in their practice. One participant recalled how she now allows families into the room while life-saving measures are underway. This of course depends on the situation and if the family requests to be present. The nurse's goal is to help the family to "understand that everything is being done for their loved one" (Participant #1). Another ED nurse recounted that she was asked to leave a room by a son who had unexpectedly lost his father, even though she believed she was being "supportive and helpful" (Participant #2) by standing quietly in the room with him. Participant #2 stated:

> I find that really tricky and really hard and a few times where I feel like I'm being really sympathetic and really supportive and the person actually asking me to leave. You know what I mean? One time this guy died, it's very sudden and the son was there with him the whole time. [He was] talking, talking, talking, (.) gone, you know what I mean? Right in front of the son and I felt bad that the son was there by himself. So, I thought, OK I'm not going to leave this poor guy by himself with his dead dad in the bed. So, I was rubbing his back just standing there and just being there. And he's like, I'm so sorry. Do you mind leaving me alone? Like, absolutely. I'm so sorry. I thought I was being supportive and helpful. He wasn't rude. He wasn't mean about it, but he just, like, I didn't realize. Some people just want to be alone, right-?

This experience made the nurse more conscious of the various needs of family members in the immediate aftermath. According to Participant #3, she is now more focused on being physically and emotionally present with patients who are actively dying and have no one by their bedside after witnessing a family miss their loved one's death by a few minutes.

> **Participant #3**: So, to not leave that patient alone, dying in the room with nobody there, one of the nurses stayed and sat with them so that they wouldn't be alone. And, like, I remember that so clearly because I was like, that's what nursing is. (Voice breaking) Like, being there. (Begins to cry) And like, I remember just thinking, like, I was driving home, and I was, like, oh my gosh. Like, I was, like, so fixated on tasks.

After that experience the nurse stated that she now considers the patient's family even before the death occurs. She stated, "I think that experience needed to happen for me. Now when I see the other patients, (without family at the bedside) I kind of know what the family would want for them and like, kind of it just, it clicked" (Participant #3).

As demonstrated, the exchange of support between agents within the ED impacts decision making, experiences, and in some cases, emerging behaviour of nurses after unexpected patient death. The support is mostly emotional but can also be tangible in nature. It should be noted that the groups of agents most identified by participants where support is exchanged are those with whom there are no traditional hierarchical relationships. This includes those held between unit managers, or hospital administrators. This mirrors one of the tenants of complexity theory which states that relationships between agents within a complex system are non-hierarchical in nature, and changes within the system are a result of the many interactions between them.

Surviving in a Chaotic System

ED nurses used the term 'chaos' most frequently when asked to describe the ED environment. They described a setting in which the front doors are always open, patients are constantly arriving, and the corridors and rooms are crowded with people. Participants expressed that they attempt to establish a sense of order and flow amid a chaotic space after unexpected patient death. There is also disorder and confusion related to understanding the events surrounding resuscitative measures, and formal supports available to ED nurses after a patient

dies unexpectedly. The inconsistency and loss of this information impacts the learning and development of nurses, especially those who are junior, as well as their ability to seek assistance with their mental health if required.

"It's Just, Very Move On" (Participant #6)

The chaotic ED environment is always present and awaiting ED nurses after a patient dies unexpectedly. Each ED nurse discussed immediately returning to patient care after an unexpected patient death to maintain the flow of the department. Departmental flow refers to the constant movement of patients as they are triaged, assessed, treated, re-assessed and ultimately discharged home or admitted to the hospital for further treatment. The number of patients who are waiting for hospital admission, thereby blocking beds from use by ED patients, often impacts how well the department flows. Participants noted feeling that the flow of the ED is supressed by life-saving measures, depending on the length of time or resources spent. As a result, after an unexpected patient death ED nurses feel the pressure, and need, to return to their patient assignments to re-establish the departmental flow as soon as possible. When asked about what occurs within the department immediately after an unexpected patient death, the responses from all but one participant indicated that unless they are supporting the family of the deceased patient, they immediately return to providing patient care throughout the department. This was even more likely if they are working in a zone separate from where the patient died. The two main reasons for this immediate return to care are based on the impact on departmental flow, and the preparation of and maintenance of meeting patient needs.

Departmental Flow Versus Emotions.

ED nurses discussed how nursing resources are impacted by a resuscitative event. Resuscitative measures decrease the number of bedside nurses left in the department to care for

patients as nurses are pulled from different zones within the ED. This becomes of greater concern when the department is already short staffed, over patient census, or overnight when the ED is normally scheduled for 14 nurses as opposed to 18 for the day shift. These numbers can fluctuate if nurses call in sick or are sent with a patient on a transfer to another hospital, increasing the nurse-to-patient ratio. A minimum of five nurses are used during resuscitative efforts, thereby removing them from contributing to all aspects of departmental flow.

> **Participant #4**: You want to make sure that every zone has at least one person covering the zone, which limits the amount of people that you have available to help in your code significantly. You only have one triage nurse overnight. They have to stay at triage. That means that you're usually, your charge nurse is going to be the documenter, and then you need to have two for CPR, one on the monitor, one for drugs. That's a lot of people when you only have so many people at night to cover the zones, so the resources are significantly less and it depends on who you have, right? That impacts a lot of things. And then your doctor, which takes away from the rest of the department. You have one doctor overnight from 2:00 on, so that means that nothing else is moving anywhere else. It really, it really kind of immobilizes resources.

Once a patient has been pronounced dead, the ED nurse assigned to the patient then becomes the nurse designated to support the family. Depending on the circumstances surrounding the patient death, that support may last for hours, thereby removing a nurse from fully contributing to the flow and workload of the zone in which they are working.

ED nurses assigned to the various zones in the department only carry responsibilities for what occurs within that zone. Nurses who fill the role of charge nurse not only perform their normal duties but cover areas of the department to allow their nurse colleagues to take breaks, or even assume primary care of patients in zones within the vicinity of their desk in the case of sicks calls. As a result, the charge nurse can be caring for numerous patients on top of their regular tasks.

> **Participant #2**: Dealing with patient complaints or even family complaints, like, it's always on the charge nurse and it's a lot, but then also taking on an assignment because

> we're short all the time. So, you'll be in charge and then I'll also be Red zone, or I'll be Mental Health.
> **Interviewer**: Oh right, I remember you saying that. So, you'll also help to cover, right. But then you have to cover-(.)
> **Participant #2**: You cover triage 100% of the time for breaks. But then if you're short the first place you usually pull is Red. Second place usually is Mental Health, so if there's patients there and you're short, then it falls on the charge nurse to take over. So, you have to do your regular charge duties, which is also, like, triaging throughout the shift and then you have to also take on an assignment.

The same nurses also noted the importance of their role in maintaining the flow of the department, which was repeatedly seen during observation shifts. As witnessed during observation shifts, charge nurses frequently collaborate with the triage nurse in deciding where to offload EMS patients. They also are responsible for overseeing that nurses send patients to inpatient units in a timely manner once a bed has been assigned. Charge nurses need to have knowledge of when ED beds are going to be available due to pending patient discharges or blocked from use for ED patients due to hospital admissions, as well as making the decision to open surge beds within a zone. As discussed earlier, during resuscitative measures these nurses are always removed from their tasks to contribute to resuscitative measures, most often "to be the documenter" (Participant #4). In addition to the fact that charge nurses are more likely than their peers to experience unexpected patient deaths, their position in a code blue or pink diverts them from their own responsibilities of helping to maintain departmental flow and patient care in any zones they may be covering.

ED nurses are not the only ones affected by the pressure to resume patient care immediately after the unexpected death of a patient. ED physicians are also affected, especially when there is only one on duty. In circumstances where there is only one ED physician present, a burden is placed on the ED nurses as they attempt to balance acknowledging and providing support to their physician co-worker with managing the ED flow. Participant #4 recalled a shift

when she was the charge nurse, and an ED physician needed to take a break to compose his emotions after the unexpected death of a young patient.

> **Participant #4:** And I won't forget it because the whole department was basically at a standstill. It was a day shift, and he had, it was just him, but he had about 15 reassesses in the entire department, so nothing could move anywhere, and he needed to take the time that he needed. And I was like, I appreciate that you need-. What, can a colleague help you? What can I do right now? Because, yeah, it's very challenging for you and I respect that and you need to take the time that you need to take, but now what do-? (.) That's a super tough one. I don't know which, and I don't know because I never experienced that before, but the entire department is at a stand still for like hours.

This delayed re-starting the perceived stagnant departmental flow, causing Participant #4 to feel a sense of discord as she reacted to the needs of the physician, as well those of the environment.

According to ED nurses, the flow of the ED can be negatively impacted by patient census and acuity, as well as staffing shortages. Despite attempting to put aside any emotions that arise after the unexpected death of a patient, ED staff who do take time away are perceived to be impeding the flow. For nurses who fill the role of charge nurse, this can be a cause of internal conflict as they consider the emotional needs of staff with those of patients within the environment.

An Unpredictable Environment.

Contributing to the system's chaos is the unpredictability of patient volume and acuity. Unlike their counterparts on inpatient units, ED nurses work in an environment where there is no maximum patient capacity. As a result, the nurses prepare for the needs of current patients in the ED, but also for any patient who may come through the doors throughout the shift. Participant #6 described how she commences her shifts preparing for this unpredictability by making sure the rooms in her zone have the appropriate equipment and are set for an acutely ill or patient in need of resuscitation.

> **Participant #6**: Do all your room checks and hope that you have all of your ducks in a row because if something goes south and then you're not set up for that type of situation, then you can be really screwed.

Additionally, ED nurses are constantly thinking about "what could happen" (Participant #4).

> **Participant #4**: It's a very unpredictable environment. And one that you have to kind of be on your toes constantly and prepare for anything at any moment in any time. You never know what's going to come through the doors or change within the environment.

After the unexpected death of a patient, ED nurses talked about putting aside any of their own needs to immediately return to caring for their patients who rely on them for basic care, medication, re-assessments, and the completion of interventions from medical orders. These include patients who are still classified as ED patients, as well as those who are admitted to the hospital and waiting for a bed to be available. Participants conveyed the challenge faced as they manage their own emotions after a patient dies unexpectedly while continuing with the expected tasks required to care for their patients.

> **Participant #5:** I remember, like, my first code. I was a student, and it was unexpected for me because I was like, oh (eyes wide, makes unintelligible sounds), as he didn't come in as a code, they came in very sick. But it wasn't a code. And my preceptor was like, just take your time, go to the bathroom, go drink, because I didn't have the full patient load, but then I came back and she had done the rest of the tasks and all I was thinking was, I'm going to have to (.) do all this while I feel like that, and that's still something I kind of struggle with. It's just very move on, because there's a million other people that need you.

> **Participant #1**: Like, we jump from, you know, running a code white and then we jump to, you know, the patch phone going off. And we have a code blue coming in to, you know, who's going to be in that role, who do I think is going to be able to do it at that time, and it's just like jumping and you know, you have to take all of your feelings, everything, and kind of put them aside. All your personal feelings and put them aside and then just move to the next one.

ED nurses not only consider the needs of patients who are in their care immediately before the events surrounding an unexpected death, but of those who have been triaged yet are not in an assigned assessment space. These may be patients who are waiting with EMS or in the main waiting room. As most unexpected deaths in the department occur in the Red or Blue

Zones, where EMS wait with their patients to be offloaded, there is an immediate visual reminder of the constant influx of patients to be seen and treated as soon as ED nurses leave the room of the patient who has died. Participant #6 described how she is immediately faced with the reminders of those in need of care in a chaotic environment after one of her patients dies unexpectedly.

> **Participant #**6: Yeah, it's like almost like-. I've never really thought about it, but it's like being in two separate worlds. Because there's this that's happening in front of you, and it's slow, and it's sad and then I'm removed, and it's just tornado, and chaos, and (begins to speak quickly, increasing in speed) the bells' going off, the charge nurse is answering phones, EMS is like, WHERE DO I TRIAGE? And the mental health [patients], like, it just (.) doesn't (.) stop. (.) (Quietly) It's chaos.

The needs of those seeking care are always put at the forefront, regardless of the emotions of the ED nurses after a patient dies unexpectedly. Once a patient has died, they are immediately confronted with the sight and sounds of the ED. These are reminders of the constant chaos, and the unpredictability of patients' needs, creating an environment where the nurses are always in a state of readiness. This comes at the cost of not taking necessary time for themselves after an unexpected patient death.

Trying to Make Sense of What Happened

ED nurses expressed that they experience feelings of sadness, anger, and frustration after an unexpected patient death. This can be felt more frequently, or intensely, by junior nurses as they have less experience caring for patients who die unexpectedly. Participants are uncertain about what formal mental or emotional supports exist for them after unexpected patient death. For the formal support the ED nurses are aware of, there is uncertainty about how they are accessed.

Lack of Formal Debriefs – Looking for Learning Opportunities

As previously discussed, there are inconsistent reports about the frequency of formal debriefs being held after the unexpected death of a patient. Participants stated that debriefs provide an opportunity for nurses and other ED staff to come together and discuss a Code Blue or Code Pink. This provides an opportunity for questions staff may have, discussion of the event and future learning opportunities that may be identified, and the group attempts to answer the question 'why did the patient die?'. Should they feel comfortable, it is also a time for ED staff to express their emotions. Participant #1 states that debriefs are held in the main Blue Zone nursing station, in front of the EMS and ED patients who may be in the hallways, whilst surrounded by the chaos of the ED. Participant #6 recalled a debrief that occurred in the vestibule between the two sets of EMS doors due to lack of physical space within the department. While there was a consensus that debriefs are encouraged after every code or unexpected patient death by the health care organization, there were conflicting reports regarding its consistency. One ED nurse stated that debriefs are held after each patient death, while another reported having attended two debriefs in twenty years. This discrepancy was evident during an observation shift when no debrief was held after the death of a patient. I was told by three separate nurses in the ED during the observation shift that high patient volume prevented a debrief from occurring. Participant #4 recalled how unusual, yet "refreshing", it was to participate in a debrief facilitated by a pediatrician after the unexpected death of a child.

> **Participant #4**: It was actually surprising, but it was very refreshing that she did it. Everybody kind of got to say what they needed to say and she just kind, of we just reviewed. How does this-?
> **Interviewer**: What happened in that debrief?
> **Participant #4**: So, you know, we get as many people back as possible, but sometimes they're not able to come back because they're tied up with their own things. RT is doing something else, so they weren't able to come back down. But it's, how does everybody

> feel that it went? What went well? What didn't go well? Always kind of standard, which is good. Everybody kind of said what they needed to say, and we spoke to the positives and the negatives and then just kind of, does anybody have any questions? Does anybody have any concerns, anything that you were wondering about why we did this, why we didn't do this? Why did we stop at this point? So, anybody that had curiosities, this is your chance to ask, and it was a kind of a no judgment zone, you know, which is helpful, because some people, you know, you don't, (quietly) we've had a lot of paeds [paediatric] code lately, but usually you don't. Yeah. So, it's a terrible learning experience, but it's a learning experience, and then if there's kind of nothing else then you know, 'thank you for your time'. I know that's very challenging. Step away if you need to step away'. Because it's a lot to unpack.

Another disparity found was that Participant #1 was the only ED nurse aware that the ED has a debriefing tool. The participant described and provided a copy of this tool to me during a shadow shift. It provides a script to help guide the debrief leader and allows for documentation of what is discussed during the debrief, including the specifics of what was done effectively and areas for improvement for future resuscitations. This form is to be given to the clinical practice leader (CPL) or ED manager to review, follow-up and to address learning opportunities for the unit. When other ED nurses were asked about the debrief record during observation shifts, including those in leadership positions, none recalled having seen or heard of it.

Formal debriefs allow for information sharing among healthcare providers in order to provide learning opportunities for those who participate. Inconsistency in debriefs is especially impactful on the development of junior ED nurses. They are left on their own to ask questions, gather knowledge and to understand the circumstances surrounding their patient's death. One junior nurse stated that if she participates in resuscitative efforts, but the patient is not in her direct care, she will informally talk to the Blue Zone nurses asking about the patient's age, past medical history, and suspected cause of death in an effort "to make sense of what just happened" (Participant #5). When a patient unexpectedly died after which no debrief was conducted,

another junior nurse used informal methods during her break to understand if a specific medical intervention contributed to their death.

> **Participant #3**: And I was like, I wonder if that's like, contraindicated and I remember asking one of the nurses, like, in the break room, like, not a thing like, that couldn't be it, right? She's like it could be it, but it couldn't be. I remember that one, I was more investigating about, like trying to…-
> **Interviewer**: Trying to understand what happened?
> **Participant #3**: Yeah. Yeah. Or more for my, like, knowledge. Cause I had him over two days and he did pass that night. But it was more so, I was like, how did you go from pivoting to a commode to this? Like-
> **Interviewer**: That is hard to rationalize, right?
> **Participant #3**: Yeah, like, how did you go from that?

Those who participate in formal debriefs are able to take what they have learned and continue the teaching/learning opportunities obtained from them by sharing the new-found information and knowledge with colleagues in the future. Participant #4 shared this idea, noting the system-wide consequences.

> **Participant #4**: There's something to learn in everything I think, and it's just unpacking it and it's probably more worthwhile to unpack in that moment with the people that are involved. And then you can bring it down the line to other staff. But we <u>never</u> do. And I don't know how to change that.

With the exception of one participant who holds a main leadership role in the ED and assumes the role of debrief leader, the ED nurses discuss how debriefs after unexpected patient death are historically physician driven. They look to the physicians to direct and lead the debriefs, which provide an opportunity for those involved to discuss the events surrounding the death and to do an emotional ‘check-in’. As addressed earlier, ED physicians also feel pressure to immediately return to patient care after a patient death. This pressure is increased overnight when there is only one ED physician scheduled, thereby removing the only perceived individual of leadership to conduct a debrief. ED nurses look to the physicians to try to answer, “why did this

happen" (Participant #4). As the physician may be pressured to return to seeing patients, especially when the waiting rooms are full of patients waiting for assessment, this may take away further learning opportunities afforded by debriefs.

Additional Formal Support – Where is the Help Beyond Calling a Friend?

ED nurses use each other for informal support after an unexpected patient death, however participants were consistently unable to identify formal resources available to them through the healthcare organization. While aware of the existence of counselling services provided by the government, they were unsure of how to access them. During her interview and shadowing shift, Participant #1 discussed how the ED established a formal peer support team in 2019. This team was created by the unit co-ordinators, the ED social worker, and hospital chaplain. Participant #1 indicated that the team should be initiated after any critical event in the ED, including the unexpected death of a patient, to provide emotional support and guidance for any ED staff member. The instructions and forms for activation are present and accessible at the charge nurse desk, as Participant #1 shared these documents with me during an observation shift. Another participant identified that a "grief team" (Participant #2) had been brought into the ED after a particularly traumatic unexpected death but was unable to elaborate on its purpose or how to contact the team in the future.

Although all nurses were unsure of what supports exist within the hospital organization, senior ED nurses had more difficulty identifying them compared to their junior counterparts. There was also inconsistency when naming supports between participants. All identified that it is the responsibility of the nurse to seek out formal supports if needed. While expecting that formal supports are available, they identified that an unknown barrier exists between their existence and

their knowledge of them. This was recognized by Participant #6, a nurse who has worked for thirteen years in the department.

> **Participant #6**: Do you know of anything else? (Both laughing).
> **Interviewer**: Um, I think that there are some different things, but it's, I don't necessarily know that the, like, I think that things are out there, but there's a bit of a [missing link-]
> **Participant #6:** [There's a barrier.]
> **Interviewer:** [Between the] knowledge of the frontline workers and what I feel is available.
> **Participant #6**: I feel that is one hundred percent correct. I'm a senior nurse. I should know these things. Like, what's available to me guys?

This traditional lack of information held by senior nurses is reflected in an observation by a junior nurse.

> **Participant #3**: Mostly for resources, all I know, for our department, they don't really talk about it, I'm gonna be honest with you. Like, they don't really talk about what you would, who would, who would you go to?

The inconsistent exchange of information after unexpected patient death has led to lost learning opportunities and knowledge of how to seek formal emotional support. Senior nurses not only indicated that these gaps are a part of the system history, but there is uncertainty about how to alter the behaviour. These gaps not only impact those involved in the events surrounding the unexpected death of a patient, but those with whom knowledge and information is shared in the future.

"I Am Considered Senior Staff, Which Doesn't Seem Right" (Participant #4)

There has been a large turnover of nurses in the ED in the last four years (since COVID), resulting in emerging definitions of what is considered a junior nurse versus a senior nurse and the roles that these nurses play. Traditionally, nurses were labelled as junior or senior staff based upon the length of time (measured in years) they had been working in the ED. However, this unit of measurement has been shortened as the ED has hired more nurses with little to no ED

experience. Participant #4, who has been an ED nurse for six years, stated “I wouldn't consider myself a senior staff in any way, but I think relative to the number of new staff, I am considered a senior staff, which is, like, still to say that doesn't sound right”.

In Spring 2024 the health care organization stopped using nursing agencies, which resulted in the hiring of many new nurses. Participants discussed that this has led to a large number of nurses who are new to ED nursing, or new to the nursing profession, to join the team. Once hired, these nurses complete a three-month program to obtain their Emergency Nursing Certification. These are nurses who would traditionally be considered junior staff members for many years, until their experience and an unspecified time on the unit would change their designation to being senior. With regard to new ED nurses, Participant #1 who has twenty-six years ED experience, states, “They're so green. They're so scared. They're so new. Ten years ago, think about ten years ago, in my exact same role my job was different because I didn't have to teach people skills. They came in totally skilled.” This was corroborated in part by a list kept at the charge nurse desk that indicated that 18 nurses were enrolled in the Emergency Certification Program, while 15 were awaiting training on one or more of the following skills: cardiac monitoring, caring for patients in the acute zones, triaging and filling the role of charge nurse.

Due to a lack of experienced nurses in the department and the large number of recent new hires, nurses who are fairly new to the ED are working in positions they would not have in the past. This not only includes the skills listed above, (i.e. triage, charge nurse) but can also entail orientating nurses who are newly hired to the ED despite their own recent employment.

> **Participant #3**: I was bugging her cause I'm, like, (ED nurse) they're having me orient people and I've only been here for eleven months and she kind of gave me some tips on how to orientate. She was like, ‘the best thing you can do is just have them follow you around. Just follow you around. Just let them watch, watch you do things because then that way you know that they've seen it. They've seen it done once they know what to do,

> then it’s actually it's up to them to know what they have-. They've seen it. They know what our day looks like’.

This suggests that even though junior nurses are still learning how to operate in a chaotic and noisy setting, they are being placed in situations to begin teaching other inexperienced ED nurses the skills necessary to work as ED nurses.

The large number of new hires also impacts the supports and mentoring of the new ED nurses. Nurses who are mentoring and orientating new staff may be engaging with more than one mentee at a time while still caring for the patients who fill the department. An example of this was witnessed during an observation shift. On her second day working independently in Blue Zone, which sees the most critically ill patients, Participant #5's nursing partner was orienting a recent graduate rather than being fully accessible to mentor her. According to Participant #6, there are other human resource shortages in the ED besides those currently experienced by the nursing profession, posing different challenges for junior nurses.

> **Interviewer**: So how do you think that the environment, as a <u>whole</u>, has changed with this kind of shift, with all of these younger junior nurses coming in?
> **Participant #6**: I think there's just a lot of demand on these younger [nurses]-, and it's not fair to them. I think the demand on them to perform and do their job-. I think the environment for these new grads, or new hires, coming in, it's like, they don't have the support. We don't have PSWs and we don't have extra people to help us care for these patients. So sometimes it's just on us. Sometimes we don't have our unit clerk and we're having to answer the phone. We have so many roles as nurses and then in a chaotic environment, it's very, very hard to navigate and manage.

This reflects how shortages of non-nursing ED staff can impact the environment and increase the number of responsibilities that new ED nurses are tasked with as they navigate the unit. This is the environment in which new ED nurses, some having directly graduated from nursing school, are entering and experiencing unexpected patient death.

This chapter has explored the data gathered during interviews and observation shifts of participants. ED nurses face many challenges after a patient dies unexpectedly, however participants do discuss the exchange of informal support between various groups of agents and how it impacts their experience after an unexpected patient death. ED nurses put aside any emotions surrounding the event due to the chaotic environment and pressure to immediately return to providing patient care. This removes opportunities for ED nurses to acknowledge or process their feelings in a meaningful way. Senior nurses articulate the importance of supporting junior staff after an unexpected patient death, recognizing the impact it may have on them not only throughout the rest of the shift, but long-term. As inexperienced nurses have joined the ED, they are taking on roles and responsibilities that they traditionally would not for a number of years, increasing their chance of exposure to unexpected patient death earlier in their ED tenure. This is in part to the major shift in staffing census in recent years. The impact of the data collection and analysis will be explored in the next chapter.

Chapter 6

Discussion

The purpose of this research was to explore the experiences of ED nurses after unexpected patient death in a community-based hospital. Data was gathered during shadowing shifts and interviews of ED nurses from a community-based hospital in Ontario, Canada. Data analysis revealed there is an exchange of support between ED nurses and other groups of agents within the ED after a patient dies unexpectedly. It also illustrated that there is a constant sense of chaos impacted by the lack of resources and needs of the patients within the environment. Should ED nurses want further emotional support after the unexpected death of a patient, there is uncertainty about where to find and access formal resources. Finally, the ED is undergoing staffing changes which is impacting the definitions of 'junior' and 'senior' nurses, their roles within the department, and in supporting one another after unexpected patient death.

Experienced Nurses Need Support (Supporting Junior Nurses)

Participants revealed that experienced ED nurses are not being provided with the support they need after an unexpected patient death. There is a higher likelihood that senior nurses will care for high acuity patients that die unexpectedly. More experienced ED nurses, with two or more years of ED experience, are more likely to work in the acute zones and be in charge of the department, where their role almost always involves being part of any resuscitative efforts. In this ED research site, and since COVID-19, a large number of nurses with limited or no previous nursing experience have been hired to address staffing shortages. It can be argued that COVID-19 was the critical moment within the ED, where significant staffing changes led to a substantive change in the system. This aligns with the Chandler et al. (2015) study where EDs, as a complex adaptive system, are constantly adjusting and evolving to the changes in healthcare practice and

organizes itself, in part, in response to its external environment. EDs traditionally hire nurses who have previous professional experience. Due to changes in the nursing profession and chronic staffing shortages in recent years, nurses who have little to no experience are now being hired in larger numbers (Lee, 2024). While the mass hiring of new junior staff addresses staffing issues, significant time is needed for these new nurses to become competent ED nurses. An Auditor General of Ontario (2023) report published in December 2023 stated that nurses "are required to meet specific training requirements to work effectively in an emergency department, including at least one to two years of hands-on training in addition to other certifications" (p. 33). Participants reported that nurses hired in the ED are lacking this critical experience before being placed into more senior roles and caring for high acuity patients. The same report notes the importance of having experienced and trained nurses present to supervise new ED nurses (Auditor General of Ontario, 2023). Interviews also revealed that this is not consistently occurring. Not only are nurses who are new to the ED orientating new staff, but nurses who are new to the profession are taking on the roles traditionally held by senior nurses, thereby increasing the chance that they will experience an unexpected patient death in which they may not be prepared for. While more likely to occur in areas of high acuity, it was noted by participants that unexpected patient death can occur in any zone within the ED. As discussed in the beginning of this thesis, in 2020-2021 55% of the 307,520 Canadian deaths occur in a hospital setting, with 6%, or 18,498 patients dying in EDs (Canadian Institute for Health Information, 2023; Statistics Canada, 2023). This demonstrates the amount of death new ED nurses are being exposed to.

Senior nurses in my study spoke about taking on multiple roles in a shift to cover staffing shortages and the lack of skilled ED nurses in the department. This can be compounded by the

unexpected death of a patient during their shift, especially during overnight shifts where the nursing census is lower and extra professional support for families is not immediately accessible. While on call, chaplains and the ED social worker are not physically present on the unit in the evening or overnight. The experiences of senior nurses in this study mirror those in the literature, where ED nurses speak about filling multiple roles in order to support the family when access to other professionals is not available (Gerace et al., 2021). While wanting to provide holistic care to a grieving family, ED nurses have suggested that social workers and chaplains should assume care (Gerace et al., 2021, Hogan, 2016). ED nurses in this study indicate that the primary nurse of the patient who has died unexpectedly takes over care of the family, not other ED staff. This potentially leaves senior staff to care for a grieving family, plus continue with the responsibilities of their pre-established roles. Secondary Traumatic Stress (STS) has been linked to exposure of unexpected patient death in the literature (Morrison & Joy, 2016). While this study did not evaluate symptoms of STS, the literature would indicate that senior nurses in this study are at higher risk of being repeatedly exposed to unexpected patient death and grieving families due to their roles.

Senior nurses in the ED are also carrying more responsibilities. The number of junior nurses, and nurses new to the profession, in the ED have gone up tremendously in the last few years in the study hospital. This is a trend that is occurring across Ontario. Practicing registered nurses who work in EDs and are 45 years of age and older have decreased by 9.8% since 2022, while the number of nurses aged 18-34 have increased by 8.7% in the same time period (College of Nurses of Ontario, 2024). Assuming that these statistics examine registered nurses for whom nursing was the first profession, with some slight anomalies, this indicates that there are less experienced nurses available to guide those who are newer to the profession. These staffing

shortages are not just of concern at the research site, but across the province. The same Auditor General report (2023) found that 83% of hospitals surveyed indicated that they were dealing with moderate to severe staffing shortages in their EDs. Of even greater concern, at the time of its publication, the report also states that neither the Ministry of Health, nor Ontario Health had "developed a long-term strategy or acted up on this information to take specific actions related to significant staffing shortages." (Office of the Auditor General, 2023, p. 33). Changes within the nursing profession leading to ongoing nursing shortages and the scarcity of solutions from governments are contributing to the ED's constant state of flux and unpredictability.

Senior nurses discussed how they engage with others in the ED who are immediately available to them for support after a patient dies unexpectedly; however, they are unable to articulate where to seek out formal support if needed. The inability to identify formal resources was seen to be a part of the engrained culture of the environment when a nurse who has been working in the ED research site for eighteen years noted that she had only attended two debriefs during her tenure. It was also identified that there is a lack of discussion amongst the ED nurses about seeking out formal supports after a critical event, such as an unexpected patient death. Healy and Tyrell (2013) hypothesized that less experienced ED nurses are fearful of being labelled as having poor coping abilities by senior ED nurses should they show any emotional distress. This in turn could impact their perception of the importance of formal supports. The ED nurses in this study did not identify any reasons for why there was a lack of knowledge or action regarding formal supports. This is a significant negative feedback loop as discussion about, and the knowledge of, how to seek out formal support is being supressed. As mentioned previously, feedback loops are critical to a complex adaptive system by impacting the way a system functions by either instigating, or hindering, change. According to participants, the chaotic

environment does not permit time for formal debriefs, and a culture exists where formal supports are not spoken about or consistently used. The engrained behaviour of 'not talking about that', in other words, how and where to find formal support is now impacting the junior staff. Senior nurses are unable to direct junior nurses to formal supports if they are unaware of what supports exist, or how to access them. Negative feedback loops such as this are detrimental and inhibit change within the system (Petrie & Comber, 2020). These findings mirror those in the work by Allen and Palk (2018) where ED nurses in large urban centers had difficulty articulating how to seek out formal supports, despite the healthcare institution having a variety of services for those in need. The authors suggested investigating the barriers that exist to improve upon the use of these services. It should be noted that community-based hospitals may not have the same number of, or established, formal supports as their urban or teaching counterparts.

Senior nurses traditionally take on roles and responsibilities that put them in situations to be exposed to patient death. This is not only due to their assigned roles in the acute zone where patients are most likely to die unexpectedly, but in a secondary manner through the support they provide to junior staff if they are caring for a patient who unexpectedly dies. It must be noted that all senior nurses stated that the offer of tangible and emotional support is only offered to junior ED nurses in the moments after their patient dies unexpectedly. This is contradictory to the work by Anderson et al. (2015) where nurses reflecting on their first patient deaths as junior nurses felt that they were left lacking support and supervision, however, it was not recorded how many of these deaths, if any, occurred in the ED.

Research has shown that one of the effects of repeated exposure to critical events can lead to toxic relationships in the environment with decreased mentoring of junior nurses (Wolf et al., 2020). This was not evidenced in my research, as through both observation and interviews,

junior nurses demonstrated and expressed their appreciation for the guidance of their more experienced colleagues. This mentorship includes providing emotional support after the unexpected death of a patient, which the junior nurses acknowledged as being helpful. This was also reflected in the literature when ED nurses articulated their appreciation for the support provided to them by senior nurses (Shimoinaba et al., 2021). The same nurses then mimicked the behaviour of their mentors in an effort to guide more junior staff after an unexpected patient death. Through the literature, as well as this study, it can be seen how an emergent culture of support toward junior ED nurses after unexpected patient deaths have come as a result of not just one senior 'in-charge' nurse, but colleagues of all tenure.

Coping in the Chaos of a Community ED

The ED environment was described as chaotic. It is full of patients and their families, hospital staff, ED staff, and excessive medical equipment that create congestion. The volume of patients entering EDs across Ontario is continually increasing. Ontario saw an extra 216,850 ED visits in the fiscal 2023 year compared to the same period the year before (Canadian Institute for Health Information, 2024). Community EDs, such as the research site, are attempting to find space to assess and treat the ever-growing number of patients, leading to many patients being treated in hallways due to constant over-capacity. Nurses in this study, as well as the literature, almost always return to patient care immediately after the unexpected death of a patient, feeling pressure from both self-imposed expectations as well as the environment around them (Chen et al., 2023; Khalaf et al., 2018; Lindsay & Heliker, 2018; Mast & Gillum, 2018). ED nurses are not just responding to other agents within the ED, but to what is occurring in the environment around them. This is worth consideration due to the many negative consequences addressed in the literature for ED nurses who do not acknowledge their emotions, mask them, and

immediately return to work. Other research has presented the impact of emotional labour in ED nurses, both internally and externally. Internally, ED nurses can experience emotional stress that, if left unaddressed, can lead to the perception that they are providing poor quality of care, and over time, increased absenteeism (Ratrout & Hamdan-Mansour, 2020; Yuwanich et al., 2016). Two participants in my study began to cry during their interviews when asked to recall an experience with an unexpected patient death, despite each death having occurred two years prior. The emotional impact of these deaths on the ED nurses was evident. Externally, not acknowledging the emotional impact that a traumatic event, such as the unexpected death of a patient, can lead to an environment where there is less mentoring of junior staff, and potentially, decreased retention (Wolf et al., 2020). While the consequences to ED nurses immediately returning to care after an unexpected patient death was not specifically examined in this research, this is an important consideration because as there is an influx of junior staff into the setting to address the nursing shortage, the lack of formal supports to acknowledge emotional impact, could impact the retention of these new nurses.

Similar to the studies by Chen et al. (2023) and Meller et al. (2019) other ED nurses were the most commonly mentioned source of support after their patient unexpectedly dies. Also like nurses in the existing literature, participants stated that the reason for this is that colleagues understand their experiences in a manner that their family and friends are unable to (Anderson et al., 2016; McCall, 2020; Wolf et al., 2020). This study also revealed that ED nurses gain support from EMS, something that was not mentioned in previous research. The support noted during observation shifts and interviews is both emotional and tangible in nature. This could be attributed to the physical layout of the research site. EMS is frequently lining the hallways adjacent to the acute zones and main nursing station as they wait for an appropriate ED space to

offload their patients. Increasing offload times are impacted by outside influences, such as a decrease in the number of family doctors in the province leading to patients seeking treatment in EDs, thereby contributing to high patient volumes and a lack of physical beds. Another consideration is the length of time that an ED nurse and an EMS worker may have been working together, allowing for the development of strong working relationships.

ED nurses who experience an unexpected patient death put aside their emotions to cope for the remainder of their shift due to their concerns about departmental flow and return to care for the patients on their roster, as well as those still waiting to be assessed. Previous studies also reported that ED nurses put the needs of those around them before their own after an unexpected death has occurred in their care (Chen et al., 2023; Khalaf et al., 2018; Lindsay & Heliker, 2018; Mast & Gillum, 2018). This is a behaviour that is entrenched in the culture of the department. During her tenure as a fourth-year nursing student in the ED site, Participant #5 recalled her first unexpected patient death and the actions of her preceptor who immediately resumed patient care after being temporarily removed to perform resuscitation procedures. The participant reflected that she too would one day have to behave in the same manner after a patient dies unexpectedly. This can be seen as one of the ‘dominant logics’ in this ED site; the expectation to return to caring for others in a timely manner, despite the negative consequences that emotional labour can cause (Voultsos, 2021). As in the literature, nurses in this study most commonly articulated that the pressure of a busy and chaotic environment as a reason, along with attempting to ignore or manage their emotions, for immediately returning to work (Gerace et al., 2021; Kirk et al., 2021). In these studies, ED nurses describe an environment where heavy patient loads and time pressures remove the priority of care from a patient who has died and their family to other ED patients who are waiting for interventions.

As discussed, emotional labour is embedded in the culture of the ED, and in order for the system to evolve, this cultural norm needs to be explored and questioned (Chinnis & White, 1999). Despite the ED being a place where patients are brought with critical medical problems, and statistics demonstrating that patients die in the ED, ED RNs state that the death of a patient can still be unexpected. Participant #3 explained that she looks at every ED patient as one that may unexpectedly die in her care. Similar to the work of Sessa et al. (2021), participants in this study did not share a universal definition when attempting to articulate their personal definition of unexpected patient death. The actions of ED RNs in this study and the literature show that there is an expectation that more patients will die. This is done by exhibiting emotional labour and returning to provide patient care immediately after a patient dies unexpectedly in order to prepare for the next (un)expected critical incident that will inevitably present to the ED (Clarke et al., 2019). In this study, Participant #6 discussed how she begins her shift by preparing for any potential critical events with ensuring her zone is properly stocked. EDs are traditionally thought of as a place where healthcare professionals save lives, therefore the death of a patient can be viewed by ED nurses as a professional failure (McCallum et al., 2018). It should be noted that this exhibits the existence of paradoxical views which ED nurses hold between unexpected patient death and the ED culture of emotional labour and professional failure. As ED nurses, and the greater medical community, attempt to create a static definition of unexpected patient death, how each nurse characterizes a patient death remains subjective. It can be suggested that this subjectivity means that each ED nurse will carry varying levels of professional expectations for themselves, thereby experiencing a wide range of emotional consequences after a patient's death.

The chaotic environment is ever present, even when debriefs are occurring after the unexpected death of a patient. The ED is so crowded that there is limited space for conversations

consisting of learning opportunities, discussions about the resuscitative event, and emotional support, to occur. Kessler et al. (2015) suggest holding debriefs in the same space where the critical event occurred to better evaluate resources, the setting itself, and processes of the event. The authors do acknowledge that this suggestion is to be balanced with the physical needs of the department and patients. They also suggest that the comfort of participants may be enhanced by moving out of the event space to a separate location. Whether ED staff at the research site gather in the room where a patient has unexpectedly died, the main nursing station, or EMS vestibule, they are still surrounded by the sights, sounds, and smells that saturate the department. This can potentially distract from the learning and emotional support that debriefs can provide its participants.

Encoded Debrief Practices

Data from this research revealed the inconsistency in how often formal debriefs are held. It also unveiled the deficiency that exists in knowledge about, and access to, support after unexpected patient death. Participant interviews indicated that these deficiencies are wide-spread and long-established within this ED. The College of Nurses of Ontario (2019) maintains that holding a "debrief after critical incidents to provide support to staff and determine the cause, a possible solution and how to prevent a recurrence" is a strategy that quality practice settings should use to support their nurses (p.13). The literature repeatedly states that debriefing is used as an educational tool (Kessler et al., 2015; Schmidt & Haglund, 2017). Debriefs are used for social learning and can lead to improved patient outcomes in the future (Kessler et al., 2015). They may also contribute to the resiliency of ED staff and provide opportunities for peer support (Schmidt & Haglund, 2017). Debriefs in the research site are meant to discuss the resuscitative efforts and conducting a brief emotional assessment before staff return to patient care. This was

evidenced by information provided in interviews, and the unused debrief guide from the ED site. In this study, all participants reported the inconsistency in debriefs, indicating a negative feedback loop. This feedback loop can be attributed to the encoded behaviour of the system as one participant stated that she has only attended two debriefs in twenty years. The historical inconsistency of debriefs is one that has been established due to departmental habits, (i.e. immediately returning to patient care, ED nurses unaware of what tools are available to help direct a debrief), within the complex adaptive system.

As in the literature, participants felt pressure from a chaotic environment to return to patient care as a leading cause of why debriefs are inconsistently conducted (Hammerle et al., 2017; Healy & Tyrell, 2013; Kessler et al., 2015; Lyman, 2021; Morrison & Joy, 2016; Rose & Chen, 2018). The inconsistency in debriefs is troubling as there is knowledge that is being lost. This was articulated by Participant #4 who recognized that knowledge obtained from a debrief can be "passed down" to other nurses who were not a part of the debrief. The system history is contributing to missed learning opportunities that could potentially aid in improving future outcomes for future patients and nurses (Kessler et al., 2015; Schmidt & Haglund, 2017). Due to the large number of inexperienced nurses being hired into the department these debriefs are of even more importance to assist in the development of their knowledge when in critical situations. The lack of debriefs after an unexpected patient death also removes opportunities to receive peer support. Associated with the lack of experience, these junior nurses may have never participated in a debrief before, unlike their experienced counterparts who may have been exposed to debriefs in their previous institutions, or units.

Nurses in this study look to physicians to lead debriefs in the ED. This is similar to what is presented in the literature, where the historical trend indicates that physicians are 'in charge'

(Kessler et al., 2015; Rose and Cheng, 2018). With the exception of one participant who holds a permanent leadership position, no other nurses identified themselves as being capable of leading debriefs. Previous studies have suggested that debriefs led by nurses generate more effective sessions (Clark et al., 2019; McCall, 2020). This historically entrenched way of acting has become encoded in the ED system, resulting in the assumption that only physicians are capable of leading debriefs by ED nurses. This can be classified as one of the 'dominant logics' that Chinnis and White (1999) discussed that can be questioned for change to occur within the ED, as a complex adaptive system.

Similar to the literature, debrief behaviours after the unexpected death of a patient are long encoded in the culture of the ED. A chaotic environment and traditional patriarchal views contribute to the negative feedback loop that prevents changes in these behaviours. As a result, the environment potentially suppresses learning opportunities impacting ED staff and their patients.

Implications for Nursing Practice, Policies and Research

This section provides suggestions for nursing practice, policies, and research based on the findings of this study. While some can be translated for the experiences of ED nurses after unexpected patient death in any ED, the majority of implications address community-based hospitals.

Implications for Practice

For the study ED, one of the implications for practice is to make use of the debrief guide that is already present in the ED. As there is a pre-printed debrief document, there have already been considerations that any staff member can lead a debrief in the ED, not just a physician. This

not only provides leadership opportunities but allows ED nurses to understand that debriefs can still occur should the charge nurse, or physician, be unable to direct one. In community-based EDs, such as the one in this study, there may be times when only one physician is on duty. The pressure of the physician to return immediately to patient care may eclipse the perceived need to lead a debrief after an unexpected patient death. There are many nurses in the department who are undergoing various levels of training, including that of the charge nurse. Included in ED charge nurse training should be an introduction to and training on how to lead a debrief after the unexpected death of a patient.

Literature suggests that nurse-led sessions are more effective as participants view the leader as a peer (Clark et al., 2019; McCall, 2020). In cases where the charge nurse is unable to lead a debrief, making sure that all ED nurses are aware of, and encouraged to use available debriefing tools as this could prove beneficial by increasing the consistency that they are held.

Participating in debriefs on a regular basis, guided by a debrief document, could create a positive feedback loop in which all staff benefit where learning and mutual support is encouraged. This suggestion is one that can be applied to all community-based EDs, not just the research site. Introducing new staff, including nurses, social workers, and physicians in community-based EDs to a debrief guide, and providing debriefing facilitation training during orientation, could increase the consistency in which debriefs are held after critical incidents. Community-based EDs often share the same perspective as the research site ED regarding the belief that debriefs should be physician-led (Ugwu et al., 2020). This demonstrates the system history regarding debriefs is wide-spread amongst community EDs. Including a community ED-specific debrief guide during ED physician orientation, while emphasizing that any ED staff

trained in facilitating debriefs can lead a session, may begin to remove the traditional patriarchal view that debriefs can only be lead by physicians.

Findings from this study indicated that junior ED nurses may be more likely to be in roles where they are exposed to unexpected patient death earlier in their tenure than their senior counterparts were. Many of the new ED nurse hires have limited, or no, previous nursing experience, with fewer experienced ED nurses to support them. It is imperative to provide these novice ED nurses with as many resources as possible to cope with the emotional consequences after their patient dies unexpectedly. Implementing 'resilience education', as suggested by Allan and Palk (2018) can be considered and incorporated into the orientation, and any annual recertifications, of ED nurses. The authors suggested discussing self-care, resilience and conducting conversations about the critical events that occur in the ED with new hires. The introduction of relaxation and stress management techniques, as well as psychoeducation about normal psychological reactions to critical events were ideas proposed by the ED nurses in the same study (Allan and Palk, 2018).

Re-establishment of the peer support team could also prove valuable for nurses in the study ED. Peer support includes listening and providing active support, which in turn, helps to provide a sense of safety, normalizes stress reactions, and builds connectedness among healthcare providers (Carbone et al., 2022; Godfrey and Scott, 2021). This is accomplished due to the full understanding of the type of experiences that ED nurses are exposed to (Carbone et al., 2022). The development of a peer support team in a community-based hospital demonstrated a decrease in compassion fatigue symptoms in a study by Whal et al. (2018). Participants in this study articulated that they currently use their ED nursing peers for support, however, with the peer support team, new nurses who have not yet developed relationships with their colleagues

will still have support, should they choose. Peer support among ED nurses is of greater importance as community-based EDs may not have allied professionals such as social workers or chaplains for ED nurses to turn to for emotional support.

Implications for Policies

As demonstrated in my research and the literature, the definition of 'unexpected' death varies among ED nurses. This makes it difficult to ascertain which patient death will have an impact on ED nurses or provide learning opportunities. However, with the number of new and inexperienced nurses entering the unit, providing a 'safe' place to express their emotions and reviewing the events for learning opportunities could help junior and senior nurses. Therefore, one policy consideration at the local (micro) level is to ensure that debriefs are held, but that healthcare providers are aware that attendance is optional, after every patient death where resuscitative measures were conducted (i.e. Code Blues or Code Pinks). As stated earlier, The Ontario College of Nurses (2019**)** has included the importance of debriefs in a discussion about maintaining a quality practice setting. The psychological safety of participants should be considered when debriefing. Kolbe et al. (2020) define psychological safety as "a perception of the consequences of taking interpersonal risks in a given context" (p. 165). The authors state that the perception of psychological safety is subjective and impacted by antecedents at the individual, group, and organizational levels. Participating in a debrief where psychological safety is not considered, or its subjectivity respected, could increase the psychological stress of ED nurses after unexpected patient death. (Kolbe et al., 2020; Magyar & Theophilos, 2010; Schmidt & Haglund, 2017). The autonomy of ED nurses regarding debriefs should also be respected as research has indicated that ED nurses can have varying perspectives regarding the effectiveness of debriefs on their ability to cope after a critical event (McCall, 2020). Ensuring that debriefs

are available for ED nurses to participate in, should they choose, after an unexpected patient death is a policy that could be established in other community EDs, contributing to environments that are supportive, safe, and competent.

Current hurdles that exist regarding knowledge of, and access to, formal resources may be broken down by the implementation of a policy requiring the completion of an online learning module. Teaching by the healthcare institution (meso-level) about available resources for emotional support developed by the healthcare institution, as well as those made available by local and provincial agencies, could help to break down current barriers to access.

Schwab et al. (2016) discuss the potential for an adjacent opportunity in looking to first responders for how to deal with critical incidents, and how they receive and access support. As was seen during observation shifts and expressed during interviews, EMS and the ED staff in this community hospital work closely together. In conjunction with the Paramedic Association of Canada and the Ontario Ministry of Labour's Occupational Health and Safety Prevention and Innovation Program (OHSPIP), the Canadian Standards Association (2018) published standards specifically addressing the psychological and safety of paramedics. The publication acknowledges the acute and chronic work stressors faced by paramedics and the negative mental health consequences of workplace stress, which is not unsimilar to ED nurses. With the intent of safeguarding against these consequences, the standard aims to achieve a positive impact within the workplace environment by recognizing the harmful effects of unrecognized professional trauma and/or stressors, thereby maintaining and improving professional and personal relationships, as well as patient care. Policy makers at the provincial and federal level (macro) could examine these standards, and create pro-active, rather than reactive responses for ED nurses exposed to critical events, such as unexpected patient death. Ensuring that the local

population, socio-political, and socio-economic factors of the community are explored and implemented during policy-making would help to better support ED nurses in community-based EDs.

The nursing profession needs to address the high number of inexperienced nurses entering EDs, and how their lack of professional experience may impact their exposure to critical events, such an unexpected patient death. It is important to help novice nurses understand the importance of self-care and support in chaotic environments where they are frequently exposed to critical events, such as unexpected patient deaths. It is of greater importance for those who work in units where there is lack of knowledge about what supports exist and how to access them, or in community-based EDs where resources may not be as available or accessible. This comes at a time where there is concern regarding the high turnover of new graduate nurses in EDs (Lee, 2024). One way to address this could be the consideration of a policy created through the Canadian Association of Schools of Nursing (CASN) where mandatory self-care education related to unexpected deaths or critical incidents for all nursing students is discussed in undergraduate programs. This can help to alleviate this significant gap and could prove helpful for all new nurses, not just those beginning their careers in EDs.

Implications for Research

The creation of a larger study with more participants at different community sites could prove beneficial. While the majority of research has previously been conducted at larger urban and teaching sites, my research looks at a community-based hospital. Exploring the experiences of ED nurses in various hospitals may uncover regional differences that may be important to understand those experiences.

Due to time constraints, my research was a focused ethnography. As discussed earlier, I was only in the ED for one unexpected death, and the nurse I was shadowing was not involved in any resuscitative efforts. A full ethnographic approach, where the researcher is able to be immersed in the environment for a much longer period of time could increase the opportunities to be present for more unexpected patient deaths. This would further the understanding of what occurs within the ED environment, as well as observation of the immediate impact on nurses after a patient dies unexpectedly.

Due to the increasing number of inexperienced nurses entering the ED, research could also examine their experiences, specifically. Examining their experiences after unexpected patient death in a chaotic and quickly changing environment, while increasingly taking on more traditionally senior roles may not only aid in creating support for them, but also uncover ways to better aid senior nurses as mentors as well. Additionally, all of the ED nurses in this study identified themselves as female, meaning that the experiences of ED nurses who identify as male have not been explored in this study. Research exploring whether there are gender differences in the experiences of ED nurses in community-based hospitals after unexpected patient death could help with providing supports that address any nuances related to gender.

Strengths and Limitations

There are some limitations in this study. First, the majority of ED nurses who participated in this study are considered senior staff. Only two junior nurses agreed to participate meaning that the voices of junior ED nurses after unexpected patient death may be underrepresented. Secondly, although I have not worked at the research site for four years, I was an ED nurse there for sixteen years. As a result, senior nurses may have been more comfortable with me, potentially increasing their willingness to discuss a sensitive topic. As a nurse who had

previously worked in the research site, I worked to ensure that the experiences of the participants were at the forefront by engaging in reflexivity, memoing, and researcher triangulation.

The ED has recently undergone drastic roster changes, with many of the recently hired ED nurses being new graduates or unexperienced in the ED. Despite the previously presented statistics, it is unknown how many community-based EDs are experiencing the same measure of transformation, thereby potentially restricting transferability to other community-based EDs. Socio-political influences from the community, policies implemented by the healthcare organization, and embedded cultural norms of the environment create a unique environment that may differ from other community-based EDs after an unexpected patient death.

There was only one unexpected patient death during a shadow shift, and the patient did not belong to my participant. Whether a participant cared for a patient that unexpectedly died during an observation shift was a concern voiced by the healthcare institution's research ethics board. This was addressed in my research proposal to the ethics board where it was noted that, even if a participant did not experience a patient death, the methodology contributed to understanding the culture of the unit in which participants experience the unexpected death of a patient. Focused ethnography allowed for data to be collected through observation shifts and interviews. Participants discussed their experiences with unexpected patient death, and through the ethnographic lens, findings were triangulated with the rich data collected during observation. This demonstrates one of the strengths of this study.

A second strength can be identified in that no other studies in Canada that have explored the experiences of ED nurses after unexpected patient death in a community-based hospital. This unique research builds upon other work that has examined ED nurses and unexpected patient

death in urban and teaching hospitals, both nationally and internationally, while simultaneously adding new knowledge.

Conclusion

This research, set in a community-based hospital, explored the experiences of ED nurses after unexpected patient death. Focused ethnography was a valuable approach as it allowed for the collection of thick rich data through the use of participant observation in the ED along with that collected through semi-structured individual interviews. Complexity theory has been a helpful lens in understanding that ED nurses have varying ways of characterizing whether a patient death is unexpected or not, the extra roles and responsibilities that senior nurses carry, how ED nurses cope in a chaotic system and environment, and the impact of deep encoded debrief practices after a patient in the ED dies unexpectedly. ED nurses primarily use each other for support, informally seeking out comfort, knowledge and learning opportunities. Findings unveiled that senior ED nurses are in need of more support, especially as the number of junior ED nurses increases. After a patient dies unexpectedly, ED nurses are immersed in a culture where they immediately return to patient care and debriefs are inconsistent, leading to the loss of knowledge and peer support. Community-based EDs need to consider the supports they provide to their ED nurses after unexpected patient death. These supports, and any barriers that exist relating to knowledge and access, must be evaluated to prevent burnout and increase retention of ED nurses.

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Appendix A

Reflexive Journal Note – Written April 2023

Why do I want to do this?

There is something to being part of the moment when the soul forever leaves the body; to be present when the heart beats its last, the lungs breathe their last and the memories of a life lived fade. The honour of being present in that moment can either be surrounded by love, calm and a deliberate shared goal as a loved one quietly slips from our world to the next, or chaos, noise and the abrupt ending of a life robbed from those left unprepared. The privilege that accompanies these moments is fraught with emotions for those of us who have been present as we bear witness to the shock, pain and immediate moments after loss of loved ones. Sadness, as we sit with those whose tears fall. Empathy, as we reflect on our own experiences of loss. Anger, as we try to understand the oft times seemingly unfair justice of the universe. Frustration, as we question why our deliberate and trained actions fail. Confusion, as the spirit that embodied the room is erased as easily as the room is cleaned and replaced with another.

These are the thoughts of a nurse who spent twenty years, from a young pre-graduate student to a seasoned middle-aged healthcare care provider, in the emergency department. Death became a part of my everyday existence. From preemies to centenarians, expected and unexpected, directly or indirectly, I was a part of countless patient deaths during my tenure. One does not immerse themselves into the ED culture for twenty years and come out unaffected by their views on death and dying. Those who assert the contrary have set up self protection barriers thick enough to block true self-reflection and, arguably, chances of real connections with those who we care for in their last moments and their loved ones. Yet does this make for a “bad

nurse"? Does pushing away the difficult emotions that accompany patient loss put us at risk of not being present for those who need us? Does ignoring our feelings and the potential consequences have effects that we continue to ignore? How much more effective is a nurse who embraces the emotional journey vs. a nurse who chooses stoicism with their patients, their team and themselves? Or does facing the journey cause more harm than good?

As this is a reflexive exercise as opposed to one of a scholarly nature, I can only speak to the experiences of myself and those whom I have worked alongside over the years. It has been heartening to see the shift in nursing culture during my career to a point where there is more openness in addressing the impact of what we are exposed to at the bedside and our mental health. Any ED nurse can tell you at least one story, often many stories, of how they have been impacted by the death of someone in their care. Unfortunately, the impact is often one that pushes us into a hole of darkness, be it momentarily or long lasting. Despite this, due to the culture and environment of EDs, we are not afforded the time to try to crawl out of the darkness, let alone take a moment to realize how we even ended up there.

While this is a singular and extreme example of the experience of one ED nurse put into written form, it can be assured that I am not alone in my thoughts and the questions I ask. ED nurses WANT to be effective at their jobs, to be able to provide holistic care to those in need of emergent medical treatment in a compassionate and knowledgeable manner. But the effects of patient loss and how further patient care is provided is still overlooked. If an ED nurse was to suffer a physical injury on shift would the nurse be expected to carry on with their duties? A sudden arm fracture or head injury would be tended to, treated and the nurse sent home to begin to recuperate. Emotional injury is not concrete and visible, thereby easier to ignore.

(Paragraph redacted due to description of specific unexpected patient death).

Over the last several years grief literature has shifted to acknowledge the importance of addressing and tending to the feelings surrounding loss and the consequences of not doing so. Not addressing the consequences of patient loss not only impacts the ED nurse, but how patient care is delivered…right? I think back to the patients the ED staff dealt with in the immediate minutes and hours after we lost patients that died unexpectedly. Otherwise, normal ED interactions were now filled with a tornado of emotions brought by the ED nurses. Perhaps our demeanor was guff, our frustration more visible, our empathy lacking, our choice of approach less professional than we would usually be. How could this have been rectified? How do ED nurses perceive their ability to care for others after patient loss? What are the emotional costs and how do they filter down to impact patient care? Circling back to the loss of the patients, have first responders identified that patient care can be compromised to the point where those exposed are pulled off the road? Didn't the upset patient at triage deserve to have a nurse who could be compassionate enough to see past the anger and address the fact that pain or fear may have instigated their behaviour? And what about my patient with the simple request of a pillow, who probably could have used a kind ear and an extra thirty seconds of my time to help them find a bit of comfort on a hard and uncomfortable gurney?

My work to this point has been focused on the needs of ED nurses after losing a patient in their care. But what about the needs of our other patients? What is the domino effect of a patient dying, the impact in the immediate aftermath on a nurse, and the care provided to their patients for the rest of their shift?

Appendix B

Recruitment Email

To Registered Nurses of the Ajax Emergency Department (ED),

My name is Jennifer Maddigan, a Masters of Nursing student at York University. You are receiving this email as an invitation for you to participate in a research study looking at the experiences of ED registered nurses (RNs) after the unexpected death of a patient in a community-based hospital setting. This research is being conducted as I work on completing my Masters thesis.

Who qualifies to participate in this study?

- Any RN who is an employee of Lakeridge Health and has worked in the ED for a minimum of one year and has experienced unexpected death. Unexpected death is defined as a death that contains an element of surprise and occurs suddenly and earlier than expected.

What does participating in this study entail?

- One 8-hour observation period during a pre-scheduled shift where I will shadow you. No observation will occur in patient rooms or the triage area
- A follow-up interview lasting approximately 45-60 minutes at a later agreed upon date will provide an opportunity for clarification of data collected during observation

When will this study take place?

- Observation periods will occur between April 2, 2024, and May 15, 2024. Follow-up interviews will be scheduled to take place two weeks after the observation shift

Where will this study occur?

- Observation will occur in the Ajax ED; however, follow-up interviews will occur in a mutually agreed upon quiet location

Why should you participate?

- This is an opportunity for you to have a voice and to share your experiences
- You will be helping to advance nursing research

If you are interested in participating in this study, or have any questions, please reach out.
Thank-you,

Jennifer Maddigan
****@yorku.ca
###-###-####

Appendix C

Informed Consent Form to Participate in a Research Study	
Study Name:	The Experiences of Emergency Department Nurses after Unexpected Death
LH Principal Investigator:	Diana McIntosh, RN dimcintosh@lh.ca
Student Investigator:	Jennifer Maddigan, RN, MScN York University jmad@yorku.ca
Student Supervisors:	Lisa Seto Nielsen, RN, PhD, Associate Professor York University lisaseto@yorku.ca, Tel: 416-736-2100 ext. 22424 Ruth Rodney, RN, PhD, Assistant Professor York University rrodney@yorku.ca, Tel: 416-736-2100 ext. 30456

Purpose of the Research:

The purpose of this study is to examine the experiences of Emergency Department (ED) registered nurses (RNs) after the unexpected death of a patient and the supports they use afterward. This research is being conducted for the completion of a Masters of Nursing thesis. This research has been reviewed and approved by The Human Participants Review Sub-Committee, York University's Ethics Review Board, and the Lakeridge Health Research Ethics Board, who both comply with the standards of the Canadian Tri-Council Policy guidelines.

What you will be asked to do in the Research:

You will be shadowed by the student investigator for eight hours of a shift in the ED. There may be informal discussions during this period as the researcher collects data about the culture of the

ED department. This will be followed up with a 45–60-minute interview at mutually agreed upon quiet location within two weeks of the shadowing shift. The interview will be audio-recorded using a digital voice recorder for transcription purposes.

Potential Risks and Discomforts:

As the study focuses on the experiences of RNs with unexpected patient death in the ED setting, there is potential for emotional discomfort or distress. Follow-up interviews will be guided by the psychological responses of participants and immediately cease if needed. Your involvement in this study is entirely voluntary and will no way affect your employment at Lakeridge Health.

Potential Benefits:

There will not be direct benefit to you from participating in this study. However, sharing your experiences with unexpected patient death will be valuable. This study will provide you with a voice to share your experiences and the data gathered will be used to determine how better to support ED and RNs in the future following the unexpected death of a patient.

Payment for Participation:

There is no payment or reimbursement for any expenses incurred in participating in this study.

Voluntary Participation:

Your participation in this study is completely voluntary and you may choose to stop participating at any time. Your decision not to continue participating will not affect your employment and/or relationship with Lakeridge Health now or in the future.

Right to Withdrawal:

You have the right to withdrawal from the study at any time, for any reason, if you so decide. In the event that you withdraw from the study, all associated data collected will be immediately destroyed wherever possible.

Confidentiality:

With the exception of the student investigator, Jennifer Maddigan, participants' identity will remain anonymous. A false name will be used when assigning specific references or direct quotes to a participant in the final report and manuscript. No key will be kept, each participant will be provided a false name once data collection has commenced. Data will be collected anonymously with handwritten notes during observation periods and interviews. Handwritten notes, signed consent forms, and all password protected digital transcripts will be kept for five years in a locked filing cabinet at York University in Dr. Lisa Seto Neilsen's office, then they will be irreversibly destroyed. Interviews will be audio-recorded and stored securely in a locked filing cabinet. Confidentiality will be provided to the fullest extent possible by law.

Audio-Recording:

The individual interview audio-recordings will only heard by the student investigator. The recordings will be irreversibly destroyed once they have been reviewed, checked for accuracy, and transcribed digitally, which will be completed within 45 days. The digital audio-files will be kept on a secure server that can only be accessed by the student investigator.

Questions about the Research:

You are free to ask any questions that you may have about the study and about your rights as a participant. If any questions come up during or after the study, contact the student investigator Jennifer Maddigan, RN, at jmad@yorku.ca, or 289-356-5292. Participants can also choose to reach out to research supervisor, Lisa Seto Nielsen, RN, PhD, at lisaseto@yorku.ca, or 416-736-2100 ext. 22424 or The York University Graduate Program Office at fgsnews@yorku.ca, or 416-736-5521.

Should you have any questions or concerns regarding your rights as a participant in this research study, or if you wish to speak with someone who is not related to this study, you may contact the following: Senior Manager and Policy Advisor for the Office of Research Ethics, 5th Floor, York Research Tower, York University, telephone 416-736-5914 or e-mail ore@yorku.ca or The office of the Chair, Lakeridge Health Research Ethics Board at 905-576-8711 or REB@lh.ca.

Consent to Participate:

1. I have read the consent form and understand the study being described;
2. I have had an opportunity to ask questions and those questions have been answered. I am free to ask questions about the study in the future;
3. I understand that my interview will be audio recorded;
4. I freely consent to participate in the research study, understanding that I am not waiving any of my legal rights and may discontinue participation at any time without penalty. A copy of this Consent Form has been made available to me.

My signature below indicates my consent to participate.

Print Participant Name	Participant Signature	Date
Print Principal Investigator Name	Principal Investigator Signature	Date

Appendix D

Excerpts of CODES – Participants #1-4

Code	Definition	Example
Peer support after unexpected patient death – "The right ear"	ED nurses use their colleagues as the main support system after unexpected patient death	**Participant #1** Yes. Yes, I talk to coworkers. If I need to, I pick up the phone (nurse friend) still. She is still one of my people that, even though she's not, like, doesn't work in the emerge or anything, I know she understands. And I just pick up the phone and I just went and she's like 'ohh (Participant 1) is back' and then, I just, you know, blabber on about, you know, whatever. And it just makes me feel. good, because she understands and she's listening, and she doesn't even have to say anything. And then I'm good. **Interviewer** So, it's not like you're looking for someone to fix the problem- **Participant #1** [Yeah, not to fix the problem] or make me feel better. No, it's just an ear. It's just sometimes, it's just got to be the right ear, depending on what the situation is. P#1, pg. 3 We just talk about it sometimes at work and not even in a formal way. But we're like, geez, that was really rough. I can't imagine. We just kind of go through what we did. And that's it. Just, like, talk about what we had done, and everything that

		we possibly did, and learn for the next time. But that's just a very informal kind of conversation with our colleagues. P#4, pg. 18
Chaotic Environment	Visually, auditory, physically, mentally; the entire environment is perceived to be in a state of disorder and lacking order	It's busy. It's hectic. You need to kind of take away the noise, focus on what you're what you're doing at the time. So, if you're with one patient, you gotta try to, you know, not worry about everything else that's going on while you're seeing that patient. Because in my role, people are calling my name constantly. Like, I'm walking down the hall and they're calling me five or six times. What does it look like? (.) Oh my God, it's chaotic (laughter). – P#1, pg.1 **Interviewer** Just describe what a normal shift for you would be like. Describe what is happening with the environment. So, if I'm someone who has never been in the emergency department before, pretend that I have zero knowledge. If you I'm coming to you and I'm saying, can you describe to me - **Participant #2** Chaos. Chaos, patients everywhere. Screaming. Yelling. - P#2, pg. 1 Like, chaos, like, actual chaos. Like, there's, you don't you don't know what you're coming in to. You're just coming on and I'll tell myself,

		like, the only thing I can really clutch to is my sole practice. I'm like, I only really know what I can do in that moment. And I'm like, OK, all I can do is coming in and maybe I may have all these patients and they could have maybe before I got there had like a new admit. But my, like, main focus is just getting information from the night, or like, the previous staff about what's going on. (Whispers) And just (.) sift through the chaos. – P#3, pg.2 It's a very fast-paced environment with a lot of moving parts, lots of people, lots of doctors moving everywhere, different zones and different areas that people are going into. It's a very unpredictable environment. And one that you have to kind of be on your toes constantly and prepare for anything at any moment in any time. You never know what's going to come through the doors or change within the environment. P#4, pg. 6 EMS pushing a patient in a wheelchair through the department and hits something (unable to see object). *(Can not even navigate properly due to ++ clutter). ON#4, pg. 8*
Varying definitions of unexpected patient death	Personal and experiences, age, medical history and how a patient presents all factor in	Unexpected death is anyone that comes in and passes away, regardless of what their

	to how each nurse considers whether a death is unexpected or not	history is, and unless their life is palliative and they've been, like, diagnosed with, like, you know, an illness that's going to, you know, they're going to die within the next six months. Otherwise, it's unexpected. It's unexpected to us- Like, no matter what we do. P#1, pg. 9 Unexpected death would be (.) the way they presented (.) and (.) how they are (.) medically, like, in their chart (.) nothing would (.) give any indication that they would have died. P#3, pg. 16 **Interviewer** So, for you, you're considering, kind of, where they are in terms of, like, their medical status? **Participant 4** Yes, and their code status. And then how fragile they might be. A full code is an unexpected death to me. P#4, pg. 11
Remembering other agents in their experiences after unexpected patient death	ED nurses understand the importance of all team members, and patient families and how their roles contribute to experience of unexpected patient death	We always forget about the SAs. Like, the other staff, we never, ever, like we, I don't now. But those people who were part of it too, the clerks. Like, yeah, we, you know, we sometimes forget. We just think of the actual people that are in the room. And it's not just about them. It's about everybody that's around. So, they were all part of it as well. P#1, pg. 13

		I've come on to shifts before for, say nights or days and as I'm going to get scrubs from the thing, and if I run into one of the cleaners, some of them have become close enough for the, like they'll chat with you about the previous shift and say, like, oh, they're having like, you know, an OK day. I hope it continues for you guys or, you know, it's hellfire out there, just you know. Like yeah, just heads up. Sometimes if there's a code and it's a paed they'll be like, you know what, like, things are really not good out there. Like, this happened last night and everyone's like, they'll let you know. Everyone is affected by it when it's a code. P.#3, pg. 21 Hm-hm. The doctor, for the one that I was talking about that called it on the adults that we usually don't have them on, he struggled with that one (.) a lot. P#4, pg. 15

Appendix E

Demographic Form

1. Age: 18-24
   25-34
   35-44
   45-54
   55-64
   >65
   Prefer not to say

2. Gender: Male
   Female
   Non-binary
   Other
   Prefer not to say

3. How many years have you been a nurse?

4. How many years have you been an ED nurse?

5. Do you mainly work day shifts, night shifts, or a combination of both?

6. Do you work full-time or part-time?

Appendix F

Interview Guide

This interview is voluntary. There will be no identifying information used in your answers. Should you choose, you may skip questions or stop the interview at any time without consequence.

1. Describe a typical shift in the Emergency Department.

2. Describe what happens within the department, as a whole, after a patient dies unexpectedly in the ED.

3. What do you usually do after a patient in your care unexpectedly dies? What if the patient is not directly in your care?

4. Without sharing identifying information, can you tell me about a memorable experience where a patient in your care died unexpectedly? What makes this event more memorable than others?

5. What resources are available to you for support after a patient unexpectedly dies? Do you use these resources? Why or why not?

Appendix G

Interview Annotations

Word - word emphasized

(.) – pause

[word] – overlapping dialogue

(?) – indistinguishable dialogue

Word- - dialogue ends abruptly

Appendix H

List of Abbreviations and Terminology

Clerks – Receptionists that work within the ED department who sit with nurses at nursing stations

CPL – Clinical Practice Leader (provides leadership in clinical and professional practice, education and research utilization)

Code Pink – Paediatric Cardiac or Respiratory Arrest

Code White – Violent or aggressive person

COW – Computer on Wheels (tall mobile desk space that has large screen, keyboard, mouse which ED nurses and physicians use to access patient charts, enter orders, and document)

CT – CAT Scan

DI – Diagnostic Imaging

ECG – Electrocardiogram

EMS – Emergency Medical Services (paramedics

EPI – Epinephrine (medication used most frequently during a cardiac arrest to restore cardiac rhythm)

IO – Intraosseous (the placement of a specialized needle through the bone where medications, fluids or blood products are infused into the marrow)

IV - Intravenous

Paed(s) – Pediatric(s)

Patch phone – A phone specifically used for paramedics to call ED staff from the ambulance; usually used en route to the ED to provide a report for patients who are high acuity, allowing staff to gather and prepare necessary resources

PSR – Patient Service Representative (Hospital staff who transfer patients, help clean rooms, transfer items throughout the hospital. No direct patient care provided)

PSW – Personal Support Worker

RN/RPN – Registered Nurse/Registered Practical Nurse

RT – Respiratory Therapist

SA – Support Associate