“WHAT WERE YOU DOING TO GET SHOT?”: EXPLORING THE PERCEPTIONS AND EXPERIENCES OF CRITICAL CARE TRAUMA NURSES ON GUN VIOLENCE AND CARING FOR PERSONS WITH GUN VIOLENCE INJURIES

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Abstract

Rising gun violence (GV) means critical care trauma nurses (CCTNs) are caring for those most impacted, navigating complex feelings, family needs and very sick patients. I asked, "What can I do from the bedside?" Grounded in the socio-ecological model and complexity theory, a qualitative exploration of CCTNs' perceptions and lived experiences began. Community-based professionals' (CBPs) were consulted and CCTNs interviewed. Thematic analysis allowed four themes to emerge: one from the CBP, highlighting the need for persons with GV injuries to feel safe; the remaining themes tell nurses' understudied stories, attempts to makes sense of the senseless and the toll of bearing witness. Overarchingly, trauma emerged for those in the bed and those caring for them from the bedside, reminding us that *We are all humans – in trauma*. Shared experiences of trauma provide the opportunity to engage in activities that improve the lives of CCTNs and those living with GV.

Keywords: gun violence, gunshot injuries, critical care trauma nursing, lived experiences, trauma, vicarious trauma, collective trauma, complexity, socio-ecological model

Dedication

This work is dedicated to all the critical care trauma nurses that have chosen to take a stand against violence and to embrace those impacted by it. This work is also dedicated to those that live with and are affected by daily occurrences of gun violence in Canada. Lastly, this work is dedicated to all those who are committed to social justice. In the powerfully wise words of Maya Angelou “The truth is, no one of us can be free until everybody is free.”

Acknowledgements

Honouring the Land and Territory

I want to recognize the lands upon which York University and my home in the Town of Oakville resides, the traditional territory known as Tkaronto has been cared for by the Anishinabek Nation, the Haudenosaunee Confederacy, the Huron-Wendat and the Attawandaron. I wish to express my solidarity with the Indigenous peoples of the Great Lakes, and my gratitude for the flora, fauna and life-giving water of this traditional territory. I acknowledge and thank the current treaty holders, the Mississaugas of the Credit First Nation. Subject to the Dish with One Spoon Wampum Belt Covenant, this territory exists with an agreement to peaceably share and steward the Great Lakes region.

Personal Acknowledgments

This thesis was borne out of a desire to make this world better. I have long sought to find a way to positively contribute to the lives of others, and first accomplished this in becoming a nurse. It was in doing the work of caring that I found a topic of study that showed me two collective groups that need care and attention. Accomplishing this goal would not have been possible without the unwavering belief that Dr. Cheryl van Daalen-Smith, my supervisor, has had in me and this thesis. She has been a cheerleader, coach, and mentor to me during this journey, offering compassion, encouragement, and occasionally, a push. You have walked beside me on this academic, professional and personal journey and I express here my deep gratitude for all the energy you have given to me and this project, both seen and unseen. I would also like to acknowledge my committee members. Dr. Claire Mallette, my very first graduate professor who introduced me to complexity theory and for planting the seed that became all of this. Next, Dr. Annette Bailey, from Toronto Metropolitan University. Thank you for not only being the content expert, but also for helping me see how unique the needs are for those with gun violence injuries. Thank you to all for the thoughtful, insightful and perspective changing feedback.

To all the participants of this research study, thank you for your interest, willingness and courage to share your vulnerability, your experiences and the experiences of those affected by gun violence, with me. I hope you know that your contributions will positively impact current and future nurses, as well as those that experience gun violence daily.

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To my whole family, this began with all of you present and past. You have all instilled your values of kindness, social justice, civic duty, equity, curiosity and love of learning. You have all been inspirations in my life. To my aunt, Dr. Beverley Antle, I hope I have made you proud. To my sister, Dr. Joanne Hodder, no sibling rivalry here at all! But seriously, your understanding made it easier and when I thought I couldn't take anymore, you lovingly reminded me that it just meant I was doing it right. Lastly, to my parents, Jeannette and Roy, how do I summarise in a few sentences my gratitude and love for you, and all that you have given me in life, and specifically, so I can complete my thesis? Your love has allowed me to rise up brightly from the ashes of loss, anxiety and heartache. Because of you, I can stand tall and help others.

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Glossary of Acronyms

ATLS – Advanced Trauma Life Support

CACCN – Canadian Association of Critical Care Nurses

CAS – Complex Adaptive Systems

CBP – Community-based Professional

CCSO – Critical Care Services Ontario

CCT – Critical Care Trauma

CCTN – Critical Care Trauma Nurse

CDC – Centers for Disease Control and Prevention

CFNU – Canadian Federation of Nurses' Unions

CNA – Canadian Nurses Association

EDQ – Exploratory Descriptive Qualitative

EI – Emotional Intelligence

GSI – Gunshot Injury/Injuries

GV – Gun Violence

GVI – Gun Violence Injuries

HBVIP – hospital-based violence intervention programs

HCP – Healthcare Provider(s)

IAFN – International Association of Forensic Nurses

ICN – International Council of Nurses

PTSD – Posttraumatic Stress Disorder

PTSI – Posttraumatic Stress Injury

RNAO – Registered Nurses' Association of Ontario

SAMHSA – Substance Abuse and Mental Health Services Administration

SEM – Socio-Ecological Model

SDH – Social Determinants of Health

SDGV – Social Determinants of Gun Violence

TAC – Trauma Association of Canada

WHO – World Health Organisation

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Chapter One

Introduction

"He was Shot for His Cellphone": Situating Myself in the Research

My entire career has been spent as a critical care trauma nurse. Since beginning in 2004, I have seen the number of individuals admitted with gunshot injuries (GSI) increase. I have witnessed the trauma program, at my own place of employment, develop and grow since its accreditation in 2006: a trauma program in which patients have fast-tracked access to multidisciplinary emergency care, imaging and hospital admission. Over the years, I have come to believe that one of the biggest differences between critical care nursing and critical care trauma nursing is the random nature of trauma. There is no preparation, the damage caused is generally unpredictable and survival uncertain.

I can trace my entrée into scholarly concern about the issue of gun violence back to a cold mid-November night in 2019, while considering ideas for a final paper in the first semester of my graduate nursing education. At the start of my shift, I learned that my patient, a racialized male teenager, had returned to the critical care trauma (CCT) unit post-operatively due to complications related to his gunshot injury. As I finished my assessment, the patient's father joined us at the bedside. His concern for his son was palpable as he showed me where bullets had penetrated his son's chest and abdomen. He explained that his son had been shot for his cell phone. I looked at the face of my patient, hoping to connect but he had no expression at all. Despite my best attempts at making a connection, including my go-to warmest smile and reassuring touch, nothing reached him. Unable to connect with him, my heart broke as worry set in about his future. I was left feeling helpless. I was angry, scared and sad for my patient.

While I had cared for patients with gunshot injuries previously, it was the first time I had considered it a *nursing* phenomenon. I had never considered the care of patients with GSI as a unique aspect of trauma nursing practice (Moran & Burson, 2020). As I discussed the topic of gun violence with colleagues and classmates, I found myself asking questions such as 'How could this happen in Canada? Can I change it?' There were many creative suggestions: protesting, writing my member of parliament and working in communities. But I couldn't help but think 'What can I do or say, while at the bedside, that could stop this from happening again?'

Exploring this phenomenon, I learned about the racial and marginalised nature of gun violence (GV) in North America, with most of the perpetrators and victims being young Black men (Cukier & Eagen, 2018; Richmond & Foman, 2019). Although the Black community comprises only about 7.5% of the Toronto population, evidence reveals that half of the gun homicide deaths between 2004 and 2019 were Black individuals, with 90% of those being Black males (Khenti, 2022). The numbers of disproportionate Black male deaths situate Toronto on par with the United States (U.S.) cities of New York and Detroit (Khenti, 2022). Black males' vulnerability to GV is shaped by the burdens of anti-Black racism, poverty, continued loss of social supports (friends and family) and the subsequent psychological trauma of these burdens (Bailey et al., 2022). With the murder of George Floyd, the world began paying attention to anti-Black racism. Although my understanding of systemic oppression, the inequalities knit into the structures of society, had started years earlier, his death and the attention it received forced me to see how racialized persons involved in GV are not treated the same as white persons. George Floyd's murder made it clear to me how an individual's perceived race influences their social determinants of health (SDH), how they are treated by individuals in general, and by frontline workers specifically. As a white woman, I was taught that being colourblind meant treating

everyone the same, that I was an ally. But I know now that I was inadvertently enabling the existing structural racism within healthcare. By denying the inequitable differences that perceptions of race/colour make, I was denying my patient's experiences over their lifetime.

While talking with my fellow CCT nurses about my beginning thoughts of exploring GV as an area of research, many would say "what was he doing to get himself shot?" I started asking myself "Why are those injured being blamed for their injuries?" and I wondered if the care given to patients with GSI was influenced by nurses' perceptions of GV. With a better understanding of the relationship between GV and anti-Black racism, and a new appreciation of GV as a unique subset of trauma, I wondered, *are nurses' perceptions influenced by the social construction of race? What are their experiences while caring for a patient with a GSI? What can I do as a bedside nurse?* These initial ponderings became the foundation of this scholarly endeavour.

Background

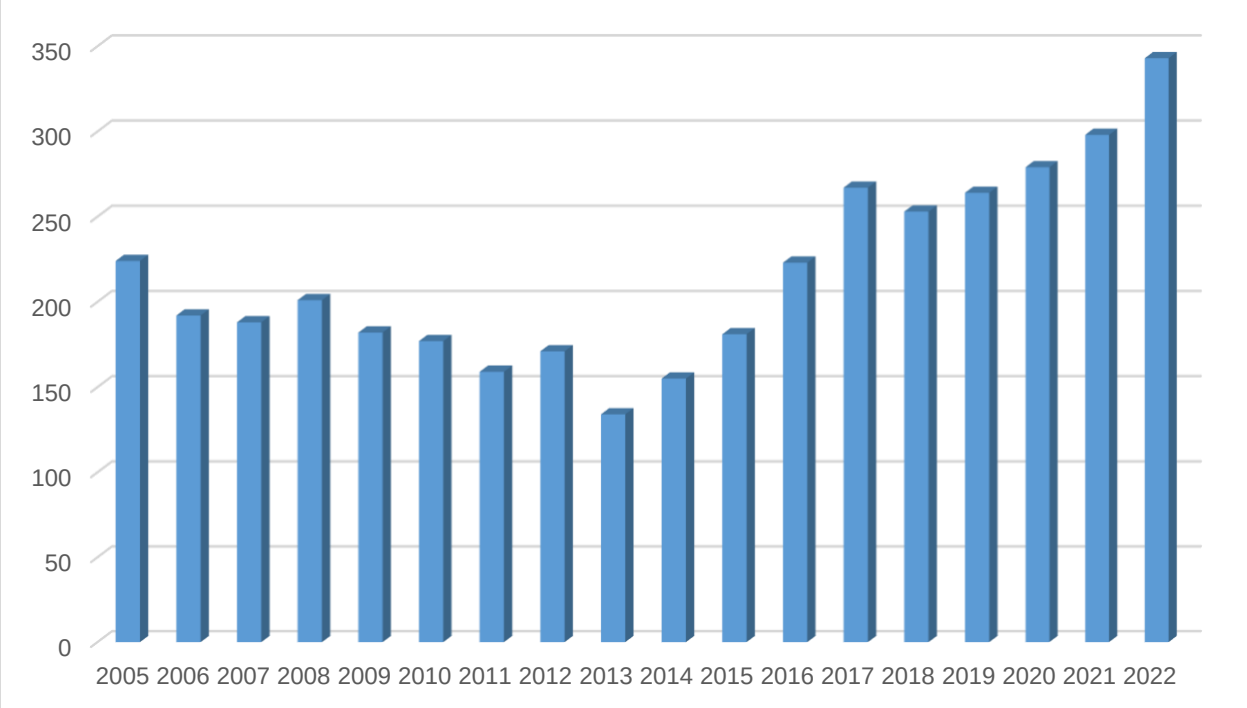
Violence is a complex and multifaceted social issue, influenced by historical and present-day social structures, beliefs and attitudes, as well as intersecting SDH (Cukier & Eagen, 2018; McGibbon et al., 2020; Ramsay et al., 2021; Richmond & Foman, 2019). GV that is "violence committed with the use of firearms, for example, pistols, shotguns, assault rifles or machine guns" is recognised as a global crisis (Amnesty International, 2022). While European colonisers in North America viewed guns as essential to survival, providing food and defence, GV is now viewed as a modern worldwide human rights issue (Smithies, 2019). It undermines and threatens fundamental human rights, such as the right to life and the right "to a standard of living adequate to the health and well-being…" (Amnesty International, 2022; United Nations, 1948, 1976, p.4; World Health Organisation [WHO], n.d.a). Richmond and Foman (2019) differentiate GV into four categories based on intent: (a) legal intervention – an on-duty law enforcement officer fires

their weapon toward on a civilian; (b) unintentional – a firearm is discharged by accident, harming the individual or someone else; (c) intentional self-inflicted – a firearm is used to cause self-harm; and (d) interpersonal – a firearm is used to cause harm to another individual or group of individuals. The focus of this scholarly pursuit will be interpersonal intent, with its antecedents and its resultant fallout.

The rise of GV in society has provoked many conversations, with many Canadians recognising GV as a growing concern. Allen (2022) on behalf of Statistics Canada, reported a steady climb of violent crimes in Canada involving guns from 2013 to 2020, with 8,344 individuals reporting violent crimes where a gun was present, including but not limited to the mass shootings on the Danforth in Toronto in 2018 and in Nova Scotia in 2020 (See Figure 1).

Figure 1

Number of Homicides by Firearms Across Canada 2005-2022



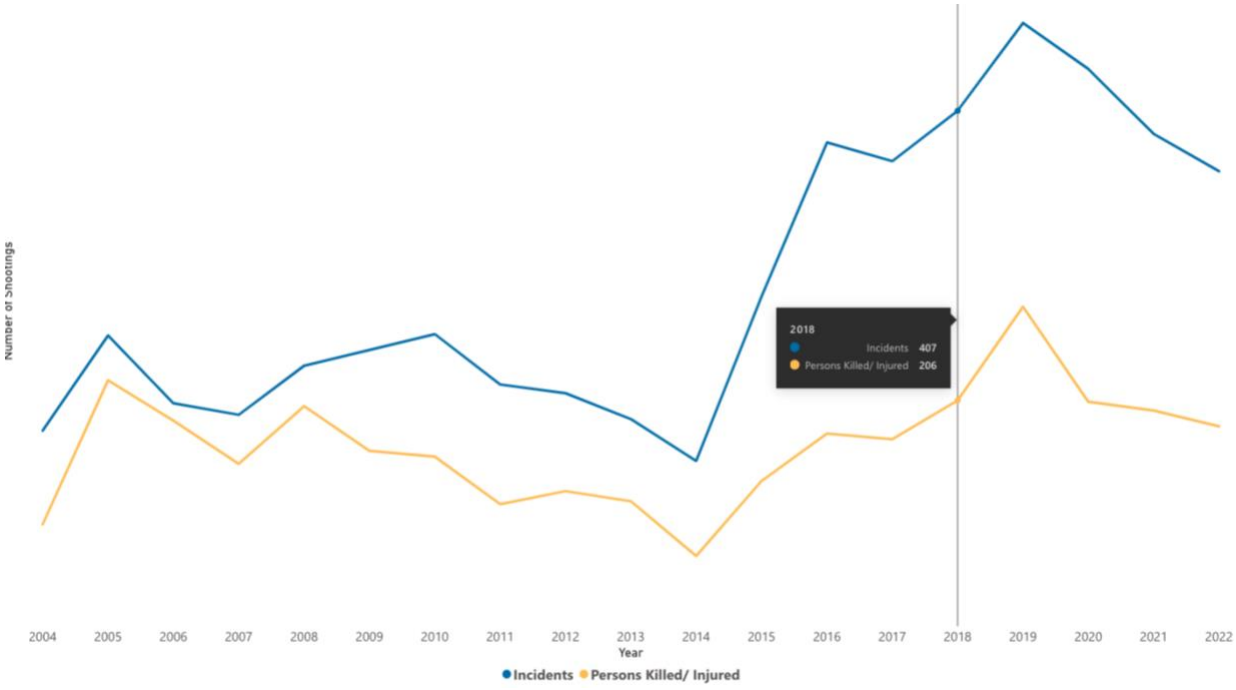
Source: Statistics Canada (2023), Number of homicide victims, by method used to commit the homicide.

https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3510006901

The Small Arms Survey (2020), an international organisation that provides expertise regarding small arms and armed violence, reported that 596,000 individuals were killed with guns worldwide in 2018. Of those killed, 62% (369,520) lived in North America, 261 lived in Canada, with 48 of those in Toronto (Small Arms Survey, 2020; Toronto Police Service, 2023) Figure 2 highlights the shooting incidents and injuries/deaths in Toronto from 2004 to 2022 (Toronto Police Services, 2023). Notably absent from this data are race-based statistics, limiting the understanding of the determinants and distribution of GV (Bailey et al., 2022).

Figure 2

Number of Shootings in Toronto Over Time



Source: Graph taken from the Toronto Police Services (2023), Shootings & Firearm Discharges – Overview. https://data.torontopolice.on.ca/pages/shootings

However, death is not the only outcome of GV. The Geneva Declaration (2015) reported that over three quarter of a million people are involved in non-fatal gun injuries globally. Alvazzi del Frate and De Marino (2013) and Mc Evoy and Hideg (2017) remind us that non-lethal GV is

far more common than lethal, and it can include other forms of violence such as sexual and psychological, in which guns are used to threaten, intimidate and coerce individuals and may not be included in the police report as the gun was not discharged leading to inconsistent data reporting across organisations worldwide. Canada does not track injuries related to GV, however, the Toronto Police Services (2022) reported not only 48 deaths related to GV, but 158 injuries as well (Government of Canada, 2022). Indeed, it is the non-lethal GV injuries, both immediate and long-term, that have the greatest impact on a country's healthcare systems. These injuries usually require health services that go beyond immediate medical care to include long-term rehabilitation, psychological support, and other essential caregiving services (Buchanan, 2011; Kroll, 2008). In Canada, the cost of treating a single gunshot injury is over half a million dollars (Canadian Federation of Nurses Unions [CFNU], 2018b). This includes critical care nursing costs. According to the Canadian Association of Critical Care Nurses (CACCN) critical care nursing "exists to care for vulnerable patients who are experiencing life-threatening health crises…" (Gauthier et al., 2017, p.1). Critical care nurses in the United States have been recognizing GV as an epidemic since the 1990's, with care focused on stabilisation and prevention of complications (Jones, 1997). However, neither the American Association of Critical Care Nurses, nor the CACCN, have written position statements regarding a nurse's scope of practice when caring for an individual with gunshot injuries. The question becomes, what do nurses *do* about it? Furthermore, absent from the literature are the perceptions and experiences of CCT nurses (CCTNs) that have cared for individuals with a GSI and their families. Little is written about the implications of GV for the nursing profession or how nurses at the bedside can contribute to social justice of racialized patients and their families through

therapeutic relationships. I believe that CCTNs can incite change and prevent further violence, using our privileged 'at-the bedside' vantage point. This has fueled my research.

Gun Violence, Race and Politics: Importance of this Study

> The hidden work of the nurse is what influences the patient's experience and often…affects clinical outcome.
> - Moran & Burson (2020, p.99)

Contemporary legal gun ownership in Canada is concentrated around hunting for food, hunting for sport and firearm collecting (Smithies, 2019). Historically, the first Canadian legislation regarding gun control appears six months after confederation in 1837, prohibiting the training of unlawful persons as an attempt to quell rebellions in Upper and Lower Canada coming up from the United States (Smithies, 2019). Modern gun control legislation started in response to the killing of 14 women and the injury of 10 others at École Polytechnique on December 6, 1989 (CFNU, 2018a, 2018b). Public advocacy and governmental inquests led to changes to the criminal code and the establishment of licensing and registration of firearms by both owners and businesses in 1995. This resulted in a 41% reduction in homicides by 2010, demonstrating the effectiveness of these actions (CFNU, 2018a, 2018b).

However, changing political parties, and therefore ideologies, led to the passing of legislation to end gun registry and a failure to reintroduce the control of sales of guns from 1977 resulting in a doubling of deaths from 2013 to 2017, as seen in Figure 1 (CFNU, 2018b; Public Safety Canada, 2019). Changing political parties again in 2015 meant that the criminal code was strengthened, and gun education became mandatory (CFNU, 2018a). Over the last 3 years, this government has obtained royal assent for Bill C-71, an act aimed at "strengthening gun laws to keep communities safe". Most recently the Canadian government also obtained royal assent for, Bill C-21, as a strategy to address GV which includes a suspension on handguns, new laws that protect victims of GV, oppose smuggling and trafficking of all gun types and prohibit mid-

velocity ‘replica’ airguns (Public Safety Canada, 2024). Stricter gun laws and the law enforcement approach, which focuses on punishing the criminal, can increase political and financial gains while simultaneously offers a façade of safety, but does not address what caused the criminal behaviour (Bailey et al., 2022). It is also important to note that gun controls have yet to prevent individuals from obtaining a gun illegally, with 85% of handguns seized by Toronto police in 2020 being smuggled in primarily from the United States (Howorun, 2021). Such statistics embolden legal gun owners, who feel that gun controls are a punishment and do not prevent violent crime, thus polarising and constraining discussions to pro- or anti-gun (Bailey et al., 2022; Richmond & Foman, 2019).

As important and well-intended as these gun controls are in preventing GV, they do not factor in the complex racialised antecedents and ignore that GV begins long before the trigger is pulled (Bailey et al., 2022; CFNU, 2018a). Yet, with its complex social, structural roots and the resulting deaths and injuries, GV levels have created a public health epidemic, especially for young Black men (Baah et al., 2019; Bailey et al., 2022; Cukier & Eagen, 2018; McGibbon et al., 2020; Richmond & Foman, 2019). The interplay of cultural, political, economic, structural and historical elements of society that create inequities in SDH (systemic racism) are intertwined with the health and well-being of Black and racialised individuals, families and communities (Bailey et al., 2022; CFNU, 2018a; Cukier & Eagen, 2018; Khenti, 2018; Hannays-King, 2015; 2022). Previous research has established that Black youth are more likely to be subject to over surveillance and over policing in educational settings, leading to dropping out from high school and encountering racial discrimination while job seeking (Khenti, 2022). The resulting feelings of powerlessness, depression, anxiety, and grief have dramatic effects on young Black and racialised youths’ self-perception and behaviour, including reaching for a gun to regain a sense

of power, control and respect (Altheimer et al., 2022; Bailey et al., 2022). Moreover, public and media perception of this disenfranchised youth includes the beliefs that they are innately aggressive and violent, unintelligent and lazy (Altheimer et al., 2022; Bailey et al., 2022; Harrison, 2022). Advocates state that a public health approach, which prioritises harm reduction for racialised youth through destigmatisation, unification and strengthening of social networks, and advocates for research is needed for combatting GV (Bailey et al., 2022; Barry et al., 2018; CFNU, 2018b; Khenti, 2022; Richmond & Foman, 2019).

Yet, despite these legal changes and the need for a public health approach, the physical and psychological injuries related to GV continue to increase within healthcare systems. Indeed, all aspects of GV survivorship, including the mental health impacts, traumatic injuries, and rehabilitative needs of survivors, converge within the healthcare system. Those in nursing understand that peace, and thus violence, is a determinant of health and, therefore, is a nursing phenomenon (Canadian Nurses Association [CNA], 2009; McGibbon et al., 2020). Healthy individuals contribute to, and benefit from, peace, whereas violence breeds stress and maladaptive coping strategies, resulting in lifelong physical, emotional and mental illness, even early death, that further feeds violence, and in this case specifically, GV (CNA, 2009; McGibbon et al., 2020; Registered Nurses' Association of Ontario (RNAO), 2003; WHO, 2014). Consideration of how healthcare professionals can contribute to GV reduction within a hospital context is equally valuable. As observed in the COVID-19 pandemic, public health and critical care cannot operate in silos. Collaboration of public health and critical trauma care is a necessity in addressing GV impacts. Nurses, as the largest body of healthcare professionals in Canada, hold a central role in caring for GSI patients. Florence Nightingale, a trauma nurse in her own right coming from the battlefields of Crimea, recognised that nursing and social justice were

intertwined and needs to continue at the bedside (Ayers, 2014, Nightingale & McDonald, 2010). But even this example is fraught with white privilege as Mary Seacole, a Jamaican-born trauma nurse, travelled to Crimea unaided by the British government to nurse wounded soldiers (Seacole, 1857). However, Victorian notions of race, sex and morals resulted in her offer to care for British soldiers in Crimea being rebuffed by the War Office and led Nightingale to defame her character (Chang, 2017, Prendergast, 2023; Seacole, 1857). Through her grit and determination, she was able to build her own prosperous hospital that garnered the respect of soldiers, officers and eventually Nightingale herself (Chang, 2017; Prendergast, 2023). Yet, persistent in today's society, including in our education and healthcare systems, are these same Victorian ideals (Chang, 2017; Dillard-Wright et al., 2020; Prendergast, 2023).

Therefore, by identifying CCTNs' perceptions and experiences in the care of patients with GSI, we can begin to understand the toll that critical care trauma nurses experience while caring for individuals with GSI, and their families. That toll is immediately related to nurses' experiences with trauma, both directly and/or *vicariously*, that is the trauma experienced due to repeatedly exposure to harmful details while at work (American Psychiatric Association [APA], 2022; Jacobs, 2008; McGillicuddy et al., 2011). Indeed, according to Dr. Merle Jacobs (2009), identified that these types of interactions, that reoccur over time, can lead to strained interpersonal relationships personally and professionally. McGillicuddy et al. (2001) expand on this by stating that these inevitable workplace hazards can manifest themselves as experiences of disrupted beliefs and intrusive imagery. This is something that deserves further inquiry regarding the experiences of critical care trauma nurses. Stelnicki et al., (2020), on behalf of the CFNU, published a report that measured the mental health of nurses across Canada. Along with depression and anxiety, 63.2% of nurses showed some symptoms of burnout, and 29.3% have

burnout symptoms that are clinically significant. Sources of trauma for these nurses include but are not limited to: death of a patient despite extraordinary measures; dealing with violent and/or abusive patients; and watching patients suffer. These traumatic events were experienced firsthand, witnessed and/or learned about, and had been identified as a strong influence on the nurses' ability to care for their patients (Stelnicki et al., 2020). Critical care nurses "are at high risk of developing PTSD [posttraumatic stress disorder]" due to the intensity of the care, as well as witnessing patient's that are suffering, participating in futile care and witnessing death (Levi et al., 2021, p. 224). For those nurses that work with traumatised patients, nurses identified as feeling overwhelmed, horror-struck and helpless (Missouridou, 2017). These experiences haunt nurses and resulting in self-protective mechanisms that prohibit therapeutic relationships (Missouridou, 2017).

In addition, through identification of CCTNs' perceptions and lived experiences with GV, we can also conceptualise the relevance of these nurses' role, as well as their scope, in GV reduction. Just as GV survivorship is entrenched in the underlying risk factors of GV, the ethical care of the Black and racialised survivors requires nurses to have the ability to recognize the uniqueness of this type of nursing care and contend with the complex social nuances that created it (Hannays-King, 2015; Cukier & Eagen, 2018, McGibbon et al., 2020; Richmond & Foman, 2019; WHO, n.d.a). Thus, my thesis is focused on the perceptions of GV and lived experiences of CCTNs who have cared for individuals with GSI and their families.

Theoretical Foundation

Underpinning this study are two separate yet complementary and embedded theories: Complexity Theory and the Socio-Ecological model. Bringing these theories together enabled me as a researcher to anticipate the complexities of both violence in general and CCT nursing in

particular. Simultaneously, it allows me to situate the study in the structural antecedents of GV within society, including those found within healthcare.

Complexity Theory

Essential to my study is complexity theory: a theory that focuses on the inner workings of systems allowing complex phenomena, such as GV, to be explored in new ways (Gear et al., 2018a). This theoretical framework is relevant to the discussion of GV in several ways: (a) the multifaceted and dynamic nature of violence in general and the nuanced layers of GV specifically, (b) the chaotic environment within which CCTNs work, and (c) the transdisciplinary and cross sectoral nature of complexity theory crossing arts, science and humanities, making it relevant to the study of GV as its solution is unlikely to be found within a single discipline. A scoping review of complexity theory in health services completed by Thompson et al. (2016), states that the definition of complexity theory is vague and subject to the phenomenon of interest. However, Thompson et al. (2016) propose that complexity theory: does not reduce systems into individual elements but focuses on the interactions between elements; the interactions produce the behaviour of the system; control of the system is decentralised; the system is open to influence from the environment and affects how system elements interact; and finally, elements have limited influence over how change emerges from the system.

In Table 1, Gear et al. (2018a) identify and describe eight of the most commonly used complexity theory attributes of the 18 identified by Thompson et al. (2016).

Table 1

Common Complexity Theory Attributes

Concept	Description
Nonlinearity	An unpredictable response generated in response to the actions of others
Feedback loops	The result of multiple elemental interactions over time leading to reoccurring behaviours, supporting or preventing change
Coevolution	Continuous adaptation to influences from other system elements
Self-organisation	The spontaneous development of new relationships or patterns of behaviour due to repetitive interaction
Emergence	New system properties or organisation generated by self-organisation
Boundaries	A socially constructed frame that connects a system with its environment
Far-from-equilibrium	Dynamic balancing of multiple system elements producing an appearance of stability but can be disrupted by small changes to element interactions
Path dependency	The influence of history on a systems' behaviour

A ninth common concept is a type of system frequently discussed in health and healthcare, and that is the complex adaptive system (CAS). A CAS, as per Gear et al. (2018a), develops organically from dynamic interactions of the above-mentioned attributes, in which the elemental interactions allow for adaptation and self-organisation with unpredictable results (Kiviliene & Blazeviciene, 2019). Sayama (2015) created a detailed visual organisational map of complex systems within which all the elements were organised into categories (See Appendix A). Bobo (2018) wrote an editorial identifying the social construction of race as a CAS, with Black individuals continually responding to "White-dominated political power structures…" (p.212). Complexity philosopher Edgar Morin (2008) invited us to think about CASs as a tapestry with the different textured and coloured threads, representing relationships and interactions, coming together utilising different stitches to create an image. McGibbon et al. (2020) take this metaphor further, transforming Morin's theoretical tapestry into a sweater, one that is worn because of, and shaped by, systemic oppression. As an avid knitter this analogy feels tangible and powerful. Dr. Annette Bailey (personal communication, July 30, 2021) surmises

that the individual with a GSI wears the sweater as protection from a society designed to maintain their oppression. Is CCT nursing a thread within the sweater? Or is it a part of the system that shaped the sweater? Do nurses have their own sweaters, shaped by their experiences and perceptions of society? I look forward to exploring this further.

Applying these complexity attributes to my patient who was shot for his cellphone, the nonlinear, coevolving and self-organising events that led up to his being shot were influenced by elements of structural racism that led to the perpetrator obtaining and using a gun to steal the victim's cellphone. Once within the trauma system and specifically in hospital, his care and recovery demonstrated elements of nonlinearity – altered wound healing that resulted in a trauma critical care readmission; feedback loops – positive response to medications that allowed for healing; coevolution – the patient, his family and the healthcare team adapted his care to meet his changing needs; and self-organisation – the formation of relationships with healthcare providers (HCPs). While we understand that nursing care, especially critical care, contains all of the elements described above, it is unclear what the role of the nurse is within these elements and if, or how, they create changes to the complexity attributes of far-from-equilibrium (a dynamic state that appears stable by balancing numerous interactions between agents, but can be easily disrupted by small changes) and path dependency (the influence of history on a system's current behaviour) attributes of GV (Gear et al., 2018a; Kiviliene & Blazeviciene, 2019; Trinier et al., 2016).

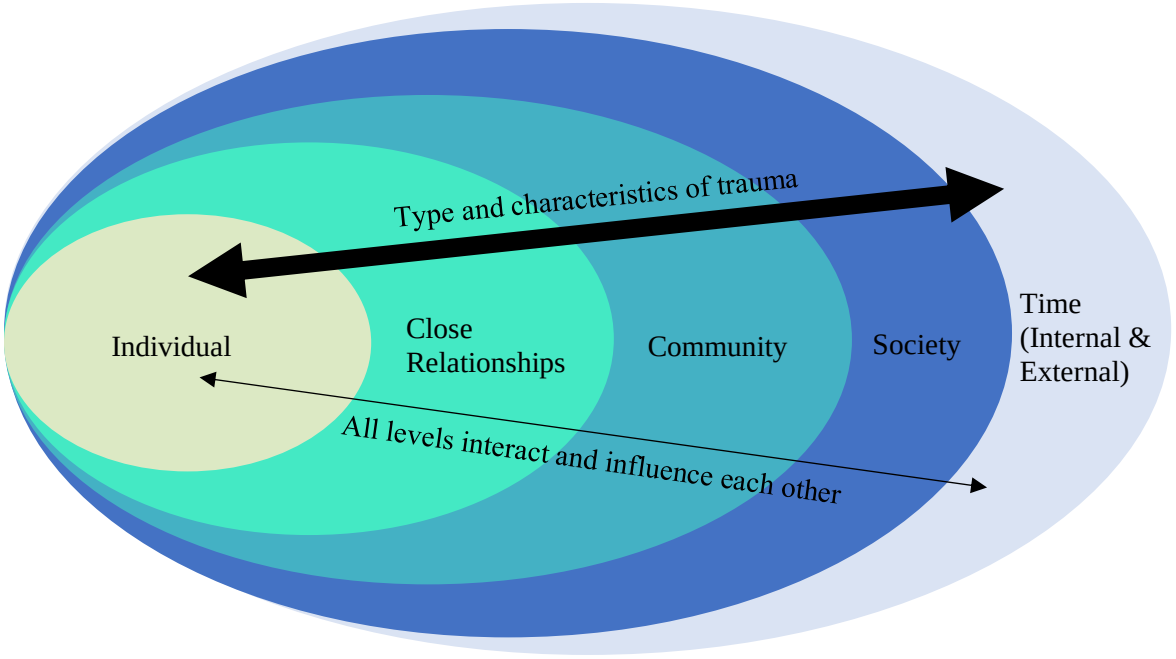
Socio-Ecological Model

One example of a complex adaptive system is Bronfenbrenner's (1977) socio-ecological model (SEM). In this model, human beings and their families, communities, and social structures are complex adaptive systems (Mitchell et al., 2013). Used to organise and understand how the

complex interplay of GV antecedents and impacts interact, the SEM is currently utilised by both the Centers for Disease Control and Prevention (CDC) and WHO as their framework for violence prevention. This model also frameworks various aspects of this thesis, including the literature review, and the CBPs findings. The SEM defines and highlights the dynamic and reciprocal interactions that an individual has with the outward expanding levels of their society that influence their SDH (Bronfenbrenner, 1977; CDC, 2021; Golden & Earp, 2012; Substance Abuse and Mental Health Services Administration [SAMHSA], 2014; WHO, n.d.b). Each interaction occurring is under the influence of the complexity attributes described in Table 1.

Figure 3

Socio-Ecological Model



Note. Social Ecological Model - Derived from Bronfenbrenner, 1977; CDC, 2020; Charles, 2021; Golden & Earp, 2012; McGibbon et al., 2020; SAMHSA, 2014a; WHO, n.d.b

Starting at the inner most strata of the model in Figure 3 is the individual, a combination of biological factors and personal history that affects their likelihood of becoming either a victim, a perpetrator, or both of violence (Bronfenbrenner, 1977; CDC, 2021; Golden & Earp,

2012; WHO, n.d.b). It is within this stratum that we can see the effects of over policing, lack of education, grief and posttraumatic disorder syndrome (Bailey et al., 2022). Surrounding the individual at the next level, are their close relationships, those closest to the individual and where bidirectional influence is at its greatest, that is family, significant others, friends, and peers. (CDC, 2021; SAMHSA, 2014; WHO, n.d.b). As Black and racialised individuals lose family and friends to GV, they have to contend with complicated and traumatic grief, the destabilisation of social networks and the loss of leaders and role models (Bailey et al., 2022). These relationships, or the loss of them, are influenced by and exert influence upon the next level, an individual's community, which includes their neighbourhood, schools, health care systems, work, faith centres and transportation availability (CDC, 2021; SAMHSA, 2014; WHO, n.d.b). Exerting influence on the community level, and in a dynamic relationship with all levels, is society. Society would include laws, governmental systems, social policies, media, and gender attitudes (See Appendix B, C and D; Bronfenbrenner, 1977; CDC, 2021; SAMHSA, 2014; WHO, n.d.b). It is from this level that the law enforcement approach, the public health approach, and the politics that confuse conversations around gun violence can best be understood. The final level of influence on the previously listed levels is time, internal and external (Bronfenbrenner, 1977). Internally, time is an individual's physiological and cognitive development as well as the patterning of life events and transitions over life stages such as the arrival of a sibling, starting school, first job, and death of a loved one (Bronfenbrenner, 1977; Charles, 2021). Externally, time pertains to historical context, not only the time period in which the individual lives, but the impact that history has on all levels, including colonialism and slavery (Alio et al., 2010; Bronfenbrenner, 1977; Charles, 2021). In the writing of this section, it was noted that Time is not an element discussed in the CDC and WHO versions of the model. However, this theoretical

model highlights the intricate reciprocal dynamics between individuals and their community, not only how the community impacts and influences the individual that ends in GV, but also how the individual involved in GV influences the community specifically and society at large. Utilising this model, CCTNs can understand the numerous influences upon individuals with GSI, providing culturally safe, as well as ethical and socially responsible care (Dr. Annette Bailey, personal communication, May 5, 2022).

Research Aim, Goals and Questions

Generally, there is a paucity of research on gun violence and hospital-based healthcare. As a result, empirical knowledge to support healthcare professionals, especially nurses, in their work with victims and survivors of GV, remains limited. This study aims to fill this research gap in part by exploring the perceptions and experiences of CCTNs caring for patients with gunshot injuries and their families. Through this focus, the following are the goals of my study:

1. To explore and describe the perceptions and lived experiences of CCTNs while caring for an individual with a GSI and their family.
2. To understand CCTNs' expressed responses in caring for individuals with GSI and their families.
3. To understand if and how the social discourses of GV influence nursing care of individuals with GSI, and their families.
4. To facilitate critical self-reflection during the interviews and focus group with CCTNs in their role of caring for individuals with GSI, and their families; and
5. To understand how community advocates view both the antecedents and solutions to GV as well as the hospital/nursing care in the continuity of healing for the gunshot injured returning to the community.

Finally, using complexity theory and the socioecological model during my rigorous qualitative inquiry involving interviews and focus groups, this research study seeks to answer the following *research questions*:

1. What are the perceptions of CCTNs of gun violence, and of their patients with GSI?
2. What are the personal experiences of CCTNs in caring for patients with GSI and their families?
3. What do CCTNs identify as influences upon them that affect their nursing care of patients with GSI, and their families?
4. How do CBPs, who work with individuals involved with gun violence, describe GV and its antecedents?
5. How do CBPs describe what it is like for an individual with a GSI, and their families, to return to the community after a stay in hospital?

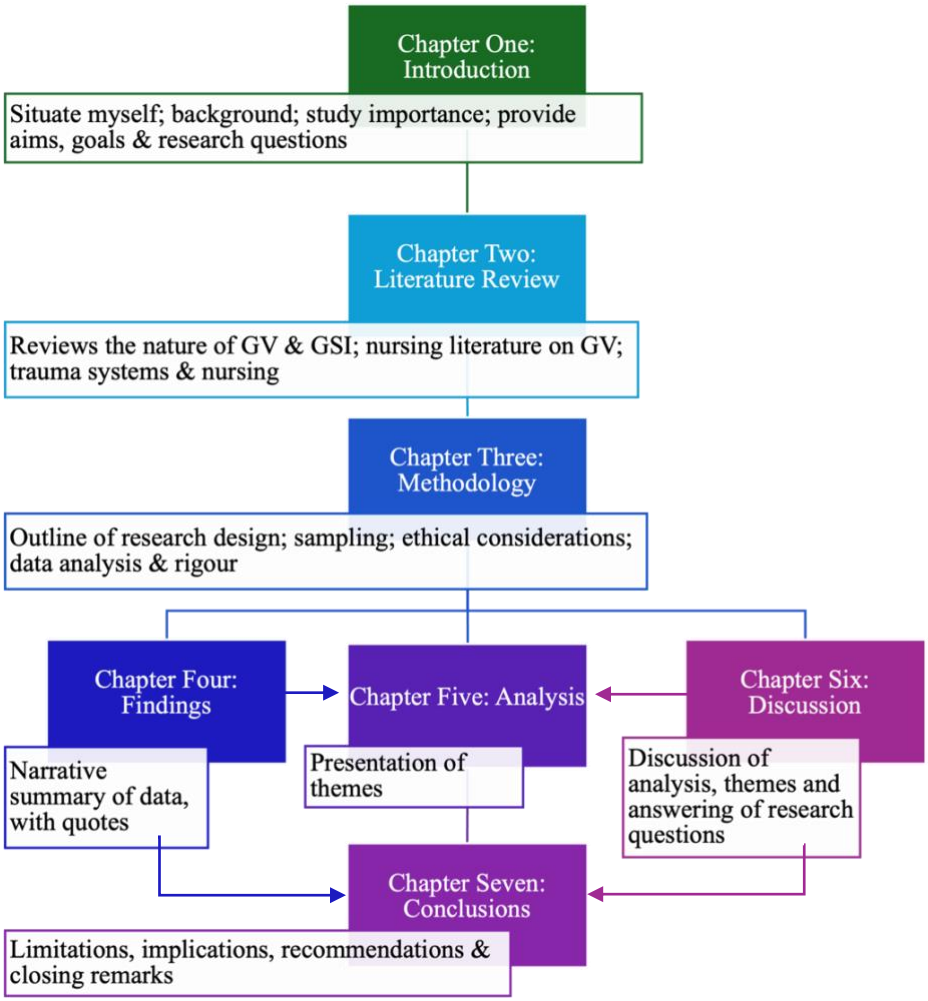
Structure of My Thesis

This thesis is divided into seven chapters commencing with this Introduction Chapter. This chapter situated me in the study, provided important background considerations, established the study's importance, and provided the study's aims, goals and research questions. Chapter Two, Literature Review, explains the goal of my literature search, including search terms and locations. It provides a concentrated review of the literature relevant to the study, namely the complicated nature of GV, nursing literature on GV and trauma systems, nursing and GV and closes with a discussion of the literature. Chapter Three, Methodology, is a detailed outline of the research design, participant sampling, ethical considerations, data analysis and attention to rigour. Narrative summaries of the raw data, including salient quotations from the interviews and focus groups are presented in Chapter Four, Findings. This chapter will not include analysis,

opting to present the data in summary form so that future readers can potentially draw their own conclusions. Transparency in my data is part of my commitment to rigour and credibility by providing a portion of my "audit trail". In Chapter Five, Thematic Analysis, the emerging themes arising from an iterative analysis of the findings are presented. Chapter Six, Discussion, arising from the themes, trauma is discussed as it pertains to persons with gun violence injuries, their families, and to CCTNs. To close, Chapter Seven, includes the limitations of this study, implications, recommendations, next steps and concluding comments (See Figure 4).

Figure 4

Visual Depiction of the Structure of My Thesis



Chapter Two

Literature Review

The purpose of this literature review is to identify and review the relevant literature pertaining to the complicated nature of gun violence, the setting of trauma and critical care and, the perceptions and experiences of critical care trauma nurses (CCTNs) caring for those with GSI. Relevant literature was sought and discovered with the aid of Dr. Annette Bailey, a nurse expert on GV, as well as using the databases: CINAHL, ProQuest, Medline and Google Scholar and Google and is organised as follows:

1. The complicated nature of GV.
2. What does the data show.
3. A review of GV in nursing literature.
4. GV, trauma systems and nursing.

Gun violence is a unique phenomenon; it crosses cultures, countries and interdisciplinary boundaries when it comes to understanding and studying its origins and therefore, the possible prevention. Discovery of literature on the complicated nature of GV, began by using articles already in my position from papers written for other courses, when my search methods were not closely refined or documented. For the purposes of expanding that literature for this review, the following search terms were used, individually and in combination: gun, firearm, gunshot, injury, wounds, violence, and trauma. The literature came from multiple disciplines, including but not limited to: nursing; medicine; social work; psychology; and public health. For literature regarding GV in nursing research, the following search terms were used, individually and in combination: gun, firearm, gunshot, violence, wounds, injury, critical care, intensive care, trauma*, and nurs*, Canada. Searches were also conducted looking for other work by authors

that had published on GV. Further articles were also sourced from the reference lists of articles found. For literature regarding the perceptions and lived experiences of critical care trauma nurses, the following search terms were used, individually and in combination: critical care, intensive care, trauma*, nurs*, perceptions, experiences, and lived experience.

The Complicated Nature of Gun Violence

As mentioned in the introduction, the SEM describes the influences exerted upon an individual with the reciprocity of this model meaning that the individual exerts similar influences over their close relationships, their neighbourhood, community, society and their time period. GV exists within, and because of, the complicated interplay of an individual's social systems, culture, religion, politics, economics, structure and history, the elements of an individual's SDH (Bailey et al., 2022; Cukier & Eagen, 2018; Hannays-King, 2015; Lawson, 2012; Smith et al., 2020). As this model is already used to organise the WHO discussions of violence in general, it made sense to use it to structure this review of the literature regarding the determinants of GV. Beginning with the individual, discussion will focus on an individual's SDH, those nonmedical factors that affect an individual's health and survival (WHO, n.d.b; 2022). An individual's race, gender, finances, education, employment and working conditions, food security, housing and home environment, early childhood education, social inclusion and access to affordable healthcare are but a few examples of SDH (WHO, n.d.b). Research has well established that the more difficulty one has with their SDH, the worse their health or the earlier their death (Ansell, 2021; Eckersley, 2015). The resulting fallout from SDH inequities for marginalised individuals is structural violence that includes cycles of poverty, financial insecurities, unsafe housing, and a lack of education that hinder racialised individuals from thriving (Smith et al., 2020).

The Individual: Poverty, Race, and Overrepresentation

Indigenous and racialised individuals, in general, are overrepresented as victims of GV homicides, making up 78% of those killed (Perreault, 2024). Of note, however, is that Black individuals represent 32% of the GV homicides that have occurred in Canada, greater than any other racialised group discussed (Perreault, 2024). Being Black in Canada comes with no advantages, despite Canada's global reputation as a safe and welcoming location for diverse individuals. In a report by Turcotte (2020) as a part of Statistics Canada, Black youth were as likely as others to obtain a high school diploma, but they were less likely to complete post-secondary education. In 2016, only 51% of Black men, between the ages of 23-27, were likely to have obtained a post-secondary qualification, compared to 61% of their counterparts. Moreover, 19% of Black men in the same age bracket are unemployed, compared to 11% of others. The report surmises this is due to 28% of Black men reporting they have faced discrimination within the workforce, compared to 13% of their counterparts. It is noted that this report did not discuss any other races, grouping them as other, leaving one to wonder "are there no other statistical differences between the differing races?" or is it that being Black in Canada means facing significant disadvantages when it comes to one's SDH? Khenti (2022) brings together these results to discuss how Black students face low expectations by teachers, decreased likelihood of being placed in advanced classes and are more likely to be suspended or expelled from school. All of which leads Khenti (2022) to reason that Black male youth are more likely to drop out from school, increasing the likelihood of being affected by GV, as well as experiencing negative interactions with the police.

Their Close Relationships: No One is an Island

Moving to the next SEM strata, close relationships, investigators are beginning to understand how violence moves through groups of individuals, networks, much like a virus would (Bingenheimer et al., 2005; Papachristos et al., 2015). Once researchers began to consider that violence can be considered a contagious disease, Bond and Bushman (2017) went on to demonstrate in their longitudinal qualitative study, that adolescents were more likely to engage in violent behaviour if their friends were already doing so. Collecting data from three time periods (1994-1995, 1996 and 2001-2002), researchers had a sample of 90,118 participants representing adolescents (ages 12-18 years) from the United States of America (USA). Of these participants, 5,913 identified at least 1 friend and 4,904 identified one sibling within their social network that engaged in violence. Each participant was interviewed in their home and asked 3 questions to assess violent behaviour. Using permutation methodology, Bond and Bushman (2017) were able to assess behaviour clustering in social networks and confirmed previous studies completed by Papachristos et al. in 2015, that violence passes from person to person, up to 2 degrees (defined as “friends of friends”) of separation for serious injuries (p.144). Of note, however, of the participants in Bond and Bushman’s (2017) study, 61% were White and 23% were Black. These results would, on a cursory look, appear to be inconsistent with Canadian Black male youth in Khenti’s (2022) work. However, Black male youth of the USA are suffering the same negative experiences at school and are likely dropping out, possibly explaining the 3:1 White to Black student ratio. These results also have me curious as to why Black male youth are so overrepresented in violent crime when, obviously, White male youth participate in violent behaviour as well and leave me wondering if Black social networks are different from White ones?

The Community: Structural Inequity

It is more than an individual's close relationships that exert influence upon them. Continuing to build on the SEM, next is the community level. Echoing the violence that can travel within close relationships, communities in distress have an impact on gun violence levels. Smith et al. (2020) conducted a retrospective review at their trauma centre in Atlanta, GA, USA. They wanted to assess if there was a relationship between food insecurity, inability to attain affordable and nutritious food, and patients that registered with GSI. These researchers determined that the majority (90.8%) of individuals were male with a median age of 27.2 years, and 50% of these individuals coming from the same five out of 33 zip codes that comprise Atlanta. Within these five zip codes, three have the highest rates of food insecurity, low access to food (the supermarket is more than 0.8 km away) while having low income. Utilising multiple statistical analyses, it was determined that 38.8% of these individuals had low access to food and 21% of individuals had food insecurity. They also demonstrated an inverse correlation between food availability and injury severity that is., as food becomes easier to access, either with more money or more mobility, GSI are less likely to be fatal. The authors admit that due to the retrospective nature of the analysis, they cannot demonstrate causality, nor can they specify the intent of the GSI due to inconsistent documentation. Furthermore, the researchers recognised that by utilising zip codes along with census data, bias may have been introduced into the study. Not discussed explicitly in this study was the race of the individuals admitted with a GSI and the racial breakdown of the zip codes involved. The United States Census Bureau (n.d.) estimated that from 2020-2021 Atlanta had 62% racialised population, of which 49.3% were Black. While it cannot be assumed that the participant racial profiles follow these percentages, it was established that Black males were overrepresented in GV (Smith et al., 2020; Khenti, 2022).

These results support previous findings in which American communities in distress, those with lower income, education, and housing vacancy rates, were more likely to experience GV events (Tracy et al., 2019). The primary residents of these communities in distress were Black male youth.

We have seen both American and Canadian politicians respond to communities in distress by increasing policing in these communities. To discuss the effects of such policing policies, Samuels-Wortley (2021) completed a qualitative study, rooted in critical race theory, which explored the perceptions and experiences of Black and Indigenous youth regarding the police in the Greater Toronto Area. Using semi-structured interviews, Samuels-Wortley (2021) identified that Black and Indigenous youth felt like they were seen and treated as criminals, even if they had done nothing wrong; that they are treated unfairly and without explanation; are threatened with violence by the police, even at a young age, based solely on their race, they "fit the description" (p. 1156). Instead of having a feeling of safety and protection with a police presence, Black and Indigenous youth are left feeling like criminals. The increased surveillance and policing of Black, Indigenous and racialised youth in Canada are greatly influenced by the systemic racism that encompasses federal, provincial and municipal politics and policies on legal/criminal/justice systems, immigration, education, employment, population density and healthcare (Bailey et al., 2022; Cukier & Eagan, 2018, Richmond & Foman, 2019; WHO, n.d.b). Indeed, Smith et al. (2022) reminds readers that due to the disproportionate representation of Black individuals in GV, the focus needs to be on reforming policies, practices and systems of care for the benefit of Black individuals, rather than continuing to participate in structural violence.

Our Society: Do They Even Know?

The next level of the SEM would seek to understand the level of influence that society has on GV. As discussed in the previous chapter, Bill C-21, *An Act to amend certain Acts and to make certain consequential amendments (firearms),* received Royal Assent on December 15, 2023, and became Canada's strictest laws in an attempt to control guns in the wake of the mass shootings in Ontario, British Colombia and Nova Scotia (Public Safety Canada, 2024). This law is intended to prevent GV through controlling the ownership of certain types of guns, as well as protecting victims of GV and counter the trafficking of all gun types. However, this new law has sparked the newest rounds of divisive and political diatribes from both pro- and anti- gun supporters. There is currently a debate happening between academics, healthcare professionals, and others, as to whether or not gun control laws are an effective means of reducing the harm done by gun violence (CFNU, 2018a; Cukier & Eagen, 2018; Langmann, 2020; Schwartz, 2022a). Additionally, Schwartz (2022b) discusses how both sides of the gun control argument express their desire for evidence-based solutions but cannot agree on what that means. Within his article, Schwartz (2022b) emphasizes how difficult it is to evaluate the success or failure of gun control policy or legislation due to the complexity of the social world and the decades it can take to evaluate policy, traversing changing politicians or political regimes'.

Coverage of gun control law debates have been seen playing out in both traditional and social medias. It has even been debated in the media that gun controls laws have more to do with controlling marginalised groups, than preventing gun violence (Passifiume, 2023; Sullum, 2022; Tonso, 1985). Mauser in 1995 wrote a bulletin, *Gun Control is not Crime Control,* in which the author discusses that legal gun ownership is not a threat to public safety. More recently, Sullum (2022) argued that gun controls are rooted in racism, intending to prevent persons of colour from

challenging governments of the day (Smithies, 2019). Nevertheless, media coverage of gun violence is not limited to the debate around gun control laws. Jahiu & Cinnamon (2022) conducted a multi-method study, using a keyword analysis of Toronto's major news outlets media coverage of major crimes and crime statistics from 2015-2019. Their analysis of 949 news articles aligned with similar research and revealed how the media can shape public perception and participate in territorial stigmatisation, through their choice of language, imagery and semantics. Moreover, the study conducted by Jahiu & Cinnamon (2022) quantitatively demonstrated that the media's coverage of crime within marginalised communities of Toronto was disproportionate compared to the actual crime rates. Such territorial stigmatisation has led to some neighbourhoods becoming "spatial metaphors", a term coined by Tyler & Slater (2018), to represent criminal activity. The example used by Jahiu & Cinnamon (2022) is that of 'Jane and Finch', a community that is relentlessly linked with crime and moral decay by traditional news outlets. The territorial stigmatisation created by Canadian mainstream media outlets are also responsible for perpetuating and reinforcing stereotypes about marginalised communities long held by Canadian institutions (Mullings et al., 2016; Young Women's Christian Association [YWCA], 2019). The popular journalist phrase 'known to the police' or 'known to police' brings with it a preconceived narrative of criminal activity, aggression and violence (Mullings et al., 2016, p.36; YWCA, 2019, p. 9). Moreover, in the Mullings et al. (2016) discussion paper, they state that the media has a hand in maintaining Canada's "narcissistic discourse about what Canada stands for with respect to human rights [globally]…" (p. 21). The authors assert that that White Canadians reinvent themselves, denying their history of stolen lands and systemic violence of those stigmatized (Mullings et al., 2016).

Mohawk Council of Kahnawà:ke Chief Jessica Lazare encourages the federal government to focus on the true root causes of gun violence (Passifiume, 2023). Durkin et al. (2020) concur, proposing that legislators at all governmental levels need to work towards improving the health, educational, economic and judicial systems that regulate and have the greatest impact on the social determinants of gun violence (SDGV). In fact, a research paper conducted by Clancy (2019) identified not just poverty, but the erosion of the middle class and widening of the social and economic gap within the city of Toronto that is one of the largest drivers of gun violence.

A Function of Time: Internal and External

It is of note that neither the CDC (2021) nor the WHO (n.d.b) models discuss the dimension of time within their descriptions of the SEM, as it pertains to understanding the effects of GV antecedents on individuals, their close relationships, their community and society is the influence of time. Time, which functions as the foundation or the medium in which all levels function, has two aspects. One aspect is internal time which includes the developmental age, cognitive development and patterning of life events of the individual. The second aspect is external time, the historical context and time period in which the individual is living and the patterning of societal events (Charles, 2021; Paquette & Ryan, 2001; Tannenbaum, 2018). Although these factors are immutable, I consider them essential to understanding the roots of modern GV (Charles, 2021; Paquette & Ryan, 2001). Of particular interest is Wamser-Nanney et al.'s (2019) quantitative study in New Orleans, Louisiana, United States of America. Adult participants were approached at a trauma centre after admission for a gunshot injury due to community violence. Researchers explored seven different measures: trauma exposure as a child, prior assaults, arrests and gun carrying, impulsivity, aggression, code of the street, probability of

victimization/perpetration and post-traumatic stress syndrome. They found that childhood exposure to violence, both at home and in the community, resulted in a stronger relationship between GV risk factors (owning and carrying a gun) and GV participation as an adult. All participants were found to have higher levels of post-traumatic stress syndrome and probable post-traumatic stress disorder. Variables such as gender, ethnicity/race, employment or income were not found to be related to the dependent variable and were not a part of the analysis of the measures. It is important to note that Wamser-Nanney et al. (2019) found a greater correlation between violence in the home and GV, as there are greater opportunities to observe and model violent behaviour in the home, than outside. However, they note not every child that experiences violence at home participates in violence as an adult and that mediating factors, including exposure to community violence, require more research before conclusions can be drawn. This study does demonstrate, however, that the age of an individual when they experience violence has an impact on their participation in it as an adult.

Congruent to this is the aspect of external time and historical context. In an abstract presented at the American Public Health Association 2019 annual meeting and expo, Mason et al. hypothesised that there was a causal relationship between cultural self-identity, destruction and GV in Chicago's Black communities. Similarly, Bailey et al. (2023), postulated that the Black male identity was informed by systemic oppression, toxic masculinity and traumatic experiences. When these elements were taken in combination the result was that of a Black man who was trapped, both within their own mind, due to the emotional turmoil of unresolved trauma mixed with the negative impact of manliness stereotypes, and within the historical and current constructs of society (Bailey, 2022; Mason et al., 2019). Moreover, it is important to note that Bailey et al.'s (2023) exploratory study highlights the interconnectedness of internal time, the

Black man's traumatic experiences, ideas of toxic masculinity, along with external time and systemic oppression. Concurrently affecting the individual was the current time period in which they were living, and any major local, regional or global events, such as the COVID-19 pandemic. During this time within the United States, there was a documented 42% increase in the number of criminal background checks when comparing March to June 2019 to the same time in 2020 (Ssentongo et al., 2021). Ssentongo et al. (2021) postulated that frequent background checks were followed by greater access to guns resulting in an increased risk of suicide and murder. In their quantitative study, Ssentongo et al. (2021) used data collected from the Gun Violence Archive in the Centers of Systems Science and Engineering at Johns Hopkins University law enforcement records, media and commercial sources and demographic data from the U.S. Census Bureau, Department of Commerce. This data was then verified by independent researchers. Using multiple statistical analyses, the authors were able to compare GV in the pre-pandemic (February 1, 2019 – March 31, 2021) and pandemic (March 1, 2020 – March 31, 2021) periods. Across all states, there was a 31.2% increase in the incidents of GV from the pre-pandemic to the pandemic periods. According to Ssentongo et al. (2021), this increase in GV was due to job losses and baseless fears leading to panic among the American people that resulted in an estimated 41% increase in sales from March 2019 to March 2020, with gun stores being deemed an essential business in multiple states. Although Ssentongo et al. (2021) did not indicate race in their findings, Amin et al. (2021) noted racial differences in their study. In a single hospital in Atlanta, GA, U.S.A., in both pre- and intra-pandemic periods, Black males, and those without insurance (which can be interpreted as a euphemism for being poor), experienced significantly higher rates of GSI when compared to other races and income groups. This number also increased from the pre- to intra-COVID-19 periods, indicating how COVID-19 affected

these groups in comparison with the others. A cross-sectional study by Amin et al. (2021) reminded the reader that the combination of increased stress, depression and anxiety secondary to changes in employment, access to childcare, and a lack of social interaction and physical touch result in difficulty or even inability to restore peace. However, the discussion did not include how these pressures affect Black individuals specifically, considering that Black males are significantly represented in both pre- and intra- pandemic periods. COVID-19 revealed the deeply ingrained racism within our own society, demonstrated in the significant number of racialised deaths compared to White individuals, racialised disparities in education as it pertained to access to technology (a computer and a stable internet connection), and negative police perceptions toward Black individuals (Dei & Lewis, 2021; James, 2021; Owusu-Bempah, 2021).

Although these examples are brief, they demonstrate how each level influences, and is influenced by, the individual. It is but a glimpse into the complex and multidimensional nature of GV. Referring to Appendix A, Sayama (2015) demonstrates there are numerous ways for these elements to interact within themselves and with each other, producing the desire for the succinctly described “Poverty, prestige, and protection” (Buchanan, 2014, p. 208). The consequences of SDH inequities, such as toxic close relationships, are communities that have their suffering ignored and societal policies that produce structural violence, which greatly affect racialized individuals, enticing their youth into gang activities and gun violence (Bailey et al., 2022; Cukier & Eagan, 2018, Richmond & Foman, 2019). Inequities such as poverty, lack of education, and structural racism are a few of the disparities that could be deemed SDGV.

What Does the Data Say? Gun Injuries, Survivorship and Death

Within Canada, between 2002 and 2016, data collection regarding gun violence had been focused on homicides and suicides and revealed that the majority of deaths related to guns, 79%,

were suicides (CFNU, 2018a; Gomez et al., 2020). However, GSI survivorship is poorly documented. Gomez et al. (2020), completed a cross-sectional study analysing GSI survivorship data from a variety of sources within Ontario, where of the 6,483 GSI, 58% were nonfatal, 92% were men, and 54% lived in low-income neighbourhoods. Missing from this study is identification of race/ethnicity of individuals with GSI, if the GSI occurred secondary to legal intervention (police shootings), nor do the authors indicate if GSI had occurred in the same patient multiple times. It was noted, however, that younger men, ages 10-34, typically had the intention of harming others, while older men, 45 years and older, had the intention of harming themselves (Gomez et al., 2020).

For nonfatal injuries, the 'severity of injury' can vary depending on the location of penetration, the size and type of ammunition used, bullet velocity, number of bullets, bullet flight pattern and bullet trajectory through the body (Alvazzi del Frate & De Martino, 2013; Boone et al., 2021; Buchanan, 2014; Foote-Iucero, 2020). GSI can include damage to tissues, organs, vasculature and bone, and can lead to amputation, organ removal, spinal cord injury or traumatic brain injury, or a combination of the above (Alvazzi del Frate & De Martino, 2013; Boone et al., 2021; Buchanan, 2014; Foote-Iucero, 2020). The damage done can result in infections and multiple surgeries prolonging an individual's hospital stay, disfiguration, chronic pain and short and long-term disability secondary to physical and/or cognitive impairments (Buchanan, 2014). This was the case with my young patient previously mentioned in Chapter One, who returned to critical care after requiring additional surgery due to complications with the scar tissue interfering with organ activity.

GV also produces a variety of psychological trauma, including but not limited to fear, post-traumatic stress disorder, mood and sleeping disturbances, aggression, problems with

memory and concentration, depression, self-destructive and/or suicidal behaviours (Bruce et al., 2018; Buchanan, 2014). The psychological responses to GV for those shot and their families can result in maladaptive coping responses, financial insecurity, incarceration, and blocking education opportunities, all of which disintegrate existing social supports, leaving those injured even more isolated (Bruce et al., 2018; Kalesan et al., 2016; Patton et al., 2019).

A qualitative community-based participatory research study by O'Neill et al., (2020) identified several themes from survivors of GV who were Black men aged 20-51, in the U.S. Themes described by the participants include increasing isolation from places and people; loss of protection associated with the loss of reputation or respect; increased aggression with participants admitting that they were not only more likely to carry a gun, but more likely to use it during a confrontation; and feeling numb to the experience having witnessed GV daily to the point of considering it normal (O'Neill et al., 2020). Of great interest to this proposed study, however, is the last theme, that of barriers to mental health treatment. O'Neill et al. (2020), describe how participants had negative interactions with mental health professionals due to a lack of trust. Participants felt that mental health professionals did not understand the context in which they live, coming from differing racial, cultural and socioeconomic backgrounds. Of note, O'Neill et al. (2020) also reported the theme of 'traumatic experiences in hospital' but did not expand upon those experiences of the participants.

A qualitative, grounded theory study conducted by Patton et al. (2019) described the patient's self-identified discharge needs from a single hospital in the United States, including their hospital experiences. The participants described feelings of being discharged too soon, having concerns regarding returning home where the trauma occurred, the need for adequate mental health counselling for themselves and their families, as well as the need for improved

communication both within and after hospital discharge. Patton et al. (2019) also described how participants felt they were treated by physicians and nurses while in the hospital. They felt that they were looked at differently, that healthcare providers (HCP) lacked compassion and were slow to respond to their needs. One participant stated that "…I think it's a good hospital based on the doctors right after they helped me get myself back together, but the nurses, I don't think…I think they are just here for the paycheck" (Patton et al., 2019, p. 141). Another identified issue occurring within hospitals was communication regarding the details of their GSI, such as where they had been shot, how many times and what was injured, leaving patients feeling dehumanised (Patton et al., 2019). What do these findings mean for bedside CCT nursing? What is the status of nursing research presently and what do nurses have to say about GV?

Nursing Literature on Gun Violence

Nursing science crosses all levels of care regarding the gunshot-injured individual, however, there is a paucity of published nursing research worldwide (Richmond & Foman, 2019). Many nursing publications use their editorials to put forth calls to action and to support nurses in their understanding of the phenomenon. Similarly, some nursing associations have developed and published their position statements which advocate against GV. Within this literature review three sources of nursing literature regarding GV are discussed: published nursing research, calls to action, and nursing organisations' position statements.

Nursing Research on Gun Violence

Using the above-mentioned databases and search terms, the search was limited to the 2012-2022 timeframe to find the most current nursing research. Multiple searches within this timeline led to the discovery of five published nursing research articles, stemming from four

different studies. These studies explored nurses' perceptions of GV risk at work, GSI survivorship, and explored GV following the loss of a child to GV.

Wolf et al., (2019) conducted a mixed method, sequential, explanatory study with a purposive convenience sample of American emergency nurses to explore their perceptions of patient risk for firearm injury and how these perceptions affect the process of patient screening, assessment, counselling and education. The participants (n=1,424) completed a modified American Academy of Pediatrics Omnibus Periodic Survey of Fellows on the prevention of firearm injury, measuring attitudes, knowledge, and firearm prevention practices for youth. The authors also conducted focus groups (n=25) at a national conference. Wolf et al. (2019) found that about a third of the nurses studied stated that they screen patients regularly for firearm risks, even when working with a vulnerable population. However, 60% of participants agreed that "regardless of the potential for injury, everyone has the right to own a gun" (Wolf et al. p.64). Moreover, nurses identified that their ability to complete a firearms risk assessment was based more on their calculation of personal risk, than the risk to the patient, feeling unprepared to manage potential lines of inquiry as well as feeling uncertain about what to do with the information, if received. Wolf et al. (2019) identified that education for nurses is essential to improving their ability to nonjudgmentally and nonconfrontationally assess for guns in the home. Additionally, Wolf et al. (2019) suggest that emergency departments need to address nurses' concerns about patient-on-nurse violence in the workplace, as this will improve patient assessment and outcomes.

In a qualitative study, Francis (2018) examined the lived experience of American individuals injured by a gunshot. The study was conducted in the United States of America at a mid-Atlantic trauma centre, with 81% of the participants being Black males. Using narrative

inquiry with semi-structured interviews, Francis (2018), listened to the stories of survivors and identified social factors such as racism, poverty, and other systemic oppressions that are the key contributors to GV. Through the creation of a safe space for the interviews, the lasting psychological effects of having a GSI were explored. Themes uncovered include being emotionally numb to the common occurrence of daily violence, feeling isolated from social structures, helpless and abandoned, all of which are suggestive of posttraumatic stress disorder. In the author's conclusion, Francis (2018) focuses on the overrepresentation of poverty, the need for collaboration between community leaders and members and the development of policies and programs aimed a violence reduction. Francis (2018) also reminded nurses that they "should participate in providing education and violence assessment as well as offer emotional support to the victims of gun violence" (p.387).

Of the two studies exploring mothers' survivorship, one was a mixed methods study and produced two articles by Bailey et al. (2013a & 2013b). The researchers explored and defined the coping abilities of bereaved Black mothers to build resilience in the face of traumatic loss of a child. Guided by Lazarus and Folkman's (1984) theory of stress and coping and the stress process framework, Bailey et al. (2013a & 2013b) explored Black mothers' internal (sense-making) and external (social supports) resources in a mixed-methods study that measured traumatic stress, social support, cognitive appraisal, quality healthcare and resilience. Bailey et al. (2013a & 2013b) discovered a complex relationship between social supports, cognitive appraisal and quality healthcare. These protective factors had a significant and positive relationship with mothers' resilience. Cognitive appraisal strongly mediated the traumatic stress-resilience relationship, and was the best predictor of resilience, as Black mothers found strength when they could exert personal control and ability to create meaning from their loss.

Additionally, social support is also a significant mediator to the traumatic stress-resilience relationship. Black mothers identified the need for community-based support programs, informed by the cultural, social and historical needs of the community, and focused on trauma recovery, group work and referrals as a way to create meaning from a heartbreaking loss. However, Black mothers were forced to confront how they see themselves because of their tragic loss, who they are perceived by those in their close relationships, community, and how they are treated differently within a structurally racist society. (Bailey et al., 2013a & 2013b). The researchers revealed that the quality of healthcare did not mediate Black mothers' resilience to stress. Even if it did have a significantly positive effect on their resilience, the majority of mothers had limited or no access to community health resources for grief due to cost, availability and a lack of belief that these resources would be helpful. These articles identified gaps in care, and the need to understand "the complex intersection of immigration, acculturation, identity, social role, culture, and class influence … resilience, stress, and coping when bereaving a child to gun violence" (Bailey et al., 2013b, p.243). The second study that explored mothers' survivorship was a grounded theory study and explored the social support of Black mothers (Hannays-King et al., 2015). Focusing on the uniqueness of the topic and the participants, this study sought to deepen the understanding of Black mothers' grief. Emerging from the interviews, the authors found that due to the circumstances of the death of their child, mothers experienced altered family support, disruption in social networks and withdrawal from social supports. This left mothers "unsupported and overwhelmed in their grief", negatively altering their bereavement trajectory as their experiences of loss were deeply enmeshed with their social environment (Hannays-Kind et al., 2015, p.13). This would include interactions on the close relationships and community levels of the socio-ecological model (SEM).

The foremost implication of these studies was the provision of evidence-based education for HCPs as they care for grieving Black mothers. All authors invited readers to understand the importance and complexity of being Black as the foundation of identity and culture. With this understanding, social programs and services can provide culturally sensitive support and resilience strategies for survivors, not just mothers but family and friends. Simultaneously, there is a need for HCPs to challenge and change the systemic oppressions that contribute to GV in Black communities in the first place (Bailey et al., 2013a; Bailey et al., 2013b, Hannays-King et al., 2015).

Nursing Calls to Action

> As nurses, we are in a prime position to embrace diversity and celebrate uniqueness. Florence Nightingale epitomised health innovation with her visionary foresight. She believed nurses had the extraordinary ability to become agents of global change…
>
> - Aikam (2019, p.2).

Despite the paucity of research regarding GV, nursing has been busy putting forth calls to collective action through publishing in mediums such as blogs, editorials and Op-Eds. Seeking to educate and empower nurses, 32 calls to action from a variety of nursing journals from the last decade were reviewed. Within these editorials, multiple themes arose identifying barriers to information and the need for more research, the political and polarising nature of guns, the importance of changing the discussion and the need for critical self-thinking or awareness. (Aikam, 2019; Cogan, 2019; Daher & Hirschfeld, 2019; DeSimone, 2022; Gallagher & Hodge, 2018; Gould, 2016 & 2018; Graziano & Pulcini, 2013; Hertel, 2019; Kennedy, 2016; Manton, 2018; Meadows-Oliver, 2013; Muir, 2021; Narayan, 2014; Nelson, 2017 & 2021; Nickitas, 2013 & 2019; Odom-Forren, 2016; Potera, 2019; Riddle, 2021; Smith, 2013; Thomas, 2021).

Of all the themes found within these calls to action, advocating for political action, public health/preventative approach and GV as a nursing phenomenon were the most frequently

discussed in the US dominant literature. Advocating for political action has two parts. The first, advocating for greater gun control, is rooted in personal experiences, professional experiences or in response to an event. For example, O'Keeffe (2012), the lone Canadian article, discussed the death of her own child to gun violence, Gould (2014) discussed her care of an individual with a gunshot injury, and Kennedy (2016) described her reaction to the mass shooting of 26 people at Sandy Hook Elementary School in 2012. Multiple authors recognise that laws around gun type, ammunition and background checks have an effect and ask nurses to advocate for legislative changes (Gould, 2016 & 2018; Kennedy, 2016; Muir, 2021; Nelson, 2017 & 2021; Nickitas, 2013 & 2019; Odom-Forren, 2016; O'Keeffe, 2012; Potera, 2019; Riddle, 2021; Smith, 2013; Thomas, 2021). The second call for political action involves advocating for federal money for research. In 1996, the United States Congress passed the Dickey Amendment, which prevented the CDC from accessing funding for research that would advocate or promote gun control (Cogan, 2019; Manton, 2018; Public Law 104-208, 1996). Organisations, like the National Rifle Association, lobbied heavily for the amendment after published research indicated that having a gun in the home resulted in a higher risk of homicide by a family member or friend (Nelson, 2017; Riddle, 2021). The impact of this amendment meant that the CDC, and later the National Institute of Health, avoided any research, including nursing, that could be perceived as anti-gun (Gould, 2016 & 2018; Graziano & Pulcini, 2013; Nelson, 2017; Odom-Forren, 2016; Riddle, 2021). In 2019, change arrived when the United States Congress approved monies for GV research as a part of the Gun Violence Prevention and Community Safety Act of 2020 (DeSimone, 2022; Hertel, 2019).

The second major theme noted in the calls to action were the discussions of GV as 'an epidemic' that required a public health and injury prevention approach. As was done with

seatbelts in cars, drinking and driving and with child safety caps on medication bottles, a preventative approach was argued as necessary to stop gun violence and injury before it occurs (Cogan, 2019; Gallagher & Hodge, 2018; Gelinas, 2017; Gould, 2016; Hertel, 2019; Narayan, 2014; Nickitas, 2019; Smith, 2013). Gould (2016), Manton (2018), Muir (2021), and Nelson (2021) reminded nurses to assess for and educate individuals on how to properly store and safely handle guns. Gould (2018) offered up some creative solutions, comparing the requirements of owning a gun to that of owning a car, which requires licencing, education, testing, and reviews. Writers were also encouraging nurses to consider structural antecedents, for example, to recognise the racialized nature of GV (Jacobson, 2015; Odom-Forren, 2016; DeSimone, 2022; Muir, 2021, Thomas, 2021). Gallagher & Hodge (2018) stated that individuals of colour are invisible to the masses and "Invisibility inhibits ethical sensitivity and an empathetic response- and this is unethical" (p.3). Sofer (2022) highlights the destabilising effects of the COVID pandemic on individuals' SDH, specifically income and housing, and how these have resulted in increased violence across the board.

A significant third theme noted in nursing calls to action was the discussion of GV as a nursing phenomenon. Authors such as Graziano and Pulcini (2013), Holleran (2013), Meadow-Oliver, 2013 and Narayan (2014) discussed not only nursing involvement but whether guns and GV were within a nurse's scope of practice. Authors remarked on the polarising effect that GV had on discussions, even among nurses, especially in the United States where gun ownership is a constitutional right (Holleran, 2013, Meadows-Oliver, 2013; Narayan, 2014; Nolan-Kelly, 2017; Smith, 2013). In the last three years, discussions have changed from questioning if GV is within a nurse's scope of practice to all the ways in which nurses can make a difference. Nurses can assess for and provide gun safety education at home and assess for an individual's risk for self-

harm or harm to others (Graziano & Pulcini, 2013; Kritz, 2018; Meadows-Olivier, 2013; Narayan, 2013; Nolan-Kelly, 2017). It was also made clear that nurses need more evidence to inform their practice (Gould 2014, 2016 & 2018; Graziano & Pulcini, 2013; Holleran, 2013; Jacobson, 2015; Kennedy, 2016; Manton, 2018; Muir, 2021; Narayan, 2014; Nelson, 2017; Nickitas, 2019; Thomas, 2021). Through these numerous calls to action, I know I am not alone in thinking about and trying to find a way to help prevent gun violence from reoccurring.

Position Statements from Professional Nursing Bodies

It was the editorials by Graziano and Pulcini (2013) and Potera (2019) that brought to my attention that nursing organisations have published position statements regarding GV, which are meant to guide nurses and amplify the view of the nursing profession while educating consumers and decision makers (American Nurses Association, n.d.). Position statements were initially sought using Google and the search terms nurs*, position statement, gun, firearm. This led to the discovery of position statements from multiple nursing organisations in the United States, which will not be discussed here due to the differences between the respective healthcare systems, culture and politics between Canada and the United States. Position statements were additionally discovered by the International Council of Nurses (ICN), an international federation of nursing associations, the International Association of Forensic Nurses (IAFN), the recognised authority on forensic nursing, and the Canadian Federation of Nurses' Unions (CFNU), an advocacy group representing unionised nurses and nursing students across Canada to the federal government. To ensure that no provincial nursing associations that may have developed a position statement were missed, a province-by-province search was conducted looking for nursing organizations. Each website was searched individually using the search terms "gun", "firearm", "violence" and "peace." A position statement from the Registered Nurses' Association of Ontario (RNAO), a

professional association advocating for best practice in nursing and healthy public policies, was found from 2003, and spoke to a statement from the Canadian Nurses Association (CNA), a national nursing association that is the professional voice of Canadian nurses, also from 2003. The 2003 CNA document could not be found on their website, however the search resulted in the discovery of an updated statement from 2009. Neither the RNAO nor the CNA, have published more recently. Four of the five position statements reviewed can be categorised into two groups, GV secondary to armed conflict/war or GV as a part of interpersonal crime.

Gun Violence Secondary to Armed Conflict/War. In the ICN (2012) position statement *Armed conflict: nursing perspective* state that they strongly oppose armed conflict and believe that alternate, peaceful, ways of conflict resolution should be used to resolve disputes. The ICN's (2012) concern was on" affected civilians, refugees and internally displaced persons…" (p.1). The ICN urged nursing associations around the world to advocate for humanitarian assistance, including unobstructed healthcare from their governments, to provide care that is safe and free from discrimination, promote reporting systems for human rights violations, support the protection and promotion of human rights, and advocate for the rehabilitation and reintegration of all combatants. The RNAO (2003) takes a similar approach and acknowledged the unmeasurable toll of armed conflict on "individuals, families, communities and nation states" (p. 1). They remind nurses that peace is a social determinant of health, without which there can be no other determinants of health. The RNAO calls on the Canadian government to strengthen Canada's international peacekeeping efforts, to increase aid to programs that work towards ending social injustice and other antecedents of conflict and call on all nurses to speak out against armed conflict acknowledging that nurses are ethically bound to advocate for peace. However, these position statements highlight a gap in the literature. None

of the statements acknowledge GV as a part of daily life for some individuals, including Canadians. It could be argued that such a gap offers no guidance to nurses working within trauma programs and can contribute to structural racism found within healthcare.

Gun Violence as a part of Interpersonal Crime. Although an international organisation, the IAFN position statement by Weinberger et al. (2019), focused its position statement specifically on the GV within the United States, citing that gun homicide is "25 times higher…in the United States than any other high-income country" (p. E1). They asked the United States Congress to fund research for federal agencies, enact evidence-informed legislation and asked for improved access to mental health services and school programs that address bullying, violence and other social and emotional issues. Similarly, the CFNU (2018b) clearly outline their advocacy of a public health approach to GV. They presented statistics, current to the time of publishing, regarding the gun type, how and when a gun is used within a violent act (handgun versus long gun, suicide versus homicide versus intimate partner violence). The CNFU outline the legislative history of gun control in Canada before outlining the governmental actions they support. This includes: enhanced background checks; entrusting RCMP experts to classify guns; launching national awareness programs targeted at young racialised men while supporting community gang prevention initiatives; improving access to mental health services; and empowering the Public Health Agency of Canada to collect and analyse data on GV deaths and injuries supporting research, education and policy development.

Between these two categories is the position statement from the CNA (2009). Within this document the CNA explores peace as a determinant of health, acknowledging that peace is greater than political-military action, but includes economic security, social justice, the environment and public health to name a few. Furthermore, the CNA recognises that "Violence

resulting from societal structures of oppression, exploitation and exclusion – or 'structural violence' – impacts the health of individuals and society, as do attitudes and values that for the 'cultural violence' that permits oppression, human rights abuses or even killing" (p.1). They recognise peace as a determinant of health and advocate for implementing health initiatives that foster peace. Examples include temporary cessation of hostilities allowing for health interventions in war zones, using health expertise and data to restrict weapons, allowing for individual and social healing, and promoting conflict resolution activities, aligning with the WHO's peace-building initiatives.

The argument could be made that more associations need to make their position on GV clear, or those that have published a position statement should consider updating it to reflect the changes to Canadian society and its international standing in so far as considering GV as a public health epidemic. However, whether looking at an international war zone, or a shooting that happened on the street in the middle of the afternoon, nurses around the world recognise that GV and health are 'intertwingled': a hybrid of the concepts of intertwined and mingled and refers to the connected nature of different complex systems (Sanger & Giddings, 2012).

Trauma Systems, Nursing and Gun Violence

Evolution of Trauma Systems and Trauma Care

Trauma systems are systems of organised, multidisciplinary care that begins from injury prevention and traverses prehospital, emergency, in-patient, rehabilitation and outpatient care (Batomen et al. 2021; Evans, 2007; Moore et al., 2017; Richmond & Foman, 2019). Beginning in the United States of America in the 1960s, in an effort to reduce trauma mortality, trauma systems did not take off in Canada until the 1980s, in Winnipeg, Manitoba when Dr. Charles Burns, a general surgeon at the Winnipeg Health Sciences, recognised a need to change how to

care for “the seriously injured” (Batomen et al. 2021; Burns, 1978, p. 507; Evans, 2007; Moore et al., 2017). Moving across the country, each province developed and conducted their own regionalised trauma systems and established trauma centres, hospitals in which resources were prioritised to ensure effective care to prevent death and improve injury outcomes (Batomen et al., 2021; Evans, 2007; Evans et al., 2021; Moore et al., 2017). Critical Care Services Ontario (CCSO) have developed a guide for regional trauma network development and a set of minimum standards for research; leadership; emergency preparedness; quality improvement and patient safety; emergency department processes, personnel and equipment; trauma surgical and non-surgical capabilities as well as inpatient trauma services (CCSO, 2022). This organisation and others are supported by the Trauma Association of Canada (TAC). Established by a group of surgeons in the late 1990-early 2000s, the TAC is a unique multidisciplinary group, that continues to raise the benchmark of trauma care in Canada. TAC has developed national standards, hospital accreditation guidelines and the creation of Canada’s National Trauma Registry.

A study conducted by Moore et al. (2017) demonstrated that Canadian trauma centres contributed to approximately 18% reduction in mortality across the country from 2006-2012. Of particular interest to this study is the fact that mortality in Ontario decreased by over 33%. These findings have been attributed to improvements in trauma care organisation, improvements and adherence to evidence-based strategies, protocols and standards. Despite these improvements, fatal injuries continue to occur. In a retrospective cohort study conducted by Evans et al. (2021), the researchers looked to describe the fatal injuries from varying types of traumas within Ontario from 2000-2016. Using electronic health data information, the researchers collected information on people’s age, sex, socioeconomic status, address (urban vs rural), comorbidities, cause(s) of

injury, injury diagnosis on the death certificate and aspects of care including whether they were admitted to a trauma centre and whether they died inside or outside (before admission/after discharge) of hospital. In total, 19,408 individuals met the study's inclusion criteria. Of those almost 75% of them were male with no comorbidities and almost 78% were from urban regions of the province. Those included ranged in age from 26-62 years with over 72% of those deaths occurring out of hospital. Of the patients that made it to hospital (5,319) approximately half were treated in trauma centres. More importantly, the top three common mechanisms of injury were motor vehicle collisions (≈62%), gunshot wounds (≈16%) and falls (≈12%), with gunshot injuries having a higher rate of death outside of hospital. The study acknowledges that a large number of traumatic deaths occurred outside a hospital setting and suggested that Ontario prehospital trauma resources were inadequate. Notably absent from this study is race-based data. It is not known if this was because such data is not available within electronic data information or if it was not considered an important aspect of trauma. It therefore cannot be determined if the large number of prehospital deaths were in predominantly Black or marginalised neighbourhoods.

A final note on trauma systems, according to Evans (2007), leaders in trauma recognise that these injuries are rarely an 'act of God' but are preventable. Injury prevention work started with Transport Canada's Traffic Injury Research Foundation in the 1960s and led the government to create the Public Health Agency of Canada to coordinate federal prevention strategies in 2004 (Evans 2007). With the growth of GV on the rise, trauma centres are attempting to address the root causes of GV through hospital-based intervention programs (Dicker et al., 2021). Recommendations from the American College of Surgeons' Committee on Trauma acknowledge that structural racism needs to be defined and the SDH be reviewed as a

means of stopping the continuous cycle of inequity and inequality that accompanied colonisation and slavery (Dicker et al., 2021). It was during the COVID-19 pandemic that the government of Canada acknowledged that a disproportionate number of racialised communities were heavily impacted, but the data needed to shed more light on this issue was severely lacking (Canadian Institute for Health Information, 2022; Sharpe, 2019).

In Toronto, two hospital-based programs have started within current trauma centers. The first, BRAVE (Breaking the Cycle of Violence with Empathy) at Sunnybrook Health Sciences Centre, was followed shortly thereafter by THRIVE (Toronto Hospital-based Reducing Injury from Violence intervention and Evaluation) at St. Michael's Hospital (Campbell & Johnson, 2022). Both programs, grounded in evidence-based work, aimed to break the cycle of recidivism and enable long-term change (Sunnybrook Health Sciences Centre, 2023; The crib community, 2022; Unity Health Toronto, 2022). Affinati et al. (2016) conducted a review to evaluate the effectiveness of hospital-based intervention programs. A total of 71 articles were identified from multiple data sources, including but not limited to PubMed, Google Scholar and the Cochrane Library, but only 10 met the inclusion criteria. Using the Grading of Recommendations Assessment and Evaluation methodology it was determined that current evidence is weak and insufficient to conclude if hospital-based intervention programs are effective in disrupting cycles of violence and reinjury (Affinati et al., 2016). Despite this, the authors were encouraged with the ongoing work of hospital-based violence prevention programs and urged future research to be creative in its efforts to ensure these programs prevent violence.

Trauma Teams and Critical Care Trauma Nursing

Essential to ensuring that trauma systems function, are the interdisciplinary teams that work across the spectrum of care. Within trauma centres, trauma teams, composed of highly

specialised healthcare practitioners, working in high-pressure, time-sensitive environments, are responsible for managing life-threatening injuries (Kassam et al., 2019). Based on a small qualitative study, Kassam et al. (2019) conducted semi-structured interviews with members of Vancouver General Hospital's multidisciplinary trauma team to identify which attributes define excellence in a trauma team. Using thematic content analysis, the researchers identified four attributes required in trauma team members: engagement, efficiency, experience and collaboration. While acknowledging that their study was limited in size and location, this study begins a discussion about what is needed from a successful hospital-based trauma team.

Of interest to this academic pursuit are trauma nurses, specifically those involved in critical care trauma nursing. As previously mentioned, Florence Nightingale is widely recognized for her work with young men with penetrating wounds during the Crimean war, meaning that trauma nursing has been in existence since the mid-1850s and born out of the horrors of war (Ayers, 2014; Nightingale & McDonald, 2010). In a speech by Mary Beachley given at the 2005 Society of Trauma Nurses 8th Annual Conference, the evolution of trauma nursing was described, as beginning in response to military action around the world including World Wars I and II. This expanded to understanding the pathophysiology of trauma which led to the development of cardiopulmonary resuscitation (CPR) and advanced trauma life support (ATLS) protocols. It continues today within the continuum of trauma system care. Trauma nursing as a speciality, born out of nurses' experiences with war, began in 1969 in the U.S. By 1975, the Maryland Institute for Emergency Medical Services Systems began offering seminars and workshops and by the 1980s, the University of Maryland began developing a Master's level program for trauma nursing (Beachley, 2005). Education for trauma nursing has expanded to

include ATLS, Trauma Nursing Core Course and Advanced Trauma Nursing Course (Sandström et al., 2016).

Understanding the experiences trauma nurses are facing remains limited in research. Five articles were found, four of which were research studies, three looked specifically at critical care trauma nurses, one article focused on trauma nursing in the ward and one article was unclear as to the participants' location but was published in a critical care journal. None of these articles addressed GV specifically. Avander et al. (2016) focused on the environment in which trauma nurses work, specifically discussing workplace violence and threats received by nurses. The literature has well established that a career in nursing is associated with a higher risk of workplace violence with 61% of Canadian nurses reporting violent encounters (Avander et al., 2016; CFNU, 2023; Stelnicki et al., 2019).

According to Avander et al. (2016), individuals that have been exposed to GV are more likely to be aggressive and have an increased likeliness of committing a serious violent crime. They, therefore, surmise that if an exposed individual is admitted to hospital, they may continue their behaviour and put healthcare professionals at risk of a violent encounter. With exposure to this type of behaviour within the workplace, Avander et al. (2016) sought to explore trauma nurses' experiences through an inductive qualitative study. These nurses worked within an intermediate care unit in a university hospital in western Sweden. Using focus groups, the researchers had two major themes: (i) threatening situations and (ii) consequences, plus five sub-themes that emerged from their content analysis. Within the theme of 'threatening situations', nurses discussed the different types of threats and violence they encountered, usually in the form of verbal threats from both patients and family members (Avander et al., 2016). The second subtheme within threatening situations was related to risk factors, in which nurses described the

most common risk factor for violence as being a conflict between the patient (family) and the nurse. Conflict often arose from anger related to medication dosages, perceived restrictions to freedom or was secondary to a traumatic brain injury or mental illness. Nurses stated that these experiences left them with long-lasting feelings of insecurity regarding their personal protection, their physical strength and were often shocked at the lack of respect for the profession.

'Risk factors' was the second theme generated from Avander et al.'s (2016) study. Defined as the effects of working with threatening and violent situations. Subthemes included reactions, actions and long-term consequences. In reaction to violence or the threat of violence, nurses felt fear, stress, insecurity and a sense of being violated. Even the unpredictable nature of the violence or threats of violence were nurses' greatest source of insecurity resulting in heightened awareness of patient and family behaviour, movement, and their interactions with others. Nurses would attempt to mitigate this threat of violence by taking action. Through good communication, nurses could establish trust and meet the specific needs of the patient. Nurses also found that they would modify the nursing care that was delivered and the interventions that took priority, and they sought support from not only other nurses but from security when needed. The long-term consequences of these situations have left nurses feeling insecure and anxious even when at home. Some expressed concern about the legal consequences if they had to press charges. All nurses expressed concern about working long-term within such an environment and whether or not they would continue working in such an insecure setting. "Despite these feelings, the nurses' aim was always to give good and professional care regardless of the patients' situation, even though it was sometimes difficult to be completely unprejudicial to gang-related violence…" (Avander et al., 2016, p.54).

Similarly, Freeman et al. (2014) conducted a phenomenological study exploring the lived experiences of Canadian trauma nurses within a large metropolitan teaching hospital. Their main theme, “seeing through cloudy situations”, began with being in cloudy situations (daily challenges of being a trauma nurse and feelings of tension) and was captured within the themes of “being on guard all the time” and “being caught up short”. The journey finished with nurses being able to see their way through the clouds with the themes of “facing the challenge” and “sharing the journey”. When encountering cloudy situations, the researchers found that trauma nurses felt scared and uncertain due to an aggressive and potentially violent patient population embedded within complex social and family dynamics. This led to a need to watch their back, as violence could occur at any time, and could be unprovoked. Moreover, Freeman et al. (2014) noted that trauma nurses had to overcome challenges not experienced in other areas of nursing. For example, nurses identified that they were feeling apprehensive when caring for gang members and could even “experience personal trauma when caring for trauma patients” (p. 11). These experiences can result in a nurse questioning their professional identity. Freeman et al. (2014) also found however, that trauma nurses were able to find meaning in their work when they were able to see through the clouds by facing the challenges of the environment by looking beyond what the patient had done and embracing the skills required to be a trauma nurse. Trauma nurses also sought connection with others. They found support in their colleagues who shared their unique experiences and found that nurses who were able to recognise how special the nurse-patient relationship is, the importance of providing a human touch, acknowledging that it was a privilege to be there to support patients, families and colleagues, found meaning and satisfaction within their career.

Published simultaneously, was a “generic” qualitative study conducted by Alzghoul (2014, p.14). Although deemed generic due to its lack of a theoretical foundation or use of an established qualitative approach, the study aimed to explore, describe and interpret the stories of critical care and emergency department nurses from a large teaching hospital in Scotland (Alzghoul, 2014; Caelli et al., 2003). The researcher conducted purposive sampling, seeking nurses with experience with trauma patients, and reaching data saturation at 23 nurses. Using semi-structured, face-to-face interviews, the author found multiple themes: picturing the patient; nurses’ experiences with patient responses to trauma; trauma care as a specialised job provided by the most experienced nurses; experiencing the emotional challenge; and surviving the trauma which had five sub-themes. According to the nurses interviewed, when picturing a trauma patient, the description varied depending on which department the nurse worked, emergency or critical care. Critical care nurses described trauma patients as busy, typically with more than one system involved, and the goal of care was to return them to their previous state of function, which typically was previously healthy as they were young. Nurses highlighted that patients’ responses to their sudden change in health status was due to insufficient time to prepare for what was happening to them and the impacts it would have on their future. Such unpredictability can make trauma patients challenging to work with and requires a nurse that has “more knowledge, more skills and more relevant previous experience” (Alzghoul, 2014, p. 17). The nurses also identified that formal education was insufficient to prepare junior nurses to manage a sick trauma patient. Working with this population also comes with managing negative emotions at the bedside, especially if they are young, describing it as upsetting, horrible, distressing, draining and traumatic. These feelings led Alzghoul (2014) to describe the theme ‘surviving the trauma’. Nurses discussed the importance of clinical experience and the resulting confidence, having

supportive relationships with other trauma nurses, focusing on the positive emotions of knowing they made a difference, acknowledging that life experience was important to help manage their patient and their own emotions, and developing protective mechanisms to prevent emotional attachments to the patients.

However, Holbery (2015) wonders if these protective mechanisms, along with the protocolization of care meant that nurses were too distant. In the discussion piece, Holbery (2015), a trauma nurse, offered a unique perspective after experiencing what it was like to be a family member of a trauma patient. As she and her husband navigated the trauma system from prehospital to the emergency department to the ward, she noted that her husband was treated as a diagnosis or as a pending test, another checkbox in the Advanced Trauma Life Support (ATLS) protocol list. Missing from their experience, according to Holbery (2015), was genuine concern for the emotional and psychological well-being of her and her husband, identified as emotional intelligence (EI). EI is knowing one's feelings and emotions, being able to keep them separate from others, as to provide information to direct one's actions and thinking. Holbery (2015) postulates that EI education, in the form of critical self-reflection, patient storytelling, and supporting peer observation is essential for improving the quality of care for trauma patients.

In a study conducted as a part of their doctoral dissertation, Sandström et al. (2016) and Sandström (2019) described the experiences of critical care nurses caring for trauma patients in Sweden. Through qualitative content analysis, one theme and four subthemes were derived from four focus group sessions. Researchers found that nurses felt they always had to be prepared for the unexpected so they could do their best in acute and unpredictable situations. Nurses described: (a) feelings of competency but also feeling inadequate – their knowledge of how to care for a trauma patient meant that they were confident, but situations would arise that left them

feeling inadequate; (b) feeling unsatisfied with the care environment – the chaotic nature of a trauma patient meant that nurses were attempting to deliver care in unfamiliar environments or were concerned that they were disrupting other patients; (c) feeling satisfied with well-functioning communication within the trauma team; and (d) feeling the need to reflect – not only were nurses affected by the serious nature of the injury, but they were able to recognise themselves in the family members, describe the emotional toll of dealing with an acutely ill patient as well as trying to help a family in shock. These nurses also found solace through reflection with other trauma nurses.

In these four studies, despite the differing locations, trauma nurses are experiencing similar feelings and situations. Being a trauma nurse means working in an unpredictable environment with unpredictable patients. Education and protocols allow nurses to prioritise lifesaving care as a trauma team member, but many struggle to understand and deal with not only what they are witnessing but the emotions they may encounter at the bedside. Nurses are being traumatised and develop both effective and ineffective strategies for coping, which might explain why Holbery (2015) noted a lack of connection from her colleagues. Is it possible that Holbery (2015) was describing vicarious trauma or posttraumatic stress? Expanding on this concept and continuing with the international literature, Kim & Yeo (2020) conducted a quantitative study which investigated posttraumatic stress disorder (PTSD) involving Korean trauma nurses within regional trauma centres that contained both trauma emergency and critical care units. Across six centres, 145 nurses completed the survey with 73.8% of the participants working in a CCT unit. Survey measurements included demographics, frequency of traumatic events, coping strategies, social support and PTSD. Multiple statistical analysis demonstrated that the Korean trauma nurses, generally, experienced greater stress than those in other workplaces. Those that

experienced frequent or ongoing exposure to trauma are more likely to develop PTSD as they tend to perceive stressful events as a threat and out of their control. In addition, the authors noted that dysfunctional coping strategies may aggravate or contribute to the persistence of PTSD. Conversely, an inverse correlation between social support and PTSD was noted with those nurses experiencing higher the social support having lower PTSD. Kim & Yeo (2020) suggest that trauma nurses need to be routinely assessed for PTSD, that trauma nurse managers need to develop proactive intervention and/or resilience programs, encourage and improve social supports, and improve workplace norms. It was put best by Austin et al. (2013) when they wrote "Just as winter is beautiful but dangerous, the privilege of being with the ill, the injured, and the suffering is both beautiful and dangerous, too" (p. 7). As CCTNs not only hear about, but witness varying types of traumas, they can imagine and feel the pain and suffering of patients and family members, what Austin et al. (2013) call "snowfalls" (p. 7). So, at what point do CCTNs become so lost in a blizzard, or an accumulation of repeated snowfalls, that they cannot find shelter?

Discussion of the Literature

This literature review highlights the unique, complex, woven and layered nature of GV. Utilising the SEM, the complex reciprocal interplay of racialised and marginalised individuals with their closest relationships, communities, society at large, as well as the effects of the time period and history, highlights systemic racism within North America. From this racialised inequity has sprung poverty, the need for prestige as well as protection and drives the use of guns in the search for security. Yet, the use of a gun in this context only ensures violence, not death. Survivorship depends on the anatomic location of the GSI and management of the equally or more debilitating psychological aftereffects. These effects are also experienced by those that have witnessed GV or are left behind by it. As Ontario's second most common cause of injury,

trauma systems and trauma teams are still working to provide adequate care to GV survivors both in and out of the hospital and have failed to acknowledge the unique antecedents to GV. Understanding the socioeconomic, racialised and structural inequity aspects of GV is essential for any study that desires to contribute to social justice for those that live with gun violence as a daily occurrence. However, given that the focus of this paper is on the perceptions and lived experiences of CCTNs, I hope to understand the ways in which CCTNs understand this complex and growing social phenomenon. Working as a CCTN comes with challenges unseen in other areas of nursing, and as such, requires specific knowledge to work in this speciality but also the ability to navigate the host of mental and emotional consequences due to their lived experiences.

Nurses recognise GV as an epidemic in our society, requiring political action coupled with a public health approach for prevention. As a nursing phenomenon it incites calls for education, critical self-reflection and more evidence to inform practice. Nursing scholarship regarding GV is beginning its development, focusing on the lived experiences and impact on patients and families. Given the newness of this topic, this literature review reveals two gaps. First, there is a lack of focus on the perceptions of CCTNs regarding the social phenomenon of GV and the individuals-come-patients implicated in it. Second, there has yet to be a published exploration of the experiences of CCTNs in caring for persons with GSI. As such, this will be the focus of my thesis research. What are the perceptions and experiences that CCTNs have regarding GV? Moreover, how do the perceptions of critical care nurses affect their ability to care for those with GSI? This study will explore the perceptions and experiences of critical care nurses, as these factors influence the care given to GSI patients and their families.

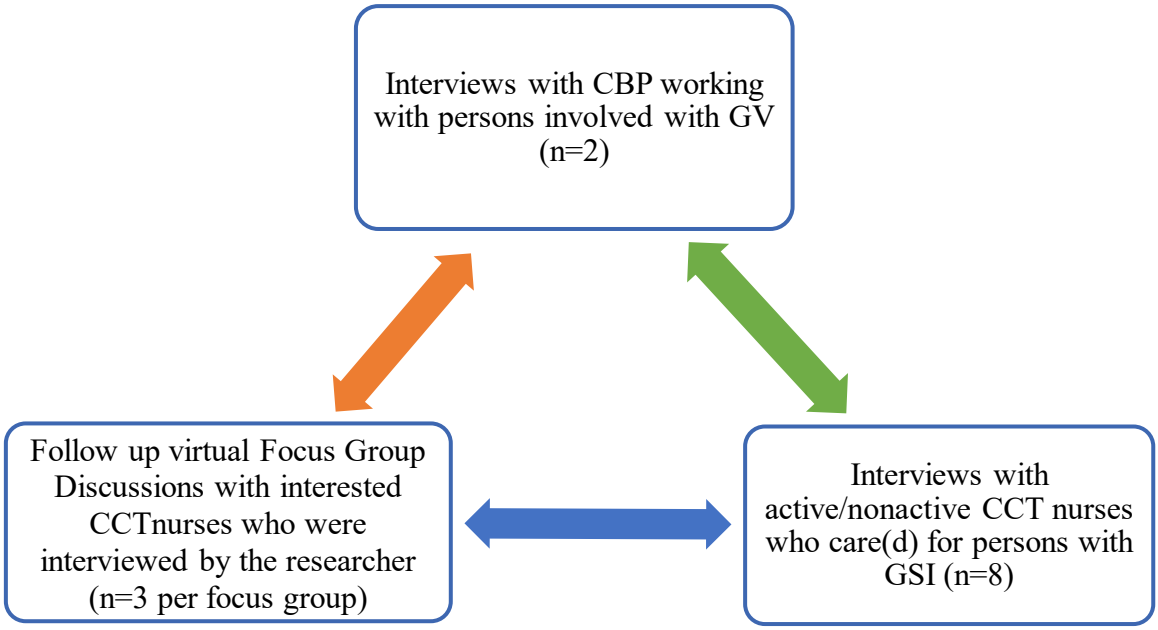
Chapter Three

Design and Methodology

As demonstrated in the literature review, gun violence is complex due to divisive politics and unaddressed structural racism. Providing care to patients and families affected by gun violence within a critical care trauma environment can be equally challenging for the same reasons. Due to the paucity of nursing research on GV and CCT nursing care, this research aimed to explore and describe the perceptions and expressed lived experiences of CCTNs while caring for an individual with a GSI and their family, the influences on CCT nursing care. Furthermore, this thesis aimed to understand how community advocates view both the antecedents and solutions to GV, the hospital/nursing care received, and what it is like for individuals with GSI returning to the community. Grounded in complexity theory and socio-ecological models, an exploratory-descriptive qualitative (EDQ) design was chosen, as it encourages researchers to purge preconceived notions, and bring an open-minded curiosity to a little studied phenomenon (Hunter et al., 2019; Stebbins, 2001). Stebbins (2001) and Polit and Beck (2017) describe EDQ design as broad, purposive and systematic research that maximizes discovery and documents the description of a phenomenon from the perspective of the participants. Specifically, it offered a focused and comprehensive depiction of CCT nursing, perceptions of GV and caring for the individual with a GSI and their family, a phenomenon that has yet to be explored in nursing literature (Hunter et al., 2019; Polit & Beck, 2016; Sandelowski, 2000; Stebbins, 2001). As seen in Figure 5, a triangulated data collection plan included interviews with CBPs working with individuals associated with GV, interviews with CCTNs who have cared for persons with GSI, as well as a focus group of previously interviewed CCTNs (Hunter et al., 2019).

Figure 5

Study Triangulation Plan



Bridging My Theoretical Foundation with My Methods

Before diving deeper into the study plan and design, it is important to understand that my approach to this study was influenced by both the socio-ecological model and complexity theory. The WHO and the CDC already use the SEM, a complex system, to understand and organise strategies to prevent gun violence (CDC, 2021; WHO, n.d.b). However, neither the WHO nor the CDC discuss how this framework can be used within a hospital or a trauma system, thus the need to expand my lens with the inclusion of complexity theory. Complexity theory and complex systems are complex because of the large number of connections between multiple system elements resulting in unpredictable outcomes (Gear et al., 2022). It is these unpredictable outcomes that make complex systems uncertain by nature (Begun & Kaissi, 2006). With the addition of complexity theory, my understanding of the SEM expanded, and my ontological, epistemological and axiological perspectives need to be discussed as this has influenced the

decisions I undertook during the implementation of my methodology. Although not classically seen as a critical social paradigm, complexity theory, and by extension the SEM, are considered to fall under the post-structuralism/postmodernism umbrella, as it seeks to understand power relationships contained within language and knowledge while simultaneously being critical by nature, looking to "undermine the grand narratives of modernist social organisation and domination including capitalism, patriarchy, colonialism and heteronormativity…reject[-ing] the notion of a single 'truth' " (Cheek, 2000; Fox, 2014, p.1856).

Ontological and Epistemological Thoughts

Ontology, the nature of a phenomenon or reality as it pertains to postmodernism and post-structuralism, is shaped by the power structures within them and can be constructed through the language we use and witness daily, which results in multiple realities (Gastaldo, 2011; Schapper et al., 2005). As it pertains to this study, being mindful of the postmodern position will allow me to be wide in my focus and consider aspects of society, including culture and history. Concurrently, being mindful of post-structuralism allows me to concentrate on the interpretation of the language and knowledge contained within the interviews and the focus group discussion, as it represents the reality, or an aspect of the reality, for CCTNs (Cheek, 2000). As a result, during the interviews and the focus group that occurred with the CCTNs, I was cognisant not only of what was being said and how it was being said but also the context in which, and of which it, was said.

The epistemology of the postmodern and post-structural paradigms can be more elusive due to complexity theory's uncertainty (Begun & Kaissi, 2011; Gastaldo, 2011, Scotland, 2012). Like Heisenberg's uncertainty principle, the more precise we are regarding one aspect the less precise we are regarding others (Begun & Kaissi, 2011; Cilliers, 2011; Schapper et al., 2005).

Complexity and complex systems are dynamic and inextricable, so we can never have complete knowledge of the working complex systems (Cilliers, 2011). So, how do we know the nature and forms of knowledge, along with how it is shared (Scotland, 2012)? How do we know the truth of CCTNs caring for individuals with GSI? According to Cilliers (2011), researchers must interpret and evaluate the behaviour and outcomes of complex systems. While it is impossible to break down the whole into parts, truth comes from transforming knowledge of the whole and the parts (Cilliers, 2011; Fox, 2014). In this study, this was accomplished by being both a critical care trauma nurse and a researcher, focusing on the lived experiences of the CCT nurses and by conducting interviews and a focus group discussion that provoked critical self-reflection but also to create transformation of care when returning to the bedside, possibly creating change within the complex adaptive systems such as trauma teams, health care, and systemic racism.

Axiology

As sole researcher within this qualitative complexity-based exploratory descriptive thesis, it is important to acknowledge my own beliefs and opinions regarding gun violence, racism and my experiences caring for individuals with GSI. Some of my opinions have been mentioned in my introduction, but to be clear I am a white, middle-aged, middle-class Canadian female, born on the island of Newfoundland, now living in Toronto. I have undergraduate degrees in psychology and nursing, a post-graduate diploma in critical care nursing and have been a critical care trauma nurse for my entire 19-year career. Politically, I consider myself to be liberal or left-wing, a feminist believing that equality and equity for all is necessary for society to progress, but I recognise that this is a position of privilege due in part to my whiteness and education. My opinion around guns has evolved over the last five years since considering the topic of gun violence a nursing phenomenon. I had been staunchly anti-handgun, believing their only purpose

was to kill humans and that rifles were meant for hunting game as a means of survival. The political and polarising nature of gun violence has meant that finding individuals, with opposing views, that are willing to discuss guns, Bill C-21 and gun violence openly was also challenging. However, it has been through those discussions that I recognise that banning all guns is an oversimplified approach to this phenomenon, was unlikely to happen due to the capitalist drive, political power bases and fear that perpetuates their need in the United States of America and does nothing to address the root causes of gun violence. When I now discuss gun violence, I adopt the approach of anti-violence/pro-safety, in which I recognise an individual's desire to use firearms.

To further expand this position and to challenge myself, I went to Urban Tactical, a gun shop and firing range that did not require a gun licence. My initial thought was that if I am going to write about gun violence, then I should know what it is like to hold and fire a gun, as I had never done so before. I fired four firearms, 2 handguns and 2 long guns/rifles (see Appendix E). The handguns were easy to fire, and I could hit the center of the target consistently (see Appendix F). I wrote in my journal "It was loud, I can feel my body shaking still. Gun powder has a distinct aroma, unlike anything else I can describe…everyone was friendly and polite. Very much treated as a sport with defined rules…I wanted this experience to let me feel what it was like to shoot, and it did. But it was a sterile, a controlled environment where safety is paramount. It cannot compare to holding a gun up to a person in the chaos of emotions felt in a fight, a drive-by, or a raid. How I feel cannot compare to doing this as a lifestyle, to earn your way in the world". In sharing this experience and sharing my perspective, I hope readers will understand my axiological position within the research.

Participants: Sampling, Size & Setting

As an exploratory-descriptive qualitative study, my methodology explores GV in southern Ontario through interviews with two groups of professionals that work with individuals affected by GV – community-based professionals (CBPs) and critical care trauma nurses (CCTNs).

Community-based Professionals

CBPs are varying types of professionals that help individuals associated with GV, with or without GSI, return to their community within Toronto and the Greater Toronto Area, Ontario, Canada. These individuals are integrated into these communities not just as professionals but as community members. When initially proposed as a group to interview, I resisted, as I wished this to be a purely nursing endeavour. However, as I continued to educate myself on GV, and with the guidance of Dr. van Daalen-Smith, I had my "eureka" moment when I realised that I cannot help a group of individuals that I know nothing about. It was essential that I educate myself before I could help facilitate critical self-reflection in my fellow CCTNs. With the assistance of Dr Annette Bailey and her contacts in the community, despite wider outreach and multiple strategies, an n=2 CBPs were found. Recruitment of CBPs was completed through email (see Appendix G).

Critical Care Trauma Nurses

The second group of professionals is composed of CCTNs from southern Ontario, through which the reality of being a CCTN that has cared for individuals with a GSI, and their families, was explored and described. This group of professionals was chosen as there had not been research undertaken looking at the perceptions and lived experiences of these nurses regarding GV or the care of individuals with GSI and their families. At the time of the writing

data was available up to 2018 in which an alarming rise was seen and it was determined that this would be the dividing line to create 2 groups of nurses. From this subspecialty of nurses, two groups were identified: nurses that are currently active within CCT nursing and nurses that have left CCT nursing before 2018, by retiring or changing fields of practice. By including CCTNs who left before 2018, the changes that have occurred over time as it pertains to caring for an individual with a GSI and their family could be explored and explained. This dimension also allowed for possible differences in influences of care and allowed time to function as a part of complexity theory and SEM, occurring through the two functions of time: internally – as each nurse had their own personal and professional experiences influencing their professional growth and development; and externally – as the amount of GV has changed over time, as seen in Figure 1 (p. 14). Eligibility criteria included an RN that: was actively working as a CCT in Ontario or had left CCT nursing before 2018; and had cared for a patient with a GSI in a critical care trauma unit, thus ensuring that those participating would have the experiences necessary to begin the discussion of caring for those injured by a gun (Bradshaw et al., 2017; Hunter et al., 2019). Eligibility criteria was expanded after encountering challenges with recruitment and the wording was changed to state "CCT nurses that have been active within the last 12 months. Upon discussion with my supervisor, it was agreed that this change was minimal, but opened up the study to participants that had just left CCT nursing.

As the aim of this masters-level study was to begin the discussion of the CCTN's perceptions and their experiences, the sample size was kept small. An n=8 RNs were recruited through purposive sampling utilising professional associations, regulatory body email systems and social media. This sampling method was supplemented by snowball sampling, to help capture the phenomenon of caring for a person with a GSI across various CCTNs (Bradshaw et

al., 2017). Recruitment of CCTN participants was completed through word of mouth, and in social media posts (see Appendix H). In the end, all nursing participants were recruited from trauma centres within Toronto. All interested potential participants were sent an electronic letter of introduction to the study and offered a phone/zoom call to explain the study's intent and steps (see Appendix I). Upon agreeing to participate, all participants were given a letter of information and informed consent for the individual interview (See Appendix J and K).

All CCT nursing participants took part in individual interviews in a setting that was best for them, either over Zoom or over the phone. The date and time for an interview were negotiated with all participants, and arrangements were made to accommodate participant's preferences. For all participants, a signed consent form was obtained before any study activities took place. Arrangements for the focus group were sent out to all agreeing nursing participants once all interviews were completed. Within the consent forms for the interviews with nurses, was a tick box with a signature indicating their interest in participating in a focus group discussion. If a nurse indicated 'yes' to participating in the focus group, a separate letter of information and informed consent was sent (See Appendix L). The focus group consisted of n=3 CCTNs that had participated in individual interviews. The focus group was conducted over Zoom as preferred by the participants due to differing schedules.

Data Collection-My Triangulated Structure

The bulk of the data was produced from semi-structured interviews with both professional groups. Basic demographics was collected prior to the interview and included self-identified age, gender, race, education, and places of employment. This data was compiled into an Excel spreadsheet. At the time of collection, participants were originally entered using a study number. However, it was noted by Dr. van Daalen-Smith that this could appear dehumanising

and positivist. I would even venture to say it could appear colonialist and patriarchal. One research study showed how the researchers choosing pseudonyms in a cross-cultural study demonstrated white privilege and systemic racism (Brear, 2018). Evidence demonstrates that for qualitative research, participants having the choice to determine their own pseudonym was important and meaningful to the participants, giving them power and a voice as to how they are represented in research (Allen & Wiles, 2016; Itzik & Walsh, 2023; Lahman, et al., 2022). Participants in this study were sent an email transcript of their interview and/or focus group discussion and requested a pseudonym. For those that did not respond to the email, a pseudonym was chosen for them based on the first letter of their last name. Participants were not expected to travel, and a $25 gift card from Tim Hortons, Starbucks, Amazon or Indigo was offered. For those participating in the focus group discussion, an additional $10 gift card from the same retailers was offered. All but one participant accepted the gift, and that individual opted to donate the money to a charity of choice. The donation was made anonymously to protect participant privacy. It is also important to note that a CCTN who had agreed to participate in the study passed away prior to their interview being conducted. The money that would have gone to her gift cards was donated to the family's choice of charity. Remote interviews were chosen since utilising Zoom video platform allowed participation from any location where the participant was comfortable. This video platform also allowed for consent-based recording of the interviews and focus group discussion.

Semi-Structured Interviews

Consultation with Community Professionals

As the opening component of my methodological triangulation, interviews with two CBPs associated with community groups or organizations that support individuals with GSI were

conducted. Outreach to possible participants was aided by committee member, Dr. Annette Bailey, who identified potential CBP participants. A letter of information and informed consent was emailed to prospective participants and included the questions to be asked (see Appendix G). Through this opening phase of the study, consultation with CBPs provided me with insight regarding the lives of individuals with GSI both prior to GV and after they return to the community. CBPs interviews occurred concurrently with the CCT nurses' interviews, to minimize delay in data collection, and these insights were used during the focus group discussion to offer perspective.

Critical Care Trauma Nurses

The next component of my data triangulation were the interviews with CCTNs. Along with the afore mentioned demographic data, the number of years away from the CCT bedside was also collected to identify which nurses belong in the currently active group or the before 2018 group. Semi-structured interviews were used to establish a connection between myself as the interviewer and the participant. Interviews with the CBPs focused on their experiences with individuals and communities affected by GV and offer this study an alternative perspective. Interviews with CCTNs provided a focused and descriptive exploration of the "who, what and where" of the nursing perspective and the lived experience of caring for a GSI patient and their family (Bradshaw et al., 2017; Hunter et al., 2019; Sandelowski, 2000). Furthermore, the semi-structured format allowed for openness during the interview, encouraging freedom of expression (Sandelowski, 2000). The questions asked for both professional groups, along with probes, can be found in Appendix J.

Virtual Focus Group. Initially 7 of the 8 CCTNs interviewed agreed to participate in a focus group, as indicated on their consent form. However, participant availability meant a small focus group with an n=3 nurses occurred. According to Braun & Clarke (2013) a focus group can allow for a rich discussion and easier management, however there is a risk of homogenous viewpoints. The themes that were generated from the interviews from both the CBPs and the CCTNs framed the CCTNs focus group's discussions with topics materialising along the way. These questions, and associated materials were sent out to focus group participants prior to conducting the focus group (Appendix L). During the focus group, participants were shown three power point slides associated with the questions and probes (Appendix M). The focus group discussion allowed for broad insight into our phenomenon of CCTNs caring for the gunshot injured, as well as facilitated the emergence of new ideas, and critical self-reflection (Bradshaw et al., 2017; Hunter et al., 2019; Neergaard et al., 2009, p.2).

Tools for Fieldwork

> We don't see things as they are, we see them as we are.
> - Anaïs Nin, Seduction of the Minotaur, p. 145

Tools for fieldwork included the video conferencing platform, Zoom (https://yorku.zoom.us/) to conduct the interviews and the focus group based on participant preference. For one participant that wished to meet face to face, a digital recording device was used to make an audio recording of the individual interview. On one occasion, the voice memos app was used on my iPhone as a backup to the voice recorder during a face-to-face interview. Transcription was completed with the transcription software Otter.ai, (https://otter.ai/). Coding and analysis was completed with Microsoft Word and an online whiteboard application Miro (https://miro.com/) Lastly, a field notebook and reflective journal was kept as a way to process the data collected, record ideas, points of interest as well as a means of keeping track of

nonverbal cues and my experiences in the field as it helped answer my research questions (Saldaña & Omasta, 2018). As a novice nurse researcher, it is impossible to separate or dismiss who I am, what I know and how I perceived the world from how I understand others (Jones, 2012). As such, my journals and field notes attended to issues of rigour, discussed below.

Ethical Considerations

Prior to the commencement of this research study, ethics approval was obtained from York University. The university's protocol informed me on how to interact with human participants. Informed consent from all participants was completed prior to the interview or focus group activities. My intention throughout this work was to ensure that my own lived experience and perspectives did not influence the study participants' experiences during the interviews or focus group. Simultaneously, through careful attention to components of rigour, I maintained a reflexive research journal. With the support of my supervisor, and through my research journal, determining themes was examined, asking "are my own views precluding me from learning the data?" Finally, and possibly most importantly, the CPBs' and nurses' rights to confidentiality, their workplaces and most assuredly the patients they cared for, was protected. Every effort was taken to avoid confidential information about any patients cared for, their families, the units in which they work, the hospitals or any community agency with which they may be involved.

Data Analysis

Data from the consultations, interviews, focus group discussion and my own field notes were analyzed using the process of Thematic Analysis. As it is independent of theory and epistemology, thematic analysis is ideal for this complex exploratory-descriptive study (Braun & Clarke, 2006). Transcripts were coded and themes considered, allowing for the identification of commonalities at the core of participants' experiences (Braun & Clarke, 2006; Hunter et al.,

2019). Using the process described by Braun & Clarke (2006) the following six phases were followed: 1) familiarisation with data; 2) code generation; 3) searching for themes; 4) thematic review; 5) defining and naming themes; 6) analysis write-up.

Familiarisation

Familiarisation with the data began with interview and focus group discussion data collection and continued into interview transcription. Interviews were transcribed and my first listen to the interview was a confirmation of the transcription and initial code generation. The finalised transcripts were then sent to each participant, CBP and CCTN, inviting them to respond to the interview transcript and clarifying, agreeing or disagreeing and/or proposing changes. This step allowed participants to validate, and, if needed, respond to their interview, ensuring its accuracy, minimizing power dynamics and was considered an extension of informed consent (Rowlands, 2021). The raw data, the participant responses, was then reorganised by interview question and narrative summaries for each interview question was produced. This enabled a further embedding of myself in the data and commenced the analytical process.

Code Generation

Nvivo 12 was initially included in the proposal to assist with transcription, coding and thematic grouping. However, it was decided at the beginning of the familiarisation stage, during the interview transcription, that the data would be best coded manually. This was discussed with, and approved by, my supervisor. The CBPs consultations, CCTNs interview and focus group discussion were coded using Microsoft Word after importing their transcribed interviews into individual documents. Using the application Miro (https://miro.com/), a virtual white board, all codes were reviewed and entered along with a definition of the code. During the process of moving the codes from Microsoft Word to Miro it was noted that some of the codes were child

codes, some were descriptions of a code. Any connections between codes noted during this process were visualised on Miro with a green arrow between codes for further consideration in code clustering and possible theme production. Some codes entered into Miro had salient quotes attached to them to facilitate their meaning. (See Appendix P). All codes and proposed themes, along with my process of identifying them, were discussed with my supervisor.

Theme Search, Review, Definition and Write-up

Code generation was an iterative process as I returned to the interviews, both audio and transcribed versions, as well as the narrative summaries, several times to create codes. During and after the process of code generation, codes were first linked on the digital whiteboard, then clustered, labelled and defined to begin the process of searching for themes. Throughout this process the concepts of theme boundary, sufficient meaningful evidentiary support, data coherency and theme importance were kept in mind (Braun & Clarke, 2022). Three of the four final overarching themes began as codes and were developed into a theme.

Although the overall aim of this study was to explore and describe the perspectives and lived experiences of CCT nurses as a means of beginning the process of facilitating change that targets social justice for those with GSI, I felt it was important to dedicate at least one theme to the data shared by CBPs. I wanted to keep in mind who would be most affected by any change to nursing practice around gun violence. This contemplation did on occasion overwhelm my thoughts, and I lost sight of the perspectives and lived experiences of the nurses. Regular meetings with my supervisor throughout the process of coding, theme development and analysis write up was essential to unpacking and organizing my evolving knowledge while keeping the focus on the CCTNs.

Self-Reflexivity during Data Collection and Analysis

Not surprisingly, during data collection and analysis I became increasingly aware of my thoughts and behaviour regarding GV and the needs of those in my care with GSI. I say behaviour as I continued to work full time caring for trauma patients within my critical care trauma unit while working through data collection and analysis. Although initially resistant to the idea of interviewing the CBPs, desiring a strictly nursing based study, the CBPs taught me that GV will never strictly be a nursing problem. With my newly acquired knowledge of the needs of patients with GSI and their families, I found myself being much more aware of their presence in my unit. If they were my patient, I questioned if my behaviour was over-compensatory. I would reflect on my behaviour and my discomfort with acknowledging my whiteness and the privilege that comes with it. I had to ask myself if my purpose continued to be one of allyship or am I using gun violence, survivorship, and my position as a critical care trauma nurse and graduate student to further my own societal status?

During interviews with the CCTNs there were times when I noted that I could feel myself slip into “nurse mode." I questioned my performance as interviewer and if I was too close to the situations described or some of the participants that were former colleagues. Moreover, facilitating critical self-reflection, was a challenging goal which I continuously attended to, particularly through journaling or rigor discussions with my supervisor. During the focus group, I found it difficult to facilitate the CCTNs to dig deeper into their feelings and explore them as I found their feelings relatable. In writing the narrative summaries, it was surprising how difficult it was to categorise the data into the differing SEM levels. Any one of the discussed concepts could be accounted for in multiple levels and interactions could be taken from the perspective of the individual or from the perspective of a person or organisation within a level. The decision

was made to examine each scenario or situation discussed beginning with the individual and seeing how the scenario played out over the multiple levels of the SEM.

Rigour

> We can never know the true nature of things. We are blinded by own perspective. Truth is always partial.
> - Denzin (2009, p.153)

Hunter et al. (2019) discuss rigour within exploratory-descriptive qualitative designs, suggesting that researchers follow the framework discussed in Whittemore et al. (2001) focusing on credibility, authenticity, criticality and integrity. *Credibility* relies on the effort made to establish confidence in the researcher's interpretation of the data (Whittemore et al., 2001). Field notes, critical to sound research ethics, were used to maintain a high degree of researcher reflexivity, to prioritize the voices of participants with less voice, to note my own questions, emotions, and view of the group's cohesion (Berger, 2015; Finlay, 2002). *Authenticity*, according to Whittemore et al. (2001) and Hunter et al. (2019), reflects the meanings of the participants after being provided with the space to speak freely. Being mindful that I can potentially influence a participant's ability to be authentic, each participant was invited to review their transcript and provided the opportunity to make revisions, ensuring capture of their authentic reflections. *Criticality* is the researcher's ability to demonstrate an open-minded approach in their search for meaning within the data, while critically analysing for unexpected results and examining one's own biases (Hunter et al., 2019; Whittemore et al., 2001). Essential to critical analysis is *integrity*, as it assures that the interpretation and findings are grounded within the data through continual checking (Hunter et al., 2019; Whittemore et al., 2001). Using a research diary for both criticality and integrity, I reflected outside of the interviews and focus group, serving as an audit trail of my decisions, reasoning and judgment, and my emotional reactions, thoughts, questions, positionality, and considerations for the future. This journal was essential to the transparency of

the research process in which I acknowledge my preconceived thoughts, unacknowledged biases, and my social location (Hunter et al., 2019; Rolfe, 2006). For the triangulation of data, supervisory committee and participant member checks were essential to maintaining *transparency*. Additionally, my own critical self-reflection during this process is provided – regarding my identity, biases, privileges (race, education, power and income), influences, along with my political and ideological beliefs and how these may colour the lens through which this research is conducted (Bradshaw et al., 2017).

Plans for Dissemination

At the time of submission, this thesis, both in part and as a whole, has been shared at two conferences, an oral presentation with the Community Health Nurses' of Canada and a poster presentation with the Trauma Association of Canada, an interdisciplinary conference reaching physicians, nurses, physiotherapists and other allied health professionals. I was presented with the Interdisciplinary Trauma Network of Canada Best Poster Presentation award. I have been accepted to two other conferences before the end of 2024, the Canadian Doctoral Nurses' Network involving a fifteen-minute presentation, and the Canadian Association of Critical Care Nurses, to present my poster and additionally accepting their offer of a twenty-minute talk. It is also my plan to publish my thesis in part, and in whole, to share not only my findings regarding gun violence and the trauma endured by those with GSI, their families and nurses, but to add to the ongoing dialogue surrounding the theoretical framework to which we can approach this wicked problem (Newman & Head, 2017).

Chapter Four

Unadulterated Findings

Over the first three chapters of this thesis, a gun violence (GV) and hospital-based healthcare practice knowledge gap was identified. Specifically, the dearth of nursing research focused on GV highlighted the lack of guidance for nurses with its implications on nursing practice, especially on nurses' ability to contribute to social justice while at the bedside. The preventative, public health socio-ecological model (SEM) is used to frame the discussion regarding GV as a broad societal issue, along with complexity science which brings greater depth of understanding to the interactions occurring within and between the SEM levels of influence that affect perceptions and practice of nurses. The literature review explored the complex dimensions of GV through and within the SEM and provided evidence regarding GV survivorship, injury, and death. The literature also demonstrated how GV, hospital-based healthcare trauma systems and nursing converge in ways that leave both patients and critical care trauma nurses (CCTNs) with unmet needs. The current knowledge gap perpetuates systemic racism in healthcare and fosters missed opportunities for CCTNs to participate in social justice/change. Furthermore, this gap also heightens the disregard of the mental and emotional needs of CCTNs during and after working with persons affected by GV.

This exploratory descriptive qualitative research study begins the journey into GV through the perceptions and lived experiences of CCTNs, utilising individual interviews and a virtual focus group with CCTNs, embedded with consultations with community-based professionals (CBPs) (See Table 2 below). Consultations with the CBPs provided context and the perspective of persons living with GV and GSI. Interviews and a focus group with CCTNs allowed for the exploration of perceptions of GV and working with persons effected by GSI.

Within this chapter, narrative summaries of the responses to the consultation, interview and focus group questions are presented, and include a selection of salient quotes collected from both groups. Importantly, this chapter represents the findings, without any analysis, to demonstrate the credibility and authenticity aspects of qualitative research rigour (Hunter et al., 2019; Whittemore et al., 2001). This presentation is the beginning of efforts to accomplish and answer the following research goals and questions below (See Table 2).

Table 2

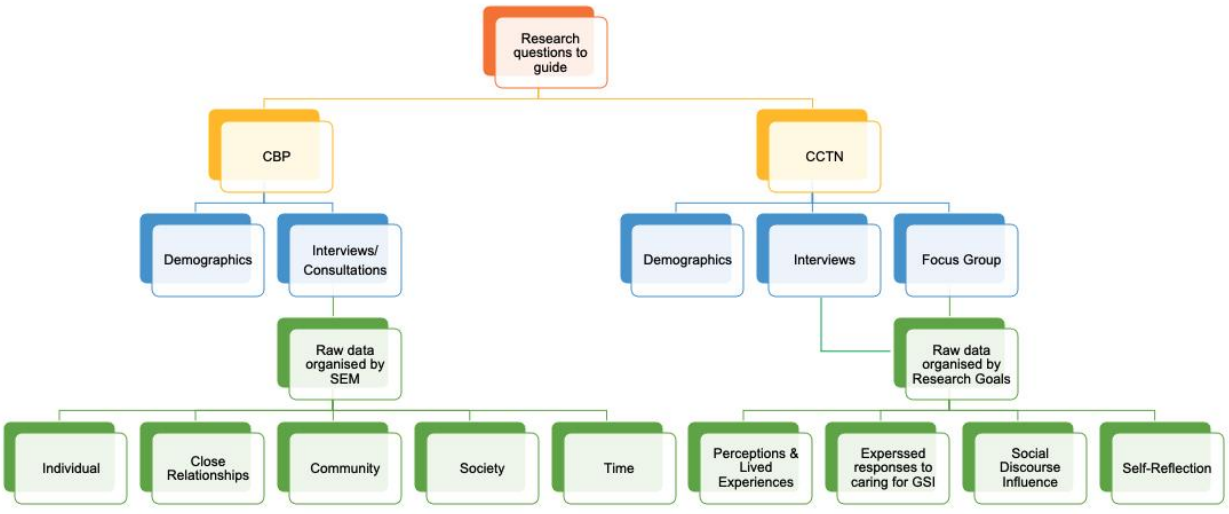
Research Goals and Questions Categorised by Professional Group

	Critical Care Trauma Nurses	Community Based Professionals
Research Goals	1. To explore and describe the perceptions and lived experiences of CCTNs while caring for an individual with a GSI and their family 2. To understand nurses' expressed responses in caring for individuals with GSI and their families 3. To understand if and how the social discourses of GV influence nursing care of individuals with GSI, and their families 4. To facilitate critical self-reflection during the interviews and focus group with CCTNs in their role of caring for individuals with GSI, and their families	5. To understand how CBPs view both the antecedents and solutions to GV as well as the hospital/nursing care in the continuity of healing for the gunshot injured returning to the community.
Research Questions	1. What are the perceptions of CCTNs of GV, and of their patients with GSI? 2. What are the personal experiences of CCTNs in caring for patients with GSI and their families? 3. What do CCTNs identify as influences upon them that affect their nursing care of patients with GSI, and their families?	4. How do CBPs, who work with individuals involved with GV, describe GV and its antecedents? 5. How do CBPs describe what it is like for an individual with a GSI, and their families, to return to the community after a stay in hospital?

To present the findings from the CBP consultations and the CCTNs' interviews and focus group, a grouping strategy based on the participant pool and what emerged from the data was employed. For the CBPs, the data was grouped into the individual, close relationships, community, society and time levels of influence found within the SEM (See Appendices B, C, and D). This presentation helped bridge the theoretical aspects of the SEM to the reality of CCTNs and CBPs working with and supporting the individuals living with GV. For the CCTNs, their findings were grouped by research goal, allowing for greater insight and connection with the data in alignment with what I sought to understand from the field work. This approach to the grouping of findings was the beginning step in determining if the research goals had been achieved. (See Figure 6 below or Appendix N for a larger version of the findings map).

Figure 6

Findings Map for all Participants



Community-based Professional Consultations

The data collected from the CBPs has informed and influenced my understanding of GV personally, professionally, socioecologically and academically. These consultations also informed the development of the CCTNs focus group questions. This section begins with a brief

description of the CBP consultants themselves, followed by a narrative summary utilising the SEM that includes pertinent and/or salient quotes.

Description of the Community-based Professional Consultants

Two CBPs were interviewed. Both consultants identified as Black, one consultant was female, referred to in this study under the pseudonym "Stella", the other male, referred to by the pseudonym "Hariston". The female CBP consultant did not give her age, the male CBP consultant was in his 30's. Both participants have varying levels of university education and live within the Greater Toronto Area (See Table 3). Although more demographic data was collected around the participants' education and experience, to maintain participant confidentiality, those details have been omitted from the table below. The consultations came from both professional and personal experiences with GV.

Table 3

Community-based Professionals Demographics

Participant Pseudonym	Gender	Age	Race	Education
Stella	F	N/A	Black	Graduate
Hariston	M	31	Black	Partial completion of university degree

Community-based Professional Consultation Findings

The CBP consultations provided insights regarding the antecedents and impacts of GV while illuminating their views regarding the individuals that live with GV. The findings were organised utilising the SEM, from the perspective of the individual living with GV. Some of the influences may be repetitive and affect more than one level of the SEM, as influence is bidirectional and intersectional. Any modification to the quote has been to remove repetitive words naturally occurring in conversation, or to protect the identity of the participant. All

questions asked of the CBPs can be found in Appendix O. Beginning in the center of the SEM, discussions focused on describing GV, GV antecedents, and the different experiences individuals have with GV.

Individual

When discussing GV and its antecedents for the individual, the CBPs described it as intentional, traumatic violence connected to poverty, anxiety, depression, hopelessness, personal circumstances, lack of a role model, unsecure housing, marginalisation, and not being able to trust people or institutions. Other factors revealed by CBPs included but were not limited to being judged based on one's postal code, the reoccurrence of shootings and not feeling safe, and not having experiences outside of their community or neighbourhood. Hariston stated:

> …it can seem like all you know, is what you see in the neighborhood, because that's all you can see. That's the only place you've been, the only place you can play. Some kids grow up in their one neighborhood park forever, and depending on what they see there, it can shape them. It can alter their thought process…

Hariston also noted that individuals have a responsibility to take ownership of their behaviour and actions. He stated, "you got to work at it, and…you have to see and know better…it sounds very cliché, but it's really true. Like if you know better, you do better and you get to know better…"

The CBPs spoke to the different experiences' individuals can have when experiencing GV. Hariston spoke about what it is like for individuals to return to the community after having been incarcerated, struggling to match the speed at which life is lived outside of prison. For example, obtaining and securing paperwork for identification, a health card and sorting out their

finances is a slower process for them. These individuals must work on how they see themselves, Hariston stated:

> You know, that feeling of failure…You come out feeling weight on your back on your shoulders, you just feel like you're behind. You feel like you're almost unworthy. So, you gotta…building back their confidence, making them feel like they're capable. For those who were shot, depending on the severity, healing and recovery can equally be a struggle.

Stella expanded:

> He was shot in the hip. Initially, when he came out, he was referred by victim services… [victim services asked] '*I am asking if you please go to his home to visit him*.' I said, '*No, I will not do that…Why would I go to the home*'. [Victim services stated] '*Oh, because you know, he's afraid to come out.*' I said, '*Okay, we'll coax him. But I will not go into his home…I don't work like that. If I go to his home, he'll stay forever and wouldn't want to come out*.'

According to CBP Hariston, after having been shot, an individual is "a ball of emotions at that point…we tend to not release to just anybody…especially under those circumstances in that environment…at that time". Moreover, the feeling of fear is real. It is rooted in the possibility of being shot again, seen as weak or being caught unprepared for retaliation to the point where they refused to leave their homes. Hariston described one strategy that has worked to overcome these fears, "we were doing small baby steps… we got him to start traveling outside of his area outside of his norm. And then it slowly worked back into his neighborhood, and then into society eventually…it was a success."

Close Relationships

Those that were shot are not the only ones affected by GV. When talking with the CBPs they also described the impact of shootings on close family and friends. Those in close relationships with GSI individuals also contend with the same factors, in addition to feelings of fear and uncertainty about the future, depending on whether the shooting had led to incarceration and/or life altering injury or death. If the GV had led to the death of the individual, those left behind are picking up the pieces. For those who survive their GV injuries, their closest relationships also carry the burden of the injuries sustained, mothers in particular. Stella describes mothers as burned out, broken by grief but they kept trying, because there is little support for them. Stella shared:

> Yeah, it depends on where you [were] hit…in wheelchairs because they were shot in the back. And so, you know, the spine is gone. They can't walk…bladder and everything else is affected'…mothers who are looking after these people who are burnt out with minimal support.

However, Hariston described a situation in which a younger brother was shot over the older brother's problems. While the older brother being present with the younger brother can appear admirable, it could possibly be preventing the younger brother from asking for help, scared of the possible repercussions. Hariston postulated:

> Sometimes being around family at the bedside, certain family, it's like I'm not even going to say anything to this nurse, because I don't want to communicate too much, because I don't want anybody to think I'm communicating with the oppositions you know.

Community

During the consultations, it became clear that the effects of GV ripple through the communities where it occurs. Stella highlighted that everyone in the community feels the effects of GV psychologically and physiologically to varying degrees. After a shooting occurs, vigils and funerals are held with hundreds of adults, youth and children in attendance. In trying to find their own ways to cope and prevent further violence, Stella described how the community comes together to remember those that have died, support each other's grief and offer alternatives to participating in GV, "We have a…tournament that we…help organize…We have over 600 youth coming out to that…we recognize the youth…"

The community level of the SEM not only refers to the individual's neighbourhood but includes, but limited to, schools, policing, correctional staff and healthcare. One of the CBP consultations was conducted face to face in the geographic area where they work and live. As a researcher, I arrived early to observe my surroundings. I noted that the area was commercial, not residential with office buildings and hotels along the street. It was striking to discover a police station across the street and police cars parked in the school parking lot. The school appeared to be busy at 6 pm, with children and adults coming and going from different programs offered, as evidenced by the observed free-standing signs advertising the same. Both CBPs discussed police encounters as Stella recalled a conversation had with an officer in which they notified her of an incoming shipment of guns:

> The police can come and say… '*we hear that there's 50 guns coming into this community.*' I said, '*Why are you calling me then*?' [Police] '*Oh, just so you can make the community members or whatever.*' I said '*Listen, if you know where they're coming, why can't you stop it?'*

I asked her if there was ever an answer to that and Stella responded, “NO! ...because I feel it’s a business. Listen, a lot of people are benefiting from this somehow…Like, listen, this is organized...where the kids…can buy one [a gun] for $50.”

Hariston recounted one story of an individual with a GSI that had been arrested while in hospital because the police assumed they had been carrying a gun. The police then handcuffed this individual to the bed and did not permit them to call family or friends. This experience embedded a deep mistrust of the police and increases the fear that nurses and doctors could treat them as unfairly as the police did. Hariston relayed how such experiences are not singular but have a cumulative history with police, paramedics, doctors and nurses, in which both injured and close relations can carry throughout their survivorship journey. This can result in hostile encounters for healthcare staff. Hariston stated:

> Like the trust factor, being broken by police doing things bedside…it’s like the next nurse coming up, that really wants to help me and…look out for me, it’s like [the GSI individual is going to say] ‘*Get away from me*’ or [they] just not saying much, you know, even in pain, … just not saying anything…just to speed up the process and get out.

The CBPs describe how individuals and their close relations have been treated like criminals by nurses and other healthcare staff during their original admission and can be repeated when the individual and close relations return for follow-up care. Stella recalled an encounter a mother had in a hospital bathroom with hospital staff in which Stella felt compelled to intervene, “Excuse me…I didn’t even hear you introduce yourself to her and tell her who you are, what you do. But what I’m hearing is all this kind of snide remarks that you’re making right now.” According to Hariston there is a deep need to feel safe, “…you want to feel safe after such an altercation after

such a tragic incident…feeling safe, covers a lot of different things not just physically safe, but emotionally and mentally and you know, yeah, it's a lot."

Society

Continuing to move outward through the SEM, this level is broad and includes provincial and federal influences. The CBP describe how hard it can be for anyone not living in GV affected communities to truly understand what daily life is like with recurring GV. Community outsiders may offer help, but they often demonstrate a lack of understanding of the needs of the community and the problems the community encounters. Stella recounted:

> I connected with this group downtown and so this white woman comes up [to volunteer]'…everything's going great. '…And she says to me '*…you know, I just want to just remind you, that when I come to the community…people will treat me differently, because of my white privilege*.'…I said, '*Really? …you're sitting in my office to talk to me about white privilege…Well, let me tell you something, since you brought it up…I live in this community; you're coming in as an outsider…everybody's going to be calling me, because they don't know who you are. White privilege or not, you don't understand what's going on here. People want somebody who's on the ground, and who knows what's happening*'…She didn't even come...

Outsiders also include politicians. It was clear from the discussion with the CBPs that when a shooting happens in the community, politicians will only show up when it benefits them, but Stella wants politicians to understand what true loss is like. She shared:

> They [politicians] have to participate. They have to be hands-on with the process…you might feel, and you might empathize, totally different than being hands on. You don't get it; they don't get it …I had [a MPP] come to a remembrance that we had…one mother

> got anxiety attack and she couldn't walk, and you had hold her up…with my mic on I said, 'Mr. [MPP], this is exactly why I wanted you to come…I want you to see this.'

Stella recalled several discussions she had with a former Toronto city mayor, various MPPs and a Prime Minister.

> I've spoken to every single person, important person, as far as I'm concerned, including the Prime Minister…they just don't get it… I mean, they're so far removed. Even MPPs, even the MPs. We presented in Ottawa …And faces were as blank as anything. And when I said that gun violence, when it happens, if a death happens, trauma happens, and it affects the entire community. Everybody looked at me like, "*What do you mean?*" …You know when they understood? When there was a shooting in Ottawa. And everybody had to be scrambling to go into the tables and cupboards…then they called me back. But call me back for what? We're just talking. They're not actually doing anything, I'm wanting to see something done.

As the interviewer, I felt her frustration with the lack of action and empathy from the differing levels of government.

Time: Internal and External

This level of influence can be best understood if visualised as the foundation for all other levels of influence. While not discussed in great depth, the CBPs interviewed did offer insight into time as factor in GV. Hariston discussed time from an internal perspective (an individual's developmental age and occurrence or patterning of life events, Tannenbaum, 2018). Hariston began with citing the importance and the challenge of the individual wanting to change as a part of the developmental aspect of internal time. He maintained "I'm looking to bring them out of that space at the moment…And that's the challenging part. Getting them out of that space and

willing to meet you in a different space." He expanded into the patterning of life events with the idea of an individual having to live and deal with events that happened years or even decades before they were born. He stated, "But sometimes people are born into this. Sometimes, problems have been going on for so long, people are born into it."

Stella discussed the concept of external time (historical and current events that exert influence on an individual) in the context of the isolating effects of first marginalisation. Stella stated, "We have issues in our communities. The major issue that we have marginalization, that has been there for eons. And it affects how people treat you…" Stella continued "Especially in here [in this community] …poverty is beyond…marginalized communities were hit hardest by COVID. Everybody knows that."

What Did I Learn: Summary of the CBP Consultations

To enable change, nurses, especially those that working with those affected by GV, need to understand GV antecedents and the daily challenges faced by individuals, families and communities. This process reminded me how much I don't yet know, and I learned:

- GV injures effect not only the individual shot but results in psychological injuries to everyone in that individual's close relationships and community, and henceforth those suffering from such will be referred to as individuals/persons with GV injuries (GVI).
- The antecedents to GV and GVI are intersectional and are multifaceted.
- Individuals are still judged by where they live/their postal code.
- There is a deep need to feel, physically, psychologically and emotionally safe, after having been shot and/or experiencing a GVI.

- There are SDGV that are largely ignored by those not living in affected communities due their lack of experience. To the CBPs, this is especially true for the political support, and the will be required for change.
- The city of Toronto has yet to address GV associated problems and does not provide adequate support to community centres.
- Mistrust of nurses and the healthcare system is rooted in the cumulation of bad experiences with other individuals that work within the community level, such as paramedics, police, teachers, and lawyers. This mistrust can also be seen in their interactions with nurses and thus influences nursing care.
- Returning to the community from the hospital after experiencing a GSI is fraught with fear of retaliation leading to additional injury or death.
- Historical inequities are an antecedent of GV for Black communities with resultant generational trauma. These inequities can mean that sometimes an individual only knows the neighbourhood park they have grown up in, I ask myself "how can we expect individuals to change when they believe that this life is their destiny?

Final Thoughts and Insights from the Consultations

To close the CBPs consultation section, the CBPs shared some thoughts on what they felt it was important for nurses to know about caring for individuals with GSI and their families. They wanted to remind nurses that no matter the differences on the outside - such as skin colour, hair colour and texture or the clothes someone wears, remember that we are all human with the same anatomy on the inside. They ask that nurses remember their humanity, empathy, and compassion, while practicing with an open, positive, emotionally intelligent, non-judgemental and respectful mindset. Be willing to say, "I don't know what I don't know" and be willing to, in

the words of Hariston, “forgive the patient’s for going low…when Michelle Obama says when they go low, we go high.” That really struck me and so I share it here.

It is also important to highlight something that happened to me during the interview with Stella. She asked me, “…if you see or hear somebody acting or being racial or prejudiced [while at work] …what would you do?” I could blame what happened next on working night shift the night before, but as I searched for my answer considering the complex collegial relationships required in a critical care unit, I realised that my silence spoke volumes. I told her that, “I was conflicted…that I wanted to be a good person, a fighter.” She responded with, “A fighter is somebody who stands up though, you can’t fight if you’re running?” This conversation struck me to the core and had me asking myself “Am I the right person for this? Could I do this?” This encounter reminded me of the fortune I discovered in a fortune cookie the day I graduated from nursing school, “The road to hell is paved with good intentions.” As well intentioned as I, or anyone else may be, it is our actions that are seen, felt and remembered. So, what will my actions be? I begin with sharing this experience. Although shameful and embarrassing, I believe that I am not alone in my feelings of confusion, conflict and fear when it comes to seeing, recognising and then dismantling racism in healthcare. This deserves to be discussed in the final chapter as racism is never acceptable and silence is no longer an option.

Critical Care Trauma Nurses

This section presents the CCTNs findings, beginning with a brief demographic description of each CCTN participant, a narrative summary of the findings, salient quotes, and is organised by the studies' research goals. (See Table 2 above or Appendix N below). As described in my triangulation Plan (Figure 4), the interviews and focus group findings were separate points of data collection so the related findings are presented separately.

Description of the Participants

Of the eight participants, all but one, participant identified as female. All of the nurses had worked or, at the time of interview, were working in the same CCT unit. Over half of the CCTNs, i.e., five of eight, were White, with the remaining participants being Black, South Asian and Mixed Race. Ages ranged from 34-69 years, with an average age of 46.9 years. By design, half the nurses had left CCT nursing, the other half remained or had worked in a CCT unit in the last twelve months. Two of the nurses interviewed were retired at the time of the interview.

All of the CCTNs have post-secondary education including three nursing Diplomas, two Bachelor's degrees and three Master's degrees. All of the nurses had experience in other areas of nursing, including both clinical and leadership areas of practice. Examples of clinical practice include nephrology, neurology, orthopaedics, plastics, general surgery and other critical care areas. Examples of leadership practice include clinical educator, clinical leader-manager, organ donation coordinator, and patient education. Six of the eight nurses had experiences in other healthcare centres besides their work in a trauma centre. Of those, half have worked in areas outside of the Greater Toronto Area.

Seven of the eight participants agreed to be contacted regarding their potential participation in a following focus group. Of those eight, only three could participate due to scheduling conflicts. Two women and one man participated in the small virtual focus group with ages ranging from 48-55 years old, the average age was 51 years. One nurse was in a non-clinical position, one was recently retired, and one was working at the bedside. Coincidentally, they are all diploma educated nurses and they were all known to each other. The data above was not presented in the table below to prevent inadvertent identification (See Table 4).

Table 4

Critical Care Trauma Nurses Demographics

Participant Pseudonym	Gender	Age	Education	Nursing Status
Merryll	F	69	Diploma	Retired
Wyndolyn	F	46	Masters	Working, not bedside
Lauren	F	35	Masters	Working, not bedside
Phineas*	M	50	Degree	Working, not bedside
Kaydon	F	38	Degree	Working bedside
Shantel*	F	55	Diploma	Retired
Tia*	F	48	Diploma	Working bedside
Ethel	F	34	Masters	Working bedside

Note. * - indicates focus group participants

Critical Care Trauma Nurses Findings

Within this section, the raw data of the CCTN will be presented in the form of a narrative summary organised by the study's research goals. For each goal, the CCTNs interview data will be presented first, followed by the focus group discussion, which in many ways, mirrored the individual interview findings. Within this section, salient quotes are provided to allow for transparency and enhanced rigor by demonstrating credibility and authenticity aspects of qualitative research (Hunter et al., 2019; Whittemore et al., 2001). Any modification to the quote has been to remove repetitive words naturally occurring in conversation, or to protect the identity of the participant. As per the findings map in Figure 6 or Appendix N, the decision was made to present this data, not per interview question, but per research goal as this made the most sense to me when reading the data. The questions used to conduct the interviews, were sent to the participants ahead of time, were extracted from the research goals and can be found in Appendix

O. To begin the focus group, the participants were asked if they had noticed GV coming up more frequently in the news and if the interview influenced them noticing the discussions around GV. As previously indicated the CCTN focus group questions were born out of the research goals along with the CBP consultations (See Table 5).

Table 5

Critical Care Trauma Nurses' Focus Group Questions

Questions	Probes
I consulted with community-based professionals as a part of this study, these are individuals that work with persons with gunshot injuries and their families where they live. During these consultations they expressed a desire/need to build bridges among the healthcare system, providers and the community. What is/can be the role of the critical care trauma nurses in building this bridge?	Discuss Sunnybrook Hospital's BRAVE and St. Michael's Hospital's THRIVE hospital-based violence intervention programs. Show the socioecological model with a brief description.
In your opinion, what influences critical care trauma nurses while giving care to persons with gunshot injuries and their families?	What is it about the environment in which you work that influences care? Other healthcare providers? Support staff? Unit culture? Hospital culture? Nursing associations' culture? Or is it a lack of these things?

Perceptions and Lived Experiences.

Interview Findings. When CCTNs were asked to discuss their thoughts on GV in general, answers came from two perspectives: internal and external. The following summary begins from the internal perspective, in which CCTNs are thinking about how GV relates to themselves. This was categorised into three groups, how it affected them professionally, how it affected them personally, and in the emotions expressed during the data collection – this is shared in the Understanding Expressed Responses section. The summary then moves into external perspectives, where the nurses interviewed expressed their views about how GV relates

to others. The CCTNs discussed who they thought were involved and what they believed to be antecedents of GV.

From the internal professional perspective, "Wyndolyn" thought that, when it comes to GV, nurses should be thinking, "…what are the little things that we can do in our profession?" CCTNs described either their own experiences with patients and families, which for some have been traumatic, or the experiences they witnessed while helping nurse colleagues with patients and families. Over half of the nurses described more than one patient with a GSI, with one nurse talking about four different patients. Unexpectantly, three of the nurses interviewed discussed the same patient. The nurses described how this increase in GV impacted their work routine. "Phineas" recounted the "year from hell" due to a gang war that occurred in downtown Toronto. It was during this year when the nurses realised that they were no longer safe in the hospital or in the unit due to possibility of retaliation. Phineas stated:

> …we had heard through friends and families that someone was trying to…finish a job [kill the patient]…the only strategy that we could employ was to have security guards do frequent rounds, and then [the nurses] make sure that every bedside curtain was closed, so he [the shooter] couldn't identify who it [the GSI patient] was…someone actually came in…[The nurses asked] '*can I help you?*' And because he noticed all the curtains [closed], he just ran off…

Viewing GV from the external perspective, the CCTNs recognised that GV is a complex problem with multiple factors influencing it. More than half of the nurses interviewed discussed their belief that GV is increasing, and three nurses made comparisons to the GV seen in the United States. "Merryll" recalled "…[being] on duty that night the first GSI came to [my

hospital]. And it was such a big to do, to think we are now like Buffalo…that was probably a good 35 years ago."

One nurse talked about the government ban on assault rifles, while recognizing that guns continue to cross the U.S.-Canada border. "Shantel" acknowledged the need for guns while serving in the military and for hunting animals for food but stated that if you have one and it's not for either of those things then it's being used for crime. Another nurse, "Ethel" simply stated that there was "a lot we don't know about". Six nurses pointed out that GV affects some more than others, describing the population affected as "youth," "Black," "inner city," "a certain population," and "a certain subset of the population." One nurse admitted that she hadn't thought about race as a factor. More than half of the nurses recognised the role that gangs, organised crime and the "mafia" had to play in the occurrence of GV in Toronto. Some opined that young Black individuals are "manipulated" and recognized the role that poverty, status, colonialism, racism and capitalism has in GV. Shantel stated, "They're [organised crime] all into something. It's not just your regular street gangs, either…It's all the money that drives it. Everything is driven by money." "Lauren" acknowledged their own privilege in being white while sharing:

> …it's a sign of oppression for a majority of Black people…who've been put in a situation where violence is kind of part of their upbringing, part of what is normal as they try to dig their way out of the oppression that we've caused for them.

When sharing their lived experiences, they all described how the patient was injured; their interactions with the patient, family, police and colleagues; and the hospital's provision of support to patients, families and nurses. When discussing their patients, seven nurses discussed the lead up to the shooting, including: being in the wrong place at the wrong time; mistaken identity; gang affiliations; retaliation; mass shootings, drugs; or self-inflicted. Six nurses

described various patient outcomes from a GSI, including: minimal injuries - those requiring no on-going care; life changing injuries - where patients were left without use of their limbs, and/or organs; or when the GSI were so severe they did not survive. Six nurses described the various medical interventions required for care, including intubation and/or extubation, typical medications used, common wound care issues, and so on. For example, Phineas described:

> …it wasn't easy to nurse him because he was so freakin' sick that he needed… [to be] muscularly blocked and on all kinds of propofol and Ativan, you name it! …the dressings of the entry and exit wounds all over his abdomen, and in his legs…I remember having …to dress like these open gaping wounds.

Nurses also discussed the connections that had been made between patients. "Kaydon" recounted:

> …I remembered for the guy who did the shooting…he was in the ICU a year prior, because the guy who was the target [of the current patient], who…I think ended up passing away…he was a victim of this [previous] patient we had…because they were from rival gangs…there's a whole like, backstory that people didn't know.

Interactions with patients and/or the family members were described as positive to eye opening to negative. For positive encounters, CCTNs used words such as lovely, polite, happy, appropriate, completely honest, kind, and positive attitude. Therapeutic relationships developed that were described as supportive and educational. For example, Lauren recalled:

> I remember just feeling so deeply connected to that family…I'm calling his mom. And she's like, '*the fact that you're there makes me feel like he's getting good care…And so, I trust you and I know everything's gonna be okay*.'

Two nurses discussed eye-opening experiences, realising that the family perceptions of guns and GV did not reflect their own, making relating to them challenging. “Tia” stated that for the family “…it was just a shooting. The levity of the of the mechanism of injury was just not where I would have placed it in my world.”

Three nurses commented that time spent with families meant a holistic understanding of their life, including understanding what brought them into a CCT unit. As Shantel stated, “Everything comes out of the woodwork eventually, if they’re there long enough.” Conversely, some nurses described interactions that were challenging or negative, using words and phrases such as “uncooperative,” “rude,” “pushy,” “angry,” “demanding,” “ungrateful,” “was spit on,” “was yelled/screamed at” to describe interactions with patients and their families. Phineas observed that nurses are the “pin cushions for families… take[-ing] the brunt of the sort of the bad behavior, the bad coping mechanisms”. For example, Merryll stated:

> …his family were so awful to me…I always felt that as a middle-aged, white, educated woman, that they distrusted me…they were just so nasty to me. Very defensive…very hostile. And I can remember being just so discouraged…

However, interactions at the bedside also included the police and their colleagues. Half of nurses spoke about interactions with the police while caring for an individual with a GSI and their family, two were neutral, two were negative. Within the neutral discussions, the police were described as being present for patient safety reasons. Alternatively, two nurses discuss how challenging and tricky having the police at the bedside can be, the affect it has on the nurse patient-relationship and the importance of understanding what can and cannot be shared with the police. Ethel’s description of their lived experience the police interactions was negative, stating:

> So, when I got report, the police came and then told me that this gentleman was well known to the police and wasn't a good person and gave me kind of the lowdown… [I thought] Doesn't really matter to me. We'll see where this day goes…And the police kept pushing…the person's a victim…I felt like [they were] treating him like a criminal…

Ethel described another experience with the same patient where the police came to take the patient's belongings but did not have warrant. When it was clear to the patient that Ethel was not going to do anything without a warrant, the relationship with the patient changed. Ethel recounted, "…he kind of looked at me and was impressed…I think, in a way, we gained a level of trust."

The CCTNs discussed interactions with colleagues at the bedside, which can be grouped into three categories: witnessing an interaction, being told about an interaction, or a direct contact with a colleague. For example, Shantel described witnessing a patient cursing at another nurse through her uncorked tracheostomy. She also remembers hearing how another nurse required a police escort to her car at the end of their shift after an unpleasant encounter with a family. Two nurses described interactions with colleagues that were disturbing to them. The experiences Kaydon and Wyndolyn described below occurred at the bedside of the same patient, but it is unknown if they describe the same event. Kaydon described:

> …they [the family] were from another country…They're doing their best, but I remember [the parents were] almost being villainized [by staff] because of whatever their sons were involved in…I remember comments…I don't think they [the parents] came here to have this happen to their children. It didn't sit well with me…what's always stuck with me was the reaction of colleagues…

Wyndolyn was the primary nurse at the bedside caring for the patient with the GSI and recalls, "…I think because… [it was] that particular person…commenting and murmuring about it with a couple of…particular people, it wasn't surprising. Because I've seen that behavior before… '*Oh my gosh, like, you're literally not helping me, help this patient.*'" The repercussions of this lived experience left Wyndolyn feeling uncomfortable, exhausted and unable to sleep. In reflecting on the experience, Wyndolyn stated:

> …as nurses…we're supposed to be able to set our own values and beliefs aside. That was a demonstration of them not being able to do that. And then there's layers of questions that come out of that. *Why are they able to do that? Do they not have capacity anymore to do that? Or compassion and burnout? Or are they just angry?* And it's like, then *was there any self-reflection on their part*, right?

Focus Group Discussion Findings. One of the key points raised by the CBPs was the need for building bridges between healthcare workers and the community that suffers the most at the hands of GV. Focus group participants were introduced to the idea of hospital-based violence intervention programs (HBVIP) at Sunnybrook Hospital, BRAVE, and St. Michael's Hospital (THRIVE) (See Appendix M for the PowerPoint presentation used with the focus group participants). Both services provide additional supports to bridge hospital and community care. Upon discussion the CCTNs noted how these HBVIP reminded them of existing programs within their respective trauma programs in which high school students are brought into hospital and taught about not drinking/doing drugs and driving. This discourse then led to a discussion about support and resources available for patients, their families and nurses during off hours, those outside Monday to Friday, 9-5. Shantel asked:

> So, let's say you bring some somebody in. And they're going to meet with families and stuff. And again, here's where I see a gap. Are they going to be available on weekends? Because a lot of that stuff goes down on weekends.

Both Tia and Phineas wondered out loud about when the best time would be to reach out to the patient and/or family? They also identified the lack of clarity of roles and the, as of yet, undefined resources available to patients and families from these programs. Phineas stated:

> …we are the end all be all for our patients. And if it means that we're the dietician, we're the SLP [speech language pathologist]. We're the social worker with a PT, it's, we tend to pick up slack, where those disciplines aren't always there. Nursing work 24/7.

When discussing the socioecological model (SEM), the focus group participants thought about their lived experiences and felt that CCTNs overlapped the close relationship and community levels as not only do they bear witness but participate in the individuals' close relationships. Phineas replied with:

> I'm just thinking of scenarios in my head…anytime someone said, you know, don't let them in, because they're my ex's baby daddy. And we don't have a good relationship …So yeah, I mean, we're community because we're nurses. And…we help the greater community, which includes our patients, but also, you're right Shantel, Tia, the fact that they tell us things, and we have to advocate for them…

Understanding Nurses' Expressed Responses.

Interview Findings. Describing their lived experiences, CCTNs' responses indicated the internal personal effect of caring for such patients and families. Indeed, when asked if caring for individuals with GSI and their families, had affected them personally, all participants said yes. As mentioned above, CCTNs discussed the emotional impact of caring for individuals with GSI

and their families. During the interviews, the CCTNs shared feelings of empathy, sadness, anger, frustration, fear and disbelief regarding the GV occurring in Toronto. Merryll verbalised these feelings, saying:

> I was sad that so many youths are caught up in this way of life. And it's such a tragedy for them and their families…I feel frustrated because I think they are so manipulated by organized crime…I wrote down anger, that our society has become less safe for all of us.

For others it came out in what they said, using phrases like "ludicrous and unnecessary", "senseless and terrible", "a tragedy for them and their families", "I don't understand" and "…just the most horrific thing you've ever seen". The tone in their voice when talking about GV was also instructive. They were somber, at times angry or sarcastic and sometimes sad. Two nurses cried during their interviews.

These nurses discussed how their experiences have changed their view of society, how it affected them personally and has impacted their close relationships. Lauren expressed, "It sort of makes you feel like literally the sky's falling, like, anything awful can happen." Phineas stated:

> …you listen to the families, listen to the patients, just giving care 110% of the time for that 12 hours. And then you come home, you've just emptied out the well. And you've got nothing left to care for your loved one.

The CCTNs described that in working so closely to the impacts of GV, their personalities changed somehow, with some adding it had changed their relationships with family members. Half the nurses described how they've learned to listen more deeply to their families. Some described becoming more anxious at home and at work and were less tolerant of daily stressors because of what they were witnessing at work. Two nurses remarked on how they blocked out the memory of patients with GSI, speculating that it was a protective mechanism, preventing

emotional attachment. One nurse described the moment their partner pointed out that if he could see a difference, then what were their children seeing. Kaydon stated:

> I never thought I would leave TNICU…it's just my own family told me that, pardon my language, but I pretty much became a bitch. And I remember that specifically…I had like a short fuse. I wasn't sleeping. I had headaches all the time…

Two nurses used their experiences as cautionary tales, asking themselves '*how do we make sure this doesn't happen*', while letting their children know they were there for them, no matter the time or the situation. Two nurses described the worry they have for their children, who are of mixed race. Ethel described:

> …my husband is Black, my kids are mixed race, who probably at some point in time, for boys, will be labeled as Black. And when they're the majority of our victims…we've looked after people who've been misidentified and been victims…in my life you realize this can happen easily…And how do you teach them [her children] that it's not fair…and they have different rules? …they have to learn very early, my four-year-old learns now that life is not fair.

Coping with these lived experiences was expressed in different ways. As previously mentioned, nurses have taken to developing a thick skin and using a dark sense of humour. Two nurses admitted it was difficult to remember the details of some of the patients for whom they had given care. Kaydon shared, "…I honestly can't remember, I can remember three, maybe two total…But I cannot tell you what happened or why it happened or where it happened…I blocked it out."

Conversely, two other nurses described experiences that could never be forgotten and had such intense reactions to the memories they cried. Wyndolyn stated:

> This was a really easy question, because it's probably the only one I think about, even though I've had exposure to gun violence, and other forms of violence working in the unit, but I think…because it was so public, and also because what have I experienced from my colleagues…

Focus Group Discussion Findings. The CCTNs expressed uncertainty as to how a HBVIP would apply to a CCT unit., Phineas expressed, "I don't know how you would partner with community…but something of that sort where you get some of the frontline nurses, not only to educate, …[it] maybe even cathartic for them as well." They questioned if during the patients CCT stay would be the best time. Discussion of this topic led to examining both sides of the argument, support for patients and families, but nurses are lacking in time to engage. Shantel stated:

> …how much time do we really have, they're kind of gorked there. They don't...remember being in the ICU? So, my question would be, how much benefit would we be to them other than doing a tour in the unit. This was where you were? This is what you look like? And do you want to go back there?

Tia followed with, "…is this program involving just the patient or is a patient and family? People's biggest supporters…It's often parents as people closest to them. And maybe that's where the process starts." Phineas then asked, "…it's hard. I mean, are our patients and families ready to accept any kind of anything? Patient education…when they're in that situation…you know what I mean?

This discussion allowed the CCTNs to express concerns regarding a lack of support to deal with what they see and experience. Tia shared, "With some of the things I've seen, I have never imagined being prepared for this scenario. A girlfriend and pregnant daughter fist fighting

at a bedside one day for a gunshot victim." Phineas agreed and expressed concern for newer nurses:

> …we're not given enough resources…Like the nurses that are coming up now. I'm sorry, but they just don't have the resilience that we, this group, have and the life experiences… so you put this brand-new nurse, 20-something…who has no life experiences, and no coping mechanisms…you put them into the situation where now you see the shit that we saw, these guys will not last more than a week before the crumbling.

They all agreed that without proper supports, newer nurses won't want to be at the bedside for very long. Through these conversations, it was noted that these nurses used dark humour to offset the intensity of the topics.

The Influence of Social Discourse on Nursing Care.

Interview Findings. All of the CCTNs interviewed recognised influences inside and outside of the workplace that impact care. When the CCTNs spoke about influences inside of work, they discussed their psychological and physical environment. The psychological environment, or culture, included the patients themselves, colleagues and the hospital administration. One nurse began their thoughts by identifying how CCT nursing is unlike working in other critical care units, i.e., Lauren stated:

> But I think there's just something different about that environment that helps you to tune into the kind of nurse you want to be, in response to…devastatingly unfair tragedy that is the experience of some people…and that makes you so raw in some ways, but it also kind of toughens you up in other ways.

The nurses identified how proud they were being a CCTN, with two nurses acknowledging that not everyone could do that job, and unless you work in it, you can't

understand it. The pride came from the shared experiences that start from CCT orientation and is lived through out their career as a CCTN. Phineas explained:

> But something about that culture… [you get] this is a crazy ass trauma. Yeah. But in the back of my mind, I knew, people have my back. And it's because we all share the same sort of experiences. So, I may not have the trauma today. But I might have the trauma next week. And so, we all kind of work together that way.

However, their resultant shared experiences are not always positive. The CCTNs commented that a high turnover rate makes maintaining a unit culture difficult and how the personalities of colleagues can have a negative effect. They saw their colleagues get lost in the adrenaline of the moment, be solely focused on how a patient admission or deteriorating condition impacted their breaks, assigned blame or stigma to trauma patients in general and exhibited biases based on colour, home address and tattoos of GSI patients. Two nurses felt that the nurses exhibiting such behaviour had lost their empathy or had forgotten their humanity. Tia said:

> And I think that there certainly is a stigma attached [to GSI patients], even when we try not to…I hear it from colleagues…And I'm probably very guilty of it myself at times. Even though when we try…and go in with a clean slate…one patient who had an ankle monitor on who'd been shot several times, and it's like, '*oh, geez, well!*' you know…

The CCTNs also identified that CCT psychological culture is also influenced by hospital administration and policies. Two nurses felt that their CCT unit's patient and family centred approach elevated an already high standard of care that had been established. However, one nurse highlighted the fact that their hospital by and large, does not adequately address issues around race, stating:

> …you don't need another white person telling you how to be more diverse and inclusive. And then there are other aspects that I can't speak to…shouldn't speak to…this is something I care about, and I think is important. But is this my place?

In discussing influences on care, half of the CCTNs spoke about the way in which their physical environment played a role in the lived experiences of care for GSI patients and their families. However, as this conversation does not pertain to the influence of social discourses on nursing care, those conversations will not be included. When the CCTNs were asked whether they felt like their nursing care was influenced by factors outside of work, such as their family or friends, the majority of them, five of eight, said no. Their families were seen as neutral or a support, more than an influence on their nursing care. These nurses expanded on this idea by saying that it wasn't their place to judge their patients, which they try to give the best nursing care they can. As Shantel explained, "We look after them. It doesn't matter if they're billionaires, or if marginalized. They all have the same thing. We're here to help them."

Two of the nurses interviewed identified societal influences including patriarchy, misogyny, colonialism, capitalism, racism and marginalisation, positing that they do influence society and by default their colleagues. Wyndolyn stated:

> So, whether it's Caribana, or the Pride Parade…because these events are not the Eurocentric heterosexual privilege group of people. These are marginalized…oppressed people that are celebrating events…you would always hear [in the hospital] as these events are coming up, '*oh, expect some more violence, more patients*…'

Five of the eight nurses discussed media and social media, but not as an influence on their care but as a tool and an influence in society. Half of the nurses interviewed discussed checking the news before going work, to see what they could expect to find in the unit. One of

the nurses pointed out, “the media likes to like grasp on to these kinds of stories” with several nurses commenting on the fact that these reports were often incorrect or missing information. Two CCTNs felt that news outlets added to the stigma around GV. Another stated that they focus on the location of the shooting, specific communities, the individual’s socio-economic status or race, not the fact that this was a human being met with violence. Ethel stated:

> …because it’s in the news, like, how can we protect these people? Yeah, because this is their private personal health information…I think it’s [the news] giving people this false sense of identity for the victims. And we don’t treat them as victims…

Focus Group Discussion Findings. When asked about what influenced care, all agreed influences change during the patients CCT stay. At the time of admission to the CCT unit, it was about focusing on stabilising the patient. Phineas stated:

> I think it’s just, for me, it was more about patient’s condition I just put away all those things that you’ve talked about. And just concentrate on the fact that this is a GSW through to the abdomen…cerebral perfusion…antibiotics lines… managing that Christmas tree [vernacular for how an intravenous pole looks with all the intravenous pumps attached].

Shantel and Tia agreed that it was about making the patient haemodynamically stable before therapeutic engagement with the patient and/or the family. Tia stated, “make sure that the patient is stable. And then I think then from there, you kind of digress back into family and if the patient’s alert and their emotional status…”

CCTNs also spoke about influences unique to a CCT unit and population, the primary focus of care is not always transferrable. Shantel stated:

> I think our unit differs a lot between CV [cardiovascular] and med surg [critical care units] …like I had…He was young gunshot victim, but he was awake and with it. And I had to move him to CV. Well, it was like, they almost didn't know what to do [with him]. …it was like, '*Oh, my God…why does he still have an IV going? It's not good for his heart.*' '*He's 21 and was drunk as a skunk. His heart can handle it. Like, he needs the fluid*'…Everybody is, every unit is different, nurses are different.

Despite the needs of such a unique environment, the CCTNs identified the lack of thought from hospital management and administration regarding safety. Tia stated:

> …[safety] never been a priority…Yeah, it's worse now…but the same lack of interest. So, I do I worry about safety? I worry about being stuck in a room and being assaulted by a patient, …and worrying about having a patient who doesn't do well, and I got no help. …there's 12 nurses and like, 20 really sick patients, and [it feels like] that somebody's gonna have to die before anybody [in the administration] cares. And you know what they're gonna do? They're gonna blame the nurse because that's the way it goes.

Facilitating Critical Self Reflection.

Interview Findings. The research goal to foster critical self-reflection of the CCTNs intersected with the previous three research goals of perceptions and lived experiences, possible influences on care, and the CCTNs expressed responses. Self-reflective thinking was both professional and personal. Professionally, CCTNs reflected that despite having Social Work and

Spiritual Care available to patients, the psychological and emotional supports offered by the hospital for patients and themselves are insufficient. Kaydon expressed:

> I don't think we do a good job at making sure we have support available or at least ones we can tell families about. I think we're very bad at that. I've said that for a long time. And I think we also have a huge lack of support for staff.

CCTNs described patients experiencing a traumatic event with little to no guidance on how to cope, having to return to the neighbourhood where the shooting took place due to a lack of community housing, and nurses being left to their own devices on how to deal with what they just experienced and/or witnessed. Wyndolyn reflected on what happened after they realised that a colleague wasn't going to help, stating:

> I think if it was a colleague that I was closer with or friends with, I would have been more shocked…I wonder if I would have like said something. And in that moment. Maybe I wouldn't have because I was so focused on the patient…it's such a reflective practice…Like we self-regulate, and we're supposed to reflect…about our practice.

For personal self-reflections, half of the CCTN described how working with trauma, and specifically GV, made them more aware of their own behaviour and drove them to find new and healthier ways of coping. For example, when Phineas discussed having nothing left in the well for his family, he described making a bigger effort to be with their family when at home. One nurse described encouraging their son to go to a public, multicultural school as they knew it would better reflect the real world, stating "I didn't want him to have anything to do with that all-boy elitism." Two of the nurses spoke about choosing to be more compassionate, empathetic and to find joy in daily life. Wyndolyn described, "…it's made me more of a softer [person] [and

realise] life is fragile, and [I am] more compassionate. …I think it hasn't hardened to me, which is why, it softened me."

Three nurses spoke to having to make the choice to take care of themselves and having to find healthy ways of coping, although it wasn't described how they accomplished that. These nurses also agreed that caring for yourself wasn't talked about enough in nursing at large. However, not all personal self-reflections were so positive. Merryll shared:

> By the time I retired, I was angry…just angry at the whole situation…. Is it the parents' fault? Was society's fault? Was it the police's fault? You know, everybody had failed this person in the bed as far as I was concerned.

Focus Group Discussion Findings. During the focus group, participants discussed the idea of violence, in general, and GV, specifically, being more prevalent. Shantel stated:

> I was talking with my husband …[and] explaining it to him…my takeaway from that…[was] with the levels of gun violence that we see and…how do we look after the people that look after the gun violence? …we're not victims in this. We're not shooters in this, but we are directly impacted that we provide intimate care to those victims of whether they're innocent, not innocent, whatever…

During reflection, these nurses acknowledged that maintaining an unbiased opinion was challenging, but something they strived towards. Tia stated, "one of the things I focus on with a gunshot victim, is going in there trying not to have a biased opinion and providing them with the same emotional support as any other trauma victim..." Shantel replied:

> I think that depends on how they are when they come in… Because if somebody's being a dick off the get go…like '*really!?*' [It] changes your perspective and… your attitude.

Phineas agreed “once we get a criminal…I really see that [behaviour] come out [and] I really need to look at this as just a medical patient. And not, okay, this guy was a cop killer.” Tia concluded with:

> Yeah, it can be very hard to separate the two. I think we do a really good job of it. But it can be really difficult to separate the thoughts… in that kind of a circumstance, but you just go in and you do your ABCs.

Toward the end of the focus group, the CCTNs began discussing a volunteer that worked in their unit. As a previous trauma patient who almost had not survived, they used their experiences to educate, become a motivational speaker and author. While volunteering, he would visit with families and give them hope through sharing his story. As facilitator, I highlighted that this was similar to the innovative programs BRAVE and THRIVE HBVIP. While the participants agreed there were similarities, Shantel wondered:

> Yeah, I think so…I’m gonna say something probably really inappropriate. But I can see that for a motor vehicle person or something like that, [but] with the population that receives gunshot wounds, do you think they’re gonna come back [to participate in a HBVIP]?

To continue the discussion, I floated the idea of hospitals enabling discussions around equity and diversity and shared my own uncomfortable journey with how I am seen and how I behave. Tia responded with “Yeah, I think that’s something very relevant...we only have our own perspectives, right. So how do we get a better perspective for somebody else’s life?”

The unique environment that exists with CCT comes with its own unique needs, especially those around GV. The CCTNs identified that not enough thought has been given to how to support them. Tia explained:

> …before [in one of] my other ICUs, when we had particularly difficult cases, as we always do, we would actually have an evening where …we used to have debriefing sessions… probably every two, three months. Yeah, we would sit down and…and anybody who had feelings about it could come and talk. Talk about it…with your colleagues because who else understands?

Overall, the experience of participating in a focus group like this was a positive one for the CCTNs involved. Phineas commented "Oh…This is really nice. This reminds me of sitting in the lounge for like an hour." Followed by Tia saying "I like having these discussions. I mean, it's so much easier to talk about these things and organize your feelings and bouncing [things] off other people. And, you know, it helps you get a little more perspective into how you're feeling. So, thanks for that."

What Did I Learn: Summary Critical Care Trauma Nurse Findings

The nurses' interviews and focus group will be deeply discussed in the next chapter during thematic analysis and discussion. To keep with the organisation of this section and hopefully maintain clarity and coherence, what was learned is grouped by research goal.

Perceptions and Lived Experiences.

- CCTNs identified the complexity of GV, discussing many of the socio-political and economic antecedents noted in the literature and brought forth in the CBP consultations.
- When discussing their lived experiences, these nurses highlighted concerns of not only their own physical safety but that of their patients as well. Safety concerns are born out of fear of retaliation, in which someone will try to kill the individual they injured or that having members of rival gangs in a single waiting room many incite more violence.

- Nurses were able to connect the dots between shooting events, in which the patient admitted currently had been shot by an individual that had been a previous patient.
- CCTNs bore witness to multiple traumatic events in caring for individuals with GVI. However, this did not remove the importance of the intimate bonds formed during their therapeutic relationships. These bonds found the nurses placing themselves in both the close relationship and community levels of influence of the SEM.

Understanding Nurses' Expressed Responses in Caring for Persons with GVI.

- CCTNs admitted that caring for persons with GVI affected them personally, changing their personality, and affected their own close relationships.
- CCTNs took a lot of pride in the fact that they could do a job that not many could do and that a CCT unit is unique compared to other critical care areas.
- CCTNs employed a variety of coping mechanisms to process what they witnessed, including but not limited to: dark humour, remembering, and blocking out memories.

The Influence of Social Discourse on Nursing Care.

- Many of the CCTNs felt that influences on nursing care came from within their unit and hospital, the behaviour and actions of their colleagues, or lack thereof.
- Some CCTNs felt that they could meet the needs of any difficult trauma with the support of their colleagues.
- The CCTNs described both positive and negative experiences they had with persons with GVI and how that was a significant influence on nursing care.
- Undeniably, bias continues for some CCTNs, despite best efforts to be non-judgemental.
- The CCTNs commented that the hospital administrations' lack of understanding of patient and nurses' safety and needs were significant influences on their nursing care.

- The CCTNs denied feeling that their family or friends were an influence on their care.

Facilitating Critical Self-Reflection.

- Self-reflection occurred both professionally and personally for these CCTN participants.
- CCTNs felt that more could be done for nursing staff, both personally and professionally.
- Better resources could be provided for persons with a GVI recognising the admission to a CCT unit was, generally speaking, a traumatic event.
- Only one CCTN spoke about self-reflection as apart of professional practice, however some did reflect that being a CCTN was teaching themselves about who they are.
- During the focus group, the participants noted how difficult it can be to remain unbiased.

The CCTNs that participated in this study were open and allowed themselves to be vulnerable. What they shared was a beginning to understanding the patient/family-CCTN relationship under the stress of a traumatic GVI. This raw data will be further explored, analysed and described in the next chapter, *Thematic Analysis*.

Chapter Five

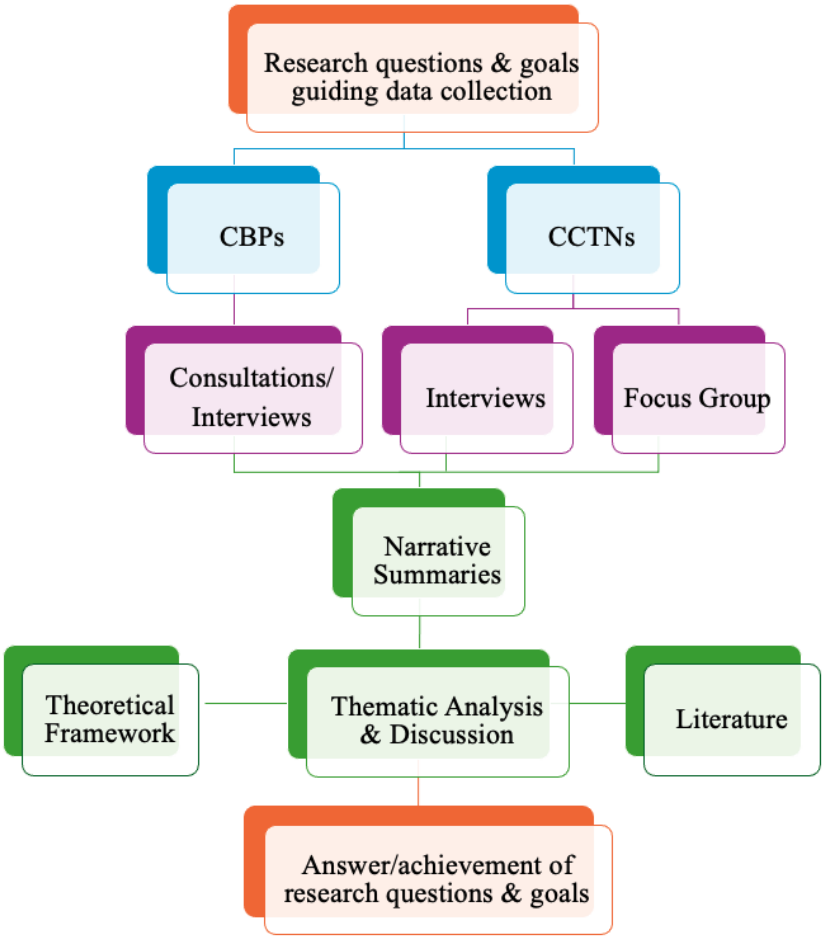
Thematic Analysis

This study began with asking the question 'What can I do or say, while at the bedside, that could stop this [gun violence (GV)] from happening again?' To begin answering this question, I consulted with community-based professionals (CBP). They provided insights into the SDGV as well as what it is like for an individual to return to the community after involvement in gun violence, either through incarceration or hospitalisation. To further help answer this question, critical care trauma nurses (CCTNs) were interviewed regarding their perceptions of GV, their lived experiences in caring for people with gunshot injuries (GSI) and their families, and what they believed were influences on their care of this CCT patient sub-population. Three of the CCTNs interviewed participated in a focus group in which the CBP insights were shared, along with a brief information session regarding the antecedents and the socio-ecological model (SEM).

With attention to rigour grounding my approach to the data, this chapter represents the reflexive thematic analysis of this exploratory descriptive study's findings. Following the six-step process outlined by Braun & Clarke (2006), the consultations, interviews and focus group data was transcribed, codes generated, clustered and themes emerged. During this analysis the socio-ecological model and complexity theory facilitated identifying connections between codes, code clusters and between code clusters and themes. Following in *Chapter Six* is a scholarly discussion of the analysis findings, knit together with the application of my two theoretical foundations to GV and CCT nursing. This is followed by answering the study's research questions and providing an actionable response to mitigating potential future violence. Figure 7 provides a visual map for the next two chapters.

Figure 7

Study Analysis Map: How We Got Here and Where We Are Going



Overarching Themes

Four dominant themes emerged from the code clusters identified in the previous chapter. One, which reflected insights from the CBPs, and was labelled *Please Keep Me Safe*. This theme aligned with the literature regarding GV antecedents, also known in this thesis as the SDGV. Three themes focused on the findings from the CCTNs, labelled *Caring for Everyone*, *Making Sense of the Senseless*, and *The Toll of Bearing Witness* (See Table 6 has a summary of all four themes). For each theme, the scope will be explored and discussed, weaving in the relevant literature. It is important to note that for the three CCTN themes, their discussions deviated from

the literature where the racialised nature of GV featured prominently. Although some of the CCTNs were aware of the racialised nature of GV, this was not where the CCTNs centred their attention during the interview or focus group discussions. This deviation initially made this chapter challenging to write as I felt I had lost an intended framework from which to talk about GV. However, to participate in social justice from the bedside, it is essential to comprehend the perceptions and lived experiences of CCTNs in order to understand how they know GV. This chapter, and indeed this thesis, is about these perceptions of GV and lived experiences caring for persons with GVI. In addition, it represents a starting point where this newfound knowledge creates the opportunity for change, one that is needed for those that experience gun violence daily, and for those that choose to walk beside them during the resuscitation and recovery phases after injury.

Table 6

Overarching Theme Summary

Theme	Participant group	Characteristics
Please Keep Me Safe	Community-based professionals	Individuals with GVI are fearful, sometimes having been born into GV and/or living with the SDGV, they have lost of trust in community level professionals bringing out a variety of coping skills and having a deep seeded need to feel safe after being shot.
Caring for Everyone	Critical care trauma nurses	Pride in doing something others cannot do, accepting and working within chaos, acknowledging that a CCT environment is unique compared to other critical care environments, and humanity is required when caring for persons with a GVI.
Making Sense of the Senseless	Critical care trauma nurses	Knowledge of the antecedents. The need to locate the violence where it's happening. The use of compartmentalisation as a way of working in a unique environment and blaming a patient for their own injuries.
The Toll of Bearing Witness	Critical care trauma nurses	Working within the CCT environment is challenging and can take a toll, to cope CCTNs demonstrated a variety of means of processing, and the bonds formed with the repeated experiences of trauma.

Theme 1: Please Keep Me Safe

The first theme comes from the CBP and their descriptions of persons with GVI. Safety was a code taken directly from the consultations in which, after experiencing a GSI, individuals felt the need for physical, emotional and mental safety. With this in mind, I listened to the experiences about persons with GVI and heard about their neighbourhood park being the only place where they have played, lived and witnessed others playing as well as engaging in other activities. Experiences that also included persons with GVI hearing snide remarks from healthcare staff and being arrested by police while still in the hospital bed. These experiences had both a continuous and cumulative effect contributing to the altered thinking of individuals, which ripples through families and communities and leads to feelings of hopelessness. These repeated negative experiences from professionals at the community level demonstrate the complexity attributes of path dependency and feedback loops, leading to continuous adaptation and self-organisation of individuals, their close relationships and communities. Additionally, although not discussed in the complexity attributes in Chapter One, given the repeated negative experiences with community level professionals, it would not be difficult to believe that these experiences can lead to path formation (as a precursor to path dependency), collective intelligence, and thus collective behaviour, that is shared between the individual, close relationships and community levels of the SEM. Moreover, I believe the ripple effect described by the CPBs referred to the fact that their experiences are shared with others, reinforcing the feeling of being unsafe in one's home. The findings of feeling unsafe mimic those described within Francis' (2018) study in which she describes how GV means that individuals no longer feel safe in their own communities. This theme emerged from the following codes and code clusters, *Born into it, Trust Lost, and Fear and Coping.* Being born into GV has resulted in

learned patterns of fear, lost trust, and what some might label as maladaptive coping mechanisms which can be transposed on to nurses and influence the care that CCTNs give. Each code cluster will be further discussed and tethered to the literature.

Born into it. This code cluster began with a code created from CBP Hariston's consultation, in which he described that for some communities, problems have now been around long enough that individuals are *born into* those problems, including gun violence. Originally, when coding, I had envisioned growing up with GV and gang rivalries. But an 'eureka' moment occurred after several rounds of reflexive thematic analysis. The problems that CBP Hariston spoke of can also include the community marginalisation and existing systemic racism in which individuals have fewer available resources and are judged based their postal codes consequently setting up individuals to fail. This eureka moment was one of both pride, and shame. My excitement of successfully conducting reflexive thematic analysis gave way to the realisation that these have not been my life experiences as a White educated woman within the female-dominated nursing profession. Francis' (2018) participants spoke to being 'born into it' when they described the daily "ordinary" occurrences of GV, instead of finding them "extraordinary" (p. 384). Survival of gun violence for Francis' (2018) participants was treated as an accomplishment, like a game had been won.

Moreover, as stated in Chapter Four's *What Did I Learn: Summary of the CBP Consultants*, GVI affect not only the individual that had been shot but sends shock waves within the individuals' close relationships and community. According to Walker et al. (2024) these were among the outcomes of historical and intergenerational trauma. Beginning with the study of children of Holocaust survivors, many disciplines recognise and work with individuals, families and communities affected by colonialism, oppression, grief, loss and in this case, GV (Chou &

Buchanan, 2021; Walker et al., 2024). The effects of both of these types of traumas, if unchecked, changes one's outlook on what life can be when facing antecedents such as poverty, food and housing precarity, survivorship with fewer role models and mothers left responsible for caring for those who have survived their injuries and/or are dealing with their own grief and trauma. The ripples are many and the impacts are catastrophic.

Trust Lost. Through repeated negative experiences within the SEM community-level professionals, identified by CBPs as police, paramedics and hospital staff, including nurses, as contributing to an overall loss of trust in helping professionals. Iveniuk & Gunaseelan (2021) demonstrated in their study that Black Torontonians had significantly less trust in the police, the justice system, the school system, city hall and city counsellors when compared to other racial groups residing in Toronto. Interestingly, healthcare systems were not included as a part of the institutions discussed. Moreover, the CBPs described recurring negative experiences with community-level professionals. For example, CBP Hariston spoke about individuals having negative encounters with paramedics when responding to a GSI. CBP Stella spoke about a mother overhearing hospital staff members discussing her son in a public washroom. Assumptions were made based on race or rumours, leading to biased treatment and individuals with GVI feeling trapped. This concurs with Patton et al.'s (2019) findings, in which their participants felt like they were stigmatised by hospital personnel. CBP Hariston explained that these experiences occur often enough that the lost trust can be transferred from one community level professional group to another. Furthermore, the experiences described by the CBPs are compounded when they are repeated. In retrospect, I wonder if having the police sit with the nurses at the end of the patient's bed only confirms what individuals with GVI already suspect, that nurses and the police are working together. Do they conclude that nurses cannot be trusted

because the police are sitting next to them? Moreover, do hospital/trauma centre leadership not recognise, or not know, that having police at the bedside diminishes feelings of safety? Do they realise that they are inadvertently setting up nurses' attempts to establish trust for failure?

The loss of trust for Black and Indigenous GV patients in particular is built on a long history, beginning with slavery and colonialism, continued in a variety of unethical medical experiments, such as the infamous Tuskegee syphilis study, in which hundreds of Black American men were infected and then lied to by their government, for forty years. (Orb et al., 2017). Similarly in Canada, the government conducted malnutrition experiments on hundreds of Indigenous adults and children (University of Waterloo, 2021). It is not surprising then that Black and Indigenous Canadian's trust in the healthcare system and our government has been lost. As a member of a profession that works directly with individuals and families affected by GV, nurses accept that there is a degree of trust given through our position within society. However, due to the Tuskegee study, and others, this trust needs to be continuously earned. During my education and my years of experience, I was never exposed to the idea that there were some members of society who would not trust us because of our position as nurses. The CCTNs unknowingly spoke to this lost trust when they spoke of the challenging and sometime negative experiences they have had, in which patient and family behaviour ranged from non-compliant to violent.

This theme, and this specific code cluster, supports the importance of time as a level of influence within the SEM. The long history of abuse and lies at the hands of their government and the medical profession must be considered when discussing lost trust of Black Canadians in healthcare providers. Within this theme, time can be discussed through both perspectives, external and internal. Externally, local or regional events, such as the Tuskegee syphilis study

has had a profound influence on individuals, their close relationships and their communities. Internally, learning about these events must have had an effect. At what life stage did this occur? Did their life stage effect their ability to process and comprehend what occurred? Or was trust lost due to their own repeated interactions with community-level Professionals?

The loss of trust can also occur on the societal level of the SEM. CBP Stella spoke to her experiences with the municipal, provincial and federal levels of government. The CBPs findings highlighted that the SDGV, such as poverty, insecure housing, a lack of education and community resources, are largely ignored by politicians and go unaddressed by the institutions of society. One of Francis' (2018) four themes was labelled "Feeling Abandoned by the Institutions of Society" in which her participants described the lack of school and community supports, as well as a lack of a police presence (p. 384). However, the opposite was noted within the findings of this study. Police were present, in the community, on school grounds and within hospitals, but according to the reflections of the CBPs, this did not increase feelings of safety. This lack of feeling safe was also noted by six of the eight CCTNs interviewed. If nurses do not have increased feelings of safety with having police present, what must persons with GVI feel?

Fear and Coping. These two clusters are being presented together, as I propose that it is the feeling of fear which contributes, at least in part, to the coping behaviours experienced by CCTNs. CBP Stella described how, similar to the participants in Francis' (2018) study, persons with GVI were so fearful that they were reluctant to leave their homes and described the behavioural changes as effectively falling along a "continuum of fearfulness" (p. 385). After being shot, individuals with GVI are understandably fearful. This is supported by the findings in Bailey et al.'s (2023) study into the identity of Black men and how it has been irrevocably changed by trauma. Looking to Hariston's example, in which he describes how

individuals can be “a ball of emotions”, thoughts of the young man I cared for and described in *Chapter One* come to mind. It was Hariston who pointed out that his fear manifested in a coping behaviour of having a flat affect, showing no emotion. This was something that had not occurred to me before despite 19 years of experience with individuals with GVI.

How else can fear present itself in different people? Each of the CCTNs reported ‘negative’ encounters with patients and families, describing non-cooperative, confrontational or aggressive behaviours that left the nurses confused, frustrated and even angry. I propose that the behaviours described by the CCTNs are akin to Freeman et al.’s (2014) subtheme of feeling disrespected. The researchers interviewed trauma nurses and noted how they took disrespectful comments personally. Could the disrespectfulness toward the nurses be a learned survival behaviour? Could the offense taken by the nurses be a learned racialised behaviour? It is beyond the scope of this study to answer these questions but would certainly be a line of inquiry for future study. Additionally, Francis’ (2018) research spoke to being exposed to violence and guns from childhood, affecting the participants’ childhoods and as a result influenced their emotions and behaviour, much like the altered thinking described by CBP Hariston. When taken in the context of being born into GV and having lost trust in professionals that should be there to help, I postulate that the ‘negative’ encounters described by the CCTNs, when added to the knowledge shared by the CBP suggest that the behaviour of those with GVI are actually expressions of fear and self-protection. Are individuals with GVI subconsciously thinking *this is how I have behaved in the past and it kept me safe, so this is how I’ll behave now*?

In Francis’ (2018) theme “evolving psychological effects following gun violence”, she reported that the emotions and behaviours reported following GV falls along a continuum of fear, similar to those reported by the CBPs (p.385). Moreover, she postulated the emotions

described by her participants would be indicative of posttraumatic stress, where the exposure to a traumatic event is associated with devastating physical and psychological effects. Could these behaviours be borne from trauma-induced fear? Furthermore, could the concept of toxic masculinity, suggested by one of the CCTN participants and discussed in Bailey et al.'s (2023) article, have influenced these trauma responses? As with any rich study, so many more questions emerge than are answered. Many of these will be listed at the close of this thesis.

The overarching theme of *Please Keep Me Safe*, is important as the individuals who are the most affected by GV are the centre of this study. Acknowledgment and understanding of their learned coping mechanisms of fear, trust lost and being born into GV are essential, as recognition means that CCTNs and hospitals can now learn how these behaviours as related to fear. In doing so, this should then give way to the acknowledgement that trust is to be earned, and the necessity to keep persons with GVI environmentally, emotionally and psychologically safe. Concurrently, there is a necessity to build hospital/trauma centre policies and models of care around the needs of persons with GVIs moving into therapeutic relationships that are built on the understanding of antecedents as well as the experiences at the bedside.

The following three themes come from the critical care trauma nurses' interviews and focus group in which they discussed their perspectives and lived experiences. While the consultations with the CBP confirmed the antecedents found in the literature, the CCTNs data did not align as closely to the literature regarding the SDGV. Five of the eight CCTNs acknowledge that while race is a factor in gun violence, none of them discussed it as a direct influence on their nursing care.

Theme 2: Caring for Everyone

During the critical care trauma nurses' interviews and the follow-up focus group, the participants commented that working in a trauma centre meant taking every trauma that came to their door, regardless of how they were injured, and being a CCTN meant that they cared for everyone. In considering the experiences of the CCTNs care of patients with GVI, several complexity attributes are applicable. The first attribute considered was that of nonlinear dynamics, as a shooting severe enough to require CCT admission is unpredictable. However, once the trauma was in house, patients were cared for using an established trauma nursing approach to initial assessment, which could include feedback loops and path dependency with the patient in a state that is far-from-equilibrium. In an effort to return the patient to a state of equilibrium, patient management includes the complexity theory attributes of coevolution and self-organisation through the addition or removal of treatments and will lead to emergence of new responses. They accepted that the doors were always open and that the traumas, including those with GVI, would always come. For the nurses interviewed they functioned well within the chaos of not knowing what was coming, as they had the help of their colleagues. Within this theme the discussion will include the CCTNs *Pride* in in their work, their acknowledgment that CCT units are *Unique*, and the *Humanity* required for the job.

Pride. During the interviews and the focus group, the CCTNs demonstrated immense pride in being a CCTN. They recognised that not every nurse could 'do' this type of nursing, dealing with the chaos that comes with unpredictable GV admissions and the sadness that comes from families who were there during, what could be argued one of the worst moments of their lives. These moments required a resilience on behalf of the CCTNs and the study participants felt that no one else could understand what it was like but them. Does the demonstrated resilience

come from sharing those experiences with their colleagues? CCTNs identified that knowing they were not alone to care for a haemodynamically unstable gunshot patient, one that required multiple medications for blood pressure, sedation and pain control, influenced their ability to care for their patient. Correspondingly, when their focus had to be on what the patient required, care for family and friends required a shared approach. This approach can contribute to collective resilience and gave way to the pride they demonstrated about their chosen career's specialisation.

It is even possible to surmise that the pride they have in their job was a piece of their unit culture. However, shared experiences can be a double-edged sword, with one edge being the negative outcomes of shared traumatic experiences caring for persons with GVI, and in the absence of evidence-based education, a shared mentality that can further amplify unfounded stereotypes, allowing for rumours/gossip to spread and negativity to grow. The other edge, the positive outcomes, reflected the affirming aspects of shared experiences in stabilising and settling patients, thus strengthening the bonds formed between CCTNs. A Scottish study by Alzghoul (2014) reported that trauma nurses who had "supportive relationships" with colleagues were better able to cope while working with trauma patients (p. 18). The CCTNs in the focus group noted that it was in the recounting of these shared experiences that they felt accepted, not alone, and wishing the recounting could occur more often.

Unique. Another code category giving way to the overarching theme of *Caring for Everyone* was how unique the patients are, especially persons with GVI. Within the interviews and the focus group the majority of CCTNs identified persons with gunshot injuries as being primarily young, Black and/or immigrant males. Furthermore, CCTNs identified that GV had socio-political and economic antecedents not seen in other types of traumas, such as motor

vehicle accidents or in other acts of interpersonal violence, such as stabbings. CCTNs similarly identified another unique feature of these patients as few other hospital admissions get such media attention. The media attention can vary, depending on the severity of the injury. CCTNs described how the physical GVIs of their patient can be wide ranging, from life changing injures to life threatening injuries and on occasion, fatal. CCTNs also noted that the GVI of their patients' families and friends can be equally wide ranging from a complete lack of surprise to having fainted on the floor next to the hospital bed. In addition to an already crowded bedside, police were frequently present. The medicolegal aspects of GV are not entirely unique but I cannot, in my almost 20-year career, think of another type of trauma in which police officers attempt to influence nursing care. For example, CCTNs described incidents where police try to influence care through intimidation, conducting a search and/or asking the nurse for patient information without a warrant or the patient's consent.

To further this concept of uniqueness, CCTNs identified that trauma critical care is different than other critical care areas. Unlike other critical care units in which individuals are typically older, have been brought to hospital because a chronic illness was no longer manageable, or had progressed to a significant degree requiring acute care. Combining the chaos of the emergency department with the control of critical care, CCTNs describe critical care trauma units as poorly understood by 'outsiders' (including administration and family members). Critical care trauma patients can exist on the health spectrum and would have had no preparation for what happened to them. Additionally, those that are admitted due to a GSI have an additional layer of complexity as each patient with a GSI is unique, as it is the path of the bullet, or bullets, which determined the severity of injury. Trauma patients, in general, do not have the time to process and understand what is happening to them. Similarly, Alzghoul (2014) found that trauma

nurses noted that their patients focused on not having enough time to mentally prepare for the sudden change of their health status and no surety of their outcome. I propose that it is the chaos of the moment, the loss of control and the lack of preparation that adds to trauma patients' generally, and persons with GVI specifically, feelings of fear as addressed in the previous overarching theme *Please Keep Me Safe*. Patients and families with GVI, and the CCTNs themselves, are functioning within highly unpredictable and unique circumstances.

Humanity. In combination with the pride that CCTNs have for their job and the uniqueness of both the GVI population, and the environment in which they work, CCTNs discussed the importance of holding on to their humanity. This code cluster came together after noting that throughout the interviews and the focus group, CCTNs recognised that we are all human beings, deserving of dignity and respect. CCTNs expressed a variety of emotions when discussing their experiences in caring for persons with GVI, sharing their thoughts on how senseless the violence was and acknowledging that life is precious. CCTNs recounted many positive family encounters and discussions from which meaningful memories were formed. Even within the negative family encounters, CCTNs never forgot that the human being in pain underneath the behaviour, needed empathy and compassion. One nurse spoke of attending the funeral of her GSI patient, and how much that meant to both her and the family. Others spoke of the conversations they had, sometimes late at night, with patients or family members that enforced their sense of shared humanity. Through the intentional formation of meaningful therapeutic relationships these nurses had the opportunity to understand and make connections that would have otherwise gone unseen. In some cases, it was discovered that the same family had suffered multiple losses at the hand of GV or that a previous patient admitted with GSI was connected to a current patient, but this time as the shooter.

Equally important to the care and compassion demonstrated, were the discussions CCTNs had around their responsibility of care, to treat each patient and family member as an individual, and to provide holistic, equitable and non-judgmental care. Being aware that bias exists, these nurses were adamant that everyone received the same care, no matter their station in society or their trauma diagnosis. The CCTNs acknowledged that persons with GVI are human beings, deserving of empathy, dignity and respect and had the expectation that their respect would be reciprocated. However, this way of thinking can create problems when the attitude and behaviours of persons with GVI, as discussed in the theme *Please Keep Me Safe*, was possibly internalised fear and was expressed with aggression. Freeman et al. (2014) noted that the trauma nurses in their study took this type of behaviour from their patients personally, no matter the cause of the trauma. When listening to the CCTNs speak to the negative experiences they had with patients and families, the nursing participants took these negative encounters, behaviours altered by trauma, very personally and caused them to become resentful and frustrated (Bailey et al., 2023). The CCTNs felt that they deserved back the respect they had shown the patient and their family. As the participants did not consent, it was not within the prevue of this study to determine if what they said demonstrated a lack of awareness of the effects of systemic racism. Personal correspondence with both Drs. Annette Bailey (April 15, 2024) and Claire Mallette (April 16, 2024) have me asking, “What do nurses think when they hear that they are getting a GSI?” “How aware are they of their preconceived biases regarding those with GVI?” Lastly, it should be noted that CCTNs work begins primarily with ensuring that all patients have a patent airway, that they have adequate oxygenation and that their cardiac output ensures organ perfusion. They function within an environment that does not provide any additional education or support regarding GV in general; the racialised, stigmatised and historical nature of GV

specifically; individuals with GVI; or the socio-ecological model of violence prevention. Some of the participants have had their own life experiences when it comes to encountering systemic racism, being or living with persons of colour, however CCTNs are left to their own devices when to comes to making sense of the trauma they see. This leads to the next theme: *Making Sense of the Senseless.*

Theme 3: Making Sense of the Senseless

Working through the transcribed CCTN interviews and focus group, the nurses described GV as senseless, using language such as "horrible", "terrible", "mind boggling", and "tragic". In truth, this mirrors my own thinking. As a caring professional, the reality of seeing the outcome of intentional and possibly lethal harm on another living being defies understanding. While acknowledging that this statement was made from a position of many privileges, such as being White, educated, secure in housing and income, it is a struggle to understand what it takes to inflict such malice. The analysis indicates that this was what CCTNs were struggling with as well. While they shared their thoughts on GV and their lived experiences caring for persons with GVI, the CCTNs used language that, when coded, meant they were attempting to make sense of what they were witnessing at the bedside. Karl Weick, the social psychologist that brought attention to sensemaking, describes the same as a reflective ongoing process occurring within a social setting (Ancona, 2012; Glynn & Watkiss, 2020; Weick et al., 2005; Weick, 2020). Individuals who are sensemaking receive information and interpret it to create a plausible story, which then forms identity and informs a person's action (Ancona, 2012; Glynn & Watkiss, 2020; Weick et al., 2005). This self-organisation allows for sensemaking to emerge, as it is necessary when one's environment is chaotic with unpredictable changes that require action, much like the environment found in critical care trauma units (Ancona, 2012; Glynn & Watkiss, 2020;

Rutledge, 2009; Weick et al., 2005). These unpredictable changes are rooted in complexity attributes discussed in this thesis such as nonlinear dynamics. They also include several that are not discussed but seen in Sayama's (2015) diagram in Appendix A, and can include the butterfly effect, where small changes in one space can effect great change in another (Sanger & Giddings, 2012). Weick et al. (2005) use the example of a nurse caring for a deteriorating patient to describe the nature of sensemaking within their article, in which the nurse brings together all of the clinical data (patient's skin pallor, distended abdomen and a lack of feed tolerance, abnormal blood work results, decreased urine output) and presents this to the medical team in an attempt to make sense of what was being observed. I propose that CCTNs were attempting to make sense of what they witnessed through *Locating Gun Violence* and the utilisation of *Compartmentalisation* and descriptions of *Blame*, which allowed them to continue working in the face of senseless violence. In a personal communication with Dr. Annette Bailey (April 15, 2024), it was noted that GV is only senseless to those that do not understand it. I suggest that it is exactly what is happening here, the CCTNs are not given the time or education required to understand the historical, social, political and healthcare discourses occurring around GV. In an effort to understand how CCTNs make sense of something that is senseless to them the aforementioned code categories will be discussed.

Locating Gun Violence. Connected to attempts to make sense of GV, all of the CCTNs attempted to locate the social phenomenon of gun violence in three ways: the how - antecedents, the who and the where. Firstly, the CCTNs were able identify some of the multi-layered GV antecedents such as mental health and lack of positive role models. Three CCTNs commented on the broader effects of oppression, colonialism, capitalism and racism. Of note were the various ways in which they felt that money was an antecedent. The CCTNs recognised that poverty is a

SDGV. However, some felt that greed and status were components of GV as well, referring to larger organised crime syndicates. For example, Shantel stated, “I think what's driving it is crime…intimidation …you want to blame the gangs…but it's not the gangs…It's people who are stealing their cars and then shipping it off to Africa or the oligarchs in Russia…Everything is driven by money.” In her example, Shantel highlighted how the trappings of capitalism collide with colonialism and systemic racism to take advantage of societies vulnerable.

Secondly, the participants attempted to locate GV through the identification of ‘who’ was shot. Throughout the interviews the CCTNs descriptions ranged from broad to more specific depending on which interview question they were answering. For example, when discussing their perceptions on GV, some CCTNs used such language as “a demographic” or “subset” of the population. But as the conversations turned to their experiences with individuals with GVI, some CCTNs began to use language such as “dangerous people” or “troubled kids.” While others were even more specific in their attempts to locate the ‘who’ related to GV, stating it involved “gang bangers”, “street gangs” and that perhaps individuals most associated with GV could be identified by their “gang tattoos.” In this attempt of relational distancing, for example in an effort to identify the patient as belonging to a different social group, the CCTNs sought to distance themselves from the senseless violence they had been witnessing as a possible form of self-preservation (Abo-Zena, 2017). But is this a learned social behaviour by the CCTNs? Or was this a learned social behaviour that was observed at home, within the nurses’ own communities and transported into the CCT unit?

Lastly, the CCTNs felt it important to situate GV locationally. Similar to how they had transitioned from broad to specific within the ‘who’ domain of locating GV, some of the CCTNs would compare what they were seeing to what they were hearing about what was happening in

the United States of America, specifically Buffalo. One CCTN remembered working the night that they received their hospital's first individual with a GSI. Becoming increasingly specific, the CCTNs named neighbourhoods and locations within and around the Greater Toronto Area, such as "Flemingdon Park", "Jane and Finch", "Regent Park", the "Eaton Centre", "dangerous schools" and "on my street" when discussing their perceptions of, and their experiences with, GV. The need to locate GV was their attempt to possibly create distance between themselves while attempting to make sense of the senseless. What was not clear from the nurses' data, however, was how these neighbourhoods' and locations gained infamous associations with gun violence among the CCTNs. Was this from repeated admissions from these locations? Was this perception informed by the media, such as the local TV station (CP24), identified in the nurses' data?

Compartmentalisation. Another method used by the CCTNs to make sense of GV was to compartmentalise, that is., separating themselves and what they were witnessing from what they were feeling. Alzghoul (2014) referred to this in their study as the participants developed a "hardiness" to prevent emotional involvement (p. 18). It begins from the moment the patient is admitted, in which CCTNs focus immediately on the tasks that need to be accomplish, such as attaching the patient to monitoring equipment and collecting blood work. They explained how they practice detachment, or had developed a "thick skin," as an attempt to protect themselves from becoming emotionally attached to the patient and/or their family or impacted by the violence that gave way to their patient's admission. By focusing on the provision of safe care they separated themselves from any possible emotional attachment. It was not clear in the data if this emotional distancing came directly from the care of persons with GVI, or if this speaks more to the cumulative effects of witnessing and caring for persons with

traumatic injuries in general. Moreover, they described being “in the zone,” in which they were hyper focused on the patient but simultaneously aware of everything happening around them making split second decisions.

Compartmentalisation was also evident in how they described their lived experiences of caring which included how they spoke about the GSI and what had happened to the patient. Descriptions of the GSI were composed of anatomical location, “shot in the spine”, the number of times they had been shot, “4 bullets to the abdomen” and how disabling the injury was “life changing”, “life threatening” or “fatal.” CCTNs tended to medicalise their descriptions by describing the medications required, for example, paralytics or analgesics; the medical interventions used, “bowel resection” or “medically induced coma”; and their medical status, “unstable” or “deteriorating”. Two of the CCTNs felt that compartmentalisation of their feelings, or those their colleagues, can occur to the point where persons with GVI can be dehumanised and expressed their concern and cautioned against the harm that can be caused by such behaviour.

Blame. Lastly, blaming patients was another way that CCTNs attempt to locate and make sense of the GV. This code cluster is complex and contains codes derived from both the CBP and the CCTNs. Selected codes include: “stigma”, “bias”, “villainized”, “rumours”, “arrested”, “systemic racism”, “violent crime”, “violence attached”, “false safety”, “heaviness”, “perceptions” and “shared mentality.” Through the interviews and the focus group, CCTNs either directly or indirectly tried to identify who is responsible for the GVI that culminated in their patient’s injuries. For example, a number of the CCTNs felt that some patients were born into GV with their families having responsibility, another felt it is how society is structured, others blamed gangs and/or the “mafia”. In these discussions, the nurses recalled times when

they heard colleagues blaming individuals with a GVI, asking "what were they doing to get shot". A few of the CCTNs bravely reflected on a time in which they had participated in blame. Some of the CCTNs recalled hearing colleagues say that these patients "deserved it" for participating in gang activity. Blame contains within it some of the core aspects of sensemaking such as: labeling – in which GV and GVI were identified; presumptions – in which GV and GVI are believed to the result of the actions or behaviours of the person shot; and social and system influences – in which CCTNs perceptions of GV and GVI are influenced by nurses' social networks, the hospitals' policies and society's beliefs around GV and GVI. According to Weick et al. (2005), each facet of sensemaking, such as locating GV, compartmentalisation and blame, is an attempt to organise chaos. This process continues until the nurse is satisfied and the 'story' has been fully created and fits with what CCTNs believe to be true (Bushe, 2006). As CCTNs attempt to navigate complex situations with other nurses, patients, families, and police, they are doing what they can to understand the increasing pervasiveness of patients and families experiencing the trauma of gun violence. Ambiguous information from patients, families, paramedics and police can be distorted to fit the previously established story (Bushe, 2006). This constant negotiation of stories and situations, along with witnessing the physical and psychological trauma of GVI can become a part of the CCTNs identity and takes its toll. This brings us to the final theme, *The Toll of Bearing Witness* (van de Ven, 2020).

Theme 4: The Toll of Bearing Witness.

Exploration of the three previous themes have highlighted the needs of those with GVI, what it takes to be a CCTN, and CCTNs' attempts to understand the senselessness of it all. In combination and alone, these three themes cumulate in this final theme in which the toll of bearing witness to GV can take on a CCTN. When a patient is admitted to a CCT unit, the nurses

not only witness the resultant violent injury, but are required to participate in care that is lifesaving but also traumatic. They witness disfiguration and altered physiological, psychological and emotional functioning of the patient. CCTNs also witness the suffering and the altered psychological and emotional functioning of families and loved ones attempting to come to terms with the act of violence that has been inflicted. Could these repeated exposures be considered path dependency and feedback loops? Additionally, these nurses occasionally witness the death of patients and are called upon to provide support to the family and friends at the bedside. Put simply, to witness the traumatic outcomes of gun violence is, in and of itself, traumatising. Freeman et al. (2014) similarly noted "trauma nurses ironically experienced personal trauma when caring for trauma patients…" (p.11).

The codes that comprise this cluster are numerous and were drawn from across all interview questions and the focus group. Beginning with the emotions they expressed and the previously discussed senselessness of GV, nurses shared their frustration and confusion, yet they could empathise with the family members when this is the "worst moment" of their lives. Several nurses noted that some of the patients and families enduringly "stuck with them." Conversely, others described how the toll of caring meant that they "blocked out" some of the encounters they had while on shift. Although the CCTNs had both positive and negative encounters with patients and families, it was within the negative encounters that the CCTNs experienced misdirected anger, ineffectual coping skills and were left feeling like "pin cushions". Over time, several nurses noted they had an "empty well" with nothing left for their loved ones when they returned home, using phrases like "being a bitch" or having a "short fuse." They recounted feeling exhausted, fearful, and developed headaches and/or insomnia. They also described feeling unsupported by their respective hospitals, indicating that hospital administration did not

know, understand or care what happened to them at the bedside and thus had not provided adequate education, staffing or security. To explore these ideas further this theme is composed of the three code categories that most contributed to its establishment, namely *Gun Violence Unaddressed*, *Coping* and *Shared Traumatic Experiences*.

Gun Violence Unaddressed. Coming from a code identified in CCTNs interviews, GV goes unaddressed by trauma centres. Evidence of which was indicated by the lack of policy, education and support for both patients and nurses. CCTNs further identified this as an influence on the care given to persons with GVI all of which contributes to GV taking a toll on CCTNs. Despite providing proficient trauma care, CCTNs identified a lack of forethought from the administration of trauma centres in which persons involved in violence in general, and in GV specifically, may need unique and specific approaches to health care. CCTNs discussed the unpreparedness of the hospital to deal with the potential involvement of gangs/organised crime and the possibility of retaliation. Nurses shared experiences in which competing gang members had a single waiting room to use, giving rise to increased tensions of which no one on shift had the capacity or knowledge to navigate. The CBPs identified that persons with GVI have a deep seeded need to feel safe in a variety of ways, however the CCTNs could not identify any policies with a GV safety focus. CCTNs discussed a lack of safety culture in which patients were given whatever bed was available rather than providing GSI patients' beds that are not easily seen from the entrance of the CCT unit. Freeman et al. (2014) had similar findings in which trauma nurses described feeling unsafe at work due in part to the physical layout of the unit. Beyond the physical limitations of trauma units, one nurse described moments of systemic racism occurring within their unit and hospital as the on-call manager discussed the approaching event of Caribana Toronto. This nurse, along with one other, felt that preparation for the assumed pending violence

came from a colonialist, privileged and Eurocentric standpoint. I question if a trauma centre's lack of GV policy is rooted in in these same standpoints, even if inadvertently. Furthermore, CCTNs identified a lack of security and having to create their own ways to keep themselves safe when they began accepting trauma patients as a trauma centre. Several nurses recounted that within their department this eventually led to a locked unit, which required staff to use their ID badges to enter, and visitors were required to call to gain entrance to see their loved one.

I experienced this as charge nurse having admitted a patient with a GSI. The police had notified the manager that a rival gang member was seen outside the hospital and may try to enter to "finish the job." The manager and I improvised a plan so that the nurses closed their curtains as much as possible and, if someone entered, they would hide at the head of the bed. As charge nurse, I would be responsible for notifying staff and security if something occurred. I was also to hide under the desk at the nursing station. Police were present at the bedside, but similar to the experiences described by the CCTNs, police presence did not increase my feelings of safety. Thankfully nothing happened that night, but it was a moment that will forever linger. It relates, in part, to similar sentiments raised by Evans (2007), who stated that development of trauma systems in Canada has been focused more on the timely surgical stabilisation of severely injured patients rather than the need for safety of patients, families and staff. If the nurses do not feel safe, how can persons with GVI feel safe?

In caring for persons with GVI, CCTNs bear witness to the outcomes of tragic interpersonal violence. Unlike other critical care units where patients and families, typically, have time to accept and adjust to life with a chronic condition, there is a heaviness that comes when working with persons with GVI and the sudden, unplanned, possible life altering changes. If the GSI resulted in the death of the patient then, in the majority of cases, it was considered

murder. As such, the CCTNs felt that additional layers of care on behalf of the hospital was also required. Throughout the interviews and the focus group, CCTNs identified feeling unheard regarding their experiences with GVI persons. As they had not received any extra training on dealing with what was witnessed and experienced, CCTNs have had to develop their own coping methods.

Coping. CCTNs used a variety of mechanisms to cope with what they witnessed. Mechanisms that may or may not be well understood by non-nurses or non-critical care trauma nurses specifically. Seen to be stoic, the coping strategy of developing a thick skin has long been discussed in the literature. An ironic parallel could be drawn between the ways in which persons with GVI cope and express fear to how nurses cope and express their feelings when confronted by GV. Moreover, both groups may not have their trauma altered responses well understood by those that have never experienced GV. The CCTN coping mechanisms can be divided into the known and the unknown. For example, the CCTNs were well aware that they use dark humour to cope with really hard situations on the unit. As a CCTN, I have on occasion said that 'If you don't laugh, you'll cry." Other than using dark humour and developing a thick skin, some nurses were able to cope through reflecting on their lived experiences, both personal and professional. One nurse acknowledged that when they first started working in the CCT unit, they became fearful of everything. It only changed when they reframed their thinking by appreciating what they had and the choices they could make. The CCTNs in the focus group spoke to the need for added life experience for the younger nurses when it comes to coping with complicated GVI. Similarly, Alzghoul (2014) in which the Scottish nurses interviewed realised that their life experiences enabled them to be comfortable around trauma patients. Although Alzghoul's (2014)

study did not speak to the trauma nurses' experiences with patient's families, it is not difficult to imagine that life experience would also facilitate relationships with family members as well.

However, they were not aware of other coping mechanisms such as the disassociation that occurs when discussing their experiences of persons with GVI. This was something not noticed personally until a member of my supervisory committee pointed out the language being used during the interviews such as "…just concentrate on the fact that this is a GSW through to the abdomen…cerebral perfusion…antibiotics lines…managing that Christmas tree…". The supervisory committee member noted that the person had been removed from the discussion and it was about managing the equipment. Alzghoul (2014) correspondingly found that the nurses in their study "developed a protective mechanism to shield themselves from emotional attachments with patients" (p. 18). Nurses also identified the importance of not taking their safety, their children's safety, freedom, environment, or life for granted. It was only during the reflective dialogue that occurred during interviews that one of the CCTNs could name the fact that they were blocking out memories of working in their CCT unit. It was the CCTN themselves that reflectively identified the practice of selective forgetting as a way of protecting themselves from the events they had witnessed and/or experienced. It has become evident through this study that I use as a coping mechanism. Rarely do CCTNs witness or have experiences in isolation, leading us to *Shared Traumatic Experiences*.

Shared Traumatic Experiences. Apparent through the interviews and the focus group was the shared nature of nursing care experiences, particularly those that were difficult. These experiences included the recounting of how the patient was injured during handover, to helping a colleague admit a new GVI patient and witnessing their injuries, or during negative encounters with patients or families in which nurses were threatened or verbally or physically assaulted.

These CCTNs indicated that they could survive anything if they had their colleagues working alongside them. They identified the teamwork required to care for persons with GVI and recounted how colleagues would be at the bedside during an admission or providing emotional support afterwards. Phineas stated "…in the back of my mind, I knew people have my back…because we all share the same sort of experiences…I may not have the trauma today, but I might have the trauma next week…" In being present with persons with a GVI during some of the worst moments of their lives, CCTNs often hear the whole story, including secrets, from family and friends. It was also accepted among the nurses that in these shared experiences was a shared mentality. For example, Lauren stated,

> I think some of the language around that, like in the break room might have been unhealthy, like people saying, *'he got himself shot and now he's this nightmare person*.' I won't profess to know where people are coming from when they make such comments, or even remember what I might have responded, but I think it's easy to slip into that. Well, like you did this to yourself kind of mentality, right? And of course, none of it's my fault.

Some of the CCTNs identified a belief they had post-traumatic stress injuries, a finding that was identified in the literature attributed to trauma nurses (Alzghoul, 2014; Freeman et al., 2014). This would explain many of the psychological outcomes reported by the CCTNs, such as feeling anticipatory anxiety in advance of the expected heavy psychological needs of persons with a GVI. Post-traumatic stress injury would also perhaps explain the physiological symptoms, including headaches and insomnia, which CCTNs discussed during their interview. Nurses also described having trauma from what they witnessed and experienced along with feeling both jaded and developing trauma bonds with their colleagues. It was clear from the interviews and the focus group that trauma is a shared experience. The irony of critical care trauma nurses

caring for persons with injuries sustained due to trauma then experiencing vicarious trauma and post-traumatic stress injury is not lost on this writer. Trauma has emerged as the common thread, or in keeping with the knitting complexity metaphor, the common yarn between and across the analysis of this stemming from this graduate student's Master's thesis.

In this chapter, gun violence was situated within both the theoretical frameworks of the socio-ecological model and complexity theory. This led into the themes that emerged from both the community-based professional consultations, *Please Keep Me Safe,* and the critical care trauma nurses interviewed, *Caring for Everyone*, *Making Sense of the Senseless and The Toll of Bearing Witness*. From these themes and their comprising code clusters, the topic of trauma stands out for both persons with GVI and CCTNs. Similar, but different, the trauma experienced by persons with GVI and those experienced by CCTNs share parallels when it comes to its cumulative, concurrent, consecutive, and continuous nature. The following chapter will *discuss* the analysis while answering the research questions with the common yarn of trauma as experienced by persons with GVI and by CCTNs serving as the central aspect.

Chapter Six

Discussion: The Pervasive Presence of Trauma

Throughout the analysis and presentation of themes for this study, there are many directions this chapter could take due to the number of topics brought forward by both the CBPs and the CCTNs. Included, but not limited to, adverse childhood events, toxic masculinity, structural racism including in nursing education and practice, health equity, nurses' mental health, critical self-reflection, and social justice. This chapter will focus on the revelations that have emerged powerfully from the data and honors the narratives that I have had the privilege of receiving and processing. Endured by both persons with GVI and CCTNs, trauma serves as the common strand of yarn carried through the study's four themes, thus the organising focus of this chapter. As Freeman et al. (2014) write "…trauma nurses ironically experienced personal trauma when caring for trauma patients…" (p.11). In focusing on, and by default, honouring the pervasive presence of trauma, I am recognising the scholarly centrality of trauma in the CCTNs' experiences of caring for persons with GVI. The CCTNs care for patients who have experienced structural and physical trauma and, at the same time, the CCTNs themselves experience trauma while caring for these individuals as they attempt to make sense of the senseless. With even more profundity is the understanding that their lives, those of the CCTNs and persons with GVI, now converge on a critical care *trauma* unit.

We are All Human (in Trauma)

> …traumatized people chronically feel unsafe inside their bodies: The past is alive in the form of gnawing interior discomfort. Their bodies are constantly bombarded by visceral warning signs, and, in an attempt to control these processes, they often become expert at ignoring their gut feelings and in numbing awareness of what is played out inside. They learn to hide from their selves.
>
> - Van der Kolk (2014, p.98)

The traumatic nature of GV has been discussed throughout this thesis. Beginning with the individual that had been shot, we understand that GV occurs within a society where racialised individuals are overrepresented as victims of homicide including GV (Perreault, 2024). Of the 78% of Indigenous and racialised individuals killed due to GV, Black men are more likely to be the victim than any other racialised group (Khenti, 2022; Perreault, 2024). For those individuals that survive their gunshot injuries, they are left to deal with the repercussions of experiencing violence and can also experience trauma during their hospital admission (Warlan & Howland, 2015). The trauma, specifically GV but possibly the critical care admission as well, spreads quickly to those closest to the person shot and continues to spread throughout the community, much like the virus described by Papachristos et al. (2015). Societally, the government has established some of the strictest gun laws in Canadian history in efforts to stem the rising tide of GV but many question whether or not this really addresses the SDGV. In addition, both traditional and social media appear to be contributing to geographical stigmatisation, where crime is overrepresented (Jahiu & Cinnamon, 2022). According to Clancy (2019), poverty and widening social and economic disparity between the middle class and other socioeconomic groups are the largest reasons for GV in Toronto. As reported in the literature review, and confirmed in the consultations with the CBPs, for those with GVI, the trauma begins long before the trigger is pulled. Based on the interviews with the CCTNs, it can also be surmised that nurses caring for individuals with GVI experience trauma that stays with them long after their shift has

ended. In fact, trauma is a shared experience including the person who was shot, their family, first responders, their community and the nurses who care for them in CCT units.

This section will commence with a brief entrée into the human experience of trauma, followed by a discussion of the trauma experienced by persons with GVIs before discussing the corollary trauma experienced by some of the nurses called on to care for them when hospitalized. While it has been well established that nurses from all subspecialties unfortunately experience trauma at work, I propose that caring for those who have ongoing experiences of trauma, care that for many includes being traumatised in the course of giving that care, is a unique experience within critical care trauma nursing (Levi et al., 2021; Missouridou, 2017, Stelnicki et al., 2020). It is the care of both the person that was shot, and their family, that requires their attention (Missouridou, 2017).

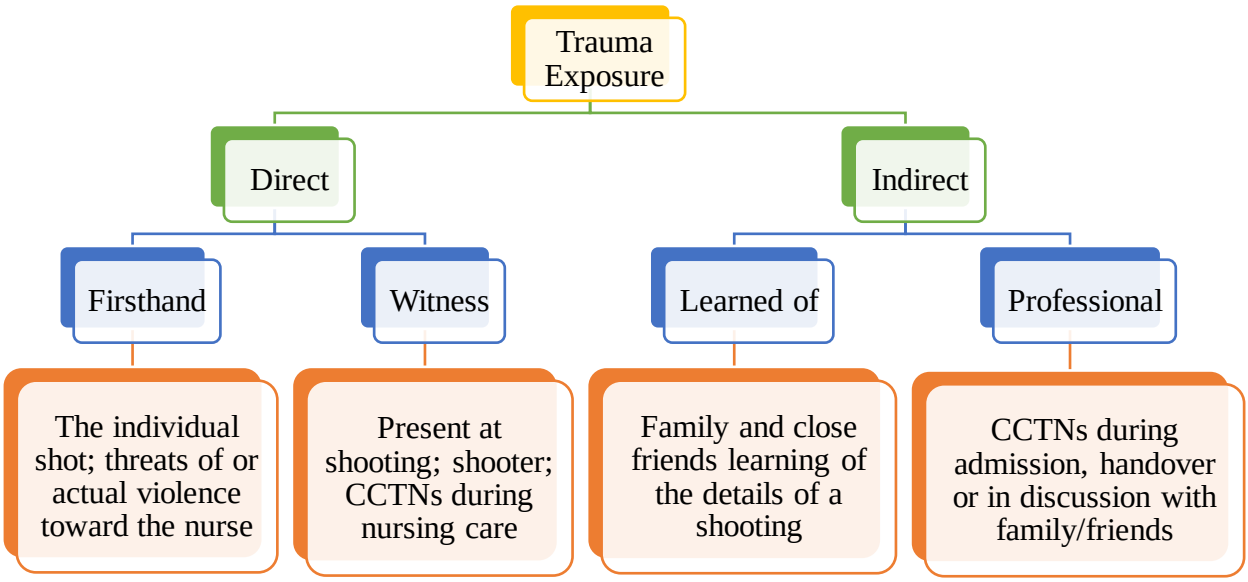
Trauma Defined

It was once believed that a traumatic experience was one that was an atypical human experience, but research indicates that all individuals are far more likely to have a history of multiple traumatic events (May & Wisco, 2016). According to the DSM-5, the *Diagnostic and Statistical Manual of Mental Disorders* (2022), exposure to trauma is divided into two categories, direct and indirect (APA, 2022). The APA (2022) and May & Wisco (2016) explain how direct trauma can be further subdivided into *firsthand* trauma (DSM-5 Criterion A1), that is directly experiencing actual or threatening death, serious injury or sexual violence, or *witness* (DSM-5 Criterion A2), in which the traumatic events of others are witnessed in-person. *Indirect* trauma, described by May & Wisco (2016), occurs upon *learning* about the details of an unexpected traumatic event. The APA (2022) further refines indirect exposure to two subcategories, Criterion A3, in which trauma occurs when an individual has *learned of* the

accidental or violent traumatic event of a loved one; and Criterion A4, in which trauma occurs due to repeated experiences of extreme exposure to the harmful details of traumatic events occurring through the course of *professional* service (DSM-5 Criterion A3 and A4, APA, 2022; May & Wisco, 2016). For clarity these terms have been applied to the care of persons with GVI in Figure 8.

Figure 8

Study Findings Applied to the DSM-5 Definition of Trauma Exposure



As demonstrated in Figure 8, the research findings herein note that a traumatic event, such as gun violence, does not occur in isolation but often impacts groups, cultures, or entire societies (Cypress, 2021). Trauma that has such a large sweeping impact, affecting numerous individuals, is referred to as *collective* trauma (Cypress, 2021; Hirschberger, 2018; Koh, 2021). While the notion of collective trauma lacks a singular definition, Hirschberger (2018) describes it as the "psychological reactions to a traumatic event that affect an entire society" (p.1). A concept analysis by Cypress (2021) offers several different definitions for collective trauma, stating it "is an irreversible and lasting mental condition caused by natural and human-made disasters, and

events that results in neurophysiological, psychobiological, psychosocial, sociocultural, and economic imbalance to society, cultures, communities, and the world" (p.401). This definition allows for great inclusion of large or small groups applicable to the trauma of GV, such as families, communities, or a group of nurses, and allows for the concept of collective trauma to include a wide range of events and situations. For individuals with GVI this can include but is not limited to gang warfare, mass shootings, racism, and the Black experience of slavery and colonisation. The notion of collective trauma is helpful for this thesis for it involves layers of traumas, that lead to understanding the associated trauma experienced by even the most experienced of CCTNs. The following section will briefly discuss the trauma experienced by persons with GVI and the consequences for nursing care.

Keeping Everyone Safe? The Historical, Intergenerational and Collective Trauma of Gun Violence

In the theme, *Please Keep Me Safe,* the CBP consultations tethered to the literature revealed how many persons with GVI are born into their trauma and the societal circumstances that gave way to it. They carry their trauma with them even as their current life circumstances expose them to repeat and cumulative traumatic experiences. Moreover, persons with GVI have a variety of ways of expressing their feelings that, while rooted in their lived experiences, appear to not be well understood by the CCTNs that care for them. This section will include a brief discussion of historical and intergenerational trauma, posttraumatic stress, and the need to be safe when admitted to hospital through the lens of complexity theory.

CBP Hariston shared, "Sometimes, problems have been going on for so long, people are born into it [gun violence]." When it comes to trauma, being "born into it" is not a new concept. According to Chou and Buchanan (2021), historical intergenerational trauma has been studied

for over 50 years, beginning with a Canadian researcher seeking to understand the challenges of holocaust survivors and their families. This type of collective trauma associated with the concept of traumatic events experienced within an individual's lifetime that have significance beyond their lifespan, affecting the wellbeing of their children through shared experiences of oppression, loss and grief (Chou & Buchanan, 2021; Walker & Devereaux, 2021). For individuals with GVI, GV may not be the only type of trauma experienced. Bailey et al., (2023) state, "For racialised individuals, navigating the cumulative impacts of multiple and persistent traumas is their everyday reality. Their experiences are marked by intergenerational trauma, childhood trauma, and trauma from everyday systemic oppression and racial injustice" (Context section, para. 1). According to Smith et al. (2020), racialised individuals experience racial discrimination and oppression, both structural and systemic, and has been shown to have direct adverse physical and mental health outcomes. Those mental health outcomes can be even more profound in adolescent males that have previously been arrested. Demonstrated in a longitudinal study, of 1,216 "at-risk" males from three different U.S. cities, of which 83% were racial minorities, Shulman et al. (2021) wrote "…exposure to gun violence is associated with increased levels of aggression, anxiety symptoms, and – to a lesser extent – depressive symptoms" (p. 361). In fact, further analysis indicated that exposure to gun violence was associated with anxiety and especially aggression in a unique way, with reactive regression being significantly higher during periods of gun violence exposure. Shulman et al. (2021) surmise that exposure to GV may interfere with a young man's ability to emotionally regulate, are more likely to be fearful and perceive vague social interactions as hostile, increasing their risk of further violence and trauma.

It has been shown that the physical and mental sequela of gun violence can lead to posttraumatic stress disorder in both youth and adults (Altheimer et al., 2022; Bailey et al., 2022;

Borg et al., 2021; Shulman et al., 2021). This topic provides a variety of avenues for discussion however, the focus here will be on the emotional dissociation that can occur after having been shot. What Hariston described as being "a ball of emotions at that point…" is reflected in the work of Koh (2021) who states that one of the first things that happens during a traumatic event is a numbing of the individual's mind. This could explain what I witnessed when caring for the young man who had been shot for his cell phone, a scenario introduced in Chapter One. However, these emotions are layered with influences of previous personal trauma as well as the collective trauma of the family and community. Koh (2021) posits that the collective may also appear devoid of emotion or may appear frenzied in their behaviour. Missouridou (2017) describe that experiencing trauma can result in feelings of anger and moral outrage that is directed onto others, especially those in authority. In both the individual and collective mind there can also be a desire to isolate and avoid the feelings of shame and humiliation that comes with the exposure of one's vulnerabilities' (Koh, 2021). Could this frenzied behaviour be a part of the "ball of emotions" described by CBP Hariston? Moreover, could it also include the negative encounters with persons suffering from GVI that the CCTN participants described in this study?

Further compounding the trauma experienced by persons with GVI are the lifesaving treatments associated with their stay in a critical care unit. In Warlan and Howland's (2015) literature review, they describe that being in a critical care unit, and the requisite lifesaving treatments and interventions, can also be a traumatic event. They discuss the impact of medications used to counteract hypotension, such as norepinephrine, can mimic the body's own stress response for prolonged periods of time. Sedating medications which allow their body to heal and/or keep them on mechanical ventilation, have been positively associated with post-

traumatic stress (Warlan & Howland, 2015). This is especially true for those sedative medications with an amnesic effect, such as Propofol. Ironically, in anecdotal discussions I have had with other CCTNs, we believe the amnesic effect to be a good thing, as I have heard said, and have repeated myself, “no one needs to remember this.” However, according to Warlan and Howland (2015), a large multicentre study conducted by Granja et al., (2008), found that having no memory of one’s critical care stay had a positive association with post-traumatic stress symptoms. All of this, plus other factors including mechanical ventilation and delusional memories can complicate and prolong recovery and affect their overall sense of wellbeing (Warlan & Howland, 2015). Family members, who also have gun violence injuries, resulting from the ripple effect associated with GV, as well as experiences shared within collective trauma, find the sudden admission of a loved one to a critical care unit traumatic. They noted feelings of fear and anxiety, especially when not given timely updates from critical care staff (Björk et al., 2019; Twohig et al., 2015). In their review, Björk et al. (2019) surmised that families are left living life in limbo, fearing the worst, have feelings of helplessness and powerlessness, but refusing to give up hope. I propose that persons living with daily GV already experience these feelings, and watching a loved one in a critical care bed further exacerbates the trauma experience.

Through personal experiences of caring for persons with GVI and evidenced by this study’s findings from the CBPs and the CCTNs, there is a deep seeded need to feel safe. From these implications, I propose that family members also have a deep seeded need to feel safe as well. As stated by the CBPs, and seen in the literature, this can be challenging for families within a hospital setting as trust between racialised individuals and medical professionals has been lost (Orb et al., 2017; Samuels-Wortley; 2021). Moreover, families have little control over the

situation as they are reliant on two professional groups in which they have little trust for information (Twohig et al., 2015). They rely on healthcare professionals for updates on their loved one's status and on the police regarding the status of the investigation (Twohig et al., 2015). Maslow's hierarchy of needs identifies safety as a basic human need second only to basic physiological needs (Maslow, 1943). In nursing school, it was taught that safety included preventing falls, blood clots or pressure ulcers (McLeod, 2024). Mollon (2014) conducted a concept analysis in which safety for a patient during hospitalisation included trust, feeling cared for, feeling the presence of another human being, and knowledge. Trust, according to Mollon (2014), is developed within therapeutic relationships as patients' needs are met in a timely manner and as nurses enact behaviours that indicate their best interests are considered. The concept of feeling cared for encompassed nursing skills of availability, responsiveness, willingness to be present, checking on the patient, and anticipating the patient's needs. Presence of the nurse and the family is a concept that denotes a feeling of not being left alone. Nursing presence creates a sense of caring, security, and decreased vulnerability. Family presence provides comfort and a sense of safety. Lastly, the concept of knowledge is associated with a nurses' competency to not only perform technical skills but to recognise changes to a patient's condition.

Of greatest importance is "Through interactions with the nurse, patients decide [their] knowledge and competency…and when patients determine that a deficit is present, they begin to feel unsafe, vulnerable, and potentially distrustful. Once this breakdown in the relationship occurs, it can become quite difficult for the nurse to reverse these feelings" (Mollon, 2014, p. 1731). This reinforces the code cluster within the *Please Keep Me* Safe theme of *Trust Lost.* If trust has been lost before the patient, and family, even arrive at the hospital due to repeated

negative experiences with police, first responders, or previous hospital admissions, it will be exceedingly difficult for the nurse to regain or possibly ever earn the trust of their patient. Wassenaar et al. (2014) completed a systematic review examining the factors influencing patient self-reports regarding feeling safe during their stay in a critical care unit. These were comparable to the Mollon's (2014), Wassenaar et al.'s (2014) findings that revealed nursing care, including approach, attitude, expertise, and ability to communicate were essential components of safety. For persons with GVI, safety needs both encapsulate these and extend beyond. As described by the CBPs, safety includes ensuring the patient is in a quiet room safe from possible retaliation, a police presence, possible police interrogation, and freedom from fear (Jacoby et al., 2018). But I ask, in a society designed to maintain structural oppression and violence, is freedom from fear obtainable? I have yet to find research looking at the needs of GVI persons *during* their hospital stay in general, and their safety needs specifically. This, too, is identified as a necessary next step.

This section, although much too brief, offers a glimpse into the trauma-associated safety needs of patients admitted with GSI, the layers of individual and collective trauma that began long before any one individual was shot. Admission to a hospital, specifically a critical care trauma unit, can compound the traumatic injury and needs to be factored into future best practice considerations when caring for persons with GVI. However, as seen in the themes that emerged from the data, CCTNs are also struggling with their own trauma and the tension felt when caring for everyone, understanding what they are experiencing and the toll of bearing witness. This will be the focus of the remaining discussion.

The Toll of Bearing Witness: The Cumulative, Concurrent, Consecutive, Continuous and Collective Trauma of Critical Care Trauma Nurses

First identified in the findings and seen across the themes, *Caring for Everyone, Making Sense of the Senseless* and *The Toll of Bearing Witness*, CCTNs have shared their experiences of caring for persons with GVI. Mixed with the pride of being a CCTN, these nurses are willfully and knowingly caring for a unique group of individuals suffering from trauma within a unique environment. CCTNs suffer the adverse toll of bearing witness to the ravages of interpersonal and structural violence on persons with GVI. Phineas illustrated this with a description of witnessing the wounds across a patient's body from the bullets, in addition to the surgery required to save that person's life because of the interpersonal violence that has occurred. Wyndolyn also described witnessing racism in action as former colleagues refused to assist her as her patient with GSI deteriorated and the patient's mother fainted. This is compounded by the absence of intentional hospital education or policy that addresses the trauma experienced by CCTNs along with gaps in nursing education. These nurses, by virtue of their role, are left to their own devices when it comes to ardent attempts to make sense of the persistent GV exposure. This section will include a discussion of the types of traumas experienced cumulatively, concurrently, consecutively, continuously and collectively by nurses, their attempts to make sense of GV, and how blame fits into sensemaking.

Beginning with indirect trauma, as identified by the DSM-5, nurses en masse experience trauma due to the circumstances and situations associated with the care they provide (See Figure 8 above, Levi et al., 2021; Missouridou, 2017; Stelnicki et al., 2020). For CCTNs, this would be the repeated exposure to deeply unsettling details of the traumatic event. This occurs at least twice a shift during handover, in which they must listen to or relay how and where the patient

was injured as well as the various interventions required to save the patient's life, such as their intubation and any major surgery or surgeries. It can also occur while listening to the stories recounted by patients or family members, such as experienced by Kaydon upon learning that the current patient had been shot by a patient cared for the year before.

Synonymously known as vicarious trauma, secondary trauma, burnout, and compassion fatigue, for the remainder of this discussion, the term *vicarious* trauma will be used to describe the indirect trauma that emerged within this study's findings. May & Wisco (2016) add that vicarious trauma describes the trauma exposure that occurs while doing one's job. Furthermore, it occurs during a therapeutic relationship, can alter one's beliefs, and how one sees the world around them (May & Wisco, 2016; Mento et al., 2020; Muehlhausen, 2021). According to Muehlhausen (2021) this is the first time that vicarious trauma has been recognised as one of the criteria for the DSM-5's definition of posttraumatic stress disorder (PSTD), in which persons live with intrusive thoughts or dreams, where distressing places or memories are avoided, in which persons live with altered thought, mood and behaviour (APA, 2022). Recognition of vicarious trauma as a possible source of posttraumatic stress injury (PTSI), a preferred term to PTSD as it reduces stigma, is essential to obtaining the proper care. A literature review by Schuster & Dwyer (2020) reported the prevalence of PTSI occurring with nurses varied greatly, ranging from 6.7% to 95.7% (Lipov, 2023). Critical care nurses experience higher rates of burnout and posttraumatic stress, approximately 33%, compared to their non-critical care counterparts, approximately 18% (Costa & Moss, 2018; Levi et al., 2021). This repeated exposure for CCTNs is referred to in this paper as *cumulative* and *consecutive* trauma.

In experiencing vicarious trauma, nurses' express feelings of anxiety, anger, depression, guilt and had an overall negative impact on their lives (Mento et al., 2020). These authors

describe vicarious trauma, secondary trauma, compassion fatigue, and burnout on a continuum with related features but distinct definitions. The resulting somatic, psychological, and emotional consequences of this continuum reflect the symptoms of nurses in this study and includes others that were not discussed, including medical errors, decreased quality of care and poor work performance (Mento et al., 2020). Missouridou (2017) described the emotional responses of nurses to patients who had experienced trauma in their literature review. These responses included: (a) disengagement – also known as detachment, withdrawal or disconnection, whereby nurses engaged in avoidance and emotionally numbing behaviours to offset the uncomfortable feelings they have been having; and (b) overinvolvement –perceiving the patient and family as helpless, some nurses may self-sacrifice or cross professional boundaries in an effort to rescue the patient and family.

The emotional response of disengagement mirrored some of the experiences of caring for patients with GVI outlined by participants in this study. Within the concept of disengagement, Koh (2021) describes how an individual in trauma can encapsulate the memory formation of the trauma, so that the individual can “forget it". Described by two CCTNs as “blocking out memories” of caring for persons with GVI, disengagement is something experienced personally. Missouridou (2017) discussed what it was like for a nurse to manage the anger of patients who had experienced a traumatic event, such as persons with GVI. A variety of psychological defenses used by nurses’ means that their responses to such anger, and other patient responses, are complex, can appear chaotic and result in nurses feeling demeaned and humiliated (Missouridou, 2017). These responses are reflected in the findings of Freeman et al.’s (2014) study and the ambiguous feelings exhibited by some of the CCTN participants within this study toward their patients. The CCTNs felt they demonstrated respect but felt frustrated when the

respect was not reciprocated, not understanding the trauma-based sources of their patients' behaviour. These feelings of ambiguity and disengagement, can lead to confrontation between CCTNs and persons with GVI, contributing to the CCTNs increased feelings of shame, failure and hopelessness (Missouridou, 2017). Overinvolvement with persons with a GVI may not have been noted in this study due to the small sample size, or the fact that this behaviour is commonly associated with becoming secretive, or not sharing information with others on the team.

The CCTNs that participated in this study, not only experienced vicarious trauma but discussed their *concurrently* occurring direct experiences of trauma while caring for persons with GVI. Direct experiences, as identified in Figure 8, include those that are witnessed and/or experienced firsthand. Just as the provision of life saving care can be traumatic for patients and families, Schuster & Dwyer (2020) highlighted that nurses can also risk being a witness to traumatic events in the administration of such care. In going about their nursing care, the CCTNs in this study mirrored the results found in Levi et al. (2021) while they discussed having to dress bullet and surgical wounds, witnessing open abdomens, intubating patients, partaking in futile care or being unable to prevent the death of the person shot. The CCTNs also experienced trauma firsthand when they discussed negative encounters with some patients and family members in which they had been verbally or physically threatened or assaulted. For example, Wyndolyn described an event where a colleague had to be escorted to her car at the end of the shift having been threatened by a patient's girlfriend and having that threat verified by police. Direct experiences with trauma also include lack of support by their colleagues and/or a perceived lack of support/understanding from their manager and/or the organisation. Several of the CCTNs individually, and again within the focus group, discussed such experiences. This aspect of direct trauma is mirrored in the concept analysis conducted by Levi et al. (2021). The

combination of direct and vicarious trauma while providing nursing care can result in worsening symptoms of PTSI experienced by nurses (May & Wisco, 2016; Schuster & Dwyer, 2020). Within several of the sources cited, the word “disorder” was used instead of “injury”. Rather than pathologising the outcome of bearing witness, there is a social movement to understand these exposures as injuries, thereby inviting a language shift. CCTNs’ understanding of their experience of caring for persons with GSI matters.

These experiences with direct trauma involving more than a single individual could also be considered *collective* trauma, the psychological response to a traumatic event shared by all members of a group (Cypress, 2021). Framing the trauma experiences by the CCTNs as collective opens the discussion of trauma as it is experienced by nurses, acknowledges that nurses as a group can be interacting with their patients and families, but at the same time they can be devoid of meaningful emotional connection (Koh, 2021). It can be postulated that the differentiation between CCTNs and other groups that have experienced collective trauma are the ways in which CCTNs can experience trauma. CCTNs can have a shared traumatic experience at the same time but can it also continue to be spread to other members of the same group, that were not present at the time of the event, such as was identified in the code cluster *Shared Traumatic Experiences* within the theme, *The Toll of Bearing Witness*. The group of CCTNs on shift together may be the individuals experiencing the trauma, however that is quickly shared with other CCTNs that are coming on the next shift or shared in conversation. Missouridou (2017) suggests that a nurse's emotional response to trauma is a social response, with explicit and implicit rules on how to cope. The aforementioned CCTNs’ pride of being able to do work that others cannot do can, in fact, be a coping mechanism allowing for the illusion of control. As a final thought, although apparent that CCTNs do not share a singular traumatic event, they do

share repeated direct and vicarious traumatic events that are recounted at the beginning and end of each shift. The constant retelling of events ensures that the traumatic event survives and is remembered by those far removed from the event. Such was the case for the CCTNs interviewed, in which three of the eight nurses were focus group participants, discussed a significant shooting event that had occurred within Toronto in 2012. It is within this collective memory that the CCTNs are attempting to make sense of what they have witnessed and experienced (Hirschberger, 2018).

Sensemaking and Blame

Sensemaking, according to Ancona (2012) is the process by which rapidly changing events are structured into a framework that allows individuals to plausibly understand, explain, assign, and extrapolate information so that action can be taken. Ancona (2012) likens sensemaking to the creation of a map, as it removes anxiety, provides hope, builds confidence, and allows for action to occur (Ancona, 2012). Research on sensemaking and trauma describes sensemaking as occurring during or after a traumatic event, in hopes of identifying what happened, why it happened and who is responsible (Maitlis & Sonenshein, 2010). Sensemaking can occur individually, collectively and can be cumulatively influenced by the institution in which the employees are embedded and operates to uphold the institution. Therefore, when CCTNs, both individually and collectively, attempt to make sense of a traumatic event that occurs with persons with GVI, they strive to find a shared meaning that becomes a part of the unit's culture. In doing so, they look outside themselves and the organisation for what is happening and who is responsible (Maitlis & Sonenshein, 2010). Importantly, identity is a crucial type of shared meaning that surfaces and can be threatened during a crisis (Maitlis & Sonenshein, 2010). This was observed emerging from the theme *Caring for Everyone,* within the

code clusters of *Pride* and *Unique.* CCTNs ability to do a job that many others are unable to do within an environment that is unlike most others found in hospitals, are two sources of their collective identity. In the face of collective traumatic events, directly or vicariously, I posit that CCTNs feel that their understanding of their identity is threatened, through a loss of control and as their collective consciousness is being pushed toward change (Koh, 2021; van de Ven, 2020). With this newfound ambiguity and a resistance to change they begin to question who they are and why they are there (Koh, 2021; Maitlis & Sonenshein, 2010). Emerging from the collective trauma, CCTNs similarly can redefine their identity through sensemaking (Maitlis & Sonenshein, 2010; van de Ven, 2020).

However, Dwyer et al. (2023) point out that there is little research concerning how individuals engage in sensemaking following a traumatic event. Indeed, Maitlis & Sonenshein, 2010, only offered two sources in their article. Regarding the participating CCTNs, I believe that they wish to understand and explain how an individual was shot, why they were shot and who is responsible so that they can assign responsibility and extrapolate what they need to know to keep themselves and their patient safe. At the same time, the CCTNs are attempting to begin the trauma recovery process of their own through the process of sensemaking and peer support (Maffly-Kipp et al., 2022; van de Ven, 2020). This may or may not be an intentional process which begs for further investigation. As nurses *continuously* recount events, thereby reliving traumatization while also inviting the perspective of others, there can be a "lost sense of order in and control over one's life story…" Thus, I believe that it is within this moment that patient blame can occur (van de Ven, 2020, p. 1826).

Blame is both an internal or cognitive process and an external or social process. It is a means by which we socially regulate individual behaviours while also allowing persons to make

sense of human behaviour (Malle et al., 2014). This is a highly studied topic within psychology and, while an in-depth review here goes beyond the scope of this thesis, the practise of blaming patients may somehow be due, in part, to the advancement of our biological and medical knowledge, and the search for avoidable risk factors or preventable illness (Gunderman, 2000). The lifestyle narrative that has been popular in public health messaging for decades and include suggestions that folks could (and should) simply change their behaviour in order to access better quality of life. This was state sanctioned, albeit indirect and likely inadvertent, victim blaming. In fact, Gunderman (2000) suggests that blaming the patient may be an opportunity for healthcare providers to individually alleviate themselves of the responsibility of the patient's poor health or outcome. However, this way of thinking is dangerous and Gunderman (2000) reminds us that there "is a link between hazardous behaviours and broader personal and social conditions of life", such that their 'choices' are not really choices at all (p. 8). Is this possibly what is happening now between CCTNs and persons with GVI? Do some CCTNs believe that participation in GV is a choice in an effort to alleviate themselves of any responsibility of their patient's possible outcome?

Much like the social process of sensemaking, blame is also a social process, and I speculate if it is a mechanism through which the CCTNs are attempting to make sense of the senselessness of GV (Malle et al., 2014). The CCTNs that participated in this study were concerned about the trauma of those that suffer from GVI as well as their own traumatic experiences. They are wanting to understand the how, why and who, and personally, how the goal to mitigate or prevent further violence. However, it has been established that traumatic experiences can lead to altered thinking (Cohen et al., 2006). This is even a feature of the DSM-5 definition of posttraumatic stress, in which "…distorted cognitions about the cause or

consequence of the traumatic event(s) that lead the individual to blame [themselves] or others" (APA, 2022, F43.10, D3). Due to their own traumatic experiences, CCTNs may engage in distorted thinking and unsupported ideas that can lead to the blaming of others. (Reich et al., 2021). Is this the source of conflict between wanting to care for persons with GVI and wanting to protect themselves? Are nurses, and other healthcare professionals, sustaining systemic racism, classism and credentialism through the act of blaming patients for their own gunshot injuries? Furthermore, does the practice of blaming create space for the CCTN to separate themselves from the individual with a gunshot injury? According to Austin et al. (2013) "Space…reflects our relationships" (p. 115). In the case of CCTNs, does the creation of space prevent the possibility of further trauma? Does this same space prevent the formation of a therapeutic connection with their patient and family? Is it possible that patients and families are left feeling unconnected and unsupported because of this space (Austin et al., 2013)? And does this contribute to individuals with new gun violence injuries feeling unsafe? Moreover, it can be asked are the efforts enacted by CCTNs to create space more than an attempt to prevent the perception of possible harm to themselves? Again, is it, in reality, a symptom of their trauma? In her interview, Wyndolyn recognised that some of her colleagues chose not to help her when her patient with a GSI, and their family, began to deteriorate. Wyndolyn asked "Do they not have capacity anymore? ...Or compassion fatigue and burnout? Or are they just angry? ...they were older than I was at the time, had more experience. Did they just have enough?" So how do we prevent, or mitigate, the effect of trauma on nurses?

Austin et al. (2013) compares the experience of being in trauma to that of being in a black hole, it is invisible, and the only evidence of its existence is the effect it has on those closest to it. In the writing of this section, I have noted that although vastly different, there are some parallels

between the trauma experienced by persons with a GVI and that of the CCTNs. The CBP provided insights as to how the experiences of gun violence ripple throughout families and communities. The CCTNs told us that it is their families, friends and colleagues that see the effects of the cumulative, concurrent, consecutive, continuous, and collective trauma. I propose that the way in which we might understand the experiences of CCTNs caring for persons with GSI is through the application of the socio-ecological model.

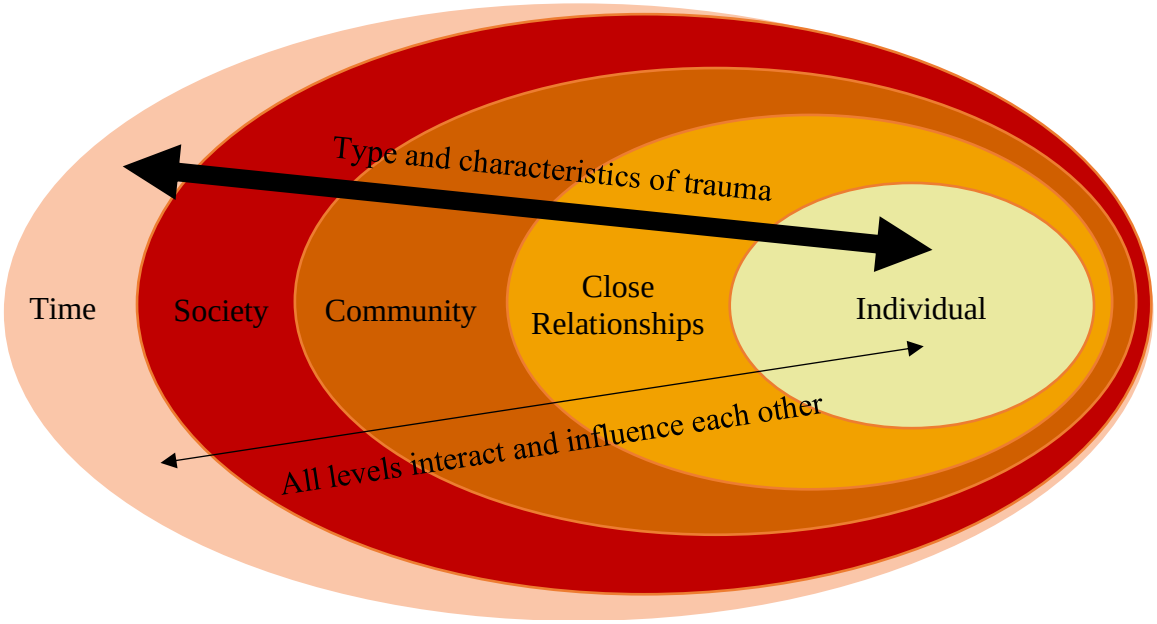
A Socio-Ecological Model for Critical Care Trauma Nurses.

It has been established that although the individual shot is the one directly affected by a GVI, the emotional and psychological effects are felt by those who are closest and can extend out to the community and society (SAMHSA, 2014). The SEM of violence prevention recognizes that harm reduction or prevention is a complex interplay of environment and individual factors (Golden & Earp, 2012). The above discussion highlights that CCTNs not only bear witness to trauma but experience their own while at work. It has been noted in the literature that health care systems broadly, and critical care units specifically, are complex adaptive systems. In light of that reality and for the purposes of this discussion, focus will be on the SEM that surrounds CCTNs as they strive to care for persons with GVI (Kiviliene & Blazeviciene, 2019; Preiser et al., 2018; Trinier et al., 2016). Inspired by Davidson et al. (2017) and rooted in Bronfenbrenner's (1977) model, I offer a SEM that highlights the influences affecting nurses, as described within the interviews and the focus group. These influences can include: relationships with patients, families and other health care providers; their place of practice; unions, associations and places of education; society at large; the influences of internal time, nursing experiences and when those experiences occurred in their professional development; and

external time, the effects of local and global health concerns, and along with nursing historical context, complete the ecological model of the nurse. (See Figure 9, Appendix Q).

Figure 9

A Socio-Ecological Model for Critical Care Trauma Nurses



Social Ecological Model: Derived from Bronfenbrenner, 1977; CDC, 2020; Golden & Earp, 2012; McGibbon et al., 2020; SAMHSA, 2014a; WHO, 2017

The nurse in the middle of the model develops from biological factors of, and the trauma experienced by, the CCTN (Bronfenbrenner, 1977; Davidson et al., 2017). At the close relationship level, in lieu of personal relationships, nurses develop close, professionally dynamic, co-created relationships, for example other health care providers and those in management roles of the hospital (Bronfenbrenner, 1977; Davidson et al., 2017; Gear et al., 2018a, 2018b). To be clear, these relationships do not have to be personally close to influence the CCTN at the heart of the model. The attitude and behaviours of the nurse next to, or the nurse covering for the CCTN at the center of the model, can exert an influence on the provision of care. These relationships exert influence on, as well as being influenced by, the nurse's community, such as, their place of

work, both the values and culture of the healthcare organisation as well as the smaller unit in which a nurse provides direct care (Davidson et al., 2017).

I propose that within this level exists the patients and families that are cared for by CCTNs, specifically persons with GVI. A CCTN is also affected by their societal level, which includes not only the social, but also the political and economic agencies that regulate the nursing profession. Within this level lives nursing organisations that determine nursing standards of care, clinical competencies, best practice and includes nursing education regulation (Bronfenbrenner, 1977; Davidson et al., 2017). In this proposed version of the CCTN SEM, the final level remains the time level, which includes internal and external time. Unlike the SEM for individuals with GVI, internal time includes Benner's stage of professional development and the subsequent patterning of professional events and transitions over professional stages (Benner, 1984; Bronfenbrenner, 1977; Davidson et al., 2017). External time, which includes historical context, as this represents how society understands and treats nurses and the current time period – in which war or a pandemic may be occurring. For further examples, see Appendix R.

Application of the Theoretical Frameworks

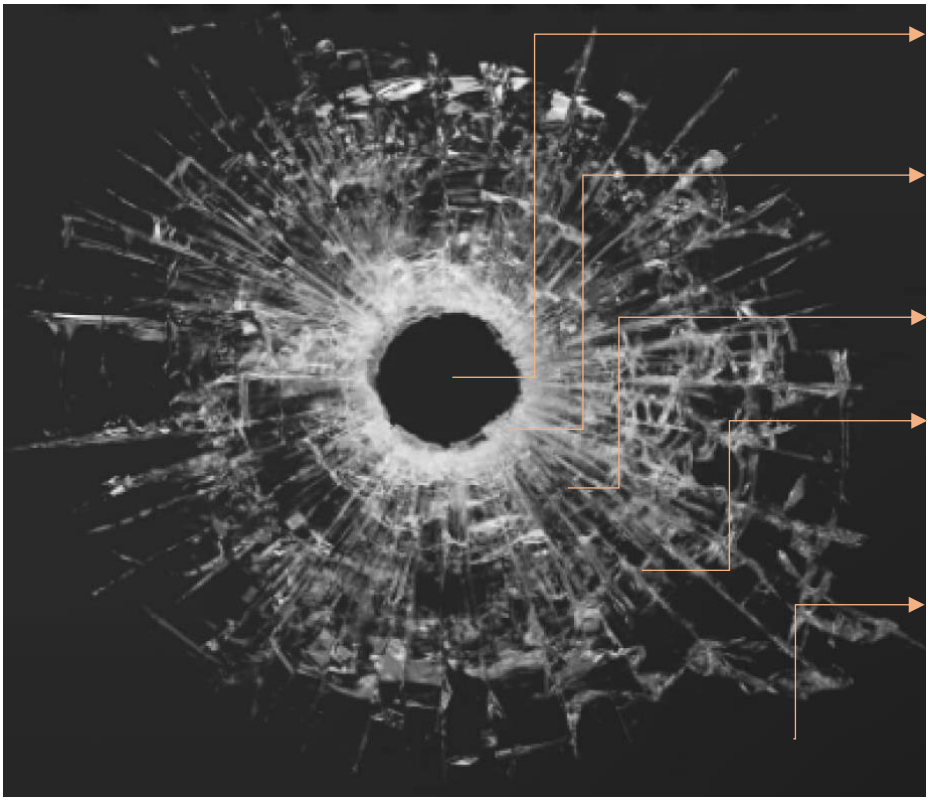
Throughout this chapter, the trauma experienced by persons with GVI and by CCTNs has been explored. However, what has not been adequately explored is the application of the theoretical frameworks to gun violence and the experiences of CCTNs. Through the lenses of complexity theory and the socio-ecological model (SEM), consultations with CBPs provided insight into the lives of those living with GVI. The CCTNs identified and explored their perceptions of GV, described their lived experiences of caring persons with GVIs and what they felt influenced their nursing care.

Situating Gun Violence within the Theoretical Foundations

The SEM was used to frame the literature review, continued through the CBP consultation findings and the CCTN interviews and focus group (See Appendices B, C and D). Through the CBPs' vivid descriptions of living with daily occurrences of GV and the exploration of the social determinants of GV in the Greater Toronto Area, what emerged was the imagery of a bullet hole in glass, its SEM symbolism, as well as a visual representative of the destruction it causes. (see Figure 10 below). Unlike clinical representations which has very discreet and separate levels (as seen in Figure 3 or Appendix B), the levels of influence within the shattered glass of the bullet hole are much less discriminate. I imagine that with more bullet holes, the structure of society will eventually weaken and begin to crumble away if GV continues to go unaddressed. Although Lemke et al., (2022) completed a cursory application of complex systems to GV, in which the focus is on the holistic, dynamic and multifactorial nature of GV over time, I have yet to see the application of complexity theory to levels of the SEM within the context of GV. I believe that such a discussion would deepen the understanding of how these influences function and provide further insight into areas where change can occur.

Figure 10

Application of the SEM to a Bullet Hole Within Glass



Source: Cover art from Rev. Sky Starr's (2019) Fractured Communities: Dissecting the Ripple Effects of Gun Violence.

Enhancing the bullet hole imagery are the SDGV shared by the CBPs in their consultations. Table 7 shows how the antecedents shared in this study are organised within the SEM and aligned with the literature reviewed in *The Complicated Nature of Gun Violence* section of the literature review presented in Chapter Two.

Table 7

CBPs Social Determinants of Gun Violence Organised by SEM Level

SEM Levels	CBP Antecedents Examples	Authors in Literature Review
Individual	Poverty, anxiety, depression, hopelessness, personal circumstances, lack of a role model, unsecured housing, race, marginalisation, and unable to trust people or institutions, judged on postal code, uncertainty of future, the reoccurrence of shootings and not feeling safe, world of experience is small.	Francis (2018) Khenti (2022) Turcotte (2020)
Close Relationships	As above, and picking up the pieces, burden of care giving, burned out, grief, and source of violence.	Bailey et al. (2013a & 2013b) Hannays-King et al (2015)
Community	Psychological and physiological effects of GV, vigils and funerals, schools in industrial areas, police station across the street from school, police parking in the school parking lot, being arrested in hospital	Bailey et al. (2013a & 2013b) Hannays-King et al (2015) Samuels-Wortley (2021)
Society	SDGV that are largely ignored by those not living in affected communities	Mauser (1995) Jahiu & Cinnamon (2022) Mullings et al. (2016)
Time	Internal: changing their current headspace, born into this External: long term effects of marginalisation, isolating effects of COVID	Internal: Bailey et al. (2023), Wamser-Nanney et al. (2019) External: Bailey et al. (2023), Amin et al. (2021) Charles (2021)

Going deeper, complexity theory attributes provide a glimpse into the interactions occurring within and between the levels of the SEM. Beginning broadly, the SEM in the context of GV, is a complex adaptive system, in which individuals interact and respond to each of the various levels. This continuous adaptation can also lead to coevolution, in which all levels are evolving in response to the influence of others (Gear et al., 2018a). Building on this idea, the

individual can respond to close relationships and the community levels of influence in diverse ways. Within the complexity theory, an individual being shot is a 'Far-from-equilibrium' event, disrupting the appearance of stability (Gear et al., 2018a). Like the glass in the above analogy, the previously flat, strong, transparent piece of glass has been shattered. Unable to go back to how it was before, the edges are rough, splintered, fragile and opaque. Having been shot, individuals, close relationships and community levels can respond in a variety of ways depending on their previous traumas and experiences with GV and any GVIs they may have.

With the above ideas of a bullet hole in glass fresh in my mind, I am drawn to the complexity attributes at play here. Through the lens of complexity theory, the socioecological model (SEM) is a complex adaptive system, within which the collective trauma is occurring. Feedback loops describe the multiple interactions with gun violence and/or systemic racism over time that lead to the reoccurrence of behaviours. Children, adapting to the influences not just on them but on their parents and grandparents, are demonstrating coevolution. The result of self-organisation and emergence is the development of new behaviours that come from GV and/or oppressive social structures. I posit that the outcomes of each of these complexity attributes can possibly lead to even more GV. For example, if left unchanged, repeated negative experiences in the form of feedback loops and continuing coevolution of multiple generations will continue to perpetuate and escalate the cycles of violence that are seen in the rising statistics of gun violence. Day and Hunt (2023) and de Coning (2022) explore the use of complexity theory as applied to peace – the antidote to violence. They describe complex systems, such as the SEM, to be comprised of individuals that are connected in ways that lead to an "intricate interdependency" and thus inherently uncertain outcomes (Day & Hunt, 2023, p. 4; de Coning, 2022). The greater the degree of interdependence, the greater the influence for change. Of particular interest to this

thesis is the understanding that an intervention introduced to a complex system will not produce or control linear change. Secondly, due to the unpredictable nature of complex systems, there are possible unintended outcomes from an intervention (Day & Hunt, 2023; de Coning, 2022). Given the paucity in the literature examining GV through the lens of complexity theory, this may be an area worthy of further exploration. In the spirit of the work published by Day & Hunt (2023) and de Coning (2022), if we explore peace, the antithesis of violence, through the lens of complexity then conversations can include not only the antecedents to violence, but the antecedents to peace. If nurses are intricately interdependent with persons that have GVI, then any intervention toward peace must be a consideration in answering the question "what can nurses *do* from the bedside to stop this from happening again?"

In Chapter One, I use a knitted sweater as a metaphor to visualise how complex the influences are for persons with gun violence injuries. This sweater was described as both worn and shaped by systemic oppression while also serving as protection from society. The yarn used to create the sweater comes from the SDGV and is coloured and sized by the complexity attributes at play within and between the various levels of the SEM.

The CCTN Socio-Ecological Model through the Lens of Complexity

What remains to be explored is the effects of trauma on CCTNs within such a SEM, and deeper exploration of trauma through the lens of complexity science. If nurses are experiencing both direct and vicarious trauma while at work, at what SEM levels does trauma occur? Missouridou (2017) suggested that healthcare professional posttraumatic stress may have chaotic responses to patients' behaviour. Could this be a nonlinear response (Sayama, 2015)? With this model, how do we prevent further traumatization? An argument could be made that a CCTN's close relationships could help mitigate traumatic events. Ali et al. (2021) posits that in the face of

trauma, healthcare workers can work toward shared posttraumatic growth and introduces the concept of "shared resilience" in which individuals experience positive responses that go beyond returning to baseline (p. 46).

Moving into the community level, how does the hospital management prevent trauma from occurring? Do trauma systems and a hospital's physical and psychological environment contribute to trauma? Are the resources offered by the hospital sufficient to meet the needs of CCTNs experiencing trauma? What societal factors contribute to the traumatization of critical care trauma nurses? This model acknowledges the complex environment in which nurses work, and the dynamic connections that have influence on the nurse-patient/family care and relationship (Davidson et al., 2017).

Much like the SEM for persons with gun violence injuries, there are multiple complexity attributes functioning within these levels. According to Gear et al. (2018b) complexity theory surmises that to understand a complex problem, it is essential to understand the patterns of interactions that occur. The socio-ecological model for CCTNs is a complex adaptive system. Nurses working together coevolve and self-organise due to the influences within and from other levels of the SEM, thus allowing for the development of their expertise (Trinier et al., 2016). Coevolution and self-organisation lead to the emergence of changed practice or behaviours within the unit, boundaries are established both within the CCTNs unit and within the hospital itself. The system as a whole is influenced by not only the history of nursing at large, but the history of trauma systems, the hospital and the critical care trauma unit. Trinier et al (2016) discuss the nurse-patient feedback loop, in which the nurse has continuous surveillance of the patients' vital signs, and importance of the hospital maintaining equipment and of the different levels of government providing adequate funding to maintain safe nurse staffing levels. But how

do you define a traumatic event for a CCTN using the language of complexity? Would it be a far-from-equilibrium occurrence? Would it be something that disrupts the dynamic balance required to function within a critical care trauma unit?

Such a representation within this work's theoretical framework presents the opportunity to further explore and understand how these two models interact. Are the CCTNs embedded within the community level of the gunshot injured individuals' model? Where do patients and families fit into the SEM for CCTNs? Is it at the community level as I propose? Although the CCTNs interviewed and those within the focus group identified the intimate nature of the nursing care provided, we have learned that intimacy is not and should not be reciprocated, given the necessity to maintain professional boundaries. Or do the models interact, subject to the influences of power and privilege, with different perspectives of the same trauma? Through its application, in either instance, CCTNs could possibly affect the spread of GV across social networks by exerting influence at the community level, and subsequently the interpersonal and individual levels, as this is consistent with the beliefs of those CCTNs that participated in the focus group (Cukier & Eagen, 2018, Bruce et al., 2019; Fischer et al. 2019). But, to me, this question of how the models interact is one of the biggest questions emerging from our application of both complexity theory and the SEM. If patients are one of the sources of trauma to CCTNs, how do we mitigate it within this model? Should the focus be on bolstering the existing professional relationships within the SEM such that the CCTN in the center has the capacity to cope and thrive even when therapeutic relationships become difficult?

Returning to my knitting metaphor and the question I had asked in *Chapter One* - Do nurses (CCTNs) have their own sweaters, shaped by their own experiences and perceptions of society? I would have to say yes, nurses do have their own sweaters. These sweaters are

cocreated, with yarn spun from their own life experiences and experiences they have at work, with patients, families, colleagues and the management of trauma centres.

Addressing the Research Questions

In this analysis I explored four themes that emerged from the data: *Please Keep Me Safe, Caring for Everyone, Making Sense of the Senseless* and *The Toll of Bearing Witness*. From these themes, the topic that overwhelmingly required the subsequent discussion was *We are All Humans (in Trauma)*. With the completion of the analysis and the discussion I have found the answers to my research questions. At the beginning of this study, I asked:

1. How do CBPs, who work with individuals involved with gun violence, describe GV and its antecedents?
2. How do CBPs describe what it is like for an individual with a GSI, and their families, to return to the community after a stay in hospital?
3. What are the perceptions of CCTNs toward gun violence, and their patients with GSI?
4. What are the personal experiences of CCTNs in caring for patients with GSI and their families?
5. What do CCTNs identify as influences upon them that affect their nursing care of patients with GSI, and their families?

Beginning with the questions regarding the community-based professionals, the antecedents, or social determinants, of gun violence were discussed in depth in the analysis chapter. Broadly speaking, antecedents include poverty, food and housing precarity, survivorship with fewer role models, mothers left responsible for caring for those who have survived their injuries and/or mothers dealing with their own grief and trauma. The antecedents were listed and

explored in the previous chapter and Table 1. What was further considered was the effect of GV and it ripples through families, communities and society (illustrated Figure 10).

Secondly, in consulting the CBPs, this study sought to understand the experiences of individuals and families involved in or affected by GV, as they returned to the community from the hospital. The CBPs described how, being *born into it* describes that for some, guns and gun violence are an ordinary part of daily life. However, being *born into it* can also describe the systemic racism and community marginalization that leads to decreased availability of resources. In both instances, it is not only the person who was shot that suffers, but it is those closest to them as well. Moreover, persons with GVI are simultaneously experiencing being born into gun violence and/or born into systemic racism and marginalization, resulting in persons with GVI experiencing collective, intergenerational and historical trauma. Further compounding their traumatisation were repeated negative experiences with police, paramedics and other community level professionals (teachers, lawyers, nurses, other healthcare professionals, etc.). Such repeated negative experiences meant that for those that had experienced GVI, it was difficult for them to trust the nurses charged with their care. Without trust, the patient does not receive the care they need, both due to the patient pushing the nurse away, and the nurse staying away, not understanding the patients' behaviour. The CBPs shared how fear can be the root cause of a variety of behaviours that are witnessed by the CCTNs and can include, but is not limited to: flat affect, non-cooperative, confrontational and/or aggressive.

Discussions with the CCTNs revealed that these nurses perceive gun violence as senseless, and they struggle to understand what it takes to inflict such malice on another human being. While the CCTNs were able to recognise some of the socio-political and economic antecedents identified by the community-based professionals, the structural determinants of GV

did not feature prominently in the interviews or focus group. The nurses interviewed recognised the contributions of the media in the perpetuation of gun violence and unfair stereotypes for those that are involved. Going beyond the stereotypes, the participants recognised that all persons associated with GVI, the patients and their families, are deserving of dignity, respect, empathy and compassion. Moreover, they understood that family and friends of the patient were not only affected by the violence associated with the shooting, but by the medical care required to save the life of their loved one.

CCTNs felt the need to locate to whom and where gun violence occurs. It is unclear, as it was not within the scope of this study to understand, why they need to locate the GV. However, within the context of trauma it is plausible that they would want to create space between themselves and something that is perceived to cause them harm, as suggested by Austin et al. (2013). This separation could come from the recognition of the potential personal consequences of caring for persons with GVI, and a feeling that not enough is being done to maintain their safety and that of their patients. The personal consequences shared by the CCTNs included expressing a variety of emotions and an inability to cope with daily life. They felt they had nothing left to give to their families or were angry and/or anxious all the time. It changed how they saw their community and society. Half the nurses described how they have learned to listen more deeply to their families, and some used their experiences as cautionary tales with their children.

Caring for persons with gun violence injuries is a unique nursing experience with a unique population. It is clearly a nursing phenomenon and area of inquiry long neglected. In reflecting on their experiences with patients and families, the CCTNs acknowledge that lifesaving critical care interventions can be traumatizing for the patient, their families as well as

for them. The nurses that participated disclosed how they witnessed disfiguring injuries that resulted in altered functioning of the individual who was shot as well as those closest to them. Encounters with patients and families ranged from positive to negative, with negative encounters leaving nurses with feelings of frustration and resentment. These feelings were especially strong when they felt they were being disrespected after demonstrating respect to the patient and/or family. Due in part to a lack of guidance and/or education from trauma centre leadership, CCTNs had to draw on and devise their own coping mechanisms, including but not limited to developing a thick skin, dark humour, and compartmentalisation. Negative experiences could also lead to feelings of frustration and resentment when the participants felt they were being disrespected.

Traumatic experiences, such negative encounters or witnessing disfigurement and/or altered functioning, rarely happened in isolation and the CCTNs recognized that the traumatic experience they had were often shared with colleagues. Sharing experiences was an important aspect of their unit's culture, and I posit that in the sharing of these experience, CCTNs can build a shared resilience to traumatic events. On the occasions when the traumatic experience overwhelmed the coping mechanisms of the nurse, they engaged in activities that attempted to make sense of the senseless GV. If left unaddressed, the emotional separation or compartmentalisation would occasionally lead to blocking out memories of the traumatic events or engaging in dehumanising behaviours. The nurses recalled one such dehumanising behaviour upon hearing some colleagues say that the patient ‘deserved it’, because they were ‘a member of a gang’. This act of blaming the patient for getting themselves shot was one activity used to make sense of traumatic encounters. Moreover, the CCTNs observed that blame did not stop at patients, with some nurses blaming parents/families, gangs, police and society at large. While rare in the findings in this study and not unique to this specialised area of nursing, blaming

patients for their circumstances emerges as something that is incumbent upon the specialty of CCT nursing to explore.

In discussing their lived experiences with persons with GVI, the CCTNs also reflected on influences on their nursing care. Although acknowledging that media outlets could help them mentally prepare for going to work, the participants believed that their greatest source of influence was from within the workplace. The attitudes and behaviours of their colleagues, in the close relationship levels, in combination with the lack of guidance and education from leadership, had the greatest influence on the CCTNs' ability to provide care. Additionally, the shared traumatic experiences, and the resultant shared mentality, were described as having both positive and negative influences. This shared mentality informed the CCT unit culture, and as two nurses highlighted, so too does the colonialist, privileged, military and Eurocentric roots of the trauma centre and trauma system origins. CCTNs also identified the influence of police that accompany the patient at the bedside. Their presence not only erodes the feeling of safety for the patient and the nurse, but they also attempt to influence the nurses themselves. At the same time, they negatively influence the patient and their family, inhibiting the formation of therapeutic relationships. While it is the patients and/or families themselves that exerted the greatest influence on the nursing care provided, the presence of police cannot go unexamined. Police and security guard presence has been written about within psychiatric nursing literature, a phenomenon of nursing inquiry, it might benefit from further investigation within the context of caring for persons with GSI. CCTNs recognise that when patients are admitted to a trauma centre with a GSI, it is likely one of the worst moments of their and their family's lives. Furthermore, the CCTNs acknowledged that the trauma incurred while caring for such patients had a resultant influence on the care they could provide, especially when their own safety was at risk.

Within the answers to these questions is the opportunity for CCTNs to understand their patients and families better. These findings could allow CCTNs to create new approaches and be mindful of the need to create trust with persons with GVI. Creation of trust for CCTNs begins with the acknowledgment of being *Born into it*, 'it' being both GV and the systemic conditions that created the belief that guns are needed. The creation of trust extends into the establishment of a safe place for persons with GVI. This cannot be accomplished without the support of trauma centres. Changes to policy, that is, a model of care along with the acknowledgment that hospitals can sustain systemic oppression is required if persons with GVI are to feel safe. Once trust is established, it not only allows the patient and their family to receive the care they need but allows the CCTNs to participate in social justice from the bedside. It is conceivable then, that CCTNs will have fewer negative experiences, contributing to their own safety, and mitigating their own experiences with trauma. CCTNs can continue to demonstrate their belief in dignity and respect for all is validated.

Positionality - Situating Myself in the Trauma

Before proceeding to the concluding chapter, I wished to take a moment to address something that emerged from the discussion. After several intense days of reading and writing about trauma as it pertained to persons with GVI and then for nurses, it was only on completion of my first draft of the discussion that the weight of it all sunk in. I had the realisation "Oh, that's me!" Not only had I written about the powerful experiences kindly shared with me by the study's participants, but I had written about myself, my experiences. This thought weighed heavy on me for days, and weeks. I recognised the behaviours and symptoms and was left with feelings of confusion and sadness. I know the "gnawing" feeling that Dr. van der Kolk (2014) referred to and what it is to "feel chronically unsafe" in my own body, as I still experience this today. I

sought out time with trusted CCTN and non-CCTN friends, had thoughtful and supportive discussions with my supervisor, and relished my appointments with my therapist. All of this enabled me to process my thoughts and feelings. But it has also occurred to me that I now *can* feel the pain and sadness. The numbness that had pervaded me is abating and I can painfully feel the pins and needles. I can no longer hide from myself. I realise now that a metaphorical sweater has been knit for, perhaps not by me, but generated by the traumatic experiences I had as a CCTN. This is something I have been wearing both inside and outside of work for quite some time. Instead of being a comfort, it is itchy against my skin, too tight, and the unyielding yarn has further contributed to my numbness. As I begin to cut myself out of this sweater, I am now questioning my future as a CCTN that works at the bedside. This summer will mark my twentieth year as a critical care trauma nurse and it has become a painful experience. Not because of this study specifically, but of the burgeoning realisation that I have become resentful of being at work and the lack of understanding and support from some components of hospital management. Maybe they too don't know what they don't know. What I have learned however, directly from this study, is that I can still contribute to the wellbeing and health of others. By continuing to ask questions, seeking answers and sharing my knowledge, I can continue to strive to improve the lives of both patients and critical care trauma nurses. But for now, I say it is time to make a new sweater.

Chapter Seven

Implications, Recommendations, Questions and Conclusions

The 'Now What'' of it All

This academic undertaking began with me asking 'What can I do or say, while at the bedside, that could stop this [gun violence] from happening again?' after caring for a sixteen-year-old boy who had been shot for his cell phone. In asking this question, I learned about: the 'wicked' phenomenon of GV; the racial and marginalised nature of GV with its complexly woven, social and structural roots; how gun violence is a unique aspect of CCT nursing care with a shortage of scholarly interest; and the realisation that there was very little available to guide nurses working in critical care trauma units as they care for persons with gun violence injuries. I also heard professionals around me ask "What were you doing to get shot?" and made this the title of my study due to its provocative nature, rife with victim blaming.

Guided by my newly found knowledge of gun violence and awareness of the gap in the critical care trauma nursing literature, this study explored the perceptions of CCTNs surrounding gun violence as well as their lived experiences while caring for persons with GVI. The nurses that participated volunteered their thoughts and sometimes distressing encounters at the bedside. Added depth was given through consultations with community-based professionals who shared their wisdom around the antecedents of GV and their experiences with individuals returning to the community after a gun violence event that resulted in hospitalisation, incarceration or both. This knowledge was then shared with three participants in a small focus group, along with the socio-ecological model, expanding the discourse of what it is like to be a CCTN caring for an individual with GVI. I learned that: (a) CCTNs, for the most part, do not victim blame, but are focused on the critical care needs of their traumatised patients and in so doing, they experience

trauma themselves; (b) that for CCTNs, trauma is experienced cumulatively, concurrently, consecutively, continuously and collectively while simultaneously caring for individuals with acute, historical, intergenerational and collective trauma; (c) I learned when the CCTNs asked "What were you doing to get shot?", they were attempting to make sense of something they perceive as senseless, gun violence. The consultations with the CBPs taught me, however, that once one understands the SDGV, especially being born into circumstances beyond a single person's control, that GV is no longer senseless. This chapter includes the limitations of my study, followed by a discussion the implications, recommendations and emerging questions to guide discussions of nursing and GV, as well as suggested opportunities for further research.

Limitations of the Study

As with all research, the acknowledgment and discussion of a study's limitations offers the opportunity to reflect while adding credibility and integrity to the study results (Whittemore et al., 2001). There are several potential limitations to this study, beginning with me as the principal investigator. This is my first study as principal investigator and many of the tasks in this academic venture were being done for the first time. Through the thoughtful guidance of my supervisor, Dr. Cheryl van Daalen Smith, I have confidence that the study's methodology, data coding, clustering and overarching themes demonstrate authenticity and criticality (Whittemore et al., 2001). Moreover, as a practicing CCTN, with my own perceptions of GV and lived experiences of working with persons with GVI, I may inadvertently be directing this study based on my own conscious or unconscious views and biases. Being highly reflexive from the point of study creation, and throughout the entire process, is key to striving toward rigour and mitigating the inadvertent influence of one's own experiences on a study.

The remaining discussion regarding study limitations relate largely to the participant sample size and sampling. In this master's level endeavour, the participant sample size was kept relatively small, including two community-based professionals and eight critical care trauma nurses. As the focus of this study was on the perceptions and lived experiences of CCTNs, the remainder of this discussion will focus on the CCTN participants. The CCTN participants and focus group was relatively homogeneous, with only one male and three non-White participants. Both the sample size and the homogeneity of the group limit the study's generalizability. In accordance with Stebbins (2001), generalisations in exploratory research should be avoided since the goal of exploratory research is to produce hypotheses for possible future research.

Furthermore, the geographic limitations self-imposed on the study to CCTNs working within the Greater Toronto Area, reduced the pool of nurses available to participate to three trauma centres, two adult and one pediatric. Additionally, financial limitations to recruiting through provincial nursing associations, meant that seeking out participants was limited to word of mouth and social media, which resulted in all the participants coming from trauma centres within the Greater Toronto Area. Therefore, the participants of the focus group were known to each other which could have contributed to the homogenous viewpoints within focus group results. A lack of anonymity could have also influenced the participants comfort in sharing various ideas or viewpoints that may differ to those being discussed.

Recommendations, Implications and Emerging Questions

Due to the paucity of literature regarding nursing care for individuals admitted to hospital with gunshot injuries, and their families, this research represents a possible starting place for greater understanding and change around the unique needs of CCTNs and persons with GVI. Building from the study's contribution to nursing knowledge regarding individuals with GVI and

the required CCT nursing care, the implications, recommendations and emerging questions for practice and future research will be discussed. The following offering of recommendations regarding nursing practice, nursing education, trauma centre administration, and the opportunities for nursing organizations is sourced from the research findings, so the participants directly, as well as the analysis, interpretation and discussion of the findings.

Critical Care Trauma Nurses' Practice and Education

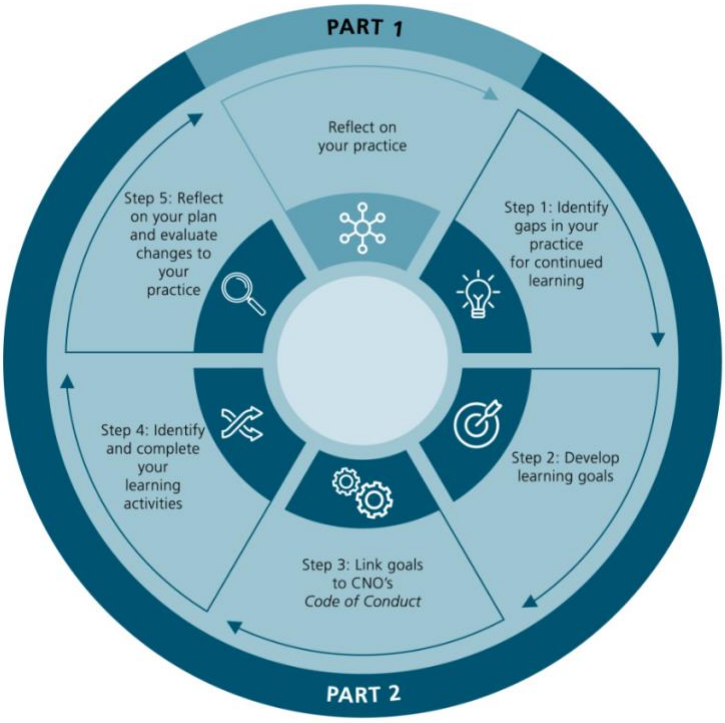
At the end of the consultations with the CBPs, I asked them what they would like the critical care trauma nurses to know. Their answers included words such as "compassion," "empathy," "understanding" and "respect." In remembering that *We Are All Human (in Trauma),* they asked that CCTNs working with persons with GVI develop their own self-awareness surrounding their biases and beliefs regarding marginalised communities. As a self-regulating profession, nurses have the obligation for accountability and a self-reflective practice (Canadian Association of Nurses, 2017; College of Nurses of Ontario [CNO], 2023). According to the CNO, the governing body for Registered Nurses in Ontario, "all nurses are accountable to reflect on their practice to determine their learning needs through self-assessment" (CNO, 2023, Opening paragraph). This cyclical process is comprised of two parts, part 1: reflect on your nursing practice, part 2: identify gaps, develop learning goals, link those goals to the CNO's Code of Conduct (a document outlining the accountabilities of all RNs in Ontario), identify and achieve the necessary learning activities, and reflect on your plan and evaluate changes to practice (See Figure 11, CNO, 2022).

This is not the only way to practice self-reflection according to Duffy (2008), who advocates for guided reflection as a part of professional practice. Although it this process is more structured and requires greater investment of time, those involved find benefit from diving

deeper into unaddressed issues, or issues for which they are not aware. With the use of a framework and a guide, a trusted individual that will lead the reflection, the reflector(s) will be empowered to "uncovering the knowledge behind the experience," (Duffy, 2008, p. 336).

Figure 11

College of Nurses of Ontario's Self-Assessment



Source: College of Nurses of Ontario's *Self-Assessment* webpage. https://cno.org/en/myqa/self-assessment/

However, this is not the only way to engage in a critical self-reflective practice. The Registered Nurses' Association of Ontario ([RNAO], 2017) outline several activities for students, that I believe should be continued into professional practice and include:

- Journaling – a safe space to critically reflect on situations, consideration of theory and allow for insight.
- Learning circles – verbal reflection in an interactive group setting, promoting a growth mindset and allowing for collaboration with colleagues.

- Peer sharing – the use of partnerships to allow for sharing, increased confidence and clinical reasoning, provision for support as well as increased autonomy.
- Technologies that support reflection – these can include online messaging and journaling apps as well as listening to healthcare stories shared over podcasts.

While each nurse's practice is their own, the opportunities afforded to peer or group activities can help nurses, specifically CCTNs with post-traumatic growth (experiencing positive change after struggling with a traumatic experience), and resilience as creation of a moral community is associated with lower symptoms of posttraumatic stress (Ali et al., 2021; CNA, 2017; Cohen & Collens, 2013). Moral communities, according to the CNA (2017), "enable the provision of safe, compassionate, competent and ethical care" (p.5). These moral communities can provide nurses with the opportunity to give and receive structured feedback from peers and hospital leadership, as a means of practicing evidence-based professional growth.

Going a step further, due to the highly specialised and unique nature of the CCT environment, dedicated efforts to support CCTNs continued development of emotional intelligence, as was suggested by Holbery (2015), would be beneficial. Emotional intelligence, one's ability to identify, express, understand and assimilate emotions of others while also reflectively regulating both positive and negative emotions in yourself and others, has both a place in critical care trauma nursing, as well as in moderating trauma impact and recovery (Görgens-Ekermans & Brand, 2012). This increased self-awareness, and the awareness of others, in the face of both patient and nursing traumatic events requires "moral courage" on behalf of the nurse, so that they can be their true selves when making meaning of suffering, a process by which maturity, knowledge and wisdom are enhanced (Missouridou, 2017, p.113).

Critical care trauma nurses can, and should respect clients' dignity, practice inclusive, culturally safe and humble care and participate in social justice activities, as it is written into the CNA's (2017) *Code of Ethics for Registered Nurses* and the CNO's (2022) *Code of Conduct.* Hope & Munro (2020) passionately state "Our capacity to rescue individuals from the ravages of critical illness obligates us to forge a health care delivery system of recovery in which all patients are seen as fully human and are given every opportunity to thrive" (p. 440). Furthermore, they suggest that CCTNs acknowledge that each patient is wholly seen, treated as distinct with unique needs, and are obligated to recognise the social context in which their care is delivered. Actioning social justice may be objected to by some, citing a lack of resources and the need to prioritize patients with greater acuity at a moment's notice (Engelhardt & Rie, 1986; Small, 2019). According to Small (2019), if nurses are to be agents for social justice and change, then they need to be supported by their institutions, given adequate education to understand and address structural oppression, and have the ability to connect and continue care with public/community health nurses.

As Stella posited to me "…if you see or hear somebody acting or being racist or prejudiced [while at work] …what would you do?" Despite my well-meaning intentions of respecting my colleagues, and recognising I need their help during a shift, I felt confused and unsure how to answer this direct questioning of me. How do I 'call out' fellow nurses who's help I may need in the future? I discussed this with a fellow nurse and graduate student, who suggested I look at the work of Loretta Ross. Ross (2021), whose job it was to monitor hate groups, along with Sonya Renee Taylor (2021), an author and activist, propose that responding to racist behavior exists on a spectrum of 'calling out', 'calling on' and 'calling in'.

On one end of the spectrum is ‘calling out’ people on their behaviour, to express rightful anger. But in doing so you have invited them to a confrontation, not a conversation. You believe that someone has done something wrong, and that they should be punished for it. In the middle of the spectrum is ‘calling on’ someone. Here, the intent is to bring attention to someone’s statement or behaviour, without the need for punishment, but call on them to be accountable and to do the work towards being a better person (Ross, 2021; Taylor, 2021). Taylor (2021) asks “I beg your pardon?” and then she waits for a response. She acknowledges that while some people, such as me, remain silent even when they know that what they witnessed was unfair, there is a way to peacefully and lovingly engage with those that have differing viewpoints.

Inspired by a blog post by Ngoç Loan Trần (2013), *Calling IN: A Less Disposable Way of Holding Each Other Accountable,* Ross (2021) invites us to say “That’s an interesting viewpoint. Tell me more.” With this simple opener, a conversation has been created with the individual who is being called in. More importantly it has been done while maintaining their dignity, giving them respect and an opportunity to grow while exercising compassion. ‘Calling in’ needs to be done after self-reflection, self-awareness and emotional intelligence work has been done, knowing your intention and motivation is essential. Ross (2021) surmises that by offering people a chance to redeem themselves, to approach with compassion, we have offered them opportunity to learn, grow and change.

Nursing Theory

During my time as a CCTN, I cannot recall ever having a theory or model to guide my nursing care. This sentiment appeared to have been reflected in the focus group, during which I gave a brief information session on the SEM for persons with GVI, a model that guides community health nursing in Canada. It was after introducing the focus group participants to the

model that they began a discussion about which level they were professionally. Due to the intimate nature of the nursing care provided, they placed themselves in the close relationship level, with the SEM placing nurses in the community level. In addition, with my proposed SEM for CCTNs, nurses can begin to understand the influences on their care. This model could be expanded and developed into a nursing theoretical framework specific to CCT nursing care. Like the SEM for persons with GVI, the SEM for CCTNs can be rooted in complexity theory, increasing awareness of the environment in which they work, also providing a deeper understanding of the lasting effects of the care they deliver.

Furthermore, I have not yet seen the application of complexity theory to levels of the SEM within the context of GV in the literature. Concepts such as social dynamics, the butterfly effect and chaos theory would, I believe, find a place not only within theoretical discussions of the SEM for persons with GVI, but within the SEM of CCTNs as well. Such a pursuit offers the opportunity to explore and describe a variety of complexity attributes not seen within this thesis. Lastly, with the growth of complexity theory burgeoning not only as a theoretical foundation but a methodology as well, there is greater opportunity to use this lens to explore the interactions between gun violence, persons with gun violence injuries, and those that care for them (Gear et al., 2022).

Nursing Organisations

Looking to the RNAO and International Council of Nurses organisations' position statements first referenced in the *Literature Review*, which focused on GV as secondary to armed conflict, war, humanitarian assistance and peacekeeping, much is missing from these positions. This is due in part to the datedness of the context and subsequent focus. I call on these organisations to revise their position statements on gun violence as they no longer reflect the

status of GV within Canada, or around the world. Guns are no longer limited to police or military action, but for some individuals and communities, they are a fact of daily life and are rooted within structural and societal oppressions. These documents no longer offer relevant information or evidence-informed guidance for nursing practice, such as the information provided within this study.

Trauma Centre Management

Trauma systems are rooted in military-based care experiences which provided a framework that streamlined care such that patients are transported from the site of injury to appropriate surgical care as efficiently as possible (Evans, 2007). However, this streamlined approach appears to not have considered the impact of serial, long-term trauma admissions on nurses that function within those systems. This study has both implications for future trauma centre development and its management, as well as multiple recommendations for the health and wellbeing of its nursing staff.

This study can inform larger institutions that influence nursing practice, to reduce structural violence (Hyman et al., 2016). For example, trauma systems and centres can become more aware of their patriarchal, colonialist and paternalistic roots and become inclusive of Black and marginalised communities. Small (2019) highlights the need for institutions to ask patients, and families, to identify which social justice issues have the greatest impact on their care via a survey. Within my CCT unit, we already ask patients and families to complete a survey. Social justice questions could easily be added to this and be available immediately as an instigator of change. When the CBPs spoke of keeping persons with GVI safe, the following questions come to mind: “Why don’t they feel safe in a hospital?”, “Is there something inherently unsafe about

hospitals?", "Does the feeling of being unsafe come from the structure of the institution, from the people within the institution or both?"

With this last question in mind, I propose that trauma centres change from a patient and family centred care approach to one that is additionally trauma and violence informed. According to the Public Health Agency of Canada (2018), "Trauma and violence-informed approaches are policies and practices that recognise the connections between violence, trauma, negative health outcomes and behaviours" (Introduction section). What is paramount within this approach is the increased feelings of safety and control. However, such a change of approach would require a fundamental change in how the trauma system is designed, and how healthcare practitioners' function within it. Through focusing on the impact that violence and trauma have on people's lives, creating a safe and trustworthy environment; fostering opportunities for choice, collaboration and connection; and lastly, supporting coping and resiliency measures, retraumatisation can be prevented (Canadian Centre on Substance Abuse, 2014; Public Health Agency Canada, 2018). Bruce et al. (2018) suggest that systematic training of all healthcare providers is necessary, and training of the trauma nurses, the closest point of contact for patients and families, is essential. These nurses are ideally located to assess, identify and support these individuals, but they are also the most likely to experience trauma. Indeed, trauma centres have a shared responsibility in the trauma experienced by patients and nurses. This must be addressed going forward.

This model of care works to minimize the effects of trauma on the person with a GVI but also seeks to minimise the effects of vicarious trauma experienced by the nurses during the provision of care. For example, hospitals could integrate the knowledge gathered within this study (and others) to inform policy development within trauma programs, offering differing

supports to CCTNs. One such support requested from the CCTNs themselves, is a dedicated hospital-based mental health professional specifically for trauma-facing practitioners, like CCTNs. As the area of practice is so highly specialised and the experience so unique, having a dedicated staff member to provide support, guidance, and acknowledgement of the traumatic aspect of trauma nursing, is not only desired but necessary to maintaining and retaining experienced nurses. This mental health professional could provide regular trauma and violence-informed debriefings, which has also been asked for by the CCTNs, as a means of making sense of what has been witnessed or experienced and providing an opportunity for them to feel heard. Within Ontario, TEND, a group of professionals dedicated to tending to the mental health, organisational health and resilience integration of helping professionals (TEND, 2024). TEND offers not only education, training and resources on vicarious trauma, post-traumatic growth and how the health care professional can learn to care for themselves, but they also offer training and education for leaders and organisations (TEND, 2024). This recommendation is also suggested by the Public Health Agency of Canada (2018), along with cost-free trauma-informed yoga for staff, a crisis line and a peer support system. The humble author of this thesis is involved in national talks about the last two items at the time of the final editing of this chapter.

As trauma systems and centres expand into preventative measures, such as hospital-based violence prevention programs (HBVIP), there is tremendous opportunity to include and educate CCTNs. Education regarding equity, diversity and inclusion (EDI), the racialised nature of GV, its antecedents and the socioecological model to violence prevention is essential to help CCTNs make sense of their experiences while caring for persons with GVI. This was demonstrated in the focus group of this study, and I suggest could be adequately embedded in any certification programming for CCTNs. Furthermore, CCTNs, and their experiences, should be incorporated

into HBVIP, thus providing both CCTNs and persons with GVI an opportunity for reconnection and catharsis. Lastly, if not already done, HBVIP can be extended into communities, where individuals with GVI live. The CBPs interview highlighted the need for hospitals and nurses to make greater connection to the community. This connection could be part of the answer to my previously asked question "Does the feeling of being unsafe when in hospital after a GSI come from the structure of the institution, or is it the people within the institution?" When extended into the community, the presence of the very nurses who care for persons with GSI could have a lasting impact on the community and on the CCTNs themselves. This might be the best way, that we as CCTNs, we can ***make a difference from the bedside*** – thus reflecting the very query that birthed this study.

Emerging Questions

Throughout this academic endeavour, I have asked many questions, some of myself, some of the literature, some of society. I will begin with my current study, as I would expand the geographical reach of this study across Canada. This study offered a glimpse into GV in the Greater Toronto Area, but to understand GV as a Canadian nursing phenomenon, a pan-provincial and territorial approach is required. Some emerging questions include:

- *Is* there a role for CCTNs in terms of gun violence? Do our patients need us to simply focus on their hospital care, providing a brief (albeit difficult in other ways) reprieve from the structural violence outside the hospital doors?
- Given the movement of ER and trauma doctors in the US regarding the epidemic of gun violence, could a similar movement be constructed within nursing, involving many of our subspecialties, to contribute to upstream advocacy efforts aimed at addressing the SDGV?

- What is the experience of racialized CCTNs in caring for racialized populations inequitably experiencing gun violence?
- Would providing debriefing for CCTNs on a biweekly basis, mitigate some of the residual trauma experienced in trying to make sense of the senseless nature of GV? Would debriefings contribute to the shared posttraumatic growth of the CCTNs and give way to improved resilience?
- Does complexity have a place in gun violence discussions? Can it be used as a theoretical framework? Can it be used as a methodology?
- What could the infusion of the socio-ecological model into Critical Care Nurse Standards of Practice change in terms of structural knowledge, including the racialised nature of GV (CCSO, 2018)?
- How do CCTNs make sense of what they witness/experience when it comes to persons with GVI? Where and when do CCTNs make sense of their experiences with GVI? How do junior CCTNs learn sensemaking from senior CCTNs?
- Can narratives of patient blaming be changed? Does the practice of blaming patients create space for the CCTNs to separate themselves from the individual with a gunshot injury? Does the creation of space prevent the possibility of pain and suffering of CCTNs? Is it in reality a symptom of trauma? Does patient blaming contribute to the collective trauma experienced by CCTNs?
- Does space created by CCTNs through patient blaming prevent the formation of a therapeutic connection with their patient and family? Is it possible that patients and families are left feeling unsupported and unsafe because of this space?

- Are the resources offered to and by trauma centres sufficient to meet the needs of CCTNs experiencing trauma?
- How can trauma centres accommodate police policy of being at the bedside of a person with a GSI, while maintaining patient dignity and respect simultaneously contributing to the safety of all?
- Building upon Ali et al.'s (2021) suggestion that post traumatic growth can be ameliorated through "shared resilience", one may want to ask whether we want nurses to continually learn to be more resilient? Is this enough?

With these, and other questions that have yet to be asked, this study has provided a launching pad for future research.

Future Research

While nurse scholar Dr. Annette Bailey's work has commenced critical discourse regarding GV within our profession's body of literature, further work surrounding the racialized nature of GV, and the subsequent care given by CCTNs to persons with GSI is necessary. A study with this as a specific focus is a compulsory next step, whereby CCTNs are afforded the opportunity to immerse themselves in community-based understandings of the SDGV and to then explore how this exposure would benefit CCTNs. Having this opportunity as a CCTN researcher afforded me a wider lens. Research exploring this experience for other CCTNs could bridge a gap between the bedside and the community.

In considering the emerging questions arising from this work and potential future research, I'm reminded of the question that I had originally thought about asking 'What do persons with GVI, both patient and families, say about their stay in a critical care trauma unit?' While knowing about nurses' perceptions and their lived experiences are an essential piece of the

GV puzzle, persons that have experienced GV deserve an opportunity to have their narratives and preferences heard and explored. Logistics and resources were prohibitive at a master's level, but this area of inquiry would be worthy of a doctoral pursuit, as there is opportunity for creating systemic change – a key desired outcome of doctoral nursing work. Expanding on this question, and possibly a secondary question to the one above, I ask "What do persons with GVI believe influences the nursing care that they receive in a critical care trauma unit?" A question possibly fraught with pitfalls, it also comes with opportunities to see our nursing care from the lens of the recipient. It speaks to the public perception of nurses from the perspective of marginalised communities, an important endeavour especially as nursing organizations are asking what nurses and nursing can do to mitigate societal, and by default, health inequities.

Captured in the above question, is the recognition that GV is very much about equity, diversity and inclusion – something explicitly addressed within the socioecological model (SEM) for persons with GVI. Arising from that question are more questions to direct future research, such as "If persons with GVI see nurses on the same SEM level as police, how can true therapeutic relationships develop?" When paired with my proposed SEM for CCTNs there is the opportunity for further theoretical inquiry, such as "If CCTNs have a SEM and persons with GVI have a SEM, how do those models interact?", "Does the SEM for CCTNs exist within the SEM for persons with GVI?", "Are the SEMs discreet, and if so, what power dynamics exist between the SEMs?" and "Are power dynamics between socioecological models even a thing?"

In Closing

We, in Canada, are seeing a rise in gun violence, and nurses are bearing witness to this trend. Returning to the cold November night and the memory of the face of my young patient, I feel that I understand his flat expression better and I would approach him and my nursing care

differently now. For many, gun violence is viewed as a public health epidemic with complex social and structural roots. But going beyond prevention, critical care trauma nurses care for those most impacted, often navigating complex feelings, family needs and very sick patients. As a CCTN I found myself earnestly asking, "What can I do, from here, at the bedside?"

The CBPs shared that GV has been around long enough that individuals are born into it, and it ripples through communities affecting families in their homes, communities and neighbourhood parks and society. But is society paying attention? Once the trigger has been pulled, CCTNs care for those who survive the shooting, the patient and their families. But the impact for CCTNs goes beyond attending to wound dressings or managing the machines which keep the patient alive. CCTNs were asking, "What were you doing to get shot?" in an attempt to make sense of something they believe to be senseless GV in Toronto. The trauma endured by CCTNs while caring for persons with GVI is done cumulatively, concurrently, consecutively, continuously and collectively. Many might argue that speaking out about GV is *not* the role of a trauma nurse. This narrow view of what trauma nurses can and should do, given the vantage point of the bedside, gave way to an editorial by the author of North America's top critical care nursing journal. Within this editorial the exact opposite is argued, GV is a nursing phenomenon, #Thisisourlane. Critical care trauma nurses "see the sequela of gun violence every day", the editorial laments, arguing that, "…every aspect of our life is affected by gun violence. We are rescuers. We serve as healers after violent events and counsellors as we guide patients to self-care and mental health challenges. We are public health leaders, health educators, and designers of safe care systems" (Gould, 2022, p. 225). Despite being unprepared for the challenge, critical care trauma nurses and all nurses must continue to be agents of change, making social justice our common cause. We can and we must continue to be allies, collaborators and leaders. It must be

folded into our undergraduate degree, certification exams, standards of practice and continue in professional development. The divide between the bedside and the community no longer serves our profession, nor the patients we care for. My hope is that this study will contribute to this noble pursuit.

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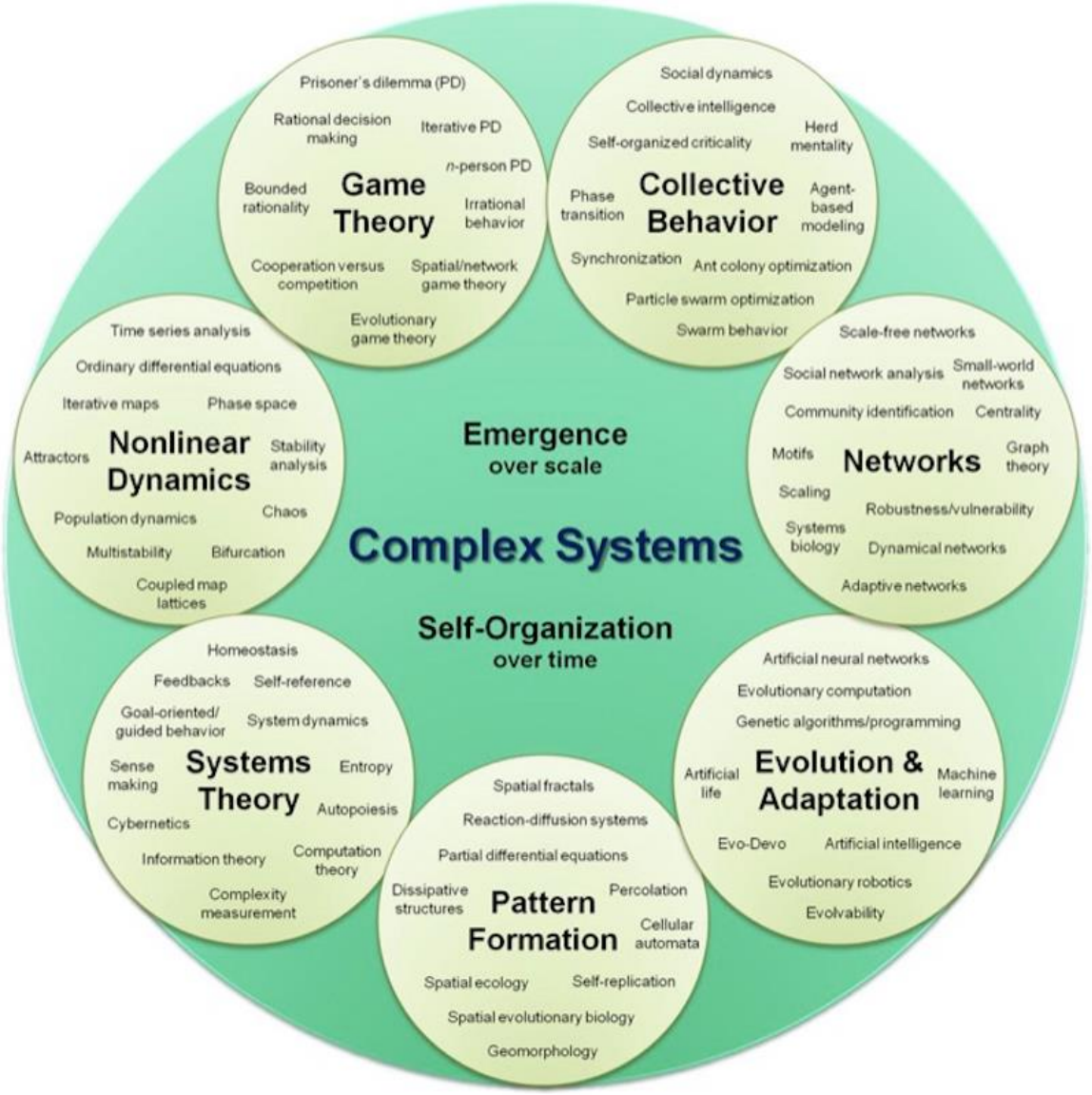
Appendices

Appendix A

Complex Systems



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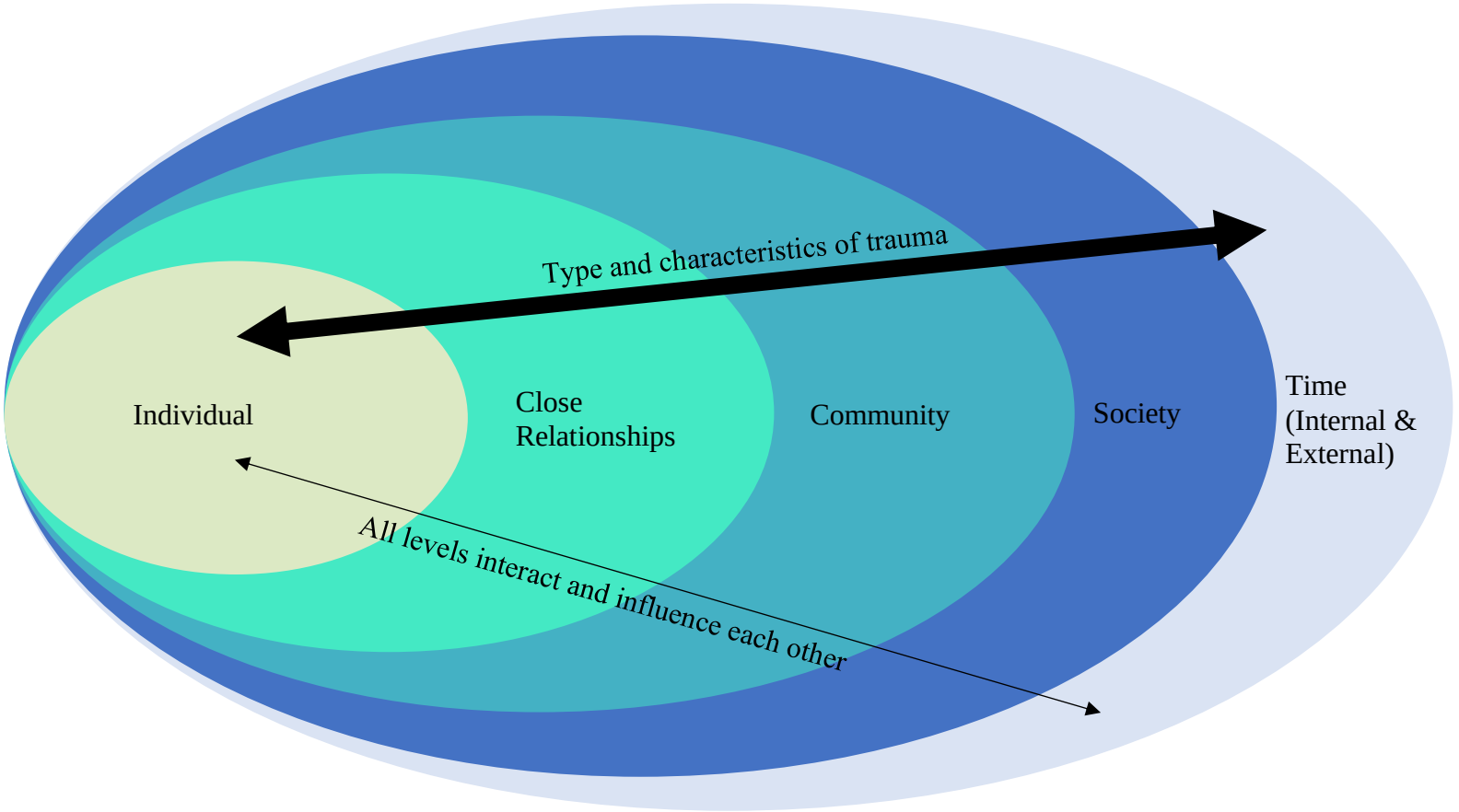
Appendix B

The Socio-Ecological Model for Violence Prevention



Social Ecological Model: Derived from Bronfenbrenner, 1977; CDC, 2020; Charles, 2021; Golden & Earp, 2012; McGibbon et al., 2020; SAMHSA, 2014a; WHO, n.d.b

Appendix C

Factors Influencing the Levels of the Socio-Ecological Model for Violence Prevention

Individual Level	Close Relationships Level	Community Level	Societal Level	Time
Age, Biophysical state, Mental health status, Temperament & personality traits, Education, Gender Coping styles Socioeconomic status	Family, Peers, Significant other interaction patterns, Parental/family mental health, Social network	Neighbourhood quality, School system, Work environment, Healthcare system, Social services, Faith-based settings, Transportation availability, Community socioeconomic status, Community employment rates	Laws, Provincial and federal economic and social policies Media, collective and/individualistic cultural norms, Ethnicity, Societal norms, Judicial system	Internal: Physiological life stage, Cognitive and Maturational development, Patterning of life events and transitions over life stages External: Major local/regional/global events, Societal attitudes, Generational history of trauma, Racism

Social Ecological Model: Derived from Alio et al., 2010; Bronfenbrenner, 1977; CDC, 2020; Charles, 2021; McGibbon et al., 2020; SAMHSA, 2014; Tannenbaum, 2018; WHO, n.d.b; WHO, 2022

Appendix D

Examples of Influences at the Differing Levels of the Socio-Ecological Model

Individual Level	Close Relationships Level	Community Level	Societal Level	Time
Poor behavioural control, Lack of education, Poverty, Substance abuse, Psychological/mental health illness, Antisocial beliefs and behaviour, Participation and/or attitudes supporting violence, Witnessing/experiencing violence as a child	Associating with delinquent peers, Gang participation, Gender role conflict, Poor parent-child relationship, Low family functioning, Poor communication, Unstable, conflict-filled and/or violent home environment, Economic and other stresses	Unemployment and reduced opportunities for economic stability, Poverty, Food instability, Housing instability, High rates of community violence, Social disorganisation and isolation, Weak community and institutional supports, Lack of willingness to intervene	Inequalities based on race, gender and economic status, Social and cultural normalization of violence, Toxic masculinity, Harmful femininity norms, Weak policies around health, economics, education and social programs	*Internal*: Developmental age grouping (for example, toddler, childhood, puberty, adolescence, adulthood) Patterning of life events and transitions (for example, at what age did an individual first experience GV?) *External*: Slavery, Colonialism, Residential Schools, Civil Rights Movement, Diet culture, Death of a family member or friend, COVID-19 pandemic

Social Ecological Model: Derived from Alio et al., 2010; Bronfenbrenner, 1977; CDC, 2020; Charles, 2021; McGibbon et al., 2020; SAMHSA, 2014; Tannenbaum, 2018; WHO, n.d.b; WHO, 2022.

Appendix E

Urban Tactical – Walking Dead Package

From Urban Tactical: The Range. (2023). *Shooting Packages: Walking Dead 2.0* [Picture]. Retrieved on: March 28, 2023, https://fareharbor.com/embeds/book/utrange/items/155284/calendar/2023/04/?flow=194647&full-items=yes

Appendix F:

My Shooting Results

Photograph of my first time firing a gun.

Appendix G

Recruitment Email/Telephone Script for Community-based Professionals

Subject line: Call for community-based professionals working with persons/communities affected by gun violence to inform a nursing study about critical care trauma nurses working with persons with gunshot injuries.

Hello,

My name is Jennifer Hodder, and I am a Registered Nurse and Master's student working under the supervision of Dr. Cheryl van Daalen-Smith in York University's Faculty of Health, School of Nursing. Through your role supporting individuals involved in gun violence, I am contacting you hoping that would be interested in discussing your experiences and understandings regarding gun violence, its antecedents and how best we can support affected persons. Specifically, as a Critical Care Trauma Nurse, who cares for persons affected by gun violence and their families, understanding your grassroots lens and experiences is critical information for me to take back to the nursing profession.

Participation in this study involves an individual interview, either in-person or over Zoom, taking approximately 60 minutes. Both you and your organization can be kept anonymous should you wish this. Below are the questions I would be interested in discussing with you:

1. Please describe the experiences you have had assisting an individual with GSI and their family.
2. How would you explain gun violence; its antecedents; and how it can be prevented?
3. Do individuals and their families ever discuss the care they received while in hospital?
4. Based on your experiences, what do you see as some of the influences on care for individuals with GSI?
5. What would you like nurses to know about caring for individuals with GSI and their families?

This study has been reviewed and received ethics clearance through a York University Delegated Ethics Review Committee. If you are interested in participating, please contact me at jmhodder@yorku.ca or at 416-347-2486 and we can collaborate on a location and date/time most convenient to you. Further, we can have a phone call to talk more about the study, and I can answer any further questions you may have.

Sincerely,

Jennifer Hodder RN, BSc, BN, MScN (c), CCN
Pronouns: she/her/hers
Graduate Student, School of Nursing — York University
Registered Nurse at Unity Health Network, St. Michael's Hospital in the Trauma & Neurosurgical Intensive Care Unit
LinkedIn: www.linkedin.com/in/jennifer-hodder-95674526

Appendix H

Recruitment Posters for Critical Care Trauma Nurses

Appendix I

Letter of Introduction for Potential CCT Nurse Participants

DATE: <*insert*>

Jennifer M. Hodder BScN, MScN(c), RN, CCN
Faculty of Graduate Studies, School of Nursing, York University
Email: jmhodder@yorku.ca

Dear <*name*>,

My name is Jennifer Hodder, and I am a Registered Nurse and Master's student working under the supervision of Dr. Cheryl van Daalen-Smith in York University's Faculty of Health, School of Nursing. I am looking for critical care trauma nurses to engage in my current study.

Since 2018, gun violence has been on the rise in Canada, my focus is specifically within the Greater Toronto Area. Nurses are essential to helping solve this complex and devastating problem, as nurses are the largest body of health care professionals and have significant role within the health care team. Of particular interest to my study are critical care trauma nurses, who are encountering individuals with gunshot injuries and their families with increasing frequency and for significant periods of time.

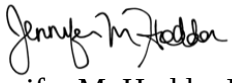
I wish to discuss your perceptions regarding gun violence and explore their experiences in caring for such individuals and their families. Participation in this study involves an individual interview, either in-person or over Zoom, taking approximately 60 minutes. Both you and your organization will anonymous. Below are the questions I would be interested in discussing with you:

1. What are your thoughts regarding gun violence, in general?
2. Describe at least one of the experiences you have had caring for an individual with a gunshot injury and their family.
3. In what way does working in a critical care trauma environment influence the nursing care given to individuals with gunshot injuries and their families, in your experience?
4. Do you feel that critical care trauma nurses' care is influenced by factors outside of work? This could include: friends & family; news outlets; social media. Are their others we haven't discussed?
5. Do you feel that caring for individuals with gunshot injuries and their families, has affected you personally?

This study has been reviewed and received ethics clearance through a York University Delegated Ethics Review Committee. If you are able to assist, please contact me at

jmhodder@yorku.ca or at 416-347-2486. Further, we can have a phone call to talk more about the study, and I can answer any further questions you may have.

Sincerely,



Jennifer M. Hodder RN, BSc, BN, MScN (c), CCN
Pronouns: she/her/hers
Graduate Student, School of Nursing — York University
Registered Nurse at Unity Health Network, St. Michael's Hospital in the Trauma & Neurosurgical Intensive Care Unit
LinkedIn: www.linkedin.com/in/jennifer-hodder-95674526
Email: jmhodder@yorku.ca

Appendix J

Letter of Information and Informed Consent Form for Individual Interviews with Community-based Professionals Supporting Persons Involved with Gun Violence

Exploring the Perceptions and Experiences of Critical Care Nurses
Caring for Individuals with Gunshot Injuries

Study Name: Exploring the Perceptions and Experiences of Critical Care Nurses Caring for Individuals with Gunshot Injuries

Researcher name: Jennifer M. Hodder BScN, MScN(c), RN, CCN
Faculty of Graduate Studies, School of Nursing, York University
Email: jmhodder@yorku.ca

Purpose of the Research:

You are being asked to consider taking part in this study because you are a community-based professional helping individuals with gunshot injuries, and their families, within the community.

The purpose of this research is to describe and explore your experiences of aiding individuals with a gunshot injury and their family. Exploring your experiences will also include exploring your perceptions of gun violence in general, including what are the influences on care for individuals with a GSI. The description and exploration of your experiences will occur through an individual interview.

The results will be used within my Master's thesis, with the intention to publish within scholarly journals and present the findings at critical care and trauma conferences. As the recipient of the Registered Nurses' Association of Ontario - Nursing Research Interest Group award, the results of this study will be shared with them in a report. All identities will be kept anonymous, including your workplace and you yourself.

What You Will Be Asked to Do in the Research:

Each participant will be asked questions regarding their demographic data, including your identities regarding gender, race, education, places of employment and then we will move into individual interview based on the questions included below.

1. Please describe the experiences you have had assisting an individual with GSI and their family.
2. How would you explain gun violence; its antecedents; and how it can be prevented?
3. Do individuals and their families ever discuss the care they received while in hospital?
4. Based on your experiences, what do you see as some of the influences on care for individuals with GSI?

5. What would you like nurses to know about caring for individuals with GSI and their families?

Each interview (discussion) will take approximately 60 minutes. I may follow up with you should I need to clarify anything we discussed. Also, I will send you a transcript of your interview, inviting you to add/edit for clarity – as I very much wish to ensure I capture all of the wisdom you will impart. As a thank you, I will provide you with a $25 gift card for your participation.

Risks and Discomforts:

There are no foreseeable risks of participation in this research. Both you and your agency can remain fully anonymous… unless you wish me to focus on the agency in my work, and the goals and strategies. We can discuss this. The interview will require you to reflect upon gun violence and your thoughts about it, and this could bring up memories or feelings that are uncomfortable. Please inform me of your discomfort or the need to take a break. You have the right to not answer any of the questions, to stop, or to remove your contributions to the study.

Benefits of the Research and Benefits to You:

You have the opportunity to inform an emerging area of nursing in Canada, that of working with persons with gunshot injuries. Your grassroots experience and perspectives will be a highly valued portion of the first stage of this research and will be brought forward to critical care trauma nurses who participate in a focus group after being interviewed.

Voluntary Participation and Withdrawal:

Your participation in the study is completely voluntary and you may choose to stop participating at any time. Your decision not to participate, to stop participating, or to decline to answer particular questions will not influence the nature of the ongoing relationship you may have with myself, the school of nursing or that of York University either now, or in the future. If you decide to stop participating, you may withdraw without penalty, financial or otherwise, and you will still receive the promised inducement.

In the event you withdraw from the study, all associated data collected will be immediately destroyed wherever possible. Should you wish to withdraw after the study, you will have the option to also withdraw your data up until the analysis is complete.

Confidentiality:

All persons involved in the study, including myself, my supervisor Dr. Cheryl van Daalen-Smith and my supervisory committee of Dr. Annette Bailey and Dr. Claire Mallette are committed to respecting your privacy. No other persons will have access to your interview data. Any personal identifying information (such as your name or the agency you work with) will be "de-identified" by replacing your personal identifying information with a pseudonym. The agency with which you work will be anonymized unless you wish the study to feature this agency and its goals and work.

For our interview, an audio recording will be captured digitally and saved to a secure hard drive, accessible to myself and my supervisor alone. All interviews will be transcribed, and each participant will be asked to confirm the content of their own transcript. I will keep your study records securely stored until April 2033. Confidentiality will be provided to the fullest extent possible by law. The data collected in this research project may be used – in an anonymized form - by members of the research team in subsequent research investigations exploring similar lines of inquiry. Such projects will still undergo ethics review by the HPRC, our institutional REB. Any secondary use of anonymized data by the research team will be treated with the same degree of confidentiality and anonymity as in the original research project.

Questions About the Research?

If you have questions about the research in general or about your role in the study, please feel free to contact me at jmhodder@yorku.ca and/or at 416-347-2486 or my supervisor, Dr. Cheryl van Daalen-Smith at cvandaal@yorku.ca and/or 416-736-2100 ext. 66957.

This research has received both full review and approval by the Delegated Ethics Review Committee, which is delegated authority to review research ethics protocols by the Human Participants Review Sub-Committee, York University's Ethics Review Board, and conforms to the standards of the Canadian Tri-Council Research Ethics guidelines. If you have any questions about this process, or about your rights as a participant in the study, please contact the Sr. Manager & Policy Advisor for the Office of Research Ethics, 5th Floor, Kaneff Tower, York University (telephone 416-736-5914 or e-mail ore@yorku.ca).

Legal Rights and Signatures:

I, _____, consent to participate in **Exploring the Perceptions and Experiences of Critical Care Nurses Caring for Individuals with Gunshot Injuries** conducted by Jennifer M Hodder. I have understood the nature of this project, have had the opportunity to ask questions and receive adequate responses and confirm my wish to participate. I am not waiving any of my legal rights by signing this form. My signature below indicates my consent.

Signature_____ **Date**_____
Participant

Signature_____ **Date**_____
Student Researcher

Additional consent (where applicable)

Audio recording

☐ I consent to the audio-recording of my interview(s).

Signature_____ **Date**_____
Participant

Appendix K

Letter of Introduction for Potential Critical Care Trauma Nurse Participants

DATE: <*insert*>

Jennifer M. Hodder BScN, MScN(c), RN, CCN
Faculty of Graduate Studies, School of Nursing, York University
Email: jmhodder@yorku.ca

Dear <*name*>,

My name is Jennifer Hodder, and I am a Registered Nurse and Master's student working under the supervision of Dr. Cheryl van Daalen-Smith in York University's Faculty of Health, School of Nursing. I am looking for critical care trauma nurses to engage in my current study.

Since 2018, gun violence has been on the rise in Canada, my focus is specifically within the Greater Toronto Area. Nurses are essential to helping solve this complex and devastating problem, as nurses are the largest body of health care professionals and have significant role within the health care team. Of particular interest to my study are critical care trauma nurses, who are encountering individuals with gunshot injuries and their families with increasing frequency and for significant periods of time.

I wish to discuss your perceptions regarding gun violence and explore their experiences in caring for such individuals and their families. Participation in this study involves an individual interview, either in-person or over Zoom, taking approximately 60 minutes. Both you and your organization will anonymous. Below are the questions I would be interested in discussing with you:

1. What are your thoughts regarding gun violence, in general?
2. Describe at least one of the experiences you have had caring for an individual with a gunshot injury and their family.
3. In what way does working in a critical care trauma environment influence the nursing care given to individuals with gunshot injuries and their families, in your experience?
4. Do you feel that critical care trauma nurses' care is influenced by factors outside of the work? This could include: friends & family; news outlets; social media. Are their others we haven't discussed?
5. Do you feel that caring for individuals with gunshot injuries and their families, has affected you personally?

This study has been reviewed and received ethics clearance through a York University Delegated Ethics Review Committee. If you are able to assist, please contact me at jmhodder@yorku.ca. Further, we can have a phone call to talk more about the study, and I can answer any further questions you may have.

Sincerely,

Jennifer M. Hodder RN, BSc, BN, MScN (c), CCN
Pronouns: she/her/hers
Graduate Student, School of Nursing — York University
Registered Nurse at Unity Health Network, St. Michael's Hospital in the Trauma & Neurosurgical Intensive Care Unit
LinkedIn: www.linkedin.com/in/jennifer-hodder-95674526
Email: jmhodder@yorku.ca

Appendix L:

Letter of Information and Informed Consent Form for Focus Groups with Critical Care Trauma Nurses

Exploring the Perceptions and Experiences of Critical Care Nurses
Caring for Individuals with Gunshot Injuries

Study Name: Exploring the Perceptions and Experiences of Critical Care Nurses Caring for Individuals with Gunshot Injuries

Researcher name: Jennifer M. Hodder BScN, MScN(c), RN, CCN
Faculty of Graduate Studies, School of Nursing, York University
Email: jmhodder@yorku.ca

Purpose of the Research:

You are being asked to consider taking part in this study because you are a Registered Nurse that works, or worked, in a critical care trauma unit and you have cared for at least one patient that was admitted with gunshot injuries. The purpose of this research is to describe and explore your experiences of caring for an individual with a gunshot injury and their family. Exploring your experiences will also include exploring your perceptions of gun violence in general, and if these perceptions have changed as you have moved through your career. The description and exploration of your experiences will occur through individual interviews, to be followed with a focus group to see what ideas or memories emerge when critical care trauma nurses come together to share their experiences.

The results will be used within my Master's thesis, with the intention to publish within scholarly journals and present the findings at critical care and trauma conferences. As the recipient of the Registered Nurses' Association of Ontario - Nursing Research Interest Group award, the results of this study will be shared with them in a report. All identities will be kept fully anonymized.

What You Will Be Asked to Do in the Research:

To confirm themes and debrief after the individual interviews, participants are being asked to partake in a focus group, based on what emerged from those interviews. The focus group(s) will also be guided by the interviews that took place with community-based professionals that work with individuals and communities affected by gun violence offering an alternative perspective to the care provided while in hospital.

Participation will consist of attending one focus group with 1 to 4 other people. Each focus group is expected to last approximately 60 minutes. Participants may be contacted by myself after your individual interview to clarify meaning. You will also have the opportunity to review the full transcript of the focus group, and to make changes you desire. Participants of the focus group phase of this study will receive an additional $10 gift card as a thank you for your participation.

1. I consulted with community-based professionals as a part of this study, these are individuals that work with persons with gunshot injuries and their families where they live. During these consultations, they expressed a desire/need to build bridges between the healthcare system, providers and the community. What is/can be the roll of critical care trauma nurses in building this bridge?
   a) PROBE: Discuss the Sunnybrook Hospital BRAVE and St. Michael's Hospital THRIVE hospital-based intervention programs.
   b) PROBE: Show the socioecological model with a brief description (See below).
2. In your opinion, what influences critical care trauma nurses while giving care to persons with a gunshot injury and their families?
   a) PROBE: What is it about the environment in which we work influences that care? Other healthcare providers? Support staff? Unit culture? Hospital culture? Nursing associations culture? Or is it a lack of all these things?

Risks and Discomforts:

There are no foreseeable risks of participation in this research. Your name, workplace and any scenarios you may describe (without mention of any patient/family information) will be fully anonymized. The focus group(s) will require some degree of self-reflection from the participants, which could bring up memories or feelings that are uncomfortable. Please inform the interviewer of your discomfort or the need to take a break. All participants have the right to decline answering any of the questions.

Benefits of the Research and Benefits to You:

This study affords CCT nurses like yourself with the opportunity to share your experiences caring for persons with gunshot injuries. As this is an emerging area within the profession of nursing, your participation contributes to its growth, especially given the current context of the rise in gun violence in Canada.

Voluntary Participation and Withdrawal:

Your participation in the study is completely voluntary and you may choose to stop participating at any time. Your decision not to volunteer, to stop participating, or to refuse to answer particular questions will not influence the nature of the ongoing relationship you may have with myself, the school of nursing or with York University either now, or in the future. If you decide to stop participating, you may withdraw without penalty, financial or otherwise, and you will still receive the promised inducement. In the event you withdraw from the study, all associated data collected will be immediately destroyed wherever possible. Should you wish to withdraw after the study, you will have the option to also withdraw your data up until the analysis is complete.

Confidentiality:

All persons involved in the study, including the supervisory committee are committed to respecting your privacy. No other persons will have access to your personal information without your consent, unless required by law. Any personal identifying information (such as your name) will be "de-identified". Should you choose to participate, you will be asked to respect the privacy of other focus group members by not disclosing any content discussed during the focus group.

For the focus group(s), an audio recording will be captured digitally and saved to a secure hard drive, accessible to the investigator only. The focus group(s) will be transcribed into print and each participant will be asked to confirm the content of the transcript. Any hard copies of your transcript will be kept in a locked filing cabinet in the investigator's office. The study investigators will keep your study records securely stored until April 2033. Confidentiality will be provided to the fullest extent possible by law.

The data collected in this research project may be used – in an anonymized form - by members of the research team in subsequent research investigations exploring similar lines of inquiry. Such projects will still undergo ethics review by the HPRC, our institutional REB. Any secondary use of anonymized data by the research team will be treated with the same degree of confidentiality and anonymity as in the original research project.

Questions About the Research?

If you have questions about the research in general or about your role in the study, please feel free to contact me at jmhodder@yorku.ca and/or 416-347-2486 or my supervisor, Dr. Cheryl van Daalen-Smith at cvandaal@yorku.ca and/or at 416-736-2100 ext. 66957. This research has received full review and approval by the Delegated Ethics Review Committee, which is delegated authority to review research ethics protocols by the Human Participants Review Sub-Committee, York University's Ethics Review Board, and conforms to the standards of the Canadian Tri-Council Research Ethics guidelines. If you have any questions about this process, or about your rights as a participant in the study, please contact the Sr. Manager & Policy Advisor for the Office of Research Ethics, 5th Floor, Kaneff Tower, York University (telephone 416-736-5914 or e-mail ore@yorku.ca).

Legal Rights and Signatures:

I, _____, consent to participate in **Exploring the Perceptions and Experiences of Critical Care Nurses Caring for Individuals with Gunshot Injuries** conducted by Jennifer M Hodder. I have understood the nature of this project, have had an opportunity to ask questions and confirm my wish to participate. I am not waiving any of my legal rights by signing this form. My signature below indicates my consent.

☐ I consent to participating in the focus group.

Signature_____ **Date**_____
Participant

Signature_____ **Date**_____
Student Researcher

Audio recording

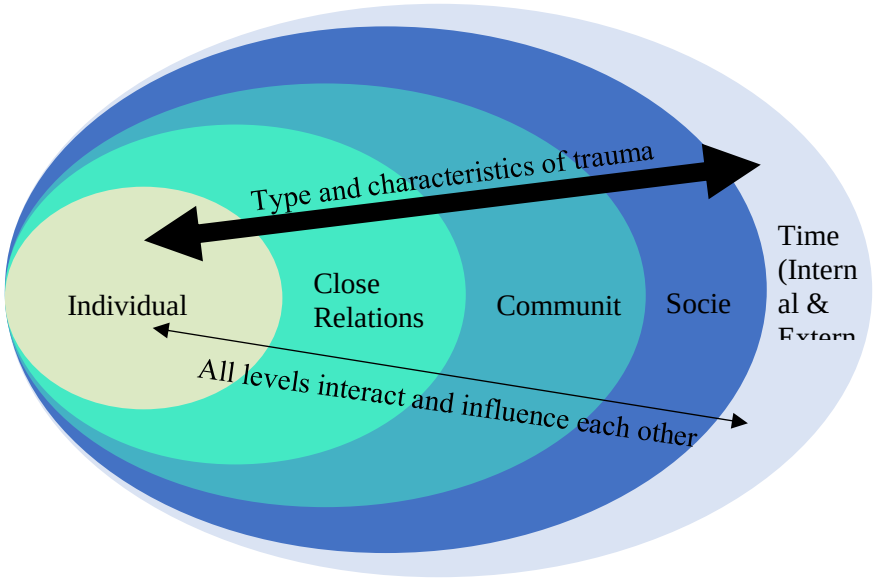
☐ I consent to the audio-recording of my interview(s).

Signature_____ **Date**_____
Participant

Appendix M

PowerPoint Slides Shared with Critical Care Trauma Nursing Participants during the Focus Group

Socio-Ecological Model



Individual Level	Close Relationship Level	Community Level	Societal Level	Time Period & Historical Context Level
• Age, • Biophysical state, • Mental health status, • Temperament & personality traits, • Education, • Gender • Coping styles • Socioeconomic status	• Family, • Peers, • Significant other interaction patterns, • Parental/family mental health, • social network	• Neighbourhood quality, • School system • Work environment, • healthcare system, • faith-based settings, transportation availability, • community socioeconomic status, • community employment rates	• Laws, • Provincial and federal economic and social policies, • Media, collective and/individualistic cultural norms, • Ethnicity, • Societal norms, • Judicial system	• Internal: physiological life stage, • Cognitive and Maturational development, • External: Major local/regional/global events, • Societal attitudes, • Generational history of trauma, • Racism

Social Ecological Model: Derived from Alio et al., 2010; Bronfenbrenner, 1977; CDC, 2020; Charles, 2021; McGibbon et al., 2020; SAMHSA, 2014; WHO, n.d.b; WHO, 2022

Hospital Based Violence Intervention Programs

- Also aims to increase coordinated and continued care after hospital discharge
- To offer a 'coach' & deliver support for approximately 1 year
  - "...build personal capacity to thrive"
- Research
- Program is still in development? Most recent google finding had a pilot starting in Fall 2022

St. Michael's Hospital THRIVE

Allison Rinne – Care & Transitions Facilitator

Dr. Carolyn Snider – Urban health scientist and Chief of Emergency Medicine

Unity Health Toronto (2023). *St, Michael's researchers received close to $5 million in federal funding.* Retrieved from: https://unityhealth.to/2022/08/cihr-research-funding/
Unity Health Torono. (2023). *You're discharged from hospital, then what? Unity Health staff help patients navigate next steps.* Retrieved from: https://unityhealth.to/2023/01/care-and-transitions-facilitators/

YORK U

Hospital Based Violence Intervention Programs

- Reduce:
  - risk factors from violence,
  - recidivism among youth,
  - systemic barriers to accessing supports
- Increase:
  - protective factors from violence
  - access to customized & holistic supports to youth clients,
  - access to services to youth 16-29 at all stages of trauma care,
  - coordination and continuity of care in the community

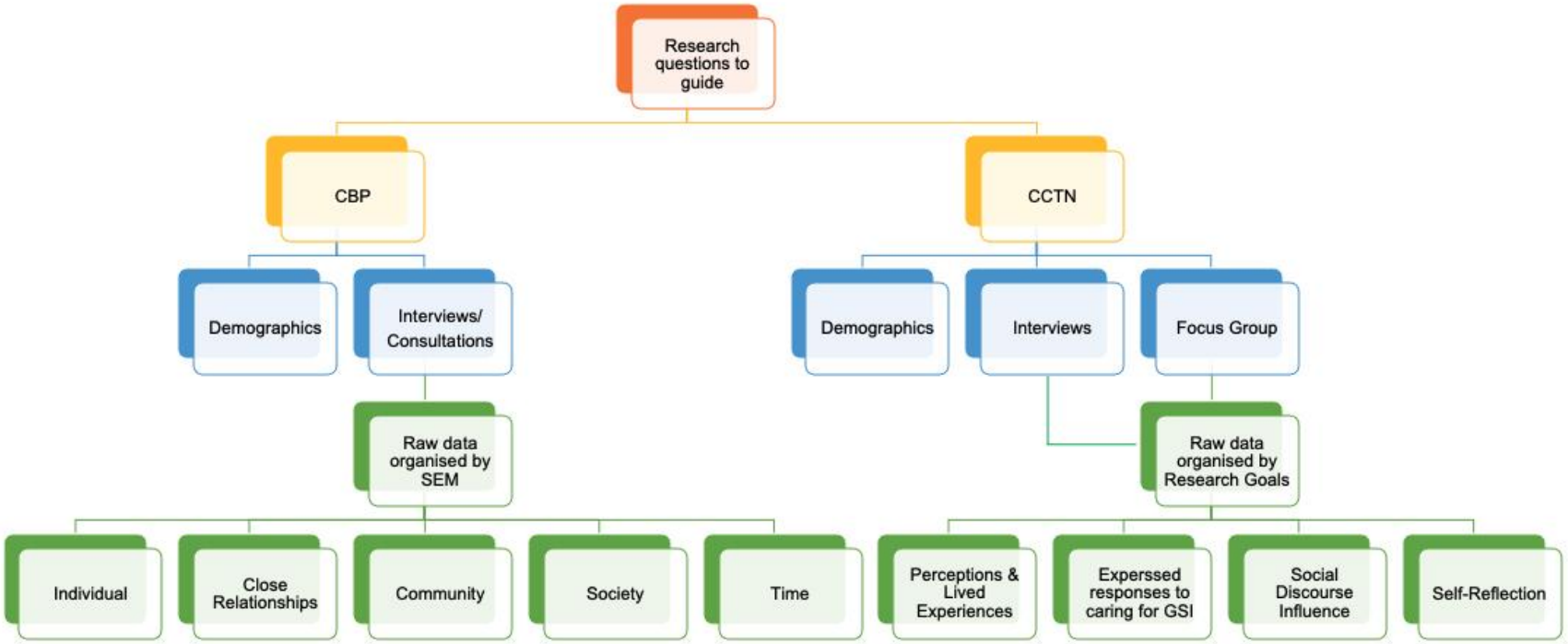
Sunnybrook Hospital BRAVE

Michael Lewis – Case Manager
Illana Perlman – Social Worker
Dr Avery Nathens – Chief of Surgery & Trauma Medical Director

1 Sunnybrook Health Science Centre. (2023). *Centre for Injury Prevention: BRAVE Program*. Retrieved from: https://sunnybrook.ca/content/?page=centre-injury-prevention-brave

Appendix N

Findings Map for Community-based Professionals and Critical Care Trauma Nurses



Appendix O

Questions used to Gather Data

Questions used for Community-Based Professionals Consultations

1. How would you explain gun violence; its antecedents; and how it can be prevented?
2. Please describe the experiences you have had assisting an individual with GSI and their family.
3. Do individuals and their families ever discuss the care they received while in hospital?
4. Based on your experiences, what do you see as some of the influences on care for individuals with GSI?
5. What would you like nurses to know about caring for individuals with GSI and their families?

Questions used for Critical Care Trauma Nurses Individual Interviews

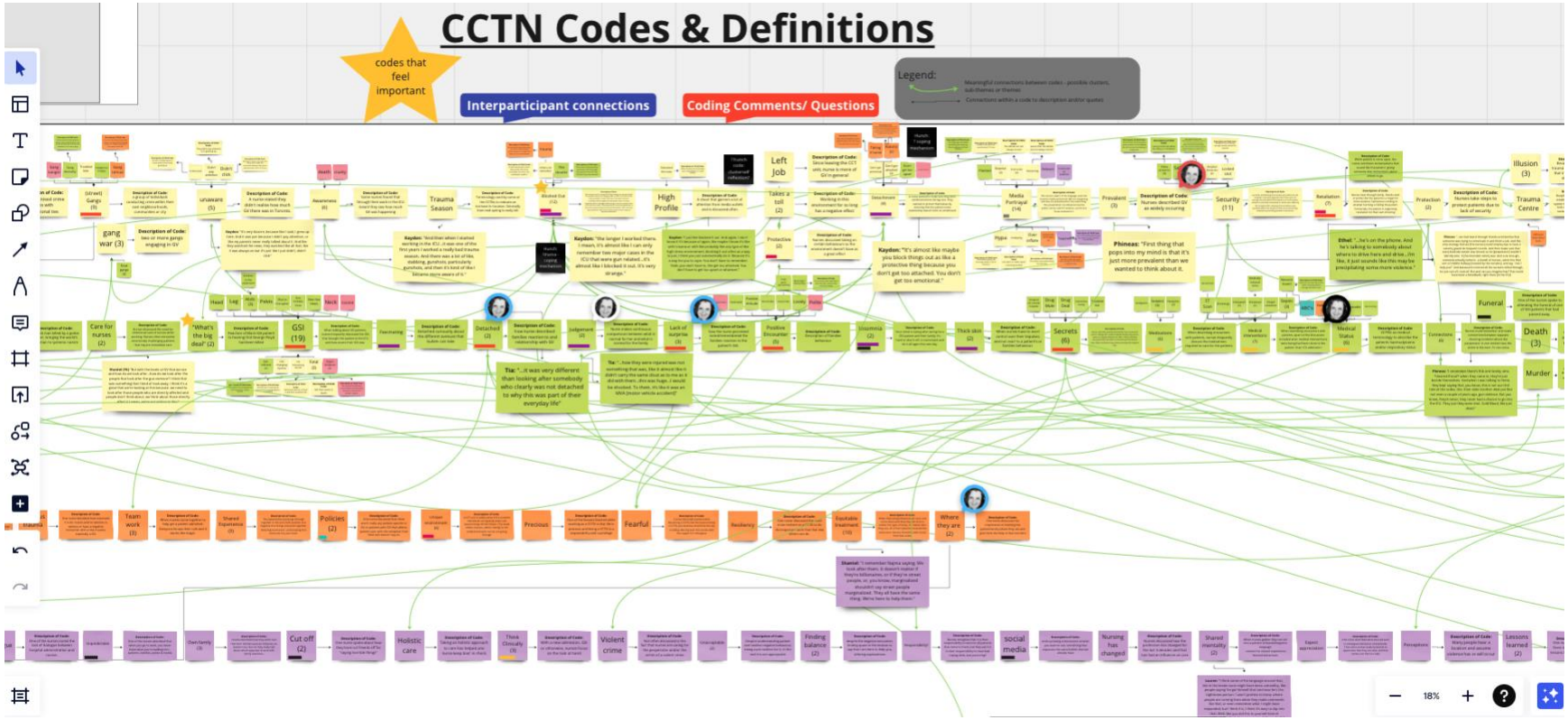
1. What are your thoughts regarding gun violence, in general?
2. Describe at least one of the experiences you have had caring for an individual with GSI and their family.
3. In what way does working in a critical care trauma environment influence the nursing care given to individuals with gunshot injuries and their families in your experience?
4. Do you feel that your care is influenced by factors outside of work? This could include: family & friends; news outlets; social media.
    a. can you offer a possible influence that we haven't discussed?
5. Do you feel that caring for individuals with GSI and their families, has affected you personally?

Questions used for Critical Care Trauma Nurses Focus Group

1. I consulted with community-based professionals as a part of this study, these are individuals that work with persons with gunshot injuries and their families where they live. During these consultations they expressed a desire/need to build bridges between the healthcare system, providers and the community. What is/can be the role of the critical care trauma nurses in building this bridge?
    a. PROBE: Discuss Sunnybrook Hospital's BRAVE and St. Michael's Hospital's THRIVE hospital-based intervention programs.
    b. PROBE: Show the socioecological model with a brief description
2. In your opinion, what influences critical care trauma nurses while giving care to persons with gunshot injuries and their families.
    a. PROBE: what is it about the environment in which you work that influences care? Other healthcare providers? Support staff? Unit culture? Hospital culture? Nursing associations culture? Or is it a lack of these things?

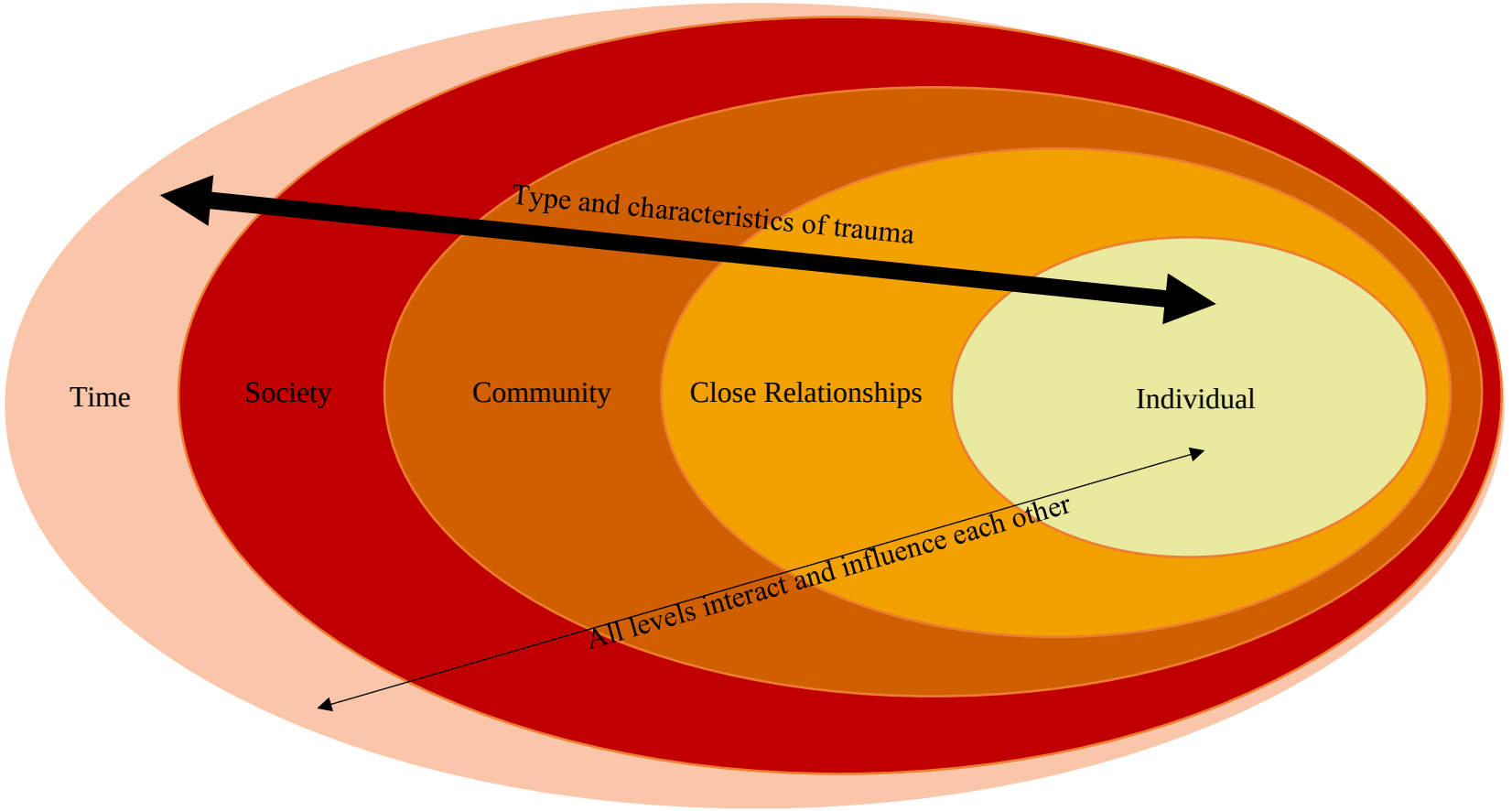
Appendix P

Examples of my Miro Virtual Whiteboard during Thematic Analysis



Appendix Q

The Socio-Ecological Model of a Critical Care Trauma Nurse



Social Ecological Model: Derived from Bronfenbrenner, 1977; CDC, 2020; Golden & Earp, 2012; McGibbon et al., 2020; SAMHSA, 2014a; WHO, 2017

Appendix R

Factors Influencing the Levels of the Socio Ecological Model of Critical Care Trauma Nursing

Individual Factors	Close Relationships Factors	Community Factors	Societal Factors	Time
Age, Biophysical state, Mental health status, Temperament & personality traits, Education, Gender, Coping styles, Socioeconomic status, Experiences	Patients and their families, Other nurses and healthcare providers (Physicians, Respiratory Therapists, Allied Health, etc.), Support services and administration	Organisational vision, mission and values, Unit & Organisational Leadership, Policies, Care model of the unit, Safety culture, Resources available to staff	Provincial and federal economic and social policies, Federal and provincial nursing associations regulations, frameworks and standards for practice, Media, collective and/individualistic cultural norms, Ethnicity, Societal norms, Judicial system	<u>Internal</u>: Physiological life stage, Patterning of life events and transitions over life stages Cognitive and Maturational development, Benner's stage of professional development Patterning of professional events and transitions over professional stages <u>External:</u> Media influences on perceptions of nursing e.g., Nurse Rachet, Public perceptions: the "sexy nurse" or the "handmaiden" Florence Nightingale, Systemic misogyny, Lack of clarity on what is nursing care

Social Ecological Model: Derived from Alio et al., 2010; Benner, 1984; Bronfenbrenner, 1977; Davidson et al. (2018); Gear et al., 2018a, 2018b; McGibbon et al., 2020; SAMHSA, 2014; WHO, n.d.a