

Exploring Nurses' Knowledge and Experiences Related to Trauma-Informed Care

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*“you can let life do one of two things, it can polish you or it can grind you,
but it’s the same process, you’re still going into the tumbler
and you’re still gonna come out a gem or a crushed stone, right?
...I, in my interactions [as a nurse] ...have to help facilitate
that these experiences can be polishing as opposed to grinding ...”*

– Participant 4

Thesis Abstract

Background

Recognition of the significance of psychological trauma and its impact on individuals, families, communities, and society at large has greatly expanded over the past 20 years, calling for the need to develop both trauma-sensitive and trauma-responsive services. Nurses, as direct care providers who work within a holistic perspective, are positioned to play an integral role in the advancement of 'trauma-informed care' within healthcare services.

Objectives

The specific objectives of this thesis were: a) to describe the use of social media (Facebook and LinkedIn) in the recruitment of Registered Nurses for an online survey, and b) to explore and describe the understandings and experiences related to trauma and trauma-informed care among nurses that scored the highest on this scale.

Method

This was a two-phase study design using mixed methods. Phase One consisted of an online quantitative self-report survey. Participants were recruited via social media with the aim of examining nurses' attitudes related to trauma-informed care. Phase Two consisted of a qualitative study exploring nurses' knowledge and experiences related to trauma-informed care. The studies were conducted using a sequential approach; that is, the target sample for Phase Two (qualitative study) was identified based on the results of the survey (Phase One).

Findings

From the first phase of this research, I proposed that social media, and specifically Facebook and LinkedIn, offer suitable platforms for recruiting a diverse sample of Registered Nurses to complete an online survey. Associated advantages and challenges as well as specific

differences between Facebook and LinkedIn as recruitment platforms should be considered when incorporating these strategies. Four main categories emerged from the second phase of the research: “(Not)Knowing Trauma-Informed Care”, “Conceptualizing Trauma and Trauma-Informed Care”, “Nursing Care in the Context of Trauma”, and “Dynamics of the Nurse-Patient Relationship in the Face of Trauma”. These findings highlight important considerations for trauma including, the complex dynamics of trauma that affect care, the importance of both knowing trauma as a concept, but also knowing how to act in response to trauma knowledge, the need to facilitate trauma-informed care beyond mental healthcare, and the parallels between nursing and trauma-informed care.

Conclusion

This Master's thesis has explored the use of a novel survey recruitment strategy as well as emphasized the need for nurses and organizations to incorporate trauma-informed principles in the services they provide, and in their cultures as a whole. This research reinforces that the discipline of nursing is aptly situated to apply tenets of trauma-informed care and that we must further the progression of trauma-informed care in practice, policy, education, and research.

Co-Authorship

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Chapter One

Research Problem

“My heart is moved by all I cannot save; so much has been destroyed. I have to cast my lot with those who age after age, perversely, with no extraordinary power, reconstitute the world.” - Adrienne Rich, 1977, p.67

Introduction

Over the past 30 years, we have seen a movement within health care services towards an acknowledgement of the prevalence of psychological trauma and its pervasive impact on individuals, families, communities, and society at large (Brown, Baker & Wilcox, 2012; Fallot & Harris, 2009; Muskett, 2014). Meanwhile, ongoing research continues to expand our knowledge of trauma and its biological, psychological, and often self-perpetuating social consequences (Brown et. al, 2012; Fallot & Harris, 2009; LeBouthillier, McMillan, Thibodeau, & Asmundson, 2015). Exposure to trauma has been strongly linked with significantly higher rates of medical and mental health disorders and health care usage. This is true particularly with childhood exposure to ongoing interpersonal trauma by means of an attachment figure (e.g. Cohen, Scheid, & Gerson, 2014; Felitti, et al., 1998; Jennings, 2008). Childhood maltreatment and witnessing of violence are examples of trauma that often produce effects that long outlive the trauma itself (van der Kolk, 2014). Further, traumatic early life experiences can alter an individual's psychological and physiological development, contributing to increased risk behaviours, as well as a collection of unfavourable emotional, social, economic, and health consequences (Jetmalani, 2015; Miller, 2013). Later life traumas may also be acute or prolonged in nature, and can include war experiences, physical or sexual assaults, natural disasters, accidents, and unexpected losses. Such events may destabilize or damage one's sense of safety, self, and self-efficacy, as well as one's ability to moderate emotions and navigate interpersonal relationships (Poole & Greaves, 2012).

Health care systems continue to serve individuals impacted by childhood interpersonal trauma without treating them for their primary ailment, and without even an awareness that a trauma transpired and is related to the presenting concern (Harris & Fallot, 2001). Attention to the impact of trauma needs to move beyond services designed to treat trauma, known as trauma-specific services, and into the realm of all health care services (Muskett, 2014). Since survivors of

trauma will likely be seeking health care services for concerns that may initially seem unrelated to trauma, it is vital that all services engage in a paradigm shift to view every client and patient as though they may be trauma survivors (Elliot, Bjelajac, Fallot, Markoff, & Glover Reed, 2005; Harris & Fallot, 2001). This lens of 'universal trauma-precautions' is at the core of trauma-informed care (TIC), offering services that recognize and support the special needs of trauma survivors (Elliot et al., 2005; Harris & Fallot, 2001; Hodas, 2006). With the current calls-to-action to further TIC within healthcare services (Brown et al., 2012; Fallot & Harris, 2009; Muskett, 2014), I believe it is essential to consider nurses, who are aptly positioned and suitably designated to facilitate a shift towards the ideal of trauma-informed health care services.

Prior to embarking on a career in nursing, I observed over the course of many years a family of children growing up under devastating social circumstances. While I was aware that the children received ongoing psychiatric and physical assessments, diagnoses, and interventions, I was perplexed as to why their family context was never appropriately assessed or considered as related to the children's difficulties, even when child welfare services were involved. With their contextual experiences ignored, these children continued to struggle greatly, into adulthood, and I remained puzzled and bewildered at why, within our sophisticated healthcare system, their primary ailment was never taken into account or addressed. I resolved at that time a commitment to ameliorating the care we provide to individuals influenced by trauma.

Additionally, since becoming a Registered Nurse (RN) and working primarily within the area of inpatient mental health, the disruptive consequences of trauma on patients' psychological and physical well-being and life trajectories have been impossible to ignore. While these instances may be most obvious within the area of mental healthcare, they certainly overflow beyond those boundaries and exist within all of healthcare. I often contemplate over how, within our rushed and resource-strapped healthcare environments, we can improve our care of patients and communities,

particularly those affected by trauma. Despite the presence of well-meaning providers, gaps in professional knowledge, lack of accessible resources, on-the-job contextual barriers, and system-level obstacles, all act as impediments to the translation of existing trauma-informed knowledge into practice (Bloom & Farragher, 2011; McElvaney, & Tatlow-Golden, 2016).

At the outset of this inquiry, I found a paucity of literature discussing TIC as it relates to nurses and nursing care. Given this, my master's research acquired a focus of developing foundational knowledge by exploring nurses' knowledge and attitudes relating to TIC.

Background and Relevance

What is Trauma

The English word 'trauma' originates from the Greek word meaning, 'a wound, a hurt; a defeat' with root derivatives referring to 'twisting, piercing' (Harper, 2016). As it pertains to healthcare, the word trauma has traditionally been used to refer to serious bodily injury, and is often associated with emergency health care (e.g. Ding 2016). A 'psychic wound', meaning an unpleasant experience that causes abnormal stress, originated in the 1800s (Harper, 2016). This topic gathered greater attention in the years following World Wars I and II, with soldiers returning and experiencing the ongoing sequelae from their experiences (e.g. Hales, 2011; Hardcastle, 1945). Since that time, our knowledge and practice has slowly progressed to recognize other sources of psychological trauma, including interpersonal trauma and natural disasters. Within this thesis, trauma refers specifically to the psychological trauma that may result from these various forms of trauma.

Within the past 30 years, psychological trauma has been consistently defined as an experience or enduring condition that overwhelms one's capacity to cope and to process the events (e.g. Herman, 1997; Meszaros, 2010; Poole & Greaves, 2012). While this definition is broad, some experts (such as McCann & Pearlman, 1990; Pearlman & Saakvitne, 1995) have offered more

explicit definitions. McCann and Pearlman (1990) define psychological trauma as follows: An experience that a) is sudden, unexpected, or non-normative, b) exceeds the individual's perceived ability to meet its demands, and c) disrupts the individual's frame of reference and other psychological needs. The first part of this definition includes experiences that may not be unexpected for the individual but that the larger society would perceive as non-normative (such as ongoing incest) (McCann & Pearlman, 1990). The second part of this definition is congruent with the transactional model of stress (Lazarus, 1966), which explains 'stress' as an incompatibility between the demands of a situation and the individual's perceived ability to attend to those demands. 'Stress' is therefore defined as a psychological concept, which is consistent with McCann & Pearlman's (1990) above definition of 'trauma'. This part of the definition also emphasizes that whether an experience is traumatic depends on whether the individual appraises that it is so (McCann & Pearlman, 1990). The third part of the definition further highlights context and individual differences, explaining that an experience is traumatic, in part, because it in some way endangered the person's psychological core (McCann & Pearlman, 1990).

The response to psychological trauma may be best understood as co-occurring processes that include: a) an alteration of neurobiology affecting stimulus perception (manifested as increased arousal or decreased attention), b) the acquirement of conditioned fear responses to trauma-related stimuli, and c) altered cognitive schema of self and of world, and increased social apprehension (as cited in Shalev, 1995). Experts have described that the degree of destructive influence of the trauma depends on the perceived levels of agency and control over the events (e.g. van der Kolk, 2014). Lazarus and Folkman (1984) explained that a perception of sufficient control over the experience can reduce the appraisal of being threatened. Southwick and colleagues (Southwick, Sippel, Krystal, Charney, Mayes, & Pietrzak, 2016) suggested that responses to trauma are determined by several dynamic, interacting individual-level systems (including genetic,

epigenetic, developmental, and neurobiological systems), which are contained in larger social systems (including family, cultural, economic, and political systems). Furthermore, Southwick et al. (2016) described social support as a complex construct that is a key correlate of psychological resilience, with the effectiveness of the supportive depending on the extent to which it matches the individual's current needs.

Effects of Experiencing a Trauma

Experiencing an isolated or enduring trauma has been correlated with many adverse outcomes. These include mental health concerns such as anxiety disorders (e.g. Cuijpers, Smit, Unger, Stikkelbroek, Ten Have, & De Graaf, 2011), mood disorders such as bipolar disorder (e.g. Aas, Henry, Andreassen, Bellivier, Melle, & Etain, 2016), psychotic disorders (e.g. Morrison, Frame, & Larkin, 2003), personality disorders such as borderline personality disorder (e.g. Cohen, Leib, Tanis, Ardan, & Galyner, 2016; Ford & Courtois, 2014), obsessive-compulsive disorder (e.g. Carpenter & Cheung Chung, 2011), eating disorders (e.g. Jacobi, Hayward, de Zwaan, Kraemer, & Agras, 2004; Johnson, Cohen, Kasen, & Brook, 2002; Tasca et al., 2013), substance abuse (e.g. Rosenberg, 2011), self-injurious behaviour (e.g. Armiento, Hamza, Stewart, & Leschied, 2016; Deiter, Nicholls, & Pearlman, 2000; Goodman Lesniak, 2010; Martin, Bureau, Yurkowski, Fournier, Lafontaine, & Cloutier, 2016), and suicidal ideation and suicide attempts (e.g. Johnson, Cohen, Gould, Kasen, Brown, & Brook, 2002; Huffhines, Noser, & Patton, 2016; LeBouthillier, McMillan, Thibodeau, & Asmundson, 2015; McLafferty, Armour, O'Neill, Murphy, Ferry, & Bunting, 2016). The relationships between trauma and both incarceration and homelessness have also been supported (Harner, & Burgess, 2011; Hopper, Bassuk, & Olivet, 2010). Moreover, physical disorders, including chronic respiratory, cardiovascular, endocrine and immune conditions, as well as early death, have been linked with traumatic childhood experiences (Anda, Brown, Dube, Bremner, Felitti, & Giles, 2008; Cuijpers et al., 2011; De Bellis, & Zisk,

2014; Dong et al., 2004; Felitti et al., 1998). Two mechanisms have been suggested to mediate the association between trauma and biomedical disease, namely, a) physiological changes such as neuroendocrine, inflammatory, and epigenetic changes, and b) behavioural adaptive coping devices (De Bellis, & Zisk, 2014; Felitti, 2009; Dong, et al., 2004; Machtinger, Cuca, Khanna, Rose, & Kimberg, 2015). Suffice to state that traumatic early life experiences can alter an individual's psychological and physiological development, contributing to increased risk behaviours, as well as a collection of unfavourable emotional, social, economic and health consequences (Jetmalani, 2015; Miller, 2013).

Trauma-Informed Care (TIC)

Trauma-Informed Care (TIC) is a philosophy of care established upon the principle that treatment systems and providers should ameliorate, and not exacerbate, the destructive effects of trauma (Elliott, et al, 2005; Harris & Fallot, 2001). While the definition TIC has at times been nebulous, it is most commonly understood as a paradigm or an approach to how organizations view and respond to those who may have experienced or who may be at risk of experiencing trauma. The term TIC was coined by Harris & Fallot (2001) as a call for clinicians to become informed about the dynamics and the consequences of trauma. They explained that just as organizations that were not providing specific services to individuals with disabilities had become 'disability-informed' through becoming aware and accommodating their needs, so to healthcare organizations, regardless of their primary purpose, must become committed to providing services in a manner that welcomes and sensitively responds to the needs of trauma survivors (Harris & Fallot, 2001). The American Substance Abuse and Mental Health Services Organization (SAMHSA) defines a trauma-informed organization as one that commits to meeting the four 'R' elements: a) *realizing* the prevalence of trauma, and its effects on individuals, families, organizations and communities, b) *recognizing* the signs of trauma in individuals involved with

the system (including clients, families, staff, and others), c) *responding* by integrating the knowledge about trauma into policies, procedures and practices, and d) Seeking to actively *resist re-traumatizing* clients, staff, and others (SAMHSA, 2014). Fallot and Harris (2009) also identified five core values of TIC: a) safety, b) trustworthiness, c) choice, d) collaboration, and e) empowerment. They stated that to be trauma-informed, an organization's culture must reflect each of these values in each contact, physical setting, relationship, and activity. Furthermore, they contended that this culture must be apparent in the experiences of both consumers and staff (Fallot & Harris, 2009). These five values have become widely accepted as pillars of TIC (e.g. Farro, Clark, & Hopkins Eyles, 2011; Isobel, 2015).

In recent years, trauma-informed models of care have emerged. Two such theory-based and evidence-supported models are: Risking Connections, and the Sanctuary Model. Risking Connections is a curriculum-based trauma training program developed by the states of Maine and New York together with the Sidran Institute, the Trauma, Research, Education, and Training Institute (TREATI) and a diverse editorial board (Brown et al., 2012). It is aimed to create a common language among professionals through presentations of didactic content with active learning exercises and emphasizes an awareness of vicarious traumatization and countertransference. Since trauma often occurs in the context of interpersonal relationships, Risking Connections highlights therapeutic relationships as principal agents of change and healing (Brown et al., 2012). The components of the therapeutic relationship are described within this model as 'RICH' (offering respect, information, connection, and hope) (Tokayer, 2001). Risking Connections supports a train-the-trainer model of dissemination, facilitating self-sustaining change as organizations gain capacity to continue their own internal trainings (Brown et al., 2012). A study examining 261 Risking Connections trainees from 12 different training groups found that the training affected trainees' levels of knowledge, beliefs, and behaviour, however the study did not

assess whether these changes were retained over time (Brown et al., 2012). The Sanctuary Model is a trauma-informed organizational change model developed by Sandra Bloom in the 1980s (Esaki et al., 2013). It has a clear and structured methodology for modifying organizational culture to facilitate a culture where healing from physical, psychological, and social traumatic experiences can take place. The inputs of the model include training (for the core team, general staff, and psychoeducation for clients families and stakeholders), skill building, and tools to support implementation. The four pillars of the Sanctuary Model are: 1) 'Trauma Theory' (information on how traumatic experiences affect the brain and subsequently their thoughts, feelings and behaviours), 2) 'Seven Sanctuary Commitments' (philosophical underpinnings of the model that describe how community members commit to interact and the values to which the organization pledges), 3) 'S.E.L.F', (an acronym for safety, emotions, loss, and future, which are used in treatment planning with clients and within interpersonal and organizational problem solving), 4) 'Sanctuary Tool Kit' (a set of 10 practical applications of trauma theory, the seven commitments, and S.E.L.F, which are used by all members to support the model; Esaki et al., 2013). One study that examined the implementation of Sanctuary a multi-faceted non-profit organization for youth, including resident treatments centres, a special-education school, outpatient mental health services, and preventative outreach programs, reported qualitative improvements in treatment outcomes, staff communication and increased job satisfaction post-implementation. It further reported significant decreases in critical incidents and restraints (Banks & Vargas, 2009).

Theoretical Framework: The Constructivist Self-Development Theory (CSDT)

The Constructivist Self-Development Theory (CSDT; McCann & Pearlman, 1990; Pearlman & Saakvitne, 1995) is an integrative theoretical model developed as a means to comprehend and explain the experiences and adaptations of individuals influenced by trauma.

Although this theory did not guide my analysis, it has shaped my understanding of trauma and of trauma-sensitive practice. The CSDT is built on attachment theory, relational psychoanalytic theory, developmental psychopathology, theory of cognitive schemas, and social learning theory and it is rooted in the constructivist tradition that humans actively create their personal realities (Brown, Baker, & Wilcox; 2012; McCann & Pearlman, 1990; Pearlman & Saakvitne, 1995). These realities become the framework with which the person assigns meaning to experiences and beliefs about oneself and others (McCann & Pearlman, 1992; Pearlman & Saakvitne, 1995). Within the literature, the CSDT is congruent with the work of many leading trauma theorists (Pearlman & Saakvitne, 1995).

The CSDT proposes five interactive concepts or aspects of a person that are particularly affected by psychological trauma: a) frame of reference, b) self capacities, c) ego resources, d) psychological needs related to cognitive schemas, and e) memory system. These concepts are each summarized below.

Frame of Reference. Frame of reference, according to the CSDT, denotes an individual's framework for their worldview, identity, and spirituality (Pearlman & Saakvitne, 1995). Worldview encompasses one's beliefs about the world, including moral beliefs, causality, and locus of control. Identity refers to one's sense of self across time, context, and states, and spirituality is the place where worldview and identity converge. Spirituality represents the formation of meaning about oneself in the larger world (Pearlman & Saakvitne, 1995). In accordance with the CSDT, therapists or care providers must acknowledge themselves as representatives of the outside "world" and that their work with the patient will effectively reinforce or challenge the patient's current worldview.

Self Capacities. According to the CSDT, self capacities are the individual's abilities that help to regulate their inner state, maintaining a steady and coherent sense of identity, connection,

and self-esteem. The authors of the CSDT identify three specific self capacities: a) the ability to tolerate strong affect and to integrate a range of emotional experiences, b) the ability to sustain a positive sense of self, and c) the ability to uphold an inner sense of connection with others (Pearlman & Saakvitne, 1995). These capacities develop predominantly through the assimilation of early life interpersonal experiences, of being soothed, held, and acknowledged as an autonomous being worthy of love and respect. (Pearlman & Saakvitne, 1995). Self capacities develop within the attachment framework of a secure base (Bowlby, 1988), a stable attachment consistent caregiver in the early years of life (Pearlman & Saakvitne, 1995).

The authors of the CSDT emphasize that self-capacity development occurs within the context of the therapeutic relationship and that building a therapeutic relationship is fundamental to the work done with survivors of severe trauma. These patients often experience their emotions to be intense and detached from any context or meaning, and may feel trapped within two affective states: flooded and numb (Pearlman & Saakvitne, 1995). Consequently, they may struggle to use their emotions to identify their needs or to establish a sense of safety in their lives (Pearlman & Saakvitne, 1995). Through the therapeutic relationship, patients can develop a safe container for their emotions and fears, while internalizing the therapeutic connection as a resource to assist in identifying and using their emotional experience (Pearlman & Saakvitne, 1995).

Ego Resources. While self capacities reflect a person's intrapersonal framework, ego resources refer to a person's inner abilities to navigate external interpersonal relationships and to attain his or her psychological needs (Pearlman & Saakvitne, 1995). Similar to self capacities, ego resources develop and are reinforced over time by means of one's significant interpersonal experiences. Pearlman & Saakvitne (1995) noted that some individuals with trauma histories have well-developed ego resources that have enabled them to identify and meet others' needs in an attempt to survive and succeed in the world, however, their intrapersonal self capacities remain

highly impaired. The CSDT highlights two specific sets of ego resources: the first set includes intelligence, willpower and initiative, awareness of one's psychological needs, and the abilities to be introspective, strive for personal growth, and take perspective (which incorporates empathy, humour and wisdom). This first cluster of resources is valuable in terms of survival, achievement, and interpersonal relationships. The second set of resources encompasses a person's ability to protect themselves from harm. These include the ability to anticipate consequences, the ability to form mature relationships, the ability to maintain boundaries between self and others, and the ability to make self-protective judgments (Pearlman & Saakvitne, 1995).

The authors of the CSDT describe that work on ego resources extends out of observing, identifying, and processing interpersonal experiences that occur within the interpersonal therapeutic relationship. Further, when conflicts and misunderstandings arise within care, the provider can introduce ideas of respect and negotiation within the context of the relationship. By acknowledging their own limitations and mistakes within interactions, the provider can also explore with the patient how this interpersonal experience differs from those of the past. As the patient begins to understand and internalize how new patterns differ from the old ones in which he or she is trapped, the patient's ego resources enable them to progressively understand themselves and their needs (Pearlman & Saakvitne, 1995).

Psychological Needs. Pearlman & Saakvitne (1995) suggest that an individual's behaviour is motivated, and their relationships are shaped, by their basic psychological needs. Needs are both conscious and unconscious and tied to one's experiences and relationships. Every human being has numerous vital needs, and attempts to meet their needs in the best manner they can. The CSDT focuses on five needs that seem to be most sensitive to the effects of trauma: a) safety, b) trust, c) esteem, d) intimacy, and f) control. Each of these needs is expressed both in relation to oneself and in relation to others, with the salience of each need varying based on the individual's distinct

history (Pearlman & Saakvitne, 1995).

Cognitive Schemas. The authors of the CSDT use the term cognitive schemas to describe the conscious and unconscious assumptions and expectations individuals hold about self and others, as organized by the areas of central psychological needs. Within the CSDT, the schemas of interest pertain to frame of reference and to the five fundamental psychological needs (safety, trust, esteem, intimacy, and control). For example, one's beliefs and expectations around trusting others stem from their experiences relating to trusting others, and from how one has understood and made meaning of those experiences (Pearlman & Saakvitne, 1995). New experiences are evaluated through existing schemas, and will either be adapted into, or will remodel existing schemas, resulting in either assimilation or accommodation, respectively (Piaget, 1971). The CSDT espouses that the schemas most affected by the individual's traumatic experience link congruently with the individual's most salient areas of need. While the frame of reference schema is almost always disrupted by trauma, the other significant schemas and needs are impacted selectively, based on the individual and the context. Disrupted schemas mirror negative beliefs about self and others and about the likelihood of having one's needs met constructively. Consequently these beliefs impact the individual's relationship with oneself and with others (Pearlman & Saakvitne, 1995).

Safety. Safety refers to an individual's need to feel safe and reasonably invulnerable to harm (McCann & Pearlman, 1990). Disruptions to safety schemas can manifest as beliefs about one's self-safety, such as an incapacity to feel safe anywhere, as well as beliefs relating to the safety of others, or other-safety. A patient may fear that their own presence may bring about harm to others, or that others are vulnerable to danger through another means (Pearlman & Saakvitne, 1995).

Trust. Trust is related to healthy dependency (McCann & Pearlman, 1990; Pearlman & Saakvitne, 1995). Self-trust refers to the need to trust one's own perceptions and perspectives, while other-trust is the need to depend on others to one's needs, whether they be physical, emotional, or psychological needs (Pearlman & Saakvitne, 1995). Given that trauma can occur within the context of trusting and dependent relationships, an experience of distrust, including betrayal or abandonment, can become integrated in one's expectations of oneself and of others (Pearlman & Saakvitne, 1995). Patients may have learned that they cannot trust anyone (other-trust) nor their own perceptions of others (self-trust). Alternatively, disruptions to trust schemas may manifest in indiscriminate and misplaced trust in others and in oneself, proceeding towards further victimization.

Esteem. Esteem refers to the need to value oneself, to feel valued by others (self-esteem), and the need to value others (other-esteem). In the aftermath of trauma, an individual may come to believe that they deserved the suffering associated with their experience (disrupted self-esteem). Conversely, fury and disappointment related to others associated with their trauma may bring one to believe that people, specific profiles of people, or people in general are malicious or incompetent (disrupted other-esteem; Pearlman & Saakvitne, 1995).

Intimacy. Intimacy refers to one's need to connect with and to care for oneself (self-intimacy) and for others (other-intimacy), as well as the need to belong to a larger community (McCann & Pearlman, 1990; Pearlman & Saakvitne, 1995). Individuals with histories of trauma may have difficulty tolerating time alone, which is also linked to the self capacities (Pearlman & Saakvitne, 1995). They often struggle with the notion of self-care, and are unable to treat themselves lovingly (disrupted self-intimacy). These individuals may have few friends or intimate connections and believe that such relationships are not possible for themselves (other-intimacy; Pearlman & Saakvitne, 1995).

Control. Control refers to the need for an individual to control their own thoughts, emotions, and actions (self-control), and the need to control the behaviours of others (other-control). In various manners, individuals may adapt to traumatic experiences, whereby they lost control of their bodies, emotions, or thoughts (disrupted self-control), by attempting to take back rigid control. Likewise, dissociation represents a method of trying to control one's emotions, thoughts, and memories, by not allowing them into one's conscious awareness or affective experience. Furthermore, these patients may display a strong need to control others, or a sense of helplessness in interpersonal relationships (disrupted other-control; Pearlman & Saakvitne, 1995).

Memory System. The CSDT conceptualizes the memory system with an understanding that complex traumatic experiences are often encoded and embodied with the individual in a fragmented and dissociative manner. Therefore, authors of the CSDT identify five aspects relating to perception of experience that thereby represent traumatic memory: a) verbal memory, b) imagery, c) affect, d) bodily or somatic memory, and e) interpersonal memory (Pearlman & Saakvitne, 1995).

- **Verbal memory:** The factual narrative of the event or sequence of events (McCann & Pearlman, 1990; Pearlman & Saakvitne, 1995)
- **Imagery:** Visual representations of the events or experience within the individual's mind (McCann & Pearlman, 1990; Pearlman & Saakvitne, 1995).
- **Affect:** The emotions experienced before, during, and following the trauma (Pearlman & Saakvitne, 1995).
- **Bodily or somatic memory:** The physical sensations and experience that relate to the trauma (Pearlman & Saakvitne, 1995).

- Interpersonal memory: The interpersonal patterns that recur in current relationships that mirror the individual's past traumatic experiences (Pearlman & Saakvitne, 1995).

In summary, the CSDT's five interactive concepts (frame of reference, self capacities, ego resources, psychological needs related to cognitive schemas, and memory system) create a framework in which to contextualize an individual's experience and their affective, physical, kinaesthetic, and interpersonal adaptations (Pearlman & Saakvitne, 1995; see Table 1). The authors have also published work on the implementation of this theory for therapists working with adults with histories of trauma (Pearlman & Saakvitne, 1995).

Nurses and Trauma-Informed Care

Nurses currently constitute the largest professional discipline employed within healthcare settings in Canada (Canadian Institute for Health Information, 2015) and worldwide (Canadian Nurses Association, 2015) and are often referred to as 'direct care' providers, more often than not engaged at the very forefront of patient engagement and care. Throughout its history, nursing has maintained a unique disciplinary perspective related to the holism of human care, while acknowledging the influence of individuals' interactions with their respective environments and contexts (Archibald, 2012; Donaldson & Crowley, 1978; Davy, 2006; Dossey, 2010; Norris, 1982). Moreover, many nurses identify foundational aspects of their role to encompass the promotion of a therapeutic relationship and alliance, trust, safety, connection, collaboration, empowerment, and advocacy (e.g. Hagerty & Patusky, 2003; Hupcey, Penrod, Morse, & Mitcham, 2001; Delaney & Johnson, 2014; Muskett, 2014).

TIC is explained as care that goes beyond treating the presenting symptoms to treating the whole person with an appreciation for the context in which the individual is living their life (Harris & Fallot, 2001). Furthermore, it acknowledges that trauma influences many life domains in

profound and life-shaping manners (Fallot & Harris, 2009). Nursing, with its enduring perspective of holistic care are aptly positioned to relate with, and champion for, the TIC movement.

Although use of the term TIC has become more widespread, some literature suggests that nurses are often left confused by vague definitions and struggling in how to translate these ideas into day-to-day practice (Hall, McKenna, Dearie, Maguire, Charleston, & Furness, 2016; Muskett, 2014). Within the mental health settings, much of current literature implies that many inpatient environments concentrate on the reduction or elimination of seclusion and restraint practices as the chief outcome variables of TIC (e.g. Goetz & Taylor-Trujillo, 2012; Muskett, 2014 Azeem, Aujla, Rammerth, Binsfeld, & Jones, 2011). While the value of reducing seclusions and restraints cannot be diminished, it often seems to be rated as the ideal of TIC, or at least the only tangible and measurable outcome (Muskett, 2014). Recently, there has been an emergence of literature discussing the implementation of TIC values with various non-mental health-specific nursing specialties, including emergency department nurses (Hall, et al., 2016), NICU nurses (Marcellus, 2014), perinatal care nurses (Choi & Seng, 1015), pediatric acute care nurses (Kassam-Adams et al., 2015), correctional nurses (Harner & Burgess, 2011), and endoscopy nurses (Davy, 2006).

Four studies were identified that examined nurses' knowledge or attitudes related to TIC, or to a recent TIC intervention within their workplace (Chandler, 2008; Hall et al, 2016; Kassam-Adams et al., 2015). Chandler (2008) reported on findings from qualitative interviews with nurses on an inpatient psychiatric unit that was transitioning to a trauma-informed approach (the specific model or educational curriculum used was not identified). Participants in this study described the experience as a transition to a more patient-centred approach with "shifted control from the staff to the patient" and "adjusting the protocol to meet the patients' needs". (Chandler, 2008) They also described a shift in perspectives regarding patient behaviours based on their new knowledge of trauma and its effects, and an increase in collaborative patient-staff relationships (Chandler, 2008).

In a further study by Hall et al. (2016), emergency department nurses engaged in a formal one-day TIC education package developed by the Victorian Reducing Restrictive Interventions Project Team. Participants reported significantly greater abilities to talk to patients about trauma and to understand how their nursing practice is trauma-informed. However, the education did not affect their understandings of their role in listening to patients talk about their trauma, to how the emergency department environment can contribute to trauma, or feeling confident about how to respond to disclosures (Hall et al., 2016). A post-education focus group found that nurses felt the most valuable aspects of the training was learning about the neurobiology of trauma and its potential effects on a person, and having an individual with lived experience co-facilitating the education day (Hall et al., 2016). Hall et al. (2016) also noted the beginning of a positive shift in attitudinal change towards TIC, while nurses also stated that they would benefit from further TIC education. The third study examined nurses in pediatric trauma centres through of their knowledge, opinions, self-rated competence, and current practice relating to TIC (Kassam-Adams et al., 2015). This 'trauma provider survey' was specifically developed and based on research findings relating to the development of posttraumatic stress in children after potentially traumatic acute medical events. The participants were generally knowledgeable and held favourable attitudes towards TIC, and the majority felt moderately competent within their practice (Kassam-Adams et al., 2015). A fourth study looked at changes in knowledge and attitudes related to TIC after a nurse-led, inter-professional in-service training on trauma-informed perinatal care (Choi & Seng, 2015). However, only five of the 47 participants were nurses and the results were not stratified by discipline. Still, the results indicated that the in-service training was helpful and useful for staff but that the development of more advanced training was needed for some professionals (Choi & Seng, 2015).

TIC Measures

It is important to note that none of the four above-mentioned studies documented the use of a psychometrically tested measurement instrument related to TIC. Currently, three such instruments exist (Baker & Brown, 2016): a) Attitudes Related to Trauma-Informed Care (ARTIC) scale, b) TICOMETER, and c) Trauma-Informed Practice (TIP) Scales. The ARTIC scale examines service-providers' attitudes related to TIC, based on the notion that staff attitudes will influence their interactions with patients, which will ultimately affect patient, staff, and organizational system outcomes (Baker & Brown, 2016). The TICOMETER is a brief assessment tool that measures staff perceptions about TIC at an organizational level and can assist in identifying training needs (Bassuk, Unick, Paquette, & Richard, 2016). Thirdly, the TIP Scales (Sullivan & Goodman, 2015) were designed for domestic violence organizations to measure clients' perceptions of trauma-informed practices within the organization. These three instruments may offer useful methods of measuring TIC in practice, while further empirical testing of their use is needed.

The ARTIC scale. The ARTIC is the first theoretical-driven and direct tool to assess providers' attitudes relevant to TIC and is premised on the notion that advancements towards trauma-informed services are impeded by the absence psychometrically robust measures to evaluate TIC (Baker, Brown, Wilcox, Overstreet, & Arora, 2016). The purposes of the ARTIC scale are "a) to reflect and synthesize the current theoretical and empirical knowledge related to TIC, b) to assess service providers' attitudes relevant to TIC directly and specifically, and c) still be easily and inexpensively administered and scored by diverse institutions such as schools, human service agencies, and health care organizations" (Baker et al., 2016, p. 63).

The ARTIC-35 is a present version of the scale; it includes 35 items and provides scores on five subscales, and an overall summary score. The subscales comprise of a) the underlying cause

of client problems, b) the best approach to working with clients, c) one's own on-the-job behavior, d) one's own self-efficacy at work, and e) one's own reactions to the work (Baker et al., 2016).

The five primary subscales contain seven items each. The subscales were developed to represent the central aspects of TIC, as described by Harris & Fallot (2001). Each item was developed to represent a TIC-favourable attitude, corresponding with an opposite attitude, taking the format of a seven-point bipolar Likert scale. An example of a TIC-favourable item is, "It's best to be very strict at first so [clients] learn they can't take advantage of me" (Baker et al., 2016, p. 67), while its contrasting opposite attitude is, "It's best to treat [clients] with respect and kindness from the start so they know I care" (Baker et al., 2016, p. 67). All items were composed at a sixth grade reading level in accordance with the Flesch-Kincaid Grade Level test, and the measure takes about fifteen minutes to complete (Baker et al., 2016).

Confirmatory factor analysis has offered support the subscale solution (Baker et al., 2016). Content experts played an active role in the development of the ARTIC endorsing a level of content validity. Internal reliability and temporal consistency over six months were also demonstrated, providing psychometric support. Furthermore, preliminary testing has favoured a promising degree of construct and criterion-related validity for the ARTIC Scale (Baker et al., 2016). In communicating with the authors of the ARTIC scale prior to this thesis study, the ARTIC authors offered support for its use for nurses (Brown, personal communication, 2015).

Problem Statement

A growing interest and body of research has emerged examining the influence of trauma on individual, communal and societal outcomes, and on the need for trauma-sensitive and trauma-responsive services. To further the progression towards trauma-informed healthcare services, it is paramount that we consider the contribution of nurses. Indeed, nurses, as direct care providers within a disciplinary perspective of the holistic provision of care, are vital links in the

advancement of TIC within health care services. However, TIC among nurses remains largely under-studied. An understanding of the current state of nursing knowledge and attitudes related to TIC is needed as a starting point, yet a scarcity of literature currently exists. Furthermore, it would be beneficial to explore and deepen our knowledge and understanding of nurses that hold more favourable knowledge and attitudes towards TIC, and of their experiences incorporating TIC in practice. However, without a current understanding of nurses' knowledge and attitudes towards TIC, it would be impossible to initially recruit an appropriate sample.

Thesis Objectives

Given the paucity of literature that situates TIC within the context of nursing, the overall purpose of this thesis was to explore nurses' knowledge of trauma and experiences using TIC in practice. The specific objectives of this thesis were to: a) describe the use of social media (Facebook and LinkedIn) in the recruitment of RNs for an online survey on TIC, and b) explore and describe the understandings and experiences related to trauma and TIC among nurses that scored the highest on this scale.

Overall Study Design

A mixed-method study design was employed to address the study objectives, consisting of two phases: Phase One as an online quantitative self-report survey with participants recruited via social media, and Phase Two as qualitative semi-structured interviews. The studies were conducted using a sequential approach, with the target sample for the second phase qualitative study identified based on the results of the survey.

Organization of Thesis

The remainder of this thesis is organized into four chapters. In Chapter Two, I provide additional methodological information on mixed methods studies. Chapter Three is a structured manuscript entitled "Online recruitment of Registered Nurses in the age of social media: Facebook

and LinkedIn”, which describes the use of social media platforms, Facebook and LinkedIn, in the recruitment of RNs for an online survey. Chapter Four also contains a structured manuscript entitled: “Exploring Nurses’ Knowledge and Experiences Related to Trauma-informed Care” and presents a qualitative study undertaken with RNs. Both manuscripts have been submitted to specific scientific journals and are formatted accordingly. Chapter Five provides an integrated discussion of the findings from both articles within the broader context of TIC and nursing practice. The research findings serve as a catalyst for discussion around practice, policy, research, and education.

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Table 1

Constructivist Self-Development Theory: Aspects of the Self Influenced by Psychological Trauma

1. Frame of Reference	Framework of beliefs through which the individual interprets the experience; includes: • Worldview • Identity • Spirituality
2. Self Capacities	Abilities that enable the individual to maintain a sense of self as consistent and coherent across time and situations; intrapersonal; includes ability to: • Tolerate strong affects • Maintain positive sense of self • Maintain inner sense of connection with others
3. Ego Resources	Abilities that enable the individual to meet psychological needs and to relate to others; interpersonal; includes two types: • Resources important to the therapy process ○ Intelligence, willpower and initiative, awareness of psychological needs, and abilities to be introspective, to strive for personal growth, and to take perspective • Resources important to protect oneself from future harm ○ Abilities to foresee consequences, to establish mature relations with others, to establish boundaries, and to make self-protective judgments
4. Psychological Needs and Cognitive Schemas (in relation to <i>self</i> and <i>others</i>)	• Safety ○ The need to feel secure and reasonably invulnerable to harm by oneself or others • Trust ○ The need to have confidence in one’ s own perceptions and judgment and to depend on others • Esteem ○ The need to feel valued by oneself and others, and to value others • Intimacy ○ The need to feel connected with oneself and others • Control ○ The need to feel able to manage one’s feelings and behaviours as well as to manage others in interpersonal situations
5. Memory System	• Verbal • Somatic • Affect • Interpersonal • Imagery

Chapter Two

Mixed Methods Research

Mixed Methods Research

Mixed methods research involves the collection and analysis of both quantitative and qualitative data in a single study. These data may be collected concurrently or sequentially (Creswell, Plano Clark, Gutmass, & Hanson, 2003). In this thesis, quantitative and qualitative data were used to answer different, yet complimentary research questions on exploring nurses' knowledge and attitudes related to trauma-informed care (TIC). The goal of mixed methods research is to glean from the advantages of both quantitative and qualitative research and to minimize their respective disadvantages in order to conduct research that is effective and best suited towards the specific research aims (Johnson & Onwuegbuzie, 2004).

The mixed methods logic of inquiry may engage strategies of induction (i.e. detection of patterns), deduction (i.e. examination of theories and hypotheses), and abduction (i.e. discovering and depending on the most credible of a set of explanations for the given outcomes) (Johnson & Onwuegbuzie, 2004). Greene, Caracelli & Graham (1989), proposed five theoretically based purposes for mixed methods research: a) triangulation (i.e. to seek convergence and correspondence of results from differing methods), b) complementarity (i.e. to seek elaboration, enhancement, and clarification of the results from one method with the findings of the other method), c) development (i.e. to seek the results from one method to inform and develop the other method), d) initiation (i.e. to seek the discovery of contradictions and new perspectives that re-frame the research question), and e) expansion (i.e. to seek to expand the scope and range of inquiry by employing different methods for different study components).

Mixed methods designs are classified based on four criteria: a) sequence of implementation (i.e. whether methods are implemented sequentially or concurrently), b) priority (i.e. whether one method is primary while the other complimentary, or whether they have equal status), c) stage of

integration (i.e. whether data from differing methods are integrated during data collection, analysis or interpretation), and d) theoretical perspectives (i.e. whether explicit or implicit; Creswell et al., 2003; Johnson & Onwuegbuzie, 2004). Based on these criteria, six principal mixed methods research designs have been presented: sequential explanatory, sequential exploratory, sequential transformative, concurrent triangulation, concurrent nested and concurrent transformative (Creswell et al., 2003). All mixed methods research must integrate findings from the different methods at some point in the study (Johnson & Onwuegbuzie, 2004). Moreover, the process of legitimization throughout data analyses seeks to ensure the rigor and trustworthiness of the quantitative and qualitative data, as well as the subsequent interpretations (Johnson & Onwuegbuzie, 2004; Onwuegbuzie & Teddlie, 2003). For this study I employed a sequential explanatory mixed methods design that was qualitatively driven with a quantitative complementary component. The intention of this mixed methods design was that of development; that is, development of the qualitative study based on the identification of an appropriate sample through the quantitative phase (Johnson & Onwuegbuzie, 2004).

In developing the design for this research project, I was fully aware that tensions exist in the use of mixed-methods research (e.g. Giddings, 2006). Much of these tensions originate from the mixing of methodologies (rather than methods) and the concern that mixed-methods are used to reinforce a post-positivist perspective. Within my thesis, a survey (quantitative phase) was used as a screening / sampling strategy for the qualitative study. That is, the scoring of the participants on the survey enabled me to obtain a purposeful sample. The actual survey data ultimately offers an opportunity to be analyzed as a study on its own, which will answer a different research question (i.e. psychometrically testing the ARTIC scale and examining the characteristics of nurses that scored higher on this scale). As such, other than using individual scores for sampling

purposes, the survey data remained entirely separate from the qualitative study phase and will be analyzed independently from this thesis.

Paradigmatic Stance

This thesis, with its mixed-methods study design, is situated within the paradigm of pragmatism. This paradigm is based on a philosophy that the epistemological and ontological views of quantitative and qualitative research are compatible and may be combined within a single study. Pragmatism, in brief, assumes that when assessing phenomena, we should consider both their empirical and practical outcomes (Johnson & Onwuegbuzie, 2004). Through a paradigm of pragmatism, it is not necessary to perceive truth as belonging only to empirical results or to many individually subjective realities, rather, it is desirable to toil towards practical advancement of human understanding and discovery (Powell, 2001).

The intent of my thesis research was to explore nurses' knowledge and experiences related to trauma-informed care (TIC). The dearth of existing knowledge relating to nurses and TIC failed to adequately inform me on how to purposefully select an appropriate sample of nurses with whom to explore this topic further. Therefore, the initial study phase was designed as a means to select a suitable sample for the following study phase.

The first phase of the research was an online survey with a quantitative cross-sectional design. The use of the survey within the initial phase of the research implies some form of quantification traditionally situated in a post-positivist paradigm. The ontological assumptions of the post-positivist paradigm are grounded in critical realism, that is, that there is a truth assumed to exist, while it may be imperfectly perceived by the fallible human intellect (Guba & Lincoln, 1994). The corresponding epistemological view was one of modified dualism or objectivism, that we can discover approximate knowledge of the reality, while findings are continuously subject to possible falsification (Guba & Lincoln, 1994). It is important to reiterate, however, that the

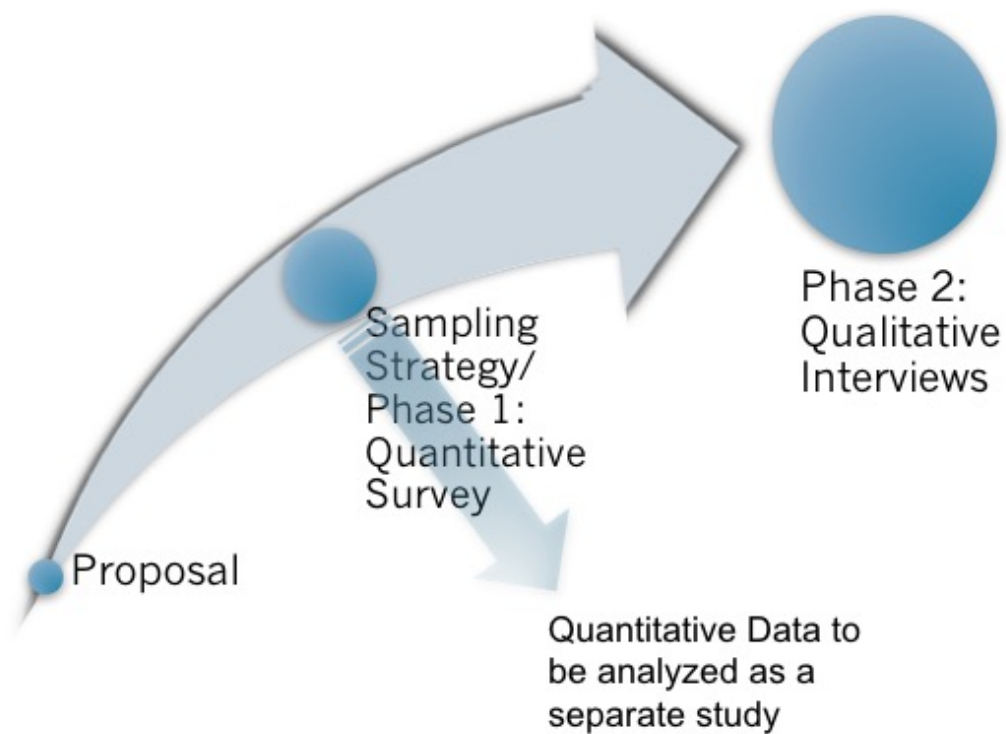
purpose of this phase was to determine which participants scored higher on the ARTIC (Attitudes Related to Trauma-informed Care) scale, in order to purposefully select participants for the subsequent phase of the study. It was not intended to affect the analysis of qualitative data collected in the second phase of the study. As such, by limiting the use of the survey to fulfill the screening / sampling needs of this study, I believe to have minimized any paradigmatic incongruences that could emerge when conducting mixed-methods research.

The second phase used a qualitative approach and was guided by constructivism, and constructivist research aims to develop an understanding of the complex and multifaceted worlds of experience from the perspectives of the target population. Constructivism facilitates an investigation of how these individuals separately and collectively construe their worlds and encompasses a relativist ontology and a subjectivist epistemology (Schwandt, 1997). The relativist ontology assumes there are multiple realities, while a subjectivist epistemological perspective considers the researcher as interactively linked with the participants and their context. Therefore the interpretation of a given phenomenon is co-created by the researcher and the study participants (Lincoln, Lynham, & Guba, 2011; Guba & Lincoln, 1994). Within this thesis, I reconstructed the communally created realities of my participants to shape a reality that is useful and meaningful from a constructivist paradigm (Lincoln et al., 2011).

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Figure 1. Mixed Methods: The Sequential Explanatory Design

Chapter Three

Online recruitment of Registered Nurses in the age of social media:

Facebook and LinkedIn

This chapter is an unpublished manuscript formatted for submission to the journal of Applied Nursing Research.

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Abstract

Background: Registered Nurses offer distinct and valuable perspectives for healthcare research. Surveys are important methods used to gain insight of perceptions; however survey studies recruiting Registered Nurses are historically characterized by suboptimal response rates. While the use of online social media sites as recruitment platforms is promising, a paucity of evidence exists describing social media recruitment methods and outcomes from different social media sites. The purpose of this paper is to describe the use of Facebook and LinkedIn social media sites in the recruitment of Registered Nurses for an online international survey concerning nurses' knowledge and attitudes related to trauma-informed care.

Methods: A five-week modified Dillman approach was used to recruit a convenience sample of English-speaking Registered Nurses. Data collected included an audit trail of recruitment posts, reactions of social media posts, socio-demographic characteristics of survey participants, method of recruitment, time of recruitment, and qualitative feedback provided through comments to posts and replies to private messages. Descriptive statistics were used to report frequency and percentage of all variables, and logistic regression analyses were performed to test statistically significant associations between quantitative variables. Qualitative data received through messages were analyzed using content analysis.

Results: We recruited 267 Registered Nurses through social media (n=172, Facebook; n = 95, LinkedIn). Within three weeks, our target sample was exceeded (n=192). 1,510 recruitment actions were taken, including public recruitment posts (n=6), group and targeted posts (n=101), and personal messages (n=1403). LinkedIn was more likely to recruit male, higher educated Registered Nurses, and working in diverse roles, such as administration, research, and education. Personal messages received through Facebook & LinkedIn (n=203) fell into two categories

(‘Positive’ and ‘Negative’), which were further divided into several sub-categories. The majority of messages were ‘Positive’ and included: a) confirmation that the participant had completed the survey or intended to (n= 140), b) statements of appreciation for research (n= 51), c) offers to share the post or survey (n=45), and d) appreciation for the personal recruitment message (n=30).

Conclusions: Our experience with social media as a recruitment platform was that it offered a suitable platform for recruiting a diverse sample of Registered Nurses to complete an online survey study. Advantages included the speed of recruitment, cost-efficiency, snowballing effects, and the accessibility of the researchers to potential participants. Differences between Facebook and LinkedIn as recruitment platforms should be considered when incorporating these strategies.

Keywords: recruitment, nurses, social media, Facebook, LinkedIn

Background

As the largest body of healthcare professionals, nurses play an integral role in health services research, and yet surveys of nurses are often challenged by problematically low response rates (VanGeest & Johnson, 2011). With the rise of the Internet, online surveys are commonly accessed by individuals within the convenience and privacy of their homes, and recent study findings suggest that surveys delivered online may be more effective in recruiting nurses (e.g. Horevoorts, Vissers, Mols, Thong & van de Poll-Franse, 2015; Parkin Kullmann, Hayes, Wang & Pamphlett, 2015; Russell, Boggs, Palmer, & Rosenberg, 2010; van den Berg et al., 2011; Chizawsky, Estabrooks & Sales, 2011).

Social media platforms are websites where information and dialogue are exchanged between Internet users worldwide (Andrews, 2012). Social media users may create profiles and build networks to facilitate connecting with other users (Lenbart & Madden 2007); they may also join groups and communities related to their interests. As social media sites are generally free to use and widely accessible, they are a promising cost-effective platform to advertise and recruit (Manca, 2015; Ryan, 2013; Yuan, Bare, Johnson, & Saberi, 2014). Through social media groups and communities, it is possible to target specific populations including those that may be difficult to otherwise identify and engage (e.g. Schumacher et al., 2014; King et al., 2014; Yuan et al., 2014). In three recently published studies, authors discussed the advantages of online surveys delivered to nurses through social media. These advantages included the rapid pace of data collection, snowballing effects (Child, Mentis, Pavlish, & Phillips, 2014), the speed with which participants engaged into studies (Godino, Turchetti, & Skirton, 2013), and the minimal resources required to collect and manage data (Mannix, Wilkes, & Daly, 2014). The published literature describes the use of Facebook (Child et al., 2014; Godino et al., 2013; Mannix et al., 2014) and Twitter (Godino et al., 2013; Mannix et al., 2014) in recruiting nurses to complete an online

survey. LinkedIn, another social media platform, is commonly used as a professional recruitment platform (e.g. Hasan, Subhani, & Joseph, 2012), but little is known about its capacity as a primary recruitment medium for research purposes.

As a novel recruitment approach, a paucity of literature exists on the specific procedures of how to use social media and the effectiveness of recruitment using various social media sites. The purpose of this manuscript, therefore, is to describe the use of social media platforms in the recruitment of RNs to complete an online survey. Specifically, we: a) describe the recruitment process and results for Facebook and LinkedIn, b) compare the two recruitment strategies, and c) present a reflexive account of lessons learned, future possibilities, and implications for survey recruitment with RNs. To our knowledge, this was the first study that compares Facebook and LinkedIn as platforms to recruit nurses for an online survey.

Methods

Design

This study was a part of a larger inquiry that sought to explore nurses' knowledge and attitudes related to trauma-informed care (TIC) through a sequential explanatory mixed-methods design. The overall inquiry consisted of a quantitative web-based survey and qualitative semi-structured interviews. In this article, we discuss the use of social media as a recruitment strategy. Our target sample size for the survey was 170 participants (Tabachnick & Fidell, 2007).

Procedures

Social media platforms: Facebook and LinkedIn. We chose to recruit RNs through the online social media platforms Facebook and LinkedIn, because they are similar in their use. Facebook, unveiled in 2004, is currently the foremost social networking platform, the third most popular website in the world, and claims 1.65 billion monthly active users (Alexa, 2016; Facebook, 2016a). LinkedIn, launched in 2003, is a social media platform with a focus on

professional and business networking and development, and has approximately 100 million monthly active users (Duffy, 2011; VentureBeat, 2015). It is the 17th most popular website worldwide (Alexa, 2016). While Facebook is free for users, LinkedIn offers basic free accounts, as well as paid accounts that include increased functionality (Tillman, 2014).

Both Facebook and LinkedIn support users in searching and connecting with 'friends' and 'connections', respectively. Once both sides have approved the 'friendship' or 'connection', a reciprocal relationship exists and information that is shared can be viewed by all members of their respective networks. Through both platforms, 'friends' or 'connections' are suggested to users based on certain defining attributes (e.g. mutual 'friends/connections', area of employment or workplace, and places of education; Duffy, 2011). 'Messages' are a key aspect in the communication between social media users because they facilitate direct contact with one another. However, aspects of different social media platforms control the delivery of these messages. For example, within a basic (free) LinkedIn account, users cannot send private messages to others unless they are connected and while Facebook enables messages between non-friends, they may be filtered as spam and not readily apparent to the recipient (Facebook, 2016b). For a comparison of terminology used in Facebook and LinkedIn, see Table 1.

Recruitment process. We used a modified Dillman approach (Dillman, Smyth & Christian, 2009). With any online recruitment campaign, a multipronged recruitment strategy is recommended (King et al., 2014). Therefore, we posted our recruitment message through various modalities supported within Facebook and LinkedIn to maximize the utility of these two sites. This included posting an initial standardized recruitment message and link to the survey publically on the principal investigator's personal Facebook and LinkedIn pages, on nursing networking group pages (e.g. Psychiatric Mental Health Nurse Practitioner group, Rural and

Remote Nurses in Australia group, South African Nurses Forum), and through private messages to acquaintances and connections. In accordance with the Dillman approach, two weeks after the initial public message, we posted a public message reminder with a link to the survey. A final reminder was posted four weeks after the original message.

In the recruitment message, potential participants were invited to complete the online survey and share the message and link with any nursing contacts and networks. Individuals were also able and encouraged to share the survey link beyond the social media platforms (for example, by emailing to others). Forty-three (14%) participants were recruited through this snowballing effect and are excluded from this article. The recruitment period was seven weeks from November 16 to December 23, 2015, after which time the survey was closed to public access.

Data collection. We used Research Electronic Data Capture (REDCap), a secure, web-based application, that locally houses the data (Harris, Taylor, Thielke, Payne, Gonzalez, & Conde; 2009), to collect and manage the online survey data. The data collected included: a) an audit trail tracking public, group, and personal messages posted by the authors, b) reactions to the social media posts (i.e. 'likes', 'shares', 'tags', and 'views' of these posts), c) socio-demographic characteristics of the participants collected within the survey itself (sex, age, years of RN experience, education, clinical setting, and location of employment), d) method of recruitment (i.e. Facebook or LinkedIn), e) time of recruitment, and f) qualitative feedback provided through comments to posts and replies to private messages. The University of Ottawa Research Ethics Board approved the ethical components of this study (File: H10-15-04).

Data Analysis

The audit trail of recruitment posts and messages was arranged as a table and summarized narratively. We organized recruitment post reactions into a schematic to represent the spread of likes, tags, and shares associated with each post. Method of recruitment was graphed to show the number of participants accessing the survey through Facebook and LinkedIn in the first 24 hours, the first week, and the second week following each public message. We used frequencies and percentages to describe the participant characteristics and compare the characteristics of individuals recruited through Facebook to individuals recruited through LinkedIn. Additionally, we used parametric and non-parametric (independent-sample t-tests and chi-squared tests) inferential testing to determine statistically significant socio-demographic differences between these two groups, and post-hoc logistic regression analysis was performed on categorical variables that had significant Chi-Square results to identify the nature of the differences. Quantitative data analysis was done in IBM SPSS Statistics Version 23. Finally, a content analysis of responses to personal recruitment messages was performed and presented (Drisko & Maschi, 2015). Each de-identified message was reviewed and explored for content and meaning. We then distilled the content into discrete codes and summarized those codes as categories. All research team members were consulted throughout the data analysis phase and agreed upon the final construction of categories.

Results

Recruitment Success

Figure 1 depicts the number of surveys opened and completed through Facebook and LinkedIn following each public post. Within 24 hours of the initial post, 65 individuals completed the survey (n=64 through Facebook, n=1 through LinkedIn). After one week, 132 surveys were complete (n=129 through Facebook, n=3 through LinkedIn). By the end of the

second recruitment week, 152 surveys were complete (n=141 through Facebook, n=11 through LinkedIn). While recruitment through Facebook slowed down with time, recruitment through LinkedIn increased, with over half of participants coming from LinkedIn recruited during the final two weeks of recruitment (n=58, 61% of all LinkedIn participants). By the end of the five-week recruitment period, the survey was opened 688 times, 491 RNs had completed at least one survey item, and 310 had submitted the survey, rendering an overall survey completion rate of 63%. Forty-three of these participants indicated that they were recruited through snowballing, and are thus excluded from this analysis. The total sample size for participants recruited through Facebook and LinkedIn was 267 (172 from Facebook, and 95 from LinkedIn).

Log of Recruitment Actions

There were 1510 recruitment actions taken overall. We published six public recruitment posts, 101 group and targeted page posts, and sent 1403 personal messages to potential participants. Due to the nature of the respective platforms, most group and page posts were done via Facebook (n = 97, 96%), and most private recruitment messages were sent through LinkedIn (n = 1147, 82%). A recruitment log is presented in Table 2.

A total of 233 individuals recruited provided their email addresses as part of the survey. We were able to match 122 (52%) to the list of individuals who were sent personal recruitment messages, thus approximately half of our participants were recruited through targeted and individualized messaging. This included 64 participants from Facebook (37% of total Facebook sample) and 58 participants from LinkedIn (61% of total LinkedIn sample).

In terms of the response rate for messages sent through the two platforms, we noted that 64 participants were recruited through Facebook, with 256 messages sent in total. This means that 25% of those that received a message through Facebook completed the survey. From LinkedIn, 58 participants were recruited out of 1147 messages; in other words 5% of those that

received a personal message through LinkedIn completed the survey.

Reactions to Public Recruitment Posts

Figure 2 demonstrates the known reach and reactions to the public recruitment posts. The initial Facebook post resulted in 14 likes, 13 shares, and six individuals tagged in the post's comments. These 13 shares generated an additional 27 likes, nine shares, and 14 names tagged in comments. For LinkedIn, the initial post generated three likes, three shares, and 60 views. Number of views for each post increased over time, with the third public post viewed 110 times.

Socio-Demographic Characteristics of Participants

Participants were between 21 and 75 years old with a mean age of 37 years. Years of practice as an RN ranged from 0 to 53 years, with a mean of 12 years. Almost all participants (91%) were female, 59% held a bachelor's degree, and 58% worked in tertiary care settings. Most participants were employed in Canada ($n=195$, 73%), and worked in an urban setting ($n=228$, 85%). A demographic profile of the participants recruited through Facebook and LinkedIn is presented in Table 3.

LinkedIn participants compared to Facebook participants. There were statistically significant differences between the socio-demographics of participants recruited through LinkedIn and Facebook. LinkedIn-recruited participants were more likely to be male ($X^2=8.337$, $p=0.004$), and older ($t = -2.239$, $p = 0.026$) than Facebook-recruited participants. They also had more years of RN experience ($t = -2.355$, $p = 0.019$), and were more likely to hold graduate degrees ($X^2=13.230$, $p = 0.001$) compared to their Facebook counterparts. Post-hoc logistic regression comparing level of education and likelihood of being recruited through LinkedIn indicated that participants with a graduate degree were seven times more likely to be recruited through LinkedIn than Facebook ($OR=7.652$, $95\%CI=1.662$ to 35.232). LinkedIn-recruited participants were less likely to work in a tertiary/hospital setting than Facebook participants

($X^2=24.486$, $p < 0.001$). Post-hoc logistic regression comparing area of practice indicated that participants working in a community setting were two times more likely to be recruited through LinkedIn than Facebook (OR=2.104, 95%CI=1.163 to 3.805), and that participants working in administration/research/education were seven times more likely to be recruited through LinkedIn than Facebook (OR=6.612, 95%CI=2.898 to 15.089).

Participant Feedback: Personal Messages Received through Facebook & LinkedIn

We received a number of responses to private recruitment messages ($n=203$) through both Facebook ($n=74$, 36%) and LinkedIn ($n=129$, 64%). These messages fell into two categories ('Positive' and 'Negative'), which were further divided into several sub-categories (Table 4). Messages were not mutually exclusive in terms of categories and some categorized into more than one category. The 'Positive' category encompassed nine sub-categories and included the vast majority of messages received. These included: a) messages confirming that the participant had completed the survey or intended to ($n=140$, 69% of messages), b) statements of appreciation and support for research ($n=51$, 25%), c) offers to share the post or survey ($n=45$, 22%), d) appreciation for the personal recruitment message ($n=30$, 15%), e) inquiries related to inclusion criteria for participation ($n=14$, 7%), f) inquiries or support related to the research ($n=14$, 7%), g) inquiries or support related to the survey itself ($n=9$, 4%), h) wishes to participate after the survey had closed ($n=9$, 4%), and i) support for using social media as a recruitment method ($n=7$, 3%). The 'Negative' category encompassed four sub-categories, which included the remaining 29 (14% of) messages. These categories covered: a) references to technical difficulties with the survey ($n=24$, 12%), b) negative feedback about the survey itself ($n=3$, 1%), c) unwilling to participate in the survey at this time ($n=1$, <1%) and d) an expression of concern over the use of social media as a recruitment strategy ($n=1$, <1%).

Discussion

Summary of Findings

The purpose of this article was to describe the use of two social media platforms (Facebook and LinkedIn) in the recruitment of RNs for an online survey. Over a five-week period, we successfully recruited 267 RNs. Specifically, within 24 hours of launching the survey, 65 participants completed the survey through Facebook and LinkedIn. This represents more than a third of our target sample size of 170 participants; this target was surpassed by the end of the third week.

As a relatively new communication medium, many researchers are skeptical of the utility of social media for participant recruitment in healthcare research (Shere, Zhao & Koren, 2014). Concerns include the assumption that samples recruited online, and particularly through social media, may result in selection bias and an unrepresentative sample, attributable to the exclusion of individuals that are not using the Internet or social media (VanGeest & Johnson, 2011; Khatri et al., 2015). While we initially shared these concerns, given the potential benefits (e.g rapid recruitment (Godino et al., 2013), snowballing effects (Child et al., 2014), the minimal resources required (Mannix et al., 2014)) our research team opted to try this method and we had positive results. We found that Facebook and LinkedIn each recruited participants with differing profiles, and that the recruitment experience offered by each of the two platforms was distinct as well. Lessons learned from this experience include the importance of ensuring that online surveys are appropriately accessible through a range of devices including tablets and cellular phones. Overall, we found using the social media platforms Facebook and LinkedIn to be an inexpensive and rapid means of recruitment.

Social Media as a Recruitment Platform

Speed and immediacy. Often, individuals access social media in times of boredom or

when they desire a brief distraction (Whiting & Williams, 2013). This may be an opportune time to reach and engage individuals into research. Persons who possess a smart phone receive real-time alerts, drawing their attention to new messages, posts in their interest groups, or posts in which they were “tagged”. These prompts are likely to facilitate immediate action because of the instant gratification they provide (“The Philosophy”, 2014), thereby stimulating their interest. The perceived accessibility of the researcher to potential participants and the opportunity of immediate engagement and discussions is also a benefit of social media (O'Connor, Jackson, Goldsmith, & Skirton, 2014). This two-way interactive experience allows for real-time discussions on the topic, giving credibility to the research while building a connection with potential participants. These benefits associated with accessibility were evident in our study and most clearly demonstrated through the volume of private messages received. This real-time messaging capacity enabled us to rapidly clarify eligibility requirements and assist with technical difficulties, as well to impart further information on our topic of study. The ease at which participants were able to reach out and build rapport and trust us may have also contributed to their sharing of the survey with others (Lafferty & Manca, 2015). Finally, while it is an idea that requires further exploration and study, we suspect that by using social media we may have mitigated some of the known barriers (i.e. time constraints and the need for institutional support and/or gatekeepers) to nurses engaging in survey research (Vangeest & Johnson, 2011)

Access to diverse populations. While the majority of our participants were from Canada, and to a lesser extent, the United States, our survey also reached and recruited participants from regions such as Greece, India, Israel, Puerto Rico, Saudi Arabia, South Africa and the United Kingdom. Diverse areas of practice were also represented, ranging from tertiary/hospital and community, to administration, research and education. This diversity was especially beneficial as we aimed to recruit RNs working in varied areas of practice. With traditional survey studies,

recruiting participants from multiple settings can be challenging (Flynn, 2009). Some of these challenges include the time needed to build trust and rapport across collaborating institutions and the difficulties involved in navigating inter-facility and interpersonal politics (Flynn, 2009). As previously mentioned, social media bypasses these barriers because it is a virtual social space that connects persons worldwide and is not subject to organizational structures.

Snowballing benefits. Our social media recruitment strategy also resulted in an organic snowballing effect. Both RNs and non-RNs took initiative to forward the recruitment message and link to others through “shares” and “tags”. Snowballing beyond social media also occurred because of individuals who wished to promote the study through email or another manner. While it is not possible to know exactly how many survey responders were recruited through snowballing efforts beyond social media, we do know there were 43 participants (14% of total participants) who responded that they had not received the survey through Facebook or LinkedIn, but rather through “other” means. Recruitment efforts that are driven through family, friends, and colleagues, may offer a more personal and credible means of connecting with potential participants (Andrews, 2012) and are a valuable element of social recruitment strategies. It is important, when using several social media platforms for recruitment, to collect data from participants indicating how they heard of the survey. It was through this strategy that we were able to identify how participants were recruited and to account for those recruited through ‘other’ (snowballing) means.

Comparing the Experiences of Using Facebook and LinkedIn

Facebook and LinkedIn, while similar platforms, differed substantially in their use as well as in their respective advantages and challenges for survey recruitment. Facebook automatically connects people and we were able to rapidly recruit participants with minimal resources or additional efforts other than posting. LinkedIn required more time and patience to build

connections and send personal messages, but resulted in a more diverse sample.

The initial posts and messages delivered through Facebook resulted in an influx of *shares*, *likes*, and *tags*, as well as a rapid inflow of completed surveys, which then plateaued with time. LinkedIn, in contrast, resulted in less spread and completed surveys initially. The majority of *views* and completed surveys through LinkedIn were received nearer to the end of the recruitment period. This inverse pattern of uptake may be indirectly related to the fact that Facebook is generally seen as social networking platform (Alexa, 2016), while LinkedIn is viewed as a professional networking platform (Alexa, 2016). A fundamental difference between these two types of social media is the way in which connections are made. In Facebook, one's connections (or *friends*, as they are termed) are usually social acquaintances, and within this study, the personal Facebook messages sent by the authors were mainly to recipients that were *friends* with the first author prior to the commencement of the research. LinkedIn, however, is professional network in which individuals generally have an ever-growing number of *connections*. The first author began this study with a new LinkedIn account and slowly began to amass *connections*. Through the free version of LinkedIn, one must be *connected* with another individual to send them a personal message. Over time, we increased our LinkedIn connections and thus continued to send new recruitment messages. This might also explain why later posts were viewed more often.

Given that 61% of LinkedIn participants and 37% of Facebook participants were recruited through personal recruitment messages, the power of private messages within a social media recruitment strategy cannot be understated. It is also important to note, however, that sending personal messages is time consuming and there is currently no mechanism within Facebook or LinkedIn to send mass messages without disclosing the recipients' identities to each other. Through Facebook we sent a total of 256 personal messages with an estimated 25% (n=64)

response rate. Through LinkedIn, we sent 1,147 personal messages, with an estimated 5% (n=58) response rate. These results are a useful reminder that recruiting via social media requires allocated time and efforts to either develop *friends*, *followers*, and *connections* or to generate interest and followers of a study specific social media group or page. This process may take time and be achieved at a slower rate than anticipated (Andrews, 2012).

Comparing the Participants from Facebook and LinkedIn

When comparing the socio-demographics of participants recruited through Facebook and LinkedIn, significant differences were noted. While Facebook recruited more females and RNs who were more likely to work in a tertiary/hospital setting than LinkedIn, LinkedIn yielded a higher proportion of males and a sample that was significantly older, higher educated, and more likely to work in community, administration, research, and education. These statistics are similar to user demographic profiles of the two platforms, which suggest that a higher proportion of LinkedIn users are male and are higher educated than Facebook users (Duggan, 2015). This may be an important element to consider for researchers looking to recruit a specific sub-population of RNs.

Representativeness of Social Media-Recruited Samples

Of the total sample, 195 participants were currently employed in Canada. To garner some understanding of the representativeness of our sample, we compared this Canadian sub-group to the most recent profile of RNs in Canada reported by the Canadian Nurses Association (CNA, 2012; Table 5).

Some similarities were noted in the characteristics of Canadian nurses generally and our sample, such as the proportions of males and females, the age range, and the proportion of nurses in direct care versus administration, research, and education. When comparing the average age and education level of our sample and that reported by CNA, our sample consisted of younger

and more educated nurses. This is not surprising given that social media users are usually younger than the general population (Duggan, 2015). We hypothesize that these two variables (of being younger and higher educated RNs) are related because diploma programs for RNs were phased out in Canada in the 1990's, thus all newer (and likely younger) RNs are now degree-prepared. Our results suggest that samples recruited through social media may be slightly biased towards younger and more educated nurses. As time passes, however, this will likely shift, as the older generation of RNs retires, and the current and subsequent generation continue to age in an era of technology and social media.

Considerations for Future Research and the use of Online Surveys

An important consideration when examining our recruitment strategy is that we purposefully opted to use only two social media platforms. There are several other social media sites available and these continue to emerge. Twitter, for example, is an alternative social media platform that is well established, and that has been used for RN recruitment (Godino et al., 2013; Mannix et al., 2014). Although the process of using Twitter differs substantially from Facebook and LinkedIn, it is possible that our recruitment would have seen additional success with the addition of this social media platform. Further research is needed to determine the specific combination of social media and actions needed to most effectively use these online means of communication for research purposes.

In addition to the 267 participants recruited through social media, there were 43 participants that indicated they received the survey through snowballing. This snowballing effect that occurred, even without a specified snowball sampling strategy, warrants further research. Snowballing provided an opportunity for us to recruit additional participants, however, because it occurred as a natural process, people who took the lead in snowballing, may have potentially created a sampling bias by promoting the study in their social networks. More work is needed to

understand the most effective way to use snowballing in combination with online recruitment strategies.

Technical challenges related to online surveys. One of the most important lessons learned from our experience using Facebook and LinkedIn to recruit RNs for a survey study, was the impact of technical difficulties on the success of recruitment. In particular, there is a need to ensure that online surveys are appropriately formatted for a wide range of devices, including cellular phones and tablets. Due to the nature of the second part of our survey (the need for a bipolar Likert scale), we encountered challenges in using the pre-existing survey templates available through REDCap and were required to perform manual formatting instead. As a result, the survey did not format properly on cellular phones and we were unable to correct the problem. Instead, we amended the recruitment message to inform participants prior to participating that the survey would not display properly on their cellular phones. When looking at the patterns of response, we noted a large number of individuals who began but did not finish the survey on the first day. It is likely that the poor formatting rendered the survey impossible to complete, forcing these potential participants to abandon their efforts. The numbers of incomplete surveys dropped substantially after posting the modified recruitment message.

A second technical challenge that arose was that participants were unable to open the REDCap survey directly through LinkedIn. Instead, they were led to a message stating that the survey was not open and a password was required. We did not anticipate this glitch and in order for the survey to open, the participants needed to be directed to copy and paste the link in a new tab or window. For others attempting to engage in this type of recruitment strategy, we suggest making a concerted effort to identify, as soon as possible, these obstacles through thorough pre-testing of surveys on various types of devices and through all social media platforms. Although we pre-tested the survey on various devices prior to the launch, we underestimated the

importance of testing it on cellular phone, and the likelihood that many participants would first attempt the survey on their phones.

Conclusion

In this paper we presented a recruitment strategy using exclusively Facebook and LinkedIn. To date, very little literature exists on this topic and we aimed to provide practical insight for others considering or attempting to recruit for research purposes through social media. Overall, our experience was that these platforms offered rapid access to potential participants and was successful in meeting our recruitment needs within three weeks. Differences exist in the uses of Facebook and LinkedIn, as well as in the demographic profiles of the samples recruited through each medium. Unanticipated technical difficulties may have diverted some of the earliest potential participants and yet because of the real-time nature of social media, we were able to quickly remedy these issues. While further research is required to continue examining the use of these and other online networking and communication sites in the recruitment of RNs for surveys, social media should be considered a viable recruitment option for research.

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Table 1

Comparing Facebook and Linked Terminologies

Facebook Term	LinkedIn Term	Definition
Friend	Connection	'Connected' in a reciprocally approved relationship through the social media platform.
Like	Like	A symbolic way of letting others know that one values or appreciates the post
Share	Share	A means of publicizing a post further to one's contacts
Tag	N/A	Facebook only: Notifies the individual and their contacts that they have been 'tagged' in the post
N/A	View	LinkedIn only: Observation of how many individuals have accessed the post

Table 2

Recruitment Log: Presenting the Recruitment Actions Taken

Recruitment Action	Facebook n(%)	LinkedIn n(%)	Total Actions Taken n(%)
Public post	3(50)	3(50)	6(100)
Group post/ Targeted page post	97(96)	4 (4)	101(100)
Private message	256(18)	1147(82)	1403(100)
Total Surveys Completed	172(64)	95(36)	267(100)

Table 3

Socio-Demographic Characteristics of Participants Recruited through Facebook and LinkedIn

Variables		t / χ^2		
		Recruited through LinkedIn n=95	Recruited through Facebook n=172	p-value *
Age [M, (SD)]		39 (13)	36 (13)	0.026
Years of Experience [M, (SD)]		14(13)	11(12)	0.019
Sex [N, (%)]	Male	15(16)	9(5)	0.004
	Female	80(84)	163(95)	
	Missing	0(0)	0(0)	
Education [N, (%)]	Diploma [†]	2(2)	16(9)	0.001
	Bachelor’s	49(52)	110(64)	
	Graduate Degree	44(46)	46(27)	
	Missing	0(0)	0(0)	
Primary Clinical Setting [N, (%)]	Tertiary/Hospital [†]	40(42)	115(67)	<0.001
	Community	30(32)	41(24)	
	Admin, Research, Education	23(24)	10(6)	
	Missing	2(2)	6(3)	
Works in a setting that provides mental healthcare [N, (%)]	Yes	67(71)	117(68)	0.583
	No	27(28)	55(32)	
	Missing	1(1)	0(0)	
Works in Mental Health/ Psychiatric setting [N, (%)]	Yes	20(21)	45(26)	0.338
	No	75(79)	126(73)	
	Missing	0(0)	1(1)	
Country of Employment [N, (%)]	Canada	68(72)	127(74)	0.659
	Other	25(26)	41(24)	
	Missing	2(2)	4(2)	
Population Density [N, (%)]	Urban	79(83)	149(87)	0.458
	Rural	14(15)	20(12)	
	Missing	2(2)	3(2)	
* Independent-sample t-test for continuous variables and chi-square test for categorical variables.				
[†] The post-hoc test was examined using logistic regression for categorical outcomes. This symbol indicates the reference variable.				

Table 4

Participant Communications: Personal Messages Received through Facebook & LinkedIn
(n=203)

	Categories	Sample Quote	n(%)
Positive	Stated they had completed the survey or intended to	<i>Yes I'll do that !</i>	140(69)
	Appreciation and support for research	<i>Sure. I'll share. Anything for Nsg Research.</i>	51(25)
	Offers and inquiries on sharing the post/survey	<i>Hi, I would be absolutely glad to be part of your research. I'm more than willing to help in any way that I can, and with your permission, will pass it along to my colleagues.</i>	45(22)
	Appreciation for the personal recruitment message	<i>Thanks for the opportunity! I just finished it. Good luck with the research and all your other future endeavours.</i>	30(15)
	Inquiries related to inclusion criteria for participation	<i>I'd love to participate. Is it ok that I'm now an NP or do you just want RNs? Either way, I'll pass it on.</i>	14(7)
	Inquiries and support related to the research	<i>Hi, You have chosen a really interesting topic for your Masters and I enjoyed taking your survey. All the best with the rest of your studies. I would be most delighted if you are able to give information on the topic. Sincerely,</i>	14(7)
	Inquiries and support related to survey itself	<i>Great survey, thanks. Sounds very applicable to where I work...</i>	9(4)
	Wanting to participate after survey closed	<i>Sorry I only just had a chance to click on your survey link but it says it's not active. Did you obtain the required number of participants? Such an important masters topic!!!</i>	9(4)
	Support on using social media for recruitment and positive feedback on the posts	<i>As an author of a book ... on how nurses can use social media, this is an awesome example! So glad to see you are using digital tools to help you reach your research and professional goals. Stay in touch,</i>	7(3)
Negative	Technical difficulties with survey	<i>I completed the survey. I just wanted to give you the heads up that the likert scales aren't formatting properly when accessed from my iphone. As such, I had to start a new survey on my computer.</i>	24(12)
	Negative feedback on the survey itself	<i>Good morning, attempted to do your survey, but it is too long, please minimize.</i>	3(1)
	Unable to participate in survey	<i>Hi I'm so sorry I don't know I have the time I'll get to this. I'm also doing my masters and am a bit swamped .</i>	1(<1)
	Concern regarding using social media for recruitment	<i>Curious - your inclusion criteria is any RN that speaks English? Not very clear how your topic title of trauma informed care within nursing practice can extend to all RNs who can complete an English survey. For the latter reasons, I do not think I can either forward or complete your survey in good faith, as I do not understand the intent of your study survey. Perhaps, you can send out a study fact sheet to inform and seek your study volunteers in asking them to complete the survey. Plus you may wish to go through the CNO - they can provide you with ON RNs who satisfy your study criteria versus LinkedIn</i>	1(<1)

Table 5

Comparing Participant and CNA Demographics

Variables		Participants employed in Canada and recruited through Facebook or LinkedIn <i>n</i>=195	CNA socio- demographics <i>n</i>=287,344
Age [M(min-max)]		35(21-75)	45(21-75)
Sex [N(%)]	Male	14(7)	17,163(6)
	Female	181(93)	251,349(94)
	Missing	0(0)	0(0)
Education [N, (%)]	Diploma	15(8)	154,750 (58)
	Bachelor's	134(69)	104,105(39)
	Graduate	46(24)	9,508(4)
	Degree		
	Missing	0(0)	149 (<1)
Primary Clinical Setting [N, (%)]	Direct Care	54(87)	235,012(88)
	Admin, Research, Education	21(11)	28,257(11)
	Missing	5(3)	5,243 (2)

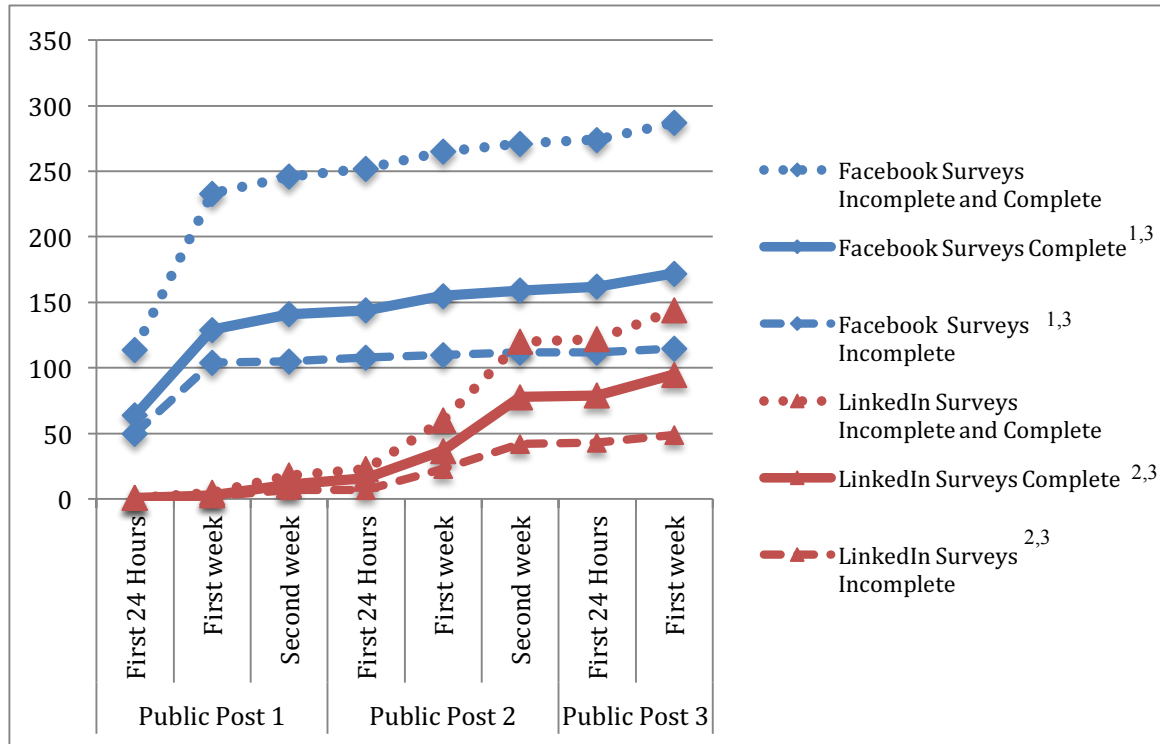
Figure 1. Timeline of Recruitment.

Figure 1. Surveys started (but not completed) and surveys completed through Facebook and LinkedIn following public posts.

¹ Surveys incomplete vs. complete through Facebook ($X^2=11.321$, $p = 0.001$)

² Surveys incomplete vs. complete through LinkedIn ($X^2=14.694$, $p < 0.001$)

³ Surveys incomplete vs. complete through Facebook and LinkedIn ($X^2=1.485$, $p = 0.223$).

Figure 2. Reactions to Public Recruitment Posts

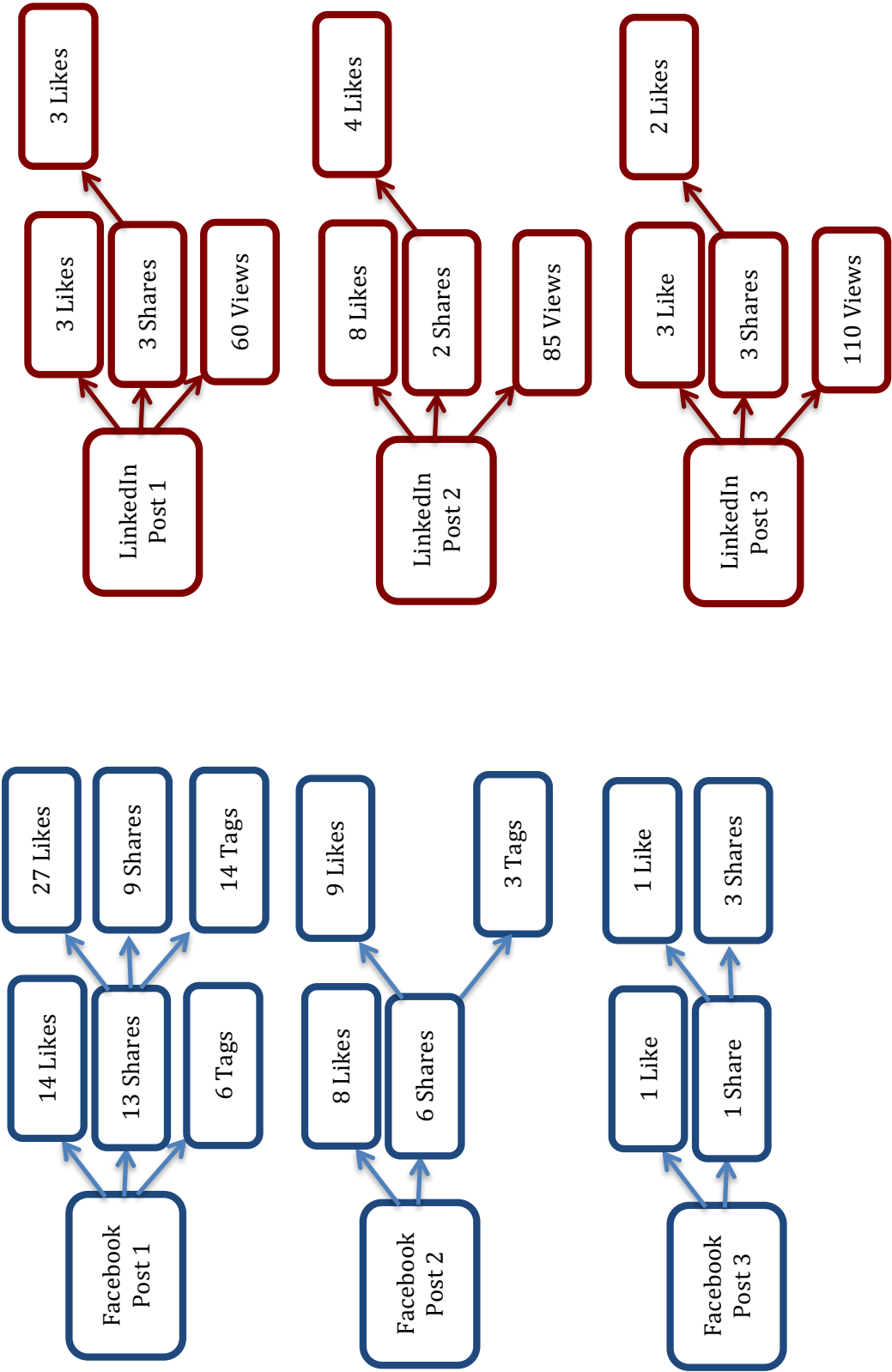


Figure 2. The known reach of public posts through Facebook and LinkedIn

*Due to privacy settings of social media users, it was impossible to acknowledge the true reach and extent of sharing that transpired from the original posts, however, the observable post reactions are included.

Chapter Four

Exploring nurses' knowledge and experiences related to trauma-informed care

This chapter is an unpublished manuscript formatted for submission to the journal of Global Qualitative Nursing Research.

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"There is a power in data, and there is power in the personal story. Data is necessary but insufficient in creating policy change." - Karestan Koenen, ISTSS Conference 2015

Abstract

The purpose of this study was to explore nurses' knowledge and experiences related to trauma-informed care (TIC). TIC is an emerging concept that informs healthcare practices by acknowledging the lasting effects of trauma on an individual. Using a qualitative descriptive design (Sandelowski, 2000), seven semi-structured interviews with Registered Nurses (RNs) were used as the primary sources of data analysis. In keeping with the inductive approach of a qualitative descriptive design, four descriptive categories emerged from the analysis: “(Not)Knowing Trauma-Informed Care”, “Conceptualizing Trauma and Trauma-Informed Care”, “Nursing Care in the Context of Trauma”, and “Dynamics of the Nurse-Patient Relationship in the Face of Trauma”. In brief, these findings highlight important considerations for TIC including: the complex dynamics of trauma that affect care; the importance of furthering knowledge on trauma but also how to put this knowledge into practice; the need to push knowledge about trauma beyond mental health care; and noteworthy parallels between nursing care and TIC.

Keywords

mental health and illness; nursing; organizations; qualitative analysis; relationships, patient-provider; trauma

Background

Recognition of the significance of psychological trauma and its impact on individuals, families, communities, and society at large has greatly expanded over the past twenty years (e.g. Brown, Baker & Wilcox, 2012; Fallot & Harris, 2009; Muskett, 2014). Current research continues to further our knowledge of trauma and its biological, psychological, and often self-perpetuating social consequences (Brown et. al, 2012; Fallot & Harris, 2009; LeBouthillier, McMillan, Thibodeau, & Asmundson, 2015). To date, research has linked exposure to trauma with significantly higher rates of healthcare usage and physical and mental disorders (e.g. Cohen, Scheid, & Gerson, 2014; Felitti, et al., 1998; Herman, 1997; Jennings, 2008). Trauma may be experienced at any point in a person's life. Early traumatic life experiences can alter an individual's psychological and physiological development, contributing to increased risk behaviours, as well as a collection of unfavourable emotional, social, economic, and health consequences (Jetmalani, 2015; Miller, 2013). Later life traumas may also be acute or prolonged in nature, and may destabilize or damage one's sense of safety, self, and self-efficacy, as well as one's ability to moderate emotions and navigate interpersonal relationships (Poole & Greaves, 2012).

Although individuals affected by trauma receive care through general healthcare systems, trauma is rarely adequately assessed or addressed (Madhusoodanan, 2016). These individuals receiving care are thus treated by providers who might not know that a trauma has transpired or of its relation to the presenting concern (Harris & Fallot, 2001). Attention to the effects of trauma needs to move beyond services designed to treat trauma, known as trauma-specific services, and into the realm of all healthcare services (Muskett, 2014; Harris & Fallot, 2001). Given that the person who has experienced trauma will likely seek healthcare services for concerns that may

initially seem unrelated to trauma, researchers suggest a paradigmatic shift is necessary to view every patient as though they may have a trauma history (Elliot, Bjelajac, Fallot, Markoff, & Glover Reed, 2005; Harris & Fallot, 2001). This lens of “universal trauma-precautions” is at the core of trauma-informed care, which offers services that recognize and support the special needs of persons who have experienced trauma (Elliot et al., 2005; Harris & Fallot, 2001; Hodas, 2006). Trauma-informed services are delivered in a manner that is sensitive to the effects of trauma on an individual's life and development, while reducing the risk of re-traumatization (Elliot et al., 2005).

The tenants of Trauma-Informed Care (TIC) espouse that treatment systems and providers should ameliorate, and not exacerbate, the negative effects of trauma (Elliott, et al, 2005; Harris & Fallot, 2001). TIC is a strengths-based model of care that is built on an appreciation of, and responsiveness to, the consequences of trauma, which requires individuals and organizations to provide services and care that offer a sense of safety for both patients and providers (Hopper, Bassuk, & Olivet, 2010; Jetmalani, 2015; McCann & Pearlman, 1990). TIC philosophy is founded on the premise that every person is doing their best to cope within the context of their experiences and development (Chandler, 2008).

Registered nurses (RNs), as direct care providers who work within a holistic perspective, are positioned to play an integral role in the advancement of TIC within healthcare services. Unfortunately, some literature suggests that nurses are often left confused by vague definitions and struggling in how to translate these ideas into day-to-day practice (Hall, McKenna, Dearie, Maguire, Charleston, & Furness, 2016; Muskett, 2014) even though nurses and nursing literature now commonly use the term TIC. Recently, there has been an emergence of literature discussing the implementation of TIC within various nursing specialties, including mental health (Muskett,

2014), emergency (Hall, et al., 2016), perinatal care (Choi & Seng, 2015), neonatal and pediatric acute care (Marcellus, 2014; Kassam-Adams et al., 2015), and correctional settings (Harner & Burgess, 2011). Yet, the views and knowledge of TIC among nurses in general remains largely under-studied. The purpose of this study, therefore, was to explore the understandings and experiences related to TIC among RNs.

Methods

Design

This was a qualitative descriptive study (Sandelowski, 2000) exploring RNs' understandings and experiences related to TIC, which is part of a multi-phase research project on TIC. Qualitative descriptions strive to present a comprehensive and sound testimony of the meanings that participants ascribe to phenomena (Sandelowski, 2000). This method draws from the principles of naturalistic inquiry, and aims to study individuals and phenomena in their natural state, to the extent possible within research (Lincoln & Guba, 1985; Sandelowski, 2000). The complete project, including this study, received ethical approval from the Research Ethics Board at the University of Ottawa (File: H10-15-04).

Participants and Recruitment

In Phase One of the larger enquiry, individuals completed a survey related to their knowledge and attitudes toward TIC, which included the Attitudes Related to Trauma-Informed Care Scale (the ARTIC; Baker, Brown, Wilcox, Overstreet, & Arora, 2016). The participants were asked to include their email addresses if they consented to be contacted for a related qualitative study. From these potential participants, we purposefully recruited seven RNs who scored in the top 20th percentile on the ARTIC survey as participants for the qualitative study phase. The decision to target individuals with higher scores on the ARTIC scale was based on

our presumption that these individuals would have a greater awareness of and interest in TIC and, therefore, provide a richer perspective to explore. Further inclusion criteria included a level of general English proficiency and current nursing employment in the province of Ontario, Canada. Interview participants were limited to Ontario to provide a degree of homogeneity within the sample, as all participants practiced in the same provincial context and were licensed according to the same professional standards and competencies.

Participant characteristics. Of the seven participants included in this study, six were women and one was a man. Their ages ranged from 32 years to 55 years. All participants reported working in a psychiatric or mental health setting. Their total nursing experience ranged from 7 years to 34 years, with an mean of 18 years. Participants were educated at varying levels. One was diploma prepared, two had an undergraduate university degree, and four reported having completed graduate level degrees (Table 1).

Data Collection

Data were collected through semi-structured face-to-face and telephone interviews designed to guide discussion around the participants' understandings of and experiences with TIC. We piloted the interview with a non-participant RN to assess coherence and relevance of the interview guide. Informed consent was obtained prior to each interview. Example interview questions were: a) "What is your understanding of TIC?" and b) "How do you feel TIC is important?" Interviews were approximately 60 minutes in length and were audio-recorded and transcribed verbatim. All identifying information was removed from the transcripts. We kept memos after each interview to record personal impressions related to the interview and to capture contextual information, which was considered during the analysis.

Data Analysis

We analyzed data using the technique of constant comparison (Glaser & Strauss, 1967), as organized and presented by Paillé (1994). Although Paillé's approach is based on the principles of grounded theory (Strauss & Corbin, 1998), this approach to analysis is commonly used in descriptive qualitative work as well (e.g. Paillé & Mucchielli, 2003). Data analysis occurred concurrently with data collection, enabling each component to mutually shape the other (Lincoln & Guba, 1985). Specifically, coding of transcripts commenced and continued after the first interview and preliminary findings were considered in the conduct of subsequent interviews. The principal investigator was primarily responsible for data analysis and followed the following procedure: a) immersion in the data by reviewing and re-reading all the interview transcripts, listening to the audio-recordings and exploring the content and possible meanings of the data, b) breaking down and refining interview data into discrete codes, or units of meaning, and c) systematically comparing each coded element with all previously coded elements for similarities and differences (Sandelowski, 2000). During analysis, we guided our thinking by asking questions such as "What is happening here?" and "What does this indicate?" (Paillé, 1994).

A second investigator independently coded three transcripts, which were compared with the principal investigator's coding to identify disparities in the interpretations of the data. Once these three transcripts were coded and agreed upon, we began to aggregate codes into categories and a third team member was consulted to discuss the construction of the emerging categories. Categories were continuously re-evaluated as the analyses continued to ensure that they remained internally homogenous (grouped codes were aggregated appropriately, creating a coherent theme) and externally heterogeneous (themes were mutually exclusive). Throughout the analysis process, we regularly returned to the initial transcripts and recordings, helping to ensure

that the findings are grounded in the data. All research team members agreed upon the final construction.

Trustworthiness

We followed Lincoln & Guba's (1985; Guba & Lincoln, 1994) five criteria of trustworthiness: a) credibility, b) dependability, c) confirmability, d) transferability, and e) authenticity, to support rigour of this study. Credibility, or confidence in the truth of the findings, was enhanced through investigator triangulation by including all research team members in the data analysis process. This challenged assumptions of individual researchers and ensured that the findings remained grounded in the participants' experiences. Dependability and confirmability were promoted through the construction of an audit trail, including raw data and memos from data collection and analysis that logged observations, impressions, reflections, process notes, and the basis of analytic decisions. Transferability was enhanced through thick description of the demographic profiles, context, and experiences of the participants. These rich depictions, and the inclusion of participant quotes in the findings, support a fair and faithful presentation of the range of participant realities.

Findings

The purpose of this study was to explore nurses' experiences related to trauma-informed care (TIC). Most nurses stated that prior to participating in this study they were not familiar with the actual term 'trauma-informed care'. Nevertheless, participants shared experiences in relation to how they conceptualized trauma and its effects in practice that fit within four main categories: a) "(Not)Knowing Trauma-Informed Care", b) "Conceptualizing Trauma and Trauma-Informed Care", c) "Nursing Care in the Context of Trauma", and d) "Dynamics Nurse-Patient

Relationship in the Face of Trauma". Each of these categories is comprised of subcategories, which are described below and supported by quotes from the participants (Table 2).

(Not) Knowing Trauma-Informed Care

Many participants stated that they were not familiar with the actual concept of trauma-informed care, and instead described what trauma and trauma-sensitive care meant to them:

...to be honest, I mean, it [TIC] was a totally foreign concept to me, until a few of my colleagues actually [colleague's name], started talking about it one day and I looked it up and it made perfect sense to me, but it wasn't something that we had learned through any formal education or had ever been taught in any sense throughout my nursing education.

-Participant 7

Most participants reported having had no formal TIC training; rather they independently sought out information to learn more. However, all participants described how their motivation to learn about trauma stemmed from either their patients, or other individuals in their lives, who have experienced trauma. Some participants also cited that their motivation to learn was related to their own experiences of trauma.

Well, it was encounters with patients, with clients, that had told me about trauma and then it was my desire to learn more, in particular about what the trauma was, and as an example I can remember (...) I remember there was one young man who was in, charged with assault, and he revealed to me that he had been sexually abused by a teacher at school, and over the course of the two years that I knew him, he began to talk to me more and more about it, and because I thought, you know I don't understand this issue, I don't know how to support him, I don't know what to say to him, I began seeking out resources and ways to learn about what his experience was and how to help him (...) -Participant 3

As such, learning about trauma and its effects on patients was more of an inductive process where they saw a need to better to understand trauma in practice, thus prompting them to explore it in more detail. The context of learning varied between participants, but none reported receiving formalized trauma-informed education as part of their schooling.

Conceptualizing Trauma and Trauma-Informed Care

This category captures the participants' explanations of their understandings of trauma and its effects. They defined trauma as a deeply individual experience, described how trauma can change a person, and explained how trauma may be silenced, either consciously or unconsciously.

Individuality in the trauma experience. When asked about trauma, participants spoke about an inherent individuality in how trauma is experienced, and that this subjectivity might include variations in time, place, and meaning:

(...) and trauma's defined by the person not by me, like I can't say well, that's a real trauma, and that's just, like that's just life, you know what I mean? -Participant 4

What then is care informed by trauma? As these participants explained, it is care that meets the patient where he or she is at. Care informed by trauma requires acknowledging the individual experience of trauma and its effects on one's life story:

The concept of trauma-informed care, is (...) I guess to me is, understanding that everybody is at a different place, and has different experiences. And their body and mind and spirit has different reactions, I guess, to what's occurred in their life (...)

-Participant 1

How trauma changes you. If there is an inherent individuality in trauma, there is also variability in the effects of trauma:

Certainly, what I see, is that people that have been traumatized don't fit nicely into anyone's box, because certainly, we have seen people who have been traumatized or have experienced trauma that don't go on to develop mental health issues or a diagnosable mental health illness. In fact, there are some people we find that are surprising or quite resilient. For some reason that we don't know, so we can't just diagnose somebody as being traumatized and assume they're kind of all similar to that. -Participant 3

Similarly, participants articulated potential physical and psychological manifestations of trauma, including anxiety, (emotional) dysregulation, disassociation, addictions, personality disorders and psychosis:

If you think about how would you handle something really terrible happening to you; well you could depersonalize and dissociate, or you could develop symptoms of psychosis or you might start using drugs to handle that and then develop symptoms of psychosis, never mind the depression and anxiety (...) -Participant 2

What was common to all participants was the notion that trauma can change a person; create or alter the very core of the individual - their identity: *"It [trauma] creates the person, who the person is that day (...)* -Participant 1" and *"it [trauma] affects the entire (...) identity of the person, and how they express who they are, and cope with things."* -Participant 1

Silenced trauma. Additionally, all participants acknowledged that the trauma story itself might not be known. This silencing of the trauma might be a patient's choice or it might be because they do not remember the experience or recognize its significance:

But there's all that hidden trauma, people that maybe they don't, they're not vocal about it because they don't realize, or maybe they do realize when they're reminded of, you know the [trauma], it brings it back -Participant 2

Using the example of trauma that is experienced in childhood, these participants expanded on the notion of silenced trauma and how it might lead to manifestations of symptoms even without direct access to the story:

Mm, well I think to me and the way I look at it, they are the results of their experiences, and sometimes to me, the bigger pieces of that, they don't always recognize their experiences right? (...) sometimes these sort of are the foundation of how that person has grown because his trauma occurred so young that, you can't actually have a conversation about the trauma 'cuz they may not even realize it exist in there, you know, like if you've witnessed domestic violence and things like that. -Participant 7

We may not have the story, and the person may never be able to tell us the story (...) depending on their trauma or their memory or whatever, but the symptoms are still there, as to what the trauma is (...) -Participant 1

Nursing Care In The Context Of Trauma

The participants described their views of providing nursing care in the context of trauma. This included an explanation of how knowledge of trauma informs nursing practice and a discussion on how, at a fundamental level, trauma informed-care is basic nursing care. They emphasized that trauma and TIC are pertinent to all patients regardless of setting and thus the principles of TIC need to be incorporated in all nursing practice, not just in psychiatric/mental health care. The participants also spoke of universal (trauma) precautions, the importance of being aware of labels and preconceptions, walking with the person, challenges related to safety and control (paternalism). Finally, concrete facilitators and barriers to nursing from a trauma-informed perspective were voiced.

Participants also described the importance of maintaining an awareness of, and a sensitivity to, the risk of re-traumatizing the patient. Although this was emphasized as a core element of nursing care in the context of trauma, the notion of re-traumatization was also more broadly incorporated into the dynamics of nurse-patient relationship in the context of trauma. For this reason, avoiding re-traumatization was not identified in this category, and instead was given greater weight as a key aspect of the third category: “Dynamics of the Nurse-Patient Relationship in the Face of Trauma”.

How knowledge of trauma informs practice. Participants explained how their understanding and conceptualization of trauma informed their practice:

It [trauma-informed care] is having a clear understanding of people who have had trauma in their lives and how that affects the healthcare that you provide to them. -Participant 3

Knowledge of trauma thus became a foundational piece of their nursing care. The participants explained how knowledge of trauma enables them to start thinking about ways to help their patients by providing appropriate care:

(...) and all their interactions with myself and then the world, that trauma affects their ability to function and do well in their life so my, my approach needs to be cognizant of that -Participant 3

It's basic nursing practice. In talking about how knowledge of trauma informs their care, participants noted that the principles of TIC stem back to the fundamentals of nursing – the importance of the nursing process, patient-centered approaches, and the centrality of the therapeutic relationship.

As part of the nursing process, the participants explained how practicing TIC is actually about using skilled and thorough assessment, planning, and intervention skills:

Rather than taking it onto myself and thinking oh my, you know, that guy is a jerk bla, bla, bla...I would tell my students in the teaching or I would tell, I think to myself, I said wait, this person has a story, there's a reason why this is happening. And that comes very much from a trauma-informed, kind of perspective, [...] so rather than judge the situation as it's the person and the person's a difficult person; no. I want my students, I want myself to always be sensitive to, they have a story and that might be part of their trauma story, it might be part of something, and that's what's important. -Participant 4

The participants also identified similarities between TIC and patient-centred care. They explained how care in the context of trauma relates to the fundamental nursing goal of providing holistic care:

Yeah, and that's related of course to patient-centered care, which I think nurses practice everywhere, it's treating people as people and it's just part of our values (...) just a very basic, treating other people the way you'd want to be treated yourself (...) it's about understanding experiences that people may have had and understanding that what they need in terms of trauma, it doesn't necessarily require all that much, just, a touch of, you know treating people as people really.

-Participant 5

When speaking about TIC and its relation to patient-centred care, participants described the importance of engaging in care in a manner that is flexible and adaptive to the patient's needs:

The partial hospital program where I work in specifically, when we meet with clients, we try to understand from their perspective what's going on, we try to

understand what do they need, what do they feel they need to get better, we work with clients, during these transitional periods, and some of my clients have difficulty answering that. What I'll generally say is, we have some ideas of things that are usually helpful for people, but again, with twenty-five different people all with the same diagnosis, they still all going have different goals, different needs, different, things like that so, for our program we try to be flexible, we try to understand, from their perspective what they need. -Participant 5

Participants also spoke about being “flexible and adaptive” in terms of the modalities offered for assessment and treatment, such as offering art therapy:

So being able to offer other modalities or ways of expressing what the person is feeling inside without using words, I think sometimes we think too much about things and actually using words, or talking about things, but (...) I think from the client's perspective, the person's perspective, it's probably, it would be better if we had, we're a little more flexible and adaptive in terms of what the client needs as opposed to, what we think should happen. -Participant 2

The importance of circumventing unnecessary care interventions was also voiced, such as those performed for teaching purposes for students and staff, if those interventions have the potential to cause distress to the patient:

(...) and really discover if whatever is occurring is necessary, or is it just, to, as a teaching thing, maybe for staff, when in actual fact the patient doesn't need to have a certain thing happen, it's not actually necessary (...) -Participant 1

Finally, care that was not adapted to the patient's individual needs was described by participants as “superficial” care:

I find it's a very superficial level that we deal with a lot of traumas, that's all, I guess. Which then I think recreates trauma, it actually, like, makes it worse (...) here you go, here's a squishy ball to squish (...) -Participant 1

As the last facet to TIC as basic nursing practice, all participants described how creating a therapeutic relationship with patients is central to TIC, which resonated clearly, for them, as what all “nurses actually do”:

I think [in the nursing] curriculum (...) we put lots and lots and lots, there's always an increase of more and more information, but the actual life, I hate the word skills, but the actual, dance of nursing, the actual, that, the actual what, what nurses actually do (...) I think this lays in the realm of the therapeutic relationship, enhancing therapeutic relationship which is what people remember at the end of the day. -Participant 4

Universal [trauma] precautions. Conceptualizing TIC as basic nursing care has implications at the individual care level. Participants expressed the importance of approaching every patient as if they may have experienced trauma, even when not all trauma stories become known. Some participants equated this principle to the idea of “universal precautions”:

My understanding [of trauma-informed care](...) is providing direct care with the knowledge and understanding that all patients coming into our care, have or may have experienced trauma in many forms, and that their reactions and sort of the way that they are can be a direct result of that trauma (...) -Participant 7

I usually say, just as it's a very big deal with certain body secretions, we just consider that maybe this is a communicable disease, and when we are handling body secretions with

universal precautions, we use all those barrier precautions, it's the same when we're dealing with mental health clients. I just consider it, it could be history of trauma, but I might not be aware of that trauma. -Participant 6

Participants echoed each other in voicing their belief that the majority of patients seeking mental health services, for example, have experienced some form of trauma, reinforcing the need for these “universal precautions”, particularly in these settings:

I think that's treating people with the lens to be aware of, and having your mind, the fact that most of our clients have had some kind of trauma whether you call it big trauma with a big T or small trauma with a small t, I'd say most of our [mental health] clients, the group, the proportion of them have a trauma background so, to be mindful of that when you're delivering any kind of care. -Participant 2

Although participants spoke of the clear need for “universal precautions”, many also acknowledged that the principle can be difficult to execute because providers feel a need to know the story to avoid potential harm.

I think, because if we are going to help a person move to a place of wellness of completeness or wholeness, we have to understand, or we have to try to understand or at least create an environment where people are willing to share if they want to, their good things in life and the things that have been hard so that we can help them to maximize their potential in this situation, so if a person has been traumatized or harmed in some way, I need to know that so that I don't continue to, because I don't know what that harm is or what that experience is but I can continue to harm, if I continue to push a person in a way that they're not comfortable going (...)

-Participant 4

Finally, participants also described the need to incorporate these principles of “universal precautions” not only with patients, but also with patients’ families, and with colleagues.

Avoiding labels and preconceptions. In describing how TIC is incorporated in nursing care, participants voiced the importance of acknowledging the patient as a person, rather than seeing solely the manifestations of trauma or the illness – being aware of labels and preconceptions. One participant spoke of disliking the term “victim” and preferred to use the term “survivor”, thus focusing on the strengths of the person rather than their weakness:

I don't particularly like the term victim, because anybody who has gotten through a trauma, I think they've survived, no matter what level they're at of getting through a trauma. So then it's hoping that the person can be helped to recognize that they've, well survived something, which is a (...) strength as opposed to a weakness -Participant 1

Similarly, the following participant described how focusing on a strengths perspective helps move the patient toward recovery:

I just think in order to help honestly, in order to help move patients forward especially from a mental health perspective, we have to appreciate and understand and respect their journey (...) As such, we can't blame them that they've got to this point, we have to respect and appreciate that they've actually made it to this point and support them with that respect for their journey that they've gone through (...) And then they'll feel that they can trust us they'll know that we appreciate that this is not easy for them and that they know you're going to create that rapport and relationship that allows them to be vulnerable with you, to acknowledge the loss, the hurt, the pain and be able to support them, move them forward. -Participant 7

In speaking about labels, participants acknowledged the function of mental health diagnoses, however expressed that their usefulness is limited within nursing: *“While the diagnosis for me tells something, it’s still also, in a way, it tells you little about the person and about how to treat them.”* -Participant 5

Some participants voiced concern over stigma and assumptions related to specific diagnoses: *“So something like, I guess, a pet peeve is like personality disorder, because, a diagnosis like that, to me, is a very negative term, and then, it connotes that it’s the person’s fault and it’s wrong.”* -Participant 1 and concern that trauma-informed care could ultimately facilitate further patient “labeling” and a deficiency-based perspective of care:

I’m worried that the term [trauma-informed care], because the term I think it might be seen, unless it’s carefully done, maybe the term trauma (...) it’s sort of like, negative and it’s, people are wounded, battered, armed, it’s kind that label stuff again, going back to that label thing. -Participant 4

Finally, one participant described the importance of taking “a step back” from one’s preconceived notions and perspectives, and to center on the actual patient and the patient’s perspectives, acknowledging that the patient “isn’t just the illness”:

Be able to have that, like ability to step back and be like, to understand that (...) the patient isn’t just, isn’t just the illness (...) -Participant 1

Walking with the person. When speaking about nursing in the context of trauma, the participants emphasized the importance of “walking alongside that person and staying alongside of that person”. This value incorporated compassionate role of the nurse and the responsibility to support the patient unconditionally in providing care:

But I think we have to always be open to that person's story and how much of that story the person wants to tell us, but that doesn't make it impossible for me to care for a person. I absolutely care for a person no matter what they say or wish to share with me, 'cuz that's part of the empathy and part of the, the, I mean the healing process is, is me walking alongside that person and staying alongside of that person or walking alongside that person, continuing to open the doors for talk and communication work it through, but that's what I think. -Participant 4

This notion of compassion is closely linked to the pillars of trust and safety, where such compassion is seen as foundational to the development of a therapeutic rapport.

If we are going to truly help our patients, we have to, we have to provide a relationship space that is truly safe and secure. -Participant 3

The participants also explained how, in their roles as nurses, they can model for the patient interpersonal relationships that are trustworthy and dependable:

(...) cuz they have had a hard time trusting people and you have developed that trust with them, it's important to maintain it because it's not really about me, a one time nurse they will meet in one unit it's basically about knowing that there are people in this world who can be trusted so I'm just giving them that knowledge or that information that there are people in this world who can be trusted and you can develop relationship, a good relationship with certain people in the world, (...) I don't want to be categorized in that category of others who they cannot trust or you know, who are fake or manipulative. -Participant 6

A conflicting role: When paternalism is required. In describing the challenges of working with people who have experienced trauma, participants spoke of a tension between safety and control, creating a conflicting role for nurses, where paternalism was a times required.

The participants also explained how, at times, the staff's need to feel safe could lead them to controlling the environment, and in turn, threatening the patient's sense of safety:

Cuz it's easy just to go into a controlled, (...) trying to control the situation, as opposed to actually, allowing the person to express the feeling and feel safe, to find a safe way. I think the importance of feeling safe is really really important and that's one of the things (...) often the staff feeling safe is more important than the patient feeling safe. And that's concerning to me, because, it's easy to make the staff feel safe by medicating and restraining, where it's actually, if we can make the patient feel safe then indirectly we would have, that same effect, which is to decrease trauma for everybody (...) -Participant 1

If not explicit in the first excerpt, this next participant spoke directly of an ethical conflict, where paternalistic foundations of care were in direct opposition to the patient's free will.

Certainly ethical conflict happens everywhere (...) in psychiatry particularly, one thing we often have to deal with is the challenges of what clients want, their free will. (...) there's definitely a conflict there in terms of, an ethical conflict, because it's their free will versus, paternalism; versus (...) us overriding that free will on their part. -Participant 5

In general, the participants described nurses as being positioned in a "conflictual relationship" because of what they are required to do to provide healthcare to the person and how these nursing acts might cause further trauma:

Nurses are one of the caregivers, and they kind of have a conflictual relationship, because sometimes what nurses need to do, or are required to do, are sometimes not therapeutic, or

they can be, the acts (...) can be quite traumatizing, or in conflict with where the person is at, maybe psychologically or emotionally, but physically they may need to intervene, so it's a difficult spot to be in, when you're a nurse (...) -Participant 1

Although, within the current care context, paternalism is at times required, a few participants highlighted the important nature of offering patients with trauma histories opportunities for choice and control:

(...) telling them things that they have control over in the situation now maybe [that] in the past they didn't, when the trauma was happening. And now letting them have control (...) that includes the treatment plan, the recovery plan, giving them choices. So that they feel that yeah, it's not beyond my control, something like treatment is not beyond my control, I'm collaborating with my nurse or my doctor, so having them have their voice in the treatment plan (...) -Participant 6

Facilitators and barriers to nursing care in the context of trauma.

Facilitators. Participants described several factors that they thought might facilitate nursing from a trauma-informed perspective. These included “Education and Support”, “Cohesive Teams”, and “Leadership”. For education and support, the participants reported that these needed to be at both the theoretical and practical levels, including integration into existing nursing curricula. When knowledge of TIC was viewed as limited, the participants noted that this lack of understanding hindered one's ability to provide appropriate care. Cohesive teams were seen as essential to the implementation of trauma-informed care because they help to ensure consistency for the patients. Finally, participants reported that trauma-informed practice could hypothetically be facilitated by leaders who prioritize this approach.

Barriers. Participants also described barriers to providing nursing care from a trauma-informed perspective. These included elements of being “set in our ways”, fear, time, nursing becoming quantified and a lack of knowledge.

Set in our ways. Participants described challenges relating to culture and context within their care settings. These included a sense of being set in their ways, which lead to an attitude of “get your job done and leave”: *(...) because you're trying to, just, come in, get your job done and leave, is kind of the attitude, sometimes it is, and I don't think nursing is just that.* -Participant 1

Fear. Participants also noted how fear can be a barrier. Fear of the patient was described, as was fear experienced by the patient:

(...) fear I think fear plays a big part of it too, if you're afraid in working in an environment where you feel like, you know, you're at risk of being harmed by a patient or getting a really aggressive patient; I think that would wear on you, in the sense that (...) it would be hard to maintain that sense of trauma informed compassion. -Participant 7

(...) kids are so often fearful that whatever they tell you will go to their parents that I think sometimes they withhold things that would be important for us to know, to be able to provide better care. -Participant 7

Time. As the participants highlighted, the element of time was particularly important in the perceived barriers to providing care in the context of trauma. Time was described as a lack of time to spend with the patient and an organizational timeline of expectations of patient toward recovery and discharge. As the following patient remarked, the capacity to dedicate time to then patient and their story stands in direct contrast to the busy structure, the demands of the institution and prioritization.

Time, time. Time would be a big one that we jump out because (...) on a busy unit, a busy situation, a busy faculty situation (...) a person gets to a place where they maybe have a moment (...) their [the patient's] behaviour is such that makes you question, there must be something more to this, then you wanna seize the moment and sort of say, hey I'm here do you wanna talk? But I've got three minutes, you know. We have a busy unit. I have ten people (...) -Participant 4

Participants described a cultural barrier of setting timeline expectations for the patient that might not work for that individual:

Barriers, like I said, a major barrier is the time, the lack of time we have when the patient gets into the system then we're just focusing to discharge them. And there are tools now to keep track of the patient, if it's an average length of stay for one person, why it's being delayed [for this patient] so (...) if we are really pressed in terms of time, we have to get this patient out of the system within two weeks on average, so our main focus is towards discharge rather than the recovery sometimes. We tend to lose track of the recovery.

-Participant 6

Nursing quantified. A distinct aspect of what participants shared regarding barriers to TIC was the tensions between the way nurses would like to work and how the current work environments shape practice. Participants commented on the nursing profession as becoming more methodological and quantified, particularly with advances in technology. Participants questioned the effects of quantification on nursing care and fostering approaches that support TIC:

I can see it being a challenge, I just think of an emergency room nurse and a triage nurse and I can see, if you pull out another questionnaire and ask them, ok ask them if there's

some trauma right? And, which sounds really, very nice, let's get this done, we're gonna be really practical when bringing trauma-informed care into practice, it's really important. Ok so, we're gonna have a best practice guideline for it you know, we're gonna sit it in there and then the person says, yeah well actually I do have a trauma, and then you go, thank you, check, and then you move on, woah, you just made it worse because you haven't really been therapeutic in nature, you know what I mean? -Participant 4

Participants also explained that there is a difference in what we know (or come to know) and know how. This was problematized a system of practice that is moving toward technical aspects of care:

I think especially in mental health, they [the RNs] really have to (...) reflect on their interactions with people, sometimes we don't know how, we just sort of know, we memorize things or we have checklist (...) so all your notes are done on the computer now, so there [are] all these checklists and that gets away so much from having a conversation with somebody or the art of [nursing](...) I have to do my mental status checklist, it's almost like your doing vital signs (...) so I think that really takes away from, you know actually being able to have a conversation with somebody and talk about things that matter (...) so I worry a little bit about that (...) this [checklist system] is supposed to save time but it gets away from person-centered care really. -Participant 2

Lack of understanding. Finally, the participants described a lack of knowledge and understanding on the part of nurses, which hinders their ability to practice in a trauma-informed way. The lack of knowledge included both theoretical understanding and practical skills:

Well, because we don't have a really great understanding of it [trauma], it makes it very difficult to work with it well, and have a really good group understanding of it (...) and

then, the lack of understanding of that trauma-informed care, or just trauma in general, can, decrease the compassion I guess, that people have for these patients and each other when dealing with situations. -Participant 1

We avoided the question, so once the question has been asked and the door has been opened, you then have to have some skills, some understanding, some approach, you have to know what do you do next (...) it's not uncommon to find professionals who don't want to have anything to do with that person with mental health issues coming in the door.

-Participant 3

Dynamics Of The Nurse-Patient Relationship In The Face Of Trauma

Participants recounted how trauma can complicate the nurse-patient relationship on several levels. These included the aspects of: How healthcare can be traumatizing (or re-traumatizing), how nurses can be vicariously and/or directly traumatized by their patients, and how trauma can perpetuate more trauma. In light of the dynamic nature of trauma, participants also spoke of protective strategies needed to work in the context of trauma.

Care can traumatize. All participants spoke about the importance of being aware of the risk of re-traumatization and being cautious of triggering a patient's traumatic experience through care. Some participants described this principle of avoiding re-traumatization as a major pillar of nursing from a trauma-informed perspective:

I mean of course when it comes to trauma-informed care our main concern is not to re-traumatize people, but overall it's just easier for everyone if people have a good experience or have as close as possible to resembling a good experience, so I think it's just

kind of critical in that way but it's also just easier for everyone, if we can do our best to not do things that might trigger, people in a traumatic way (...) -Participant 5

Participants noted the individualized nature of triggers, which are specific to each patient's context and experiences:

Trauma is so tricky of course (...) given that we never know what happened there's lots of things that could [trigger] flashbacks or other things, for various clients (...) so there's all sorts of different things that can trigger reactions (...) -Participant 5

Whereas practicing with an awareness of the risk of re-traumatization might assist in preventing further harm to patients through care, the value of identifying patient-specific links between trauma-related triggers and responses was also described:

(...) we had a patient that was very, very fearful of having a roommate and nobody knew [why] (...) she was swearing and throwing a fit and being verbally aggressive and physically posturing and the end we didn't give her a roommate and we found out from the staff that spent time with her that evening that saw through her anger and aggression that she had been sexually abused by an older female sibling (...) by a step-sister, and so the roommate was a huge issue for her. Had we known that, we probably could've predicted it or better prepared her (...) -Participant 7

Finally, participants highlighted how all aspects of care, regardless of invasiveness, can be potentially (re)traumatizing:

There's a case where it was a little boy (...) I guess, I looked like his mother, so (...) I couldn't actually care for him because I was re-traumatizing him, because I looked so much like her that it was actually, bothering him. It was fine when I was on the unit, but

then when I left, it was like, his mother leaving again, so it was actually re-traumatizing.

-Participant 1

Traumatized nurses. Participants reflected on how trauma also affects nurses and described two distinct forms of trauma: Vicarious traumatization (when the nurse is traumatized by the patient's story) and direct traumatization (where the patient can traumatize the nurse through his or her actions). The participants explained how by just listening to a patient's story, they might become traumatized by it, without having actually experienced the trauma themselves:

(...) to ensure we were not traumatized ourselves because, there is secondary trauma that happens if you, if you were exposed to listening to their difficult stories, you can then become traumatized just listening to it. -Participant 3

This participant further explained how nurses can also be affected by the acts or behaviours of their patient:

And the other fellow that I told you about that I first started seeking help for [to learn about trauma], he ended up hanging himself in correction (...) I suppose in a small sense that a trauma, (...), that's hung with me for my whole life. You know, as we talk about it (...) I feel how terrible it was for me and people around us at the time when he died.

-Participant 3

Trauma perpetuating trauma. Beyond the individual traumas potentially experienced by both patients and nurses, participants spoke of how trauma appears to spread through nurse-patient interactions; in other words, trauma perpetuating trauma. This spread was explained in this way: A nurse might (re)traumatize their patient through the care they are delivering and this same patient might traumatize their nurse through their reactions to this care. This nurse can then carry that trauma burden to other patients and perpetuate a continued trauma cycle:

And, also for themselves, and how there can end up being, a (...) a back and forth relationship that can (...) it can create, any trauma that can happen towards the patient can also be happening towards the nurse at the same time. And then, that later then can lead on to the nurse also placing that on another patient or family. It can, it can keep growing. (...) one person to the next person, and the nurse can be the middle person, if they don't deal with how that trauma affects their patient, possibly. And then can possibly affect themselves, it can have a bigger effect than is realized. -Participant 1

Trauma takes its toll. Participants explained how trauma and working with patients who have experienced trauma can take its toll and affect them as nurses. They described a certain vulnerability that can shape them and their interactions with patients and families.

I feel like, some of our more experienced staff have done so many years of caring for these super unwell and kind of demanding kids as they get to a point that they almost don't want to make themselves feel vulnerable to feel and engage the patient on that level because (...) I think some of these staff members have sort of gotten to a point where it's almost like they are used up, they may a refuel because (...) so many decades of caring for people who are so unwell and need so much patience and emotional support that if you're not getting that sort of reprieve and refill then they start to almost put up like their own little walls to not feel as connected (...)-Participant 7

Protective strategies. In light of participants' description of trauma as a dynamic process, participants spoke of certain protective strategies that should be deployed in practice. In general, protective strategies revolved around the need for self-reflection, because participants recounted how it can be difficult to access more formalized help and support. The participants explained

the importance of knowing yourself – your history, your strengths, and weaknesses – and how the self-reflection process is a way to continuously improve the self as a therapeutic agent:

From the premises of the instruments or the tools we use, [they] are really just ourselves, and we have to be really aware of our own strengths, of our own weaknesses, our own vulnerabilities, our own traumas, our own things, and we have to find a way to process them in a way that keeps us healthy and well. -Participant 4

Discussion

In this study, we explored the understandings and experiences of nurses related to Trauma Informed Care (TIC). Although most participants were not familiar with the concept of TIC as it is currently defined in the literature (e.g. Fallot & Harris, 2009; SAMHSA, 2014), they nonetheless described some of the essential components when asked to explain their understanding. These components included the importance of knowledge of trauma in practice and recognizing manifestations of trauma, developing rapport and adapting care, and avoiding re-traumatization. These components mirror the SAMHSA (2014) principles of TIC, which are realizing, recognizing, responding, and avoiding re-traumatizing. Most, if not all, participants also echoed the definition of Fallot & Harris (2009) in speaking either explicitly or implicitly to the principles of safety, trust, collaboration, choice, and empowerment when working with people who have experienced trauma (as embedded throughout the categories).

The findings of this study also highlight several important considerations for the advancement of knowledge in the area of TIC. These considerations include the complex dynamics of trauma that affect nursing care, the importance of both knowing trauma as concept, but also knowing how to act in response to trauma knowledge, the need to push TIC boundaries beyond mental health care, and the parallels between Nursing and TIC.

The Dynamics of Trauma-Informed Care

An interesting finding from this study was the description of trauma dynamics and the need to consider nurses within the philosophy of TIC. Most literature on TIC emphasizes the importance of recognizing the effect of re-traumatization of patient through care. Our participants described this facet of the dynamics, but also further elaborated on the effect that trauma can have on nurses and the care they deliver and how trauma can perpetuate more trauma. They described how caring for patients with histories of trauma is draining for nurses, particularly when working in environments that lack sufficient human and operational resources and adequate timing of interventions to appropriately respond to patients' needs. This phenomenon was similarly described by McElvaney & Tatlow-Golden (2016), who found that combined effects of working with complex patients along with inadequate system resources and responses resulted in what they termed a "traumatized and traumatizing system" (p. 66). These authors noted how professionals' responses to the complex needs of patients in their care often included helplessness, frustration, and feelings of incompetence, resulting in a traumatic response that paralleled that of their patients. For example, the authors explained how working with helpless patients under current system conditions over time eventually triggered a similar helplessness in the healthcare professionals caring for these patients, which was then conveyed back to the patient. They concluded that both an inadequate system response, and vicarious traumatization on the part of the professionals, contributes to this dynamic process (McElvaney & Tatlow-Golden, 2016). This phenomenon closely mirrors our participants' depictions of "trauma perpetuating trauma". Currently, trauma literature is largely focused on the impact of trauma on the individual. Moving forward, it will be important to acknowledge how trauma affects not only the patient, but also healthcare providers and the health system as a whole.

Additionally, in our study, participants suggested that self-reflection and organizational leadership/support are key factors in mitigating this “trauma-cycle”. More work is needed to fully understand the effectiveness of strategies designed to safeguard nurses against emotional distress caused by caring for persons with a history of trauma. We suggest that research expand upon current practices of debriefing after critical incidents to establish ongoing opportunities for self-reflection.

Wolf and colleagues (2014) reported that although administrators of social service agencies are working toward implementing the principles of TIC for their clients, they might also be neglecting the same principles as they pertain to staff within the organization. Their findings suggest that leaders of these agencies are not aware of the relevance of these principles for their own employees (Wolf et al., 2014). We postulate that if nurses are not situated within an environment that promotes an organizational culture of trauma-informed values, then nurses and their patients will suffer. When nurses do not feel supported and empowered in a safe, trusting, and collaborative environment, the nurses, their care, and their patients suffer, in a dynamic trauma cycle, as seen through our study findings. For these reasons, we agree with Bloom (2010) and others (e.g. Marcellus, 2014) who emphasized that effective TIC is not simply brought about through a front-line intervention, but rather whole organizational shift in paradigms.

Trauma: Knowing and Knowing-How

Participants in this study emphasized that nurses must receive education related to trauma and TIC to practice in a trauma-informed manner. Researchers studying TIC also consistently call for widespread teaching on the topic (Hanson & Lang, 2016; Harris & Fallot, 2001; Choi & Seng, 2015; Hall et al., 2016; Kassam-Adams et al., 2015; Marcellus, 2014; Muskett, 20014; Reeves, 2015). This knowledge, though, needs to extend beyond simply

knowing about TIC as a concept or philosophy of care. Our findings echo the conclusions of Hall and colleagues (2016) who differentiate between knowing about TIC and know one's role in performing TIC. An example of this distinction between "Knowing and Knowing-How" (Benner, 1984), was described by the participants through a discussion on screening for trauma. Despite recognizing the importance of screening for trauma (e.g. Elliot et al., 2005; Harris & Fallot, 2001; Reeves, 2015), the participants emphasized that the decision to screen and the screening itself must be made from a trauma-informed perspective. Furthermore, the participants also explained how it can be problematic if nurses do not know how to act in cases where screening indicates a history of trauma. It is one thing to document the data and move on to the next prescribed task, confident that we have engaged in evidence-based care, and another to assess and interpret the findings in a way that meaningfully and ethically meet the needs of the patient. It is clear that advances are needed in the delivery of TIC. We wish to highlight the importance of developing capacity in this area in a manner that reflects nurses as moral agents who critically appraise their actions and who provide care in a way that truly reflects the needs of their patients.

TIC: Beyond Mental Health Care

The aim of this study was to explore nurses' knowledge and experiences related to TIC regardless of area of practice. Our sampling criteria included participants who scored above the 80th percentile on the Attitudes Related to Trauma-Informed Care (ARTIC) scale and who were employed within the province of Ontario, Canada. The rationale for this strategy was that nurses with more favourable attitudes related to the concepts of TIC, as evaluated using the ARTIC scale, would likely provide richer perspectives on the topic, given that TIC is an emerging concept within nursing. This strategy produced a sample of participants that all identified

primarily as mental health nurses, suggesting that mental health nurses overall are more attuned to and familiar with TIC. Yet, most participants in this study acknowledged a need for TIC within all of nursing, and not only those caring for persons with psychiatric and mental health needs. This need to push the boundaries of TIC beyond mental health is also reflected in the literature (e.g. Ko et al., 2008; Kassam-Adams et al., 2015; Reeves, 2015). Based on some of our recent work, we know that the principles of TIC are beginning to emerge in entry-to-practice competencies for generalist nurses. Efforts should be directed at increasing TIC capacity in undergraduate nursing programs (Strand, Popescu, Abramovitz, & Richards, 2016), so that all nurses entering the profession are at least familiar with trauma theory and the application of TIC in practice. The integration of TIC into curriculum must reflect the importance of this philosophy of care for all persons entering the healthcare system, not only those accessing mental health services.

TIC has a Home in Nursing Care

Two prominent nursing theorists, Peplau and Neuman, help situate our findings within central aspects of nursing care, specifically within the therapeutic relationship. Peplau has positioned the therapeutic relationship as a dominant concept within nursing care; one that gives prominence to the patient's individual story as a foundation to nurse-patient interactions (Peplau, 1991). In her writings, Peplau (1991) reinforced that the common goal of nursing is establishing safety and security for the patient through the therapeutic relationship by attending to the patient's needs, and not simply to their actions and behaviours (See also D'Antonio, Beeber, Sills, & Naegle, 2014). Furthermore, in Neuman & Young's (1972) systems model they return to the nurse-patient dyad to inform how one's experiences, strengths, and skills, come to influence how one copes with and reacts to stressors, and guides both one's journey and interactions within

care (Neuman & Young, 1972). When defining the concept of TIC, participants in this study also emphasized the centrality of the therapeutic relationship. However, this emphasis was not interpreted as being different than basic nursing care, but rather was described as knowledge that demands an individualized (holistic) approach to care.

In this discussion, we take the stance that TIC is in fact basic nursing care, albeit informed by the development of knowledge related to trauma. Of course this process is no different than any other aspect of nursing care that is continually informed by emerging knowledge. Why then the importance of this emerging concept in both nursing practice and nursing literature? As the participants of this study shared, we suggest that the concept of TIC is one that is in vogue because of current healthcare realities that objectify and standardize approaches to care. These pressures encroach on nurses' abilities to engage in the therapeutic relationship and all that is considered the art of nursing. TIC, thus, seems to be a novel approach that embraces flexibility instead of standardization, individuality instead of mass treatment plans, and subjectivity over objectivity. However, based on the clear messaging received from our participants, TIC is in essence just good nursing care and the TIC movement might simply be a symptom of a system that is perpetuating a shift away from the ideals of care espoused by the nursing profession.

Participants described an ongoing transition in nursing toward a practice that is task-oriented, quantifiable, and efficient. When nursing is practiced in this way, the subtleties of the art of nursing are lost. Compassion and its relation to nursing practice, for example, was explored by Mays (2012). The concept of compassion is one that was frequently mentioned by our participants as being important in the delivery of TIC. Mays (2012) found that it is difficult to quantify compassion and challenging to capture it in electronic medical records. The current

healthcare context is one that stresses legal accountability and standardization. In a (perhaps misguided) attempt to legitimize nursing in this context, it appears as though nurses are spending more and more time on tasks that increase efficiency and less time being with their patients (Simpson, 2011). As knowledge translation activities emerge in the area of TIC, it is important to ensure that the art of nursing and trauma-sensitive care is not lost in the push to standardize and evaluate the effectiveness of trauma-informed nursing tasks.

Study Limitations

There are three limitations to note when considering the findings of this study. First, as with all qualitative interview studies, the findings are limited to the participants' extent of disclosure and accuracy concerning the topic of interest. Second, because TIC is a sensitive topic, participants may have censored their thoughts and professional experiences to avoid feeling uncomfortable or judged. To minimize this potential limitation the interviewer (who has extensive experience working with trauma) both reminded participants that all data would be de-identified and maintained a non-judgmental demeanor throughout the interviews. Third, our selective recruitment strategy resulted in a study sample composed entirely of psychiatric/mental health RNs. Therefore caution should be applied when evaluating the transferability of these findings to all RNs.

Conclusion

In this study, we explored RNs understandings and experiences with TIC. While the participants were not familiar with the term TIC, their understandings of trauma and what it means to care from a trauma-sensitive perspective closely resembled existing definitions of the concept. Interestingly, the participants did not describe TIC as a unique philosophy of care, but instead emphasized how TIC is nursing, with an emphasis on the nursing process, holism, and

the therapeutic relationship. An important finding of this study, which is not yet described in existing literature, is the complex dynamics of the nurse-patient interaction in the context of trauma. (Re)traumatization is possible for both the patient and the nurse and trauma may perpetuate more trauma through these interactions. More work is needed in this area to fully understand this complex interplay. Finally, several barriers to the implementation of TIC in practice are provided. These barriers need to be addressed if efforts aimed at improving TIC are to be successful.

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Table 1

Participant Demographics

Study ID	Sex	Age	Years of RN Experience	Education	Work Setting
Participant 1	F	41-60	11-20	Diploma	Mental Health
Participant 2	F	41-60	21-30	Master's	Mental Health
Participant 3	F	41-60	>30	Bachelor's	Mental Health
Participant 4	F	41-60	21-30	Master's	Education/Mental Health
Participant 5	M	41-60	<11	Master's	Mental Health
Participant 6	F	21-40	<11	PhD	Mental Health
Participant 7	F	21-40	<11	Bachelor's	Mental Health

Table 2

Categories and Sub-Categories

Category	Subcategory
(Not) Knowing about Trauma-Informed Care	
Conceptualizing Trauma and Trauma-Informed Care	Individuality in the Trauma Experience How Trauma Changes You Silenced Trauma
Nursing Care in the Context of Trauma	How Knowledge of Trauma Informs Practice It's Basic Nursing Practice Universal [Trauma] Precautions Avoiding Labels and Preconceptions Walking with the Person A Conflicting Role: When Paternalism is Required Facilitators and Barriers to Nursing Care in the Context of Trauma - Facilitator 1: Education and Support - Facilitator 2: Cohesive Teams - Facilitator 3: Leadership - Barrier 1: Set in Our Ways - Barrier 2: Fear - Barrier 3: Time - Barrier 4: Nursing Quantified - Barrier 5: Lack of Understanding
Dynamics of the Nurse-Patient Relationship in the Face of Trauma	Care can Traumatize Traumatized Nurses Trauma Perpetuating Trauma Trauma Takes its Toll Protective Strategies

Chapter Five

Integrated Discussion

Thesis Summary

For this Master's project, I used a mixed-methods approach to explore nurses' knowledge of trauma and experiences using Trauma Informed Care (TIC) in practice. The first phase was an online survey study designed to examine nurses' attitudes related to TIC. Although the survey itself was completed, the analysis of the data is not part of this thesis. Instead, I present a methods manuscript from this phase that is prepared for submission to the journal *Applied Nursing Research*. The manuscript outlines the online recruitment strategy used for the study (Chapter 3). The decision to exclude the survey analysis was made in consultation with my thesis committee and I intend to complete this phase of the enquiry upon completion of my Master's degree. The second phase of the thesis was a qualitative study (Sandelowski, 2000) exploring nurses' knowledge and experiences related to TIC. The sample for the qualitative study comprised of seven individuals who scored highest on the Phase One survey. This qualitative manuscript is prepared for submission to the journal *Global Qualitative Nursing Research* (Chapter 4).

Summary of Thesis Findings

Manuscript One: Recruitment Strategy for Online Survey

Using an online recruitment strategy, I recruited 310 participants in five weeks for an online survey, which included the ARTIC scale (Attitudes Related to Trauma-Informed Care; Baker, Brown, Wilcox, Overstreet, & Arora, 2016). Two hundred and sixty-seven participants were recruited directly through the social media platforms Facebook and LinkedIn. The remaining 43 participants were recruited through some form of snowballing. Within 24 hours of the initial post, 64 RNs completed the survey through social media; after one week, 132 surveys were completed; and by the end of the second recruitment week, 152 surveys were completed. Significant differences were noted in the demographic profiles of the participants recruited

through the two platforms. LinkedIn participants were more likely to be male, higher educated (in terms of degrees and graduate degrees), and working in roles outside of hospitals (i.e. community, administration, research, and education). While I found social media to be a useful strategy in rapidly recruiting a diverse sample of RNs to complete an online survey, differences between Facebook and LinkedIn should be taken into account when considering these strategies. These are discussed within the manuscript.

Manuscript Two: Qualitative Study

In the qualitative study phase, I interviewed seven RNs who scored above the 80th percentile on the ARTIC scale. The participants were interviewed using semi-structured interviews to explore their knowledge and experiences related to TIC in practice. The overarching categories derived from the participant interviews included: “(Not)Knowing Trauma-Informed Care”, “Conceptualizing Trauma and Trauma-Informed Care”, “Nursing Care in the Context of Trauma”, and “The Dynamics of the Nurse-Patient Relationship in the Face of Trauma”. The findings of this qualitative study suggest that while some nurses possess knowledge on trauma and TIC, in general, nurses require further education, training, and contextual support to adequately care for individuals affected by trauma. Please note that when I am referring to *participants* in the remainder of this integrated discussion, I am speaking of the participants from the second phase qualitative study.

Integrated Discussion

Through this Master's thesis enquiry, I identified two key considerations in addition to the important findings discussed in the two manuscripts. First, the findings from the qualitative study resonate with the theoretical underpinnings of TIC articulated in the Constructivist Self-Development Theory (CSDT), and second, there are important aspects of language related to

trauma and TIC that deserve attention.

Constructivist Self-Development Theory (CSDT)

When conducting qualitative research, theoretical sensitivity is an important concept to understand and explore. Theoretical sensitivity refers to the researcher's awareness of the nuances they see in the data (Strauss & Corbin, 1990). It is understood that every researcher approaches a study with "varying degrees of sensitivity depending upon previous reading and experience with or relevant to an area" (Strauss & Corbin, 1990, p.41). This sensitivity enables the researcher to comprehend the data in a more meaningful and insightful manner, and to separate out what is pertinent from what is not (Strauss & Corbin, 1990). A person's theoretical sensitivity may stem from a number of sources, including relevant literature (research, documents, and theory), professional, and personal experiences (Strauss & Corbin, 1990). In preparing for my thesis research, I came to explore both empirical literature on trauma and TIC, as well as the associated theoretical underpinnings of the phenomena. In particular, I became familiar with the CSDT (McCann & Pearlman, 1990a; Pearlman & Saakvitne, 1995) because it helped me to understand the effects of trauma and the process of TIC.

The Constructivist Self-Development Theory or CSDT (McCann & Pearlman, 1990a; Pearlman & Saakvitne, 1995) is an integrative theoretical model developed as a means to comprehend the psychological, interpersonal and transpersonal effects of trauma on the adult individual. The CSDT is composed of five interactive concepts, or aspects of a person, that are particularly affected by trauma: a) frame of reference, b) self capacities, c) ego resources, d) psychological needs related to cognitive schemas, and e) memory system. I find the CSDT to be a useful model that conceptualizes how and what trauma alters in a person and the needs of the individual post-trauma. The application of the theory is also discussed by the original authors and this provides insight into how to address the needs and adaptations of a person affected by trauma

in a therapeutic manner. While the CSDT was designed by, and intended for, therapists that work with adult clients affected by trauma histories, it is possible that it offers use to other health professionals, including nurses. Here, I attempted to show the similarities and differences between what was expressed by the participants of my study and the writings on the CSDT theory. I also provide thoughts on the application of the theory to nursing practice and expand on areas requiring further research.

Of the five interactive concepts of the CSDT, similarities between my findings and the theory were noted for aspects of *the frame of reference, self capacities, psychological needs and cognitive schemes, and the memory system*. Still, other aspects of *self capacities* and *cognitive schemas* were not explained by participants. Further, facets of the remaining concept, *ego resources*, were alluded to by some participants, but not clearly described. These comparisons are presented in Table 1. Additional research is needed to explore these specific components of the CSDT more fully from a nursing standpoint.

From a broader perspective, there are similarities in the conceptualization of trauma and TIC and the applications of the CSDT. These include: The importance of attending to needs rather than symptoms, the integral value of the therapeutic relationship in care, and the importance of reflective practice. These similarities are discussed below.

Attending to needs rather than symptoms. Similar to how participants in the qualitative study described a trauma-informed approach, the authors of CSDT, in their writings on the theory, explain that the patient is not merely a collection of symptoms, but rather a multifaceted and interactive being striving to survive and succeed amidst their life circumstances (Pearlman & Saakvitne, 1995). Participants emphasized the importance of acknowledging the patient's successes; that the patient has applied skills and resources to persevere until this point in time. This should occur even if the skills or strategies are viewed as maladaptive, and be done in a way

that fosters hope, rather than discouragement. Within the nursing literature, Peplau, and others, similarly highlighted the importance of establishing a sense of safety and security with the patient, by attending to their underlying needs rather than focusing on their overt symptoms and behaviours (D'Antonio, Beeber, Sills, & Naegle, 2014; Peplau, 1991). Nursing from this holistic perspective can prove to be challenging when, for example, nurses must work within a biomedical model that treats patients based on observable clusters of symptoms and behaviours with little support for causation (Choowattanapakorn, Nay, & Fetherstonhaugh, 2004; Wheeler, 2014). Further, when nursing is overly influenced by the biomedical model, nurses may become at risk of adopting and/or perpetuating paternalistic attitudes and interventions (Aasen, Kvangarsnes, & Heggen, 2012; Hummelvoll, & Da Silva, 1994).

The importance of the therapeutic relationship. All study participants stressed the importance of a reliable and trustworthy therapeutic presence as the healing vehicle within the context of trauma. The therapeutic relationship is thus conceptualized as a safe interaction that facilitates the expression and identification of the patient's emotional experience and prioritizes this task above knowing the details of the patient's actual trauma. Pearlman and Saakvitne (1995) in explaining the intrapersonal self capacities element of the CSDT, described the therapeutic relationship as a holding environment (as explained by Winnicott, 1965) and propose that 'work' towards recovery occurs within the context of the therapeutic relationship. What study participants and the CSDT authors described enables me to conceptualize the therapeutic relationship as a *safe container* – a safe *interpersonal* space that allows for the promotion of healing of the patient's *intrapersonal* struggles. Specifically, when a person is unable to engage in a safe relationship with him- or herself (often the case in the aftermath of trauma), then the therapeutic relationship, which occurs between this person and another, is more than an interaction: It is a safe space where one can learn by example how to engage with him- or herself

in a healthy manner.

However, the findings of my study extend this notion of a *safe container* beyond the confines of the individual nurse-patient relationship. The participants explained how this *safe space* must include a safe environment and safe care planning, in addition to safe therapeutic encounters with all care providers. This difference is likely best explained by the nature of nursing within a multi-disciplinary healthcare context. Unlike psychologists who make discrete appointments with individual patients, nurses are responsible for multiple patients at any moment in time and may only care for distinct patients for relatively short periods of time. This requires nurses to juggle multiple priorities while also tending to current unit needs as a whole. Practically speaking, as the direct care providers for patients on inpatient units, 24 hours a day, seven days a week, nurses are required to work shift-work, with up to three, and sometimes more, nurses providing care to a specific patient on any given day.

These contextual differences between nursing and psychotherapy are important to consider when attempting to use the CSDT in nursing practice - particularly the aspects pertaining to the therapeutic relationship. It is likely that some adaptation of the theory is necessary if nurses are to adopt the CSDT as a guiding framework for their TIC. The findings of this study provide some groundwork for these modifications, but more work is needed to understand the validity of the CSDT for nursing practice. Finally, as highlighted by my findings, the *safe container* must extend beyond the immediate therapeutic relationship with one care provider. Future TIC interventions should target all care providers, including leadership within organizations, so that the safe space required for appropriate TIC begins the moment a person enters the healthcare system, rather than only once they engage with their therapist. This has implications for policy, which are discussed below.

The importance of reflective practice. My study participants described the value of self-reflection and its ability to minimize the effects of vicarious traumatization when caring for patients with challenging needs and behaviours. As an aspect of the CSDT, the authors explain how a provider's own beliefs and experiences influence his or her interactions with others (McCann & Pearlman, 1990b; McCann, Sakheim, & Abrahamson, 1988) and the importance of the provider's continuous exploration of their own subjectivity (i.e. what providers bring into care, personal history, emotions, attitudes, defenses, unconscious processes, conscious reactions, and behaviours) is needed (Ens, 1998; Pearlman & Saakvitne, 1995; Scheick, 2011). In essence, it is not enough to understand our patients and how their trauma may be influencing their experience and participation in care (in other words, transference), healthcare providers must also commit to examining and acknowledging how their patients affect them and in return how they affect their patients (countertransference). While it is inevitable that nurses will be influenced by their work, thereby eliciting countertransference reactions (Ens, 1998), the participants of this study echoed existing literature (e.g. Ens, 1998; Scheick, 2011; Dziopa & Ahern, 2008), which describes how a focus on self-awareness and acknowledgement of countertransference reactions helps to manage transference and countertransference and enhance nurses' professional work and personal lives. Implementing consistent self-reflective practices for all nurses is important in the promotion of safe and competent TIC as self-reflective practices may enable nurses to identify feelings (particularly strong feelings) towards patients as they surface, and to acknowledge which aspects of these emotions originate from the patient, and which from the nurse (Ens, 1998). Nurses can subsequently make decisions relating to patient care and interventions from a perspective that also acknowledges their own personal judgments and motivations (Giese, 2016; Ens, 1998).

Importance of Language

An important issue for consideration arising from this study is the importance of language. Scientific knowledge is constructed through language, but it is important to be aware of how conceptual muddiness, as well as the nature of labels and stereotypes, influences how knowledge is created and translated into practice. Here, I discuss language and labels in relation to nursing practice. Language related to conceptualizing and measuring TIC is discussed below in the implications for research section.

Language and labels in practice. Throughout this thesis enquiry, I observed the power of language and labels in affecting conceptualizations, understandings, and ways of acting and interacting. Participants described how outsiders may apply a label to a person, at times imparting to the individual a new name or identity. These labels may be diagnoses, societal, or cultural labels. It is not to say that all labels are negative. At times, the use of explicit language either through a diagnosis, or by articulating individual's needs, provides opportunities for growth and healing (Johnson, 2006; Sexton, & Loflin, 2009). Other times, the application of labels can have detrimental effects for both the person receiving and providing the label. As explained by Hare-Mustin and Marecek (2002), "A diagnostic label... has a profound influence on what we think of people so labeled and how they think about themselves" (p. 105). Diagnoses, for example, are means of clustering and classifying symptoms and illnesses, permitting generalizations to be drawn (Hare-Mustin & Marecek, 2002). These labels tend to also carry with them culturally and personally imposed stereotypes and visceral reactions (e.g. Nehls, 1998). For example, upon hearing that a patient is 'schizophrenic', 'bipolar', 'borderline', or 'conduct disorder' a nurse may immediately pair specific cognitive judgments and affective reactions with this patient, based on the nurses' past cultural and personal experiences, which have constructed their assumptions mental representations.

Not only does a diagnosis come with certain connotations, there are other labels that cause the same types of responses in healthcare providers. Identifying a patient as 'troubled', 'difficult', 'manipulative', 'defiant', 'treatment-resistant' 'bad' or even as an 'easy patient' carries weight, framing the individual and their experience in the pejorative (Corrigan, 2006; Mohr & Noone, 1997). The issue of labelling is important to consider within nursing, particularly when "the quality of patient care is in part determined by the social labelling process" (Shatell, 2004, p. 716). Nursing literature suggests that negatively labelling patients is associated with executing distancing behaviours, which impair therapeutic rapport and the provision of care (e.g. Holmes & Federman, 2003; Müller & Poggenpoel, 1996). These negative labelling practices help to depersonalize the patient in the eyes of the nurse, thereby generating and justifying a psychological distance from the patients, and subsequently modifying (or potentially breaking down) the nurse-patient relationship (Holmes & Federman, 2003; Jacob, 2010).

Furthermore, one must also consider how labels impact the patient. Some authors suggest that regardless of whether the patient resists a diagnosis, or embraces it as an identity, the labelling of who they are and how they act will affect their sense of self, often internalizing the message that the 'problem' lies within themselves (e.g. Root, 2009). Researchers further suggest that people who would benefit from mental health services at times avoid accessing services and treatment out of fear of being labeled with a diagnosis or disorder (Corrigan & Anderson, 2004; Farley-Toombs, 2012; Rüsch, Angermeyer, & Corrigan, 2005). In reference to the emerging ideas of TIC, participants in this study voiced concern over using terms such as 'traumatized' and 'victim' and the generalizations and associations these labels connote. People come to understand how they feel and act, and who they are through language (Hare-Mustin & Marecek, 2002). While the use of labels is at times necessary, it is important for us to acknowledge that they do have an impact on nurses, their patients, and society as a whole.

Nursing Implications

This thesis study provides specific nursing implications for practice, policy, education, and research.

Implications for Practice

Universal precautions. A general consensus exists among the participants of this study and other reported findings (e.g. Coles & Jones, 2009; Elliot et al., 2005; Hodas 2006) about the need to develop universal trauma precautions. If people use universal precautions, they will function in a way that treats all persons interacting with the service as though they may have experienced a trauma. This is similar to the notion of “universal precautions” of physical medicine, which encompasses measures taken to prevent the spread of blood-borne diseases that may or may not be present in the patients at hand. This presumption promotes caution in interacting with individuals to avoid triggering such feelings as fear or shame related to (possible) trauma (Hodas, 2006). Harris & Fallot (2001) suggested that this approach allows for the universal elimination of practices that may be upsetting and demeaning, whether or not trauma has occurred. As such, universal precautions should become an overarching framework that guides how we approach others – regardless of the context in which the interaction takes place.

Nursing and organizational leadership. As participants in this study suggested, leaders can play an important role in prioritizing and championing TIC. Furthermore, to fully implement the standard of TIC, TIC principles must be applied not only towards patients but towards staff and all others interacting with the system (Fallot & Harris, 2009). In order to facilitate and maintain this philosophy of care a full organizational culture shift is necessary (Bloom, 2010; Fallot & Harris, 2009). There are current trauma-informed models built off the CSDT that exist that may be useful avenues for future exploration (i.e. Risking Connections by Brown Baker, & Wilcox, 2012 and Sanctuary Model by Esaki et al., 2013), however, before extensive resources

are dedicated to the implementation of TIC initiatives, more research on conceptual clarity and measurement is needed.

In the meantime, relatively smaller steps can be taken towards establishing trauma-informed systems. Raising awareness about TIC within institutions may build knowledge and readiness towards change. Furthermore, facilitating regular opportunities for collaborative and supportive staff self-reflection and team-development may offer means of promoting TIC values in practice.

Implications for Policy

TIC, as process of organizational change, is clearly relevant to policy development at the agency level. I suggest that institutional leadership consider the congruency of their policies with the principles of TIC. At a higher level, TIC can also guide the analysis of social policies and advocacy efforts, encouraging public health nurses and multidisciplinary professionals to advocate for the integration of a trauma-informed focus into social policy (Bowen & Murshid, 2016). In order to develop policy that is attuned to the realities of clinical practice and lived experience, it is paramount that policymakers hearken to the suggestions of nurses, as well as other front-line practitioners, and service users (Bowen & Murshid, 2016). That is, individuals with experience in the area of trauma, whether through their personal or professional histories, can educate policymakers on the importance of TIC principles and their relevance to social policy (Bowen & Murshid, 2016). However, as Hannem (2012) emphasizes, although there is value in understanding individual experiences, there is also a need to understand structural (macro level) elements that come to shape these experiences in order to better fully understand a phenomenon. By incorporating both lived experiences (micro level) and structural elements (macro level) that shape trauma, we will be in a better position to create policies that avoid further re-traumatization.

Implications for Education

The findings from this thesis support the need to equip nurses, both pre- and post-licensure, with the necessary knowledge, guidance, and environment to offer trauma-sensitive care. While educating nurses about the prevalence and consequences of trauma are a start, nurses also need the skills and confidence to know how to care in the face of trauma. As research on the efficacy of various TIC interventions continues to emerge, I suggest that, at a minimum, all RNs must receive some didactic and skills-based training relating to trauma and TIC principles as a part of nursing core-competencies.

Recently, the Canadian Association of Schools of Nursing (CASN), established new entry-to-practice mental health and addiction competencies for general undergraduate nursing education in Canada (CASN, 2015). While this guideline focuses on the importance of a trauma-informed approach and sets a standard for all newly graduating nurses in Canada to competently provide nursing care in a trauma-informed manner, it does not offer guidance to nursing educators on how to operationalize and achieve that standard. With competencies comes the need to create tools to help educators deliver congruent education and as of yet, none exist. In order to educate new nurses, nursing educators must first receive education themselves on the concepts and philosophies encompassing TIC. As TIC remains vaguely defined and ambiguous at times, the term must be clearly and consistently defined for educators. Likewise, the principles and skills associated with the competencies TIC must be clearly laid out; otherwise TIC will remain a nebulous and meaningless term.

Implications for Research

In terms of implications for research, this thesis supports the need for further conceptual clarification of the term TIC and its operationalization in practice. Participants in this thesis research weren't necessarily familiar with the term TIC; still, all described aspects of trauma and

TIC noted in the literature, with variability existing amongst the participants. Similarly, within the literature, trauma and TIC are at times ambiguously and inconsistently defined. For example, when looking at seven studies on TIC in nursing, five different conceptual definitions are provided by the authors. Furthermore, the operationalization of these definitions vary due to mixed interpretations and study purposes (Chandler, 2008; Hall, McKenna, Dearie, Maguire, Charleston & Furness, 2016; Isobel, 2015; Kassam-Adams et al., 2015; LoGiudice & Douglas, 2016; Marcellus, 2014; Waqar Azeem, Aujla, Rammerth, Binsfeld, & Jones, 2011). Currently resources are being allocated to the implementation of TIC initiatives. Unfortunately, without a clear and consistent definition of TIC, it is difficult to know if the interventions are actually targeting the intended goal and it is also difficult compare interventions across various studies. A concept analysis can be helpful in clarifying the varying definitions of TIC, as a step towards designing and implementing TIC interventions. As evidence has demonstrated TIC to be of significance to the nursing discipline, a concept analysis facilitates application to research and clinical practice (Meleis, 2007).

Moreover, experts on TIC have highlighted the need for further empirical research examining whether TIC interventions are effective (Baker & Brown, 2016). Indeed, to perform such research requires clarity on what makes care and an organization trauma-informed (Baker & Brown, 2016). In turn, such research requires standardized assessment tools, and while some exist, very few are theoretically based and have been thoroughly psychometrically evaluated through reliability and validity studies. Current research studies are using a variety of different measures to study knowledge, attitudes, and practice of TIC (e.g. Hall et al., 2016; Kassam-Adams et al., 2015). The measures are often novel, not well described, and offer little to no support on their psychometric properties. These studies therefore lack consistency in their measures and measurement outcomes, and we are left to assume that they are examining

conceptually different things, making it difficult to draw comparisons. As a result, we are hindered in moving forwards in the development of knowledge and knowledge translation initiatives in the area of TIC. Additionally, further validation testing of theoretically-based, psychometrically tested instruments measuring aspects of TIC, including the ARTIC (Baker et al., 2016), the TICOMETER (Bassuk, Unick, Paquette, & Richard, 2016), and the TIP Scales (Sullivan, & Goodman, 2015), are needed with nurses within nursing contexts, to establish consistent, reliable, and valid measures that are relevant to nursing practice.

Currently, there exist few studies evaluating the effectiveness of TIC interventions with nurses. Future studies, that include detailed descriptions of the context and target population, the intervention performed, and the outcome variables measured, could facilitate furthering our understanding of implementing TIC in practice. Moreover, research is needed that explores the process and outcomes of organization-wide TIC knowledge-translation interventions. Similar to suggestions made by Baker and Brown (2016) I recommend that future studies pertaining to TIC interventions examine changes in staff, both self-reported and observed, changes in culture, and in patient outcomes. Furthermore, I recommend that future research consider measures of changes in staff satisfaction, staff collaboration, and quality of life. Keeping in mind the need for conceptual clarity, so that results can be compared across studies.

In discussing about TIC in terms of my findings, the CSDT has been useful. In order to consider how the theory may apply to nurses, work needs to be done in validating it for this particular population. For example, one of the CSDT authors developed the TABS (Trauma Attachment and Belief Scale), a scale to measure the psychological needs and cognitive schemas identified in the CSDT that may be affected by traumatic stress and has been used with both patients and providers (Pearlman, 2003; Varra, Pearlman, Brock, & Hodgson, 2008). This measure has not yet been tested with nurses, and may be an opportune avenue for reflective

practice, as highlighted in this thesis.

Study Strengths and Limitations

The strengths and limitations of this thesis demonstrate how aspects of the study shaped the research process and its outcomes. Accordingly, these facets can be considered to underscore the context in which these findings emerged.

A strength and a limitation of this research was the purposive sampling for the qualitative interviews which was identified based on the initial large sample recruited to complete an online survey. Only participants from the online survey that scored in the highest 20th percentile on the ARTIC scale were invited to participate in qualitative interviews. As the ARTIC is stated to measure attitudes related to TIC (Baker et al., 2016), this inclusion criterion facilitated recruitment of RNs that held more favourable attitudes towards the philosophies of TIC with the assumption that these participants would offer richer perspectives to explore. While I believe this strategy was a strength of the research, it may also have acted as a limitation, excluding RNs that were less educated regarding, or disagreed with, the values of TIC. Furthermore, as a result of this recruitment strategy, all participants recruited for the qualitative interviews were psychiatric mental health nurses. Although this may illustrate that mental health nurses are generally more aware of the philosophies of TIC, it also limited the perspectives my findings to this specialty of RNs.

The use of investigator triangulation was a further strength of the qualitative phase, enhancing the credibility, or truth of the findings, in the study (Lincoln & Guba, 1985). Both of my thesis supervisors were included in the data analysis process, allowing us to challenge individual researcher assumptions and to ensure that the final study findings remained true to the data, that is, to the participants' experiences (Polit & Beck, 2012). Moreover, the preliminary analyses were presented to the thesis committee as a group, and subsequently reviewed with the

entire committee twice more prior to finalizing the findings.

Initially, this project began as a two-phase study; the first phase was an online survey measuring RNs attitudes related to TIC (using the ARTIC scale). While this phase served to identify and purposefully sample RNs for the subsequent qualitative phase, I had originally intended to include the psychometric testing of the ARTIC and the quantitative survey results within this thesis as well. Given the scope of the project and the requirements for the Master's in Nursing degree, I chose not to incorporate the survey results within this thesis. This work is in progress and the manuscript will be published separately with the ongoing support of my thesis committee.

Concluding Statements

This thesis has emphasized the need for nurses and organizations to incorporate trauma-informed principles in the services they provide, and in their cultures as a whole. Indeed the discipline of nursing, which holds paramount the perspective of holistic care and the value of the therapeutic relationship, is aptly situated to apply tenets of TIC in practice, policy, education, and research. In closing, TIC offers a lens of viewing individuals and organizations in light of their experiences and to orient discussions towards improving care for individuals influenced by trauma. Moving forwards, I intend to conduct a knowledge translation project in this area as a component of my PhD research.

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Table 1*Comparison of the CSDT Theory and its Application to My Study Findings*

CSDT Concept	CSDT Definition	Thesis Findings
1. Frame of Reference	Framework of beliefs through which the individual interprets the experience; includes: • Worldview • Identity • Spirituality	Frame of reference. As an overarching perspective on trauma, all participants acknowledged that comprehension of how trauma affects a person is important in enabling nurses to provide trauma-sensitive care. While participants noted that the effects of trauma are individualized, they also described common elements observed in the manifestations and needs of the patients they cared for. Most nurses that participated in this study spoke of how trauma can alter the very core of a person's identity, and some participants further implied that trauma can affect one's worldview and meaningful understanding of oneself in the world. This theme was congruent with Pearlman and Saakvitne's (1995) description of the 'frame of reference'. Similar to the suggestions of Pearlman & Saakvitne (1995), my study's participants spoke to the importance of building an understanding of the patient's frame of reference but most importantly, how knowledge about trauma comes to affect nurses' approach to care. They noted that within a nurse's period of contact with his or her patient, the nurse may never be privy to the individual's trauma story. Regardless of whether or not the trauma story is known, participants explained how nurses can (and should) remain attuned to hearing and acknowledging the patient's understanding of themselves and/or of the world. Participants described the importance of acknowledging and respecting the patient at whatever <i>place</i> they may be, while maintaining a therapeutic presence and sense of openness to what the patient may share. This resonates well with what Pearlman and Saakvitne (1995, p.64) describe as being "less of a guide and more of a witness", which explains how it is rarely effective to cognitively challenge the individual's frame of reference before they are able to begin developing a validating sense of self as worthwhile.
2. Self Capacities	Abilities that enable the individual to maintain a sense of self as consistent and coherent across time and situations; intrapersonal; includes ability to: • Tolerate strong affects • Maintain positive sense of self Maintain inner sense of connection with others	Most study participants described their patients with trauma histories as struggling to varying degrees with emotional dysregulation, tolerating their feelings, and establishing and maintaining stable connections with others. While participants did not focus on patients' ability to maintain a positive sense of self, some participants implied that patients influenced by trauma may suffer with low self-esteem. It may be that because I did not ask specific questions about the impact of trauma on the person (and instead this information was derived organically through other questions) that the participants did not offer comments on this aspect. The authors of the CSDT emphasized that self-capacity development occurs within the context of the therapeutic relationship and that building a therapeutic relationship is fundamental to the work done with survivors of severe trauma (Pearlman & Saakvitne, 1995). As these patients often struggle tremendously with their emotional experience, the therapeutic connection may provide a means of expressing, holding, and exploring these experiences (Pearlman & Saakvitne, 1995). Participants voiced a similar message in describing the importance of a reliable and trustworthy therapeutic presence that facilitates the expression and identification of the patient's emotional experience, and prioritizes this task above knowing the details of the patient's actual trauma.

3. Ego Resources

Abilities that enable the individual to meet psychological needs and to relate to others; interpersonal; includes two types:

- Resources important to the therapy process
 - Intelligence, willpower and initiative, awareness of psychological needs, and abilities to be introspective, to strive for personal growth, and to take perspective
- Resources important to protect oneself from future harm

Abilities to foresee consequences, to establish mature relations with others, to establish boundaries, and to make self-protective judgments

Participants did not address this concept in an explicit manner.

Participants did acknowledge that patients with trauma histories may be particularly sensitive to interpersonal challenges, such as misunderstandings or unfulfilled commitments on the part of the nurse.

4. Psychological Needs and Cognitive Schemas (in relation to self and others)	• Safety ○ The need to feel secure and reasonably invulnerable to harm by oneself or others • Trust ○ The need to have confidence in one's own perceptions and judgment and to depend on others • Esteem ○ The need to feel valued by oneself and others, and to value others • Intimacy ○ The need to feel connected with oneself and others • Control ○ The need to feel able to manage one's feelings and behaviours as well as to manage others in interpersonal situations	Participants in this thesis study spoke explicitly and implicitly of needs held by their patients with trauma histories, as well as their respective manifestations as cognitive schemas or beliefs. Specifically, participants described disrupted schemas of self-safety, other-trust, self-esteem, self-intimacy and other-intimacy, as well as self-control, and other-control. All participants voiced that facilitating a sense of safety for patients is an integral component of TIC and expressed how feeling safe (or "self-safety") is a critical need for these patients, and yet it can be difficult to establish. Similarly with regards to other-trust, participants described how patients' previous interpersonal experiences resulted in mistrust or difficulty trusting in others, (generally and with specific profiles of individuals) Participants spoke of disrupted self-esteem in terms of patients' difficulties valuing themselves, and allowing themselves to be valued by others, while disrupted self-intimacy was inferred by referencing patients' difficulties in caring about themselves. In describing how trauma can colour individuals' interpersonal needs and beliefs, and in emphasizing the importance of the therapeutic relationship as a healing vehicle, participants implied the importance of the other-intimacy needs and schemas. Finally, participants described how their patients struggle with needs related to both self-control and other-control, which encompassed themes of autonomy, choice, and power. Further research on the CSDT (Black & Pearlman, 1997) supports that self-esteem schemas play a mediating role in the relationship between self-trust and self-intimacy schemas, and other-intimacy schemas. A dynamic and reciprocally causal relationship between these schemas leads to self-trust and self-intimacy schemas affecting self-esteem schemas, and subsequently other-intimacy schemas. Therefore, while participants described patients' self-esteem needs and disrupted self-esteem schemas without specifically referring to self-trust, and only minimally referring to self-intimacy, these schemas appear to be interactively inter-dependent (Black & Pearlman, 1997). Furthermore, this schematic system suggests alternative channels to assisting patients with disrupted self-esteem schemas, namely, by attending to disrupted self-trust, self-intimacy, and other-intimacy schemas (Black & Pearlman, 1997). With the therapeutic relationship playing a central role in nursing practice, as well as being a specific form of other-intimacy (Black & Pearlman, 1997), focusing on this connection may further facilitate healing of disrupted self-esteem schemas. While further research is needed to describe the nature of relationships between cognitive schemas, current knowledge (Black & Pearlman, 1997) suggests that changes (both positive and negative) to some schemas are likely to impact closely related schemas as well. This hypothesis is consistent with my thesis findings.
5. Memory System	• Verbal • Somatic • Affect • Interpersonal • Imagery	The CSDT conceptualizes the memory system with an understanding that complex traumatic experiences are often encoded and embodied with the individual in a fragmented and dissociative manner. Therefore authors of the CSDT identify five aspects relating to perception of experience that thereby represent traumatic memory: a) verbal memory, b) imagery, c) affect, d) bodily or somatic memory, and e) interpersonal memory (Pearlman & Saakvitne, 1995). Interestingly, dispersed throughout the categories "Conceptualizing Trauma and Trauma-Informed Care" and "Nursing Care in the Context of Trauma" participants that took part in this study discussed every one of these aspects of the CSDT's memory system in relation to traumatic memories. When participants described how patients expressed or recalled traumatic memories, they noted that memories were less likely to surface in a cognitive and narrative manner, but rather through visual, affective, or somatic reminders, or through interpersonal patterns that were reminiscent of the past. Indeed, this notion highlights to me the importance of acknowledging that screening a patient verbally for a history of trauma may not prompt the individual to recall or disclose their trauma experience.

Appendix A - Ethics Approval

File Number: H10-15-04

Date (mm/dd/yyyy): 11/16/2015



Université d'Ottawa
Bureau d'éthique et d'intégrité de la recherche

University of Ottawa
Office of Research Ethics and Integrity

Ethics Approval Notice

Health Sciences and Science REB

Principal Investigator / Supervisor / Co-investigator(s) / Student(s)

<u>First Name</u>	<u>Last Name</u>	<u>Affiliation</u>	<u>Role</u>
Jean Daniel	Jacob	Health Sciences / Nursing	Supervisor
Yehudis	Stokes	Health Sciences / Nursing	Student Researcher

File Number: H10-15-04

Type of Project: Master's Thesis

Title: Exploring nurses' knowledge and attitudes related to trauma-informed care

Approval Date (mm/dd/yyyy)	Expiry Date (mm/dd/yyyy)	Approval Type
11/16/2015	11/15/2016	Ia

(Ia: Approval, Ib: Approval for initial stage only)

Special Conditions / Comments:

N/A

File Number: H10-15-04

Date (mm/dd/yyyy): 11/16/2015



Université d'Ottawa
Bureau d'éthique et d'intégrité de la recherche

University of Ottawa
Office of Research Ethics and Integrity

This is to confirm that the University of Ottawa Research Ethics Board identified above, which operates in accordance with the Tri-Council Policy Statement (2010) and other applicable laws and regulations in Ontario, has examined and approved the ethics application for the above named research project. Ethics approval is valid for the period indicated above and subject to the conditions listed in the section entitled "Special Conditions / Comments".

During the course of the project, the protocol may not be modified without prior written approval from the REB except when necessary to remove participants from immediate endangerment or when the modification(s) pertain to only administrative or logistical components of the project (e.g., change of telephone number). Investigators must also promptly alert the REB of any changes which increase the risk to participant(s), any changes which considerably affect the conduct of the project, all unanticipated and harmful events that occur, and new information that may negatively affect the conduct of the project and safety of the participant(s). Modifications to the project, including consent and recruitment documentation, should be submitted to the Ethics Office for approval using the "Modification to research project" form available at: <http://research.uottawa.ca/ethics/submissions-and-reviews>.

Please submit an annual report to the Ethics Office four weeks before the above-referenced expiry date to request a renewal of this ethics approval. To close the file, a final report must be submitted. These documents can be found at: <http://research.uottawa.ca/ethics/submissions-and-reviews>.

If you have any questions, please do not hesitate to contact the Ethics Office at extension 5387 or by e-mail at: ethics@uOttawa.ca.

Signature:

Hoda Shawki
Protocol Officer for Ethics in Research
For Daniel Lagarec, Chair of the Health Sciences and Sciences REB

Appendix B - Phase One: Study Information and Consent Form

uOttawa

PARTICIPANT INFORMED CONSENT FORM**Exploring Nurses' Knowledge and Attitudes
Related to Trauma-Informed Care
Phase One: Survey****Thank you for your interest in this study!****Please review the following study information, prior to commencing the survey. If you have any questions, please ask the researcher for clarification.****When you feel ready to begin and have no further questions, click the "Proceed to Survey" button at the bottom of this screen.**

Principal Investigator: Yehudis Stokes RN, BScN
University of Ottawa

Thesis Supervisors: Jean-Daniel Jacob RN, PhD
Associate Professor,
University of Ottawa
(613) 562-5800 ext. [REDACTED]

Amanda Vandyk, RN, PhD
Assistant Professor,
University of Ottawa
(613) 562-5800 ext. [REDACTED]

Invitation to Participate: You are invited to participate in the above-mentioned study conducted by myself, Yehudis Stokes, a graduate student enrolled in the School of Nursing at University of Ottawa. I am supervised by Profs. Jean-Daniel Jacob and Amanda Vandyk.

Purpose of the Study: From this research we wish to learn how nurses understand and approach trauma-informed care.

Participation: If you agree to participate in this study, you will proceed to the study survey, which will take approximately 20 minutes to complete.

Benefits: Though your participation will not have a direct benefit to you, it will inform the current state of knowledge of nurses and trauma-informed care. By participating in this study, you will provide the potential for positive changes in service delivery context, thereby benefiting front-line nurses, as well as patients.

Confidentiality and Anonymity: The information that you will share will remain strictly confidential and will be used solely for the purposes of this research. The only people who will have access to the research data are Yehudis Stokes and her internal research committee. Your answers to open-ended questions may be used verbatim in presentations and publications but you will not be identified. In order to minimize the risk of security breaches and to help ensure your confidentiality we recommend that you use standard safety measures such as signing out of your account, closing your browser and locking your screen or device when you are no longer using them / when you have completed the study.

Results will be published in pooled (aggregate) format. Anonymity is guaranteed since you are not being asked to provide your name or any personal information. De-identified data will be shared with the developers of the ARTIC scale, and again, results will only be published in a pooled format.

Data will be collected through REDCap (Research Electronic Data Capture) a secure, web-based application designed exclusively to support data capture for research studies. All other electronic data will be saved on a password protected laptop, only accessible by Yehudis Stokes and her supervisor. The research data will be kept for five years after the study is completed in an encrypted file at the University of Ottawa. After this time they will be destroyed.

Compensation: Compensation will be provided to participants in the form of draws. All participants will be eligible to win one of two \$25US Amazon Gift cards. The odds of winning a prize will depend on the number of eligible entries received. To participate in the raffle, a valid email address must be provided which will not be linked back to your survey responses. The draws will be held at the end of the data collection phase, through randomly selecting two winning email addresses out of a bag containing all eligible email addresses. These draws will be held in Prof. Jacob's office and the selection will be made by another member of the research committee, and witnessed by myself (Yehudis Stokes). The winners will subsequently be contacted by email and provided with two weeks to respond and to provide a mailing address where the prize may be sent. If no response is received within two weeks, then another winner will be drawn instead. The prizes must be accepted as awarded or forfeited and cannot be redeemed for cash. All printed email addresses will be shredded after the draws.

Information about the Study Results: Results will be published in scientific journals and will be presented at conferences. Results may also serve as educational material in relevant courses. In all cases, you will not be identified. If you would like to review the results of the study upon its completion, please contact Yehudis Stokes or one of her supervisors.

Ethics: The University of Ottawa Research Ethics Board has reviewed and approved the ethical components of this research project.

Voluntary Participation: You are under no obligation to participate and if you choose to participate, you may refuse to answer questions that you do not want to answer. Participation in the survey implies your consent. Due to the anonymous nature of the survey, it may not be possible to withdraw your data after participating. However, survey data will always be presented in an aggregated format, so individual participants will not be identifiable.

Questions about the Study: If you have any questions about this study, please contact Yehudis Stokes or her supervisors at the email addresses/phone numbers mentioned herein.

If you have any questions with regards to the ethical conduct of this study, you may contact the Protocol Officer for Ethics in Research, University of Ottawa, Tabaret Hall, 550 Cumberland Street, Room 154, Ottawa, ON K1N 6N5, tel.: (613) 562-5387 or ethics@uottawa.ca.

Please print this form for your records.

Thank you for your time and consideration.

*Yehudis Stokes
Jean-Daniel Jacob
Amanda Vandyk*

November 2015

If you are interested in participating in the survey, please click the “Next Page” button below:

“Next Page”

Appendix C - Phase One: Social Media Recruitment Messages**Figure C1.** The Standardized Public and Targeted Group Recruitment Message

ATTENTION fellow Registered Nurses:

I am conducting my Master's research on trauma-informed care within nursing practice.

Please support this project by participating in a short survey:

(link included here)

By doing so, you can also enter a raffle to win one of two \$25 US Amazon.com gift cards, in appreciation for your time.

Participants must be registered nurses (RNs) that are comfortable completing an English language survey. Please note that the survey formatting is best viewed through a computer rather than a phone.

Please SHARE with ANY nursing friends, colleagues or networks!

Thank you!

~Yehudis

Figure C2. The Standardized Private Recruitment Message

Dear (name):

I am conducting my Master's research (at the University of Ottawa) on trauma-informed care within nursing practice.

I invite you to participate in my short survey, or to pass it on to others:
(link included here)

By participating, you can also enter a raffle to win one of two \$25US Amazon.com gift cards, in appreciation for your time.

Participants must be registered nurses (RNs) that are comfortable completing an English language survey. Please note that the survey formatting is best viewed through a computer rather than a phone.

Please SHARE with ANY nursing friends, colleagues, or networks!

Thank you!

~Yehudis

Appendix D - Phase One: Supplemental Table/Figure

Table D1

Timeline of Recruitment: Summary of Surveys Opened (including those incomplete or blank)

	<u>Facebook</u>	<u>LinkedIn</u>	<u>Other/ Snowball</u>	<u>Missing (did not answer this field)</u>	<u>Total Recruited</u>
<u>Post 1</u>					
Within 24 hours	112	1	3	35	151
Within one week	235	4	20	95	354
Within two weeks	246	18	26	103	393
<u>Post 2</u>					
Within 24 hours	252	23	26	112	413
Within one week	265	60	39	140	504
Within two weeks	271	120	44	164	599
<u>Post 3</u>					
Within 24 hours	274	129	46	172	621
Within one week	287	144	55	182	668
(survey closed)					

Figure D1. Survey flowchart. This figure illustrates the progression of record exclusion and the resulting final n=310 of completed surveys.

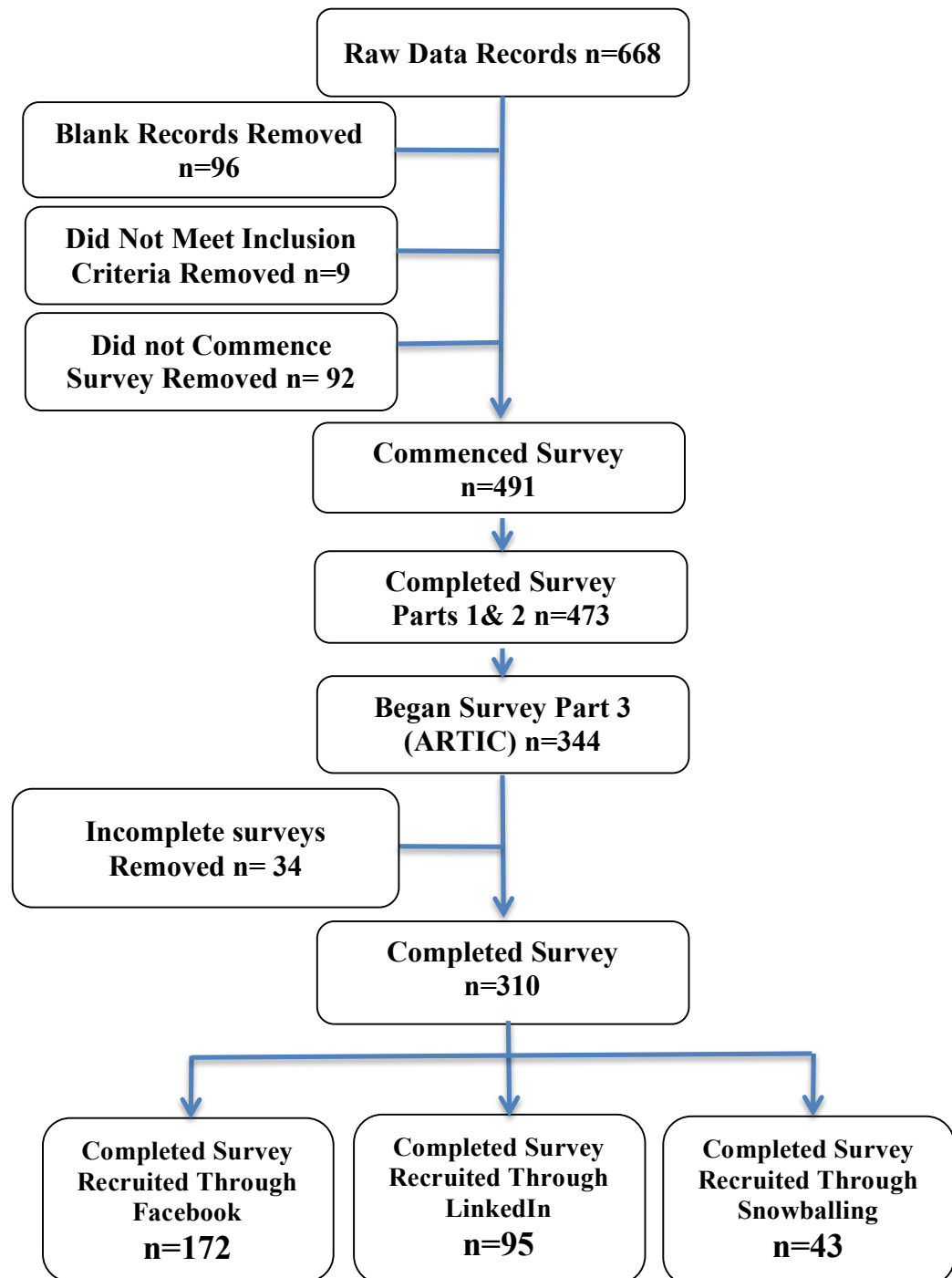


Table D2

*A Summary of Participants 'Connected' vs. Not 'Connected' with Author Prior to Study**

	<u>Total Participants</u>	<u>Participants with prior 'connection' to Author</u>
Completed survey, offered to participate in follow-up interview	n=171	n=33
Completed survey, offered to participate in follow-up interview, AND scored in top 20 th percentile	n=45	n=6
Completed survey, offered to participate in follow-up interview, scored in top 20 th percentile, AND employed in Ontario	n=18	n=5
Agreed to participate in Phase 2 interview	n=7	n=2

*Based on the email addresses provided for follow-up

Table D3

*Summary of ARTIC-35 Scores (n=295)**

Min-Max**	Mean	Standard Deviation
127-239	191	22

*Based on surveys that were adequately completed to calculate total scores (n=295)

**Out of a possible score of 245

Table D4

*Summary of ARTIC-35 Decile Scores (n=295)**

Decile	Decile Score	Frequency of Scores per Decile (decile range)
90	219	30(90-100)
80**	210	34(80-90)
70	204	27(70-80)
60	197	32(60-70)
50	191	27(50-60)
40	186	28(40-50)
30	180	32(30-40)
20	173	31(20-30)
10	162	26(10-20)
0	0	28(0-10)

*Based on surveys that were adequately completed to calculate total scores (n=295)

**Cutoff score as inclusion criteria for Phase 2



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Appendix E - Phase Two: Study Information Sheet

Exploring Nurses' Knowledge and Attitudes Related to Trauma-Informed Care Phase Two: Interviews

Participation in this study is voluntary. Please read this Participant Informed Consent Form carefully before you decide if you would like to participate. Ask the study team as many questions as you like.

Principal Investigator: Yehudis Stokes RN, BScN
University of Ottawa
[REDACTED]

Thesis Supervisors: Jean-Daniel Jacob RN, PhD
Associate Professor,
University of Ottawa
(613) 562-5800 ext. [REDACTED]
[REDACTED]

Amanda Vandyk, RN, PhD
Assistant Professor,
University of Ottawa
(613) 562-5800 ext. [REDACTED]
[REDACTED]

Invitation to Participate: You are invited to participate in the above-mentioned study conducted by myself, Yehudis Stokes, a graduate student enrolled in the School of Nursing at University of Ottawa. I am supervised by Profs. Jean-Daniel Jacob and Amanda Vandyk. You are being invited to participate in Phase 2 of this study (an interview) because you participated in Phase 1 (an online survey) and indicated that you would be interested in being contacted for a follow-up interview.

Purpose of the Study: From this research we wish to learn how nurses understand and approach trauma-informed care.

Study Phase Design: This phase a qualitative design using interviews. We will audio-record the conversations and turn your words into a transcript. By comparing the experiences of several people, we hope to be able to better describe and understand nurses' understandings and experiences related to trauma-informed care.



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Participation: You will be asked to speak to a research team member about your understanding of and experiences implementing trauma-informed care. The interviewer will have a simple list of questions. You may skip any questions if you do not want to answer them. We will ask you to tell us when the best time to schedule the conversation is and, together, we will pick a place most convenient for you. The conversations may take place in person or over the phone. The interview will last about one hour.

Risks: You will be asked about your understanding and personal experiences related to trauma-informed care. This may cause you some distress if questions remind you of stressful events. You do not have to answer any questions that make you feel uncomfortable.

Benefits: Though your participation will not have a direct benefit to you, it will inform the current state of knowledge of nurses and trauma-informed care. By participating in this study, you will provide the potential for positive changes in service delivery context, thereby benefiting front-line nurses, as well as patients.

Confidentiality and Anonymity: The information that you will share will remain strictly confidential and will be used solely for the purposes of this research. The only people who will have access to the research data are Yehudis Stokes and her internal research committee. Your name or any other identifying information will not be included in any publications. Direct quotes from your interview may be used in publications or reports from this study, however they will be modified so as not to contain any identifying information.

Your study information will be assigned an ID number. The link between your name and contact information and the ID number will be stored securely and separate from your study records at the University of Ottawa. Publications or presentations resulting from this study will only contain your ID number and no other identifiers. Information that identifies you will only be released if it is required by law.

The audio versions of the interviews will be deleted from the recording device once they have been transferred to a password secured computer. Research records, including the interview transcripts and research notes, will be kept for five years in an encrypted file at the University of Ottawa. After this time they will be destroyed.

Compensation: Compensation will be provided to participants in the form of a draw. All participants will be eligible to win one \$25US Amazon.com Gift card. The odds of winning a prize will depend on the number of eligible entries received. The draw will be held at the end of the data collection phase, through randomly selecting a winning participant ID out of a bag

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containing all eligible email addresses. This draw will be held in Prof. Jacob's office and the selection will be made by another member of the research committee, and witnessed by myself (Yehudis Stokes). The winner will subsequently be contact by email and provided with two weeks to respond and to provide a mailing address where the prize may be sent. If no response is received within two weeks, then another winner will be drawn instead. The prize must be accepted as awarded or forfeited and cannot be redeemed for cash. All printed email addresses will be shredded after the draw.

Information about the Study Results: Results will be published in scientific journals and will be presented at conferences. Results may also serve as educational material in relevant courses. In all cases, you will not be identified. If you would like to review the results of the study upon its completion, please contact Yehudis Stokes or one of her supervisors.

Ethics

The University of Ottawa Research Ethics Board has reviewed and approved the ethical components of this research project.

Voluntary Participation: Your participation in this study is voluntary. You can choose not to participate in this study. You can also change your mind later if you wish to leave the study. If you choose to withdraw from the study at anytime, your transcripts and any related data will be securely destroyed and will not be included in any future publications.

Questions about the Study

If you have any questions about this study, please contact Yehudis Stokes or her supervisors at the email addresses/phone numbers mentioned herein.

If you have any questions with regards to the ethical conduct of this study, you may contact the Protocol Officer for Ethics in Research, University of Ottawa, Tabaret Hall, 550 Cumberland Street, Room 154, Ottawa, ON K1N 6N5, tel.: (613) 562-5387 or ethics@uottawa.ca.

Please keep this form for your records.

Thank you for your time and consideration.

Yehudis Stokes
Jean-Daniel Jacob
Amanda Vandyk

September 2015



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Appendix F - Phase Two: Written Consent Form

Exploring Nurses' Knowledge and Attitudes Related to Trauma-Informed Care Phase Two: Interviews

Consent to Participate in Research

- I understand that I am being asked to participate in a research study about nurses' understandings and experiences of trauma-informed care.
- I have read, or have had read to me, each page of this Participant Informed Consent Form.
- All of my questions have been answered to my satisfaction.
- If I decide later that I would like to withdraw my participation and/or consent from the study, I can do so at any time.
- I voluntarily agree to participate in this study.
- I will be given a copy of this signed Participant Informed Consent Form.

I agree to be audio-recorded. Yes ☐ No ☐ Initials ____

Participant's Printed Name

Participant's Signature

Date

Investigator or Delegate Statement

I have carefully explained the study to the study participant. To the best of my knowledge, the participant understands the nature, demands, risks and benefits involved in taking part in this study.

Investigator/Delegate's Printed Name

Investigator/Delegate's Signature

Date



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Appendix G - Phase Two: Verbal Consent Form

Exploring Nurses' Knowledge and Attitudes Related to Trauma-Informed Care Phase Two: Interviews

Verbal Consent to Participate in Research

This form will be used if the interview is being conducted by phone and participant is unable or prefers not to print out, scan, and return the signed consent form. The full study information and consent sheet will be sent to the participant by email and reviewed over the phone with Yehudis Stokes or her delegate.

All information contained in this script will be transmitted to the participant although it need not be reproduced verbatim.

Prior to beginning the interview, I would like to confirm the following:

- You understand that you are being asked to participate in a research study about nurses' understandings and experiences of trauma-informed care.
- You have read, or have had read to you, each page of this Participant Informed Consent Form.
- All of your questions have been answered to your satisfaction.
- If you decide later that you would like to withdraw your participation and/or consent from the study, you can do so at any time.
- You voluntarily agree to participate in this study.
- You will be given a copy of this signed Participant Informed Consent Form (by email).

Do you agree to be audio-recorded? Yes ☐ No ☐
Investigator/Delegate's Initials _____

Participant's Printed Name

Participant's Signature

Date

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Investigator or Delegate Statement

I have carefully explained the study to the study participant. To the best of my knowledge, the participant understands the nature, demands, risks and benefits involved in taking part in this study. I have also provided the participant with an opportunity to ask and have addressed any questions they might have about the study. The participant has verbally consented to voluntarily participate in this Phase 2 of the study.

Investigator/Delegate's Printed Name

Investigator/Delegate's Signature

Appendix H - Phase Two: Interview Guide

1. Socio-demographics

- a. Sex
- b. Age
- c. Years of experience
- d. Education
- e. Areas of practice (employment setting/patient population)

2. Context

- a. What is your understanding of TIC?
 - i. If unfamiliar with TIC, how do you understand the notion of being sensitive to trauma?
- b. Where/how did you learn about TIC?
 - i. If self-taught, what brought you learn about TIC?
- c. How do you feel that TIC is important for nurses?
 - i. How do you feel it's important for patients?
 - ii. How is it important/not important in your specific nursing field?
- d. If you yourself have been influenced by trauma in your life, I would like to give you the opportunity to elaborate on how do you think that this has affected your outlook on TIC?

3. Provision of Care

- a. Could you tell me about your experience(s) in using TIC in your practice?
 - i. In working with other nurses/health care professionals
 - ii. In working with patients (influence, benefits, harm, etc.)

- iii. What facilitates or impedes the uptake/use of TIC in practice
- b. Could you describe a situation where TIC was useful (or not)