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## The Impact of Student Trauma: A Quantitative Investigation on Secondary Traumatic Stress and It's Effects on Nursing Faculty

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THE IMPACT OF STUDENT TRAUMA: A QUANTITATIVE INVESTIGATION ON  
SECONDARY TRAUMATIC STRESS AND ITS EFFECTS ON NURSING FACULTY

A Dissertation

Submitted to the Faculty of the College of Education  
of Winona State University

by

Devon L. Luthens

In Partial Fulfillment of the Requirements

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The Dissertation Committee for Devon L. Luthens certifies approval of the following  
dissertation:

THE IMPACT OF STUDENT TRAUMA: A QUANTITATIVE INVESTIGATION ON  
SECONDARY TRAUMATIC STRESS AND ITS EFFECTS ON NURSING FACULTY

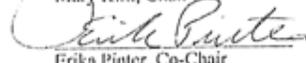
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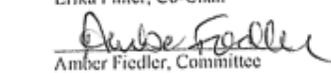
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## Abstract

The increase in student trauma and mental illness is putting direct care professionals such as educators at risk of secondary traumatic stress. The purpose of this quantitative survey method research was to explore how nursing faculty within the Minnesota State system were affected by their work with traumatized students and if they experienced significant distress or impairment. The theoretical framework guiding this dissertation was the McCann and Pearlman's Constructivist Self Development (CSD) theory. There were two research questions that led this study: Does the amount of exposure to student trauma relate to the level of secondary traumatic stress experienced by nursing faculty of exposure to student trauma relate to the level of secondary trauma experienced by nursing faculty and Is there a relationship between the reported STS and the level of functional impairment experienced by nursing faculty? The researcher used a purposeful single stage to recruit a sample of 175 nursing faculty from the undergraduate nursing programs within the Minnesota State Colleges and Universities. The participants completed an anonymous online survey through Qualtrics that included demographic information, questions regarding exposure to student trauma, the modified Secondary Traumatic Stress Scale, and the Functional Impairment from Secondary Traumatic Stress. The results of this study found that there was a statistically significant relationship between the frequency of exposure to student trauma and the level of secondary traumatic stress experienced by faculty,  $p = <.0011$  and a statistically significant relationship between the reported secondary traumatic stress and the level of functional impairment experienced by nursing faculty,  $p = <.0001$ . The findings of this study suggest that nursing faculty are experiencing exposure to a large variety of student trauma and has led to nursing faculty experiencing different levels of secondary traumatic stress and functional impairment. The Minnesota State system could benefit from the results

discovered in this study. Future recommendations from this study would be to implement professional development and education in the area of STS for faculty, staff and students, initiate collaboration and partnerships with mental health professionals, and charter a trauma-sensitive culture.

*Keywords:* secondary trauma, secondary traumatic stress, vicarious trauma, burnout, compassion fatigue, PTSD, secondary traumatic stress and higher education, secondary traumatic stress and educators, and secondary traumatic stress and nurse faculty.

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## **Dedication**

To my husband Brady, your support and understanding kept me going. Thank for your patience, proofreading, and for believing in me. To my daughter Lucy, I am so thankful for your positive attitude, uplifting words, and for being the constant reminder of my “why”. To all my family and friends, I am so thankful for all of your prayers and your confidence in me. All my love to each of you.

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## Introduction

Secondary traumatic stress (STS) is the persistent emotional and physical distress one experiences after indirect exposure to trauma through another's first-hand account of that traumatic event (Figley, 2015). In an attempt to be empathetic and supportive, the individual exposed to the trauma starts to take on the feelings and experiences as a first-hand event (Gil & Weinberg, 2015). English (1976) best describes these moments:

“As the emotional needs and distresses of people in difficulty were presented to me, I not only felt them through a process of empathy, but I also found I tended to absorb them within myself as well” (p. 193).

Trauma has a long history in research through studies on rape, incest, war, and violence. Compared to trauma, STS is a newer concept that debuted in the 1980s (Daniele, 1981; Figley, 1983; Rosenheck & Nathan, 1985). Although much of the earlier research dealt with mental health professionals, later research explored the effects of STS on professionals in healthcare and academia. Individuals who experience STS exhibit symptoms mimicking common symptoms of post-traumatic stress disorder (PTSD) (Figley, 1995). Armes et al. (2020) found that social workers with STS have higher levels of functional impairment in their daily lives. The combination of STS and impairment can lead to job burnout, higher turnover, decreased retention, dissatisfaction, and shortages within staffing (Christian-Brandt et al., 2020; Hetzel-Riggin et al., 2020; McKinless, 2020;).

Educators in primary and secondary schools feel the stress of traumatized students in the classroom and suffer the effects of its exposure. Childhood trauma is currently one of the leading

reasons children endure mental illness, as one out of every six children develops mental illness yearly (Fuller, 2019). McKay et al. (2021) found a high correlation between childhood trauma and mental illness in adulthood. As more students suffer from traumatic events and mental illness, they will seek counseling and empathy from caring educators.

Researchers have examined STS and its effects in direct contact occupations such as social workers, nurses, firefighters, and law enforcement, and to a small degree, teachers working in K-12 settings. However, the research does not encompass educators in higher education and, more specifically, nursing faculty. This cross-sectional, non-experimental quantitative study will add to the current literature on STS experiences in nursing faculty and how it affects their daily functioning. Further examination of STS in nursing faculty and how they are affected could benefit the faculty, students, administration, and college.

Chapter 1 focuses on the background, problem statement, and purpose of the study. This chapter also provides sections on population, the significance of the study, the research questions, and the theoretical framework. Lastly, this chapter discusses search terms and processes and assumptions, limitations, and delimitations.

## **Problem Statement**

Currently, it is unknown if Minnesota State nursing faculty are experiencing STS or significant functional distress or impairment by their work with traumatized students. Prior research showed that individuals working in high trauma occupations such as social workers, nurses, firefighters, and law enforcement are affected by STS (Rauvola et al., 2019) and that teachers, mainly K-12 tend to have high empathy and are at greater risk (Baicker, 2020).

Educators have increasing exposure to student trauma, and present-day research indicates a gap

in the literature on how STS affects educators in higher education and, more specifically, those training the future professionals of high-risk occupations such as nursing. This study's results could add to the current body of knowledge on STS in direct contact occupations.

### **Background of the Problem**

The increase in trauma and mental illness, especially in the wake of COVID-19, has put professionals in direct contact occupations at risk of STS (Adams et al., 2008; Bride et al., 2004; Bride, 2007; Figley, 1995; McCann & Pearlman, 1990b; Motta, 2008). STS is the consequence of exposure to indirect trauma from a traumatized individual with whom the professional has a relationship (Figley, 1995). Researchers have studied the relationships between social worker and client, nurse and patient, primary and secondary teacher and student, and family members (Bride, 2007; Gross, 2020; Kleis, 2020). STS symptoms mimic PTSD, such as intrusion, avoidance, and arousal brought on by exposure to indirect trauma (Figley, 1995). Other common STS symptoms include exhaustion, changes in eating habits, low self-esteem and depression, and physical complaints (Motta, 2008). Changes in social, occupational, familial, sexual, psychological, emotional, and physical functioning were seen in social workers experiencing STS (Armes et al., 2020).

STS has been researched explicitly in mental health, healthcare occupations, and K-12 teachers. Teachers are usually the first contact for traumatized students outside the family unit (Miller & Flint-Stipp, 2019). As the number of students with trauma and mental illness increases, the more likely the educator will be exposed to STS (Raimondi, 2019). Research has shown an increase in childhood trauma as two-thirds of school-age children have suffered from a traumatic event (Napolitano, 2017), and 30% of those will develop mental illness in adulthood (Alisic, 2012).

Current studies found that teachers in K-12 have a high level of empathy and caring, which puts them at greater risk for STS (Baicker, 2020). However, with nearly 50% of college students experiencing a trauma-led mental illness (Kishor et al., 2018), there is still limited research on educators in higher education, specifically those working on training future professionals for direct contact occupations such as nursing (Nikischer, 2018).

The impacts of STS on teachers create a more significant risk of occupational turnover (Armes et al., 2020) and the premature departure of specialty or career (Bride, 2007). Those affected by STS have decreased retention, shortages in staff (Hetzl-Riggin et al., 2020; McKinless, 2020), burnout, job dissatisfaction, and early retirement (Christian-Brandt et al., 2020).

This researcher examined how nursing faculty within the Minnesota State system were affected by their work with traumatized students and if they experienced significant functional impairment. Motta et al. (1999), Bride et al. (2004), Motta (2008), Benuto et al. (2018), Lynch and Glass (2018), Nikischer (2018), Miller and Flint-Stipp (2019), Raimondi (2019), and Armes et al. (2020) recommended future research supporting the need for this study, which addresses the current gap in the literature on STS. Results from the study could provide insight into the possible effects of student trauma on nursing faculty and how it affects their daily functioning and provide recommendations for future practice and literature.

### **Purpose of the Study**

This quantitative survey method research aimed to explore how nursing faculty within the Minnesota State system were affected by their work with traumatized students and if they experienced significant distress or impairment. This study used a demographic questionnaire and

survey, the Secondary Traumatic Stress Scale (STSS), and the Functional Impairment from Secondary Trauma Scale (FISTS) (Bride et al., 2016) to aid in answering the research questions. The survey was created and distributed through Qualtrics.

Approximately 511 nursing faculty from 35 undergraduate nursing programs within the Minnesota State system represented the population studied. According to Gill et al. (2010) a sample size of 511 would be needed to achieve a desired return rate count of 220 using a confidence level of 95% and a margin of error set at 5%. This researcher sent the survey to 511 faculty members to get the desired return rate of 220 responses. This study's results look add to the current knowledge on STS in higher education nursing faculty that previously had not existed.

### **Population and Sample**

This quantitative study employed a purposeful single-stage sampling method to identify a population of 511 nursing faculty from 35 undergraduate nursing programs within the Minnesota State system. The desired sample size was  $n=220$  to meet the criteria of a confidence level of 95% and a margin of error set at 5% (Gill et al., 2010). The criterion for sample selection included nursing faculty who were full-time, part-time, or adjunct nursing faculty, currently employed throughout the colleges within the Minnesota State system and had experiences with student trauma.

### **Significance of the Study**

STS develops due to the individual's exposure to indirect trauma and their empathetic responses and has been studied significantly in social workers, nurses, and K-12 academia (Adams et al., 2008; Armes et al., 2020; Benuto et al., 2018; Bride et al., 2004; Bride, 2007; Figley, 1995; Lynch & Glass, 2018; McCann & Pearlman, 1990a; Miller & Flint-Stipp, 2019;

Motta, 2008; Nikischer, 2018; Raimondi, 2019). Symptoms individuals experience from STS are intrusion or vivid descriptions of trauma, thoughts, images, dreams, and flashbacks; avoidance such as avoiding activities, people, and places; and arousals such as anxiety, irritability, and difficulty sleeping and concentrating (Bride, 2007). The consequences of STS in individuals are job turnover (Armes et al., 2020), premature departure of specialty or career (Bride, 2007), decreased retention, shortages in staff (Hetzel-Riggin et al., 2020; McKinless, 2020), burnout, job dissatisfaction, and early retirement (Christian-Brandt et al., 2020). However, prior research does not encompass educators in higher education and, more specifically, nursing faculty.

The increase in childhood and adult trauma and mental illness is a challenge for educators in the K-12 setting and links to STS (Miller & Flint-Stipp, 2019). It would be reasonable to argue that this challenge is also present at the college level, although researchers have not thoroughly investigated it. This quantitative survey method research aimed to explore how nursing faculty within the Minnesota State system were affected by their work with traumatized students.

This study looked to add to previously limited research on STS in higher education faculty and, more explicitly, nursing faculty and if they experience impairment because of it. Discoveries from this study may potentially guide future research in STS and higher education faculty not only within the Minnesota State system but throughout all colleges worldwide.

### **Research Questions**

This dissertation had two alternative hypotheses and two null hypotheses associated with the research questions:

**RQ 1:** Does the amount of exposure to student trauma relate to the level of secondary traumatic stress experienced by nursing faculty?

$H_a$ : There will be a relationship between the amount of exposure to student trauma and the level of STS experienced by nursing faculty.

$H_0$ : There will not be a relationship between the amount of exposure to student trauma and the level of STS experienced by nursing faculty.

RQ 2: Is there a relationship between the reported STS and the level of functional impairment experienced by nursing faculty?

$H_a$ : There will be a relationship between reported STS and the level of functional impairment experienced by nursing faculty.

$H_0$ : There will not be a relationship between reported STS and the level of functional impairment experienced by nursing faculty.

### **Theoretical Framework**

The theoretical framework that guided this dissertation was the Constructivist Self Development (CSD) theory, designed by McCann and Pearlman (1990a). The rationale for selecting this framework was to integrate the literature on STS with an individuals' cognitive, emotional, intellectual, social, and functional development processes in order to understand the unique experiences, effects, and responses to trauma (McCann & Pearlman, 1990a). This theory also helped to explain how an individual's history shapes their definition of trauma, their experiences with trauma, and the effect of trauma in their everyday functioning.

Experiences, effects, and responses to trauma are based on three psychological systems: the self, psychological needs, and cognitive schemas (McCann & Pearlman, 1990a).

Understanding which systems are vulnerable to disruption aids in identifying how an individual

experiences trauma and STS. In the face of trauma, each person will adapt and cope within their current contexts and earlier experiences, developing their self, needs, and schemas (McCann & Pearlman, 1990b) and will ultimately result in varying degrees of distress in daily functioning, affecting both personal and professional life.

### **Assumptions/Limitations/Delimitations**

This section examines the study's possible assumptions, limitations, and delimitations. Assumptions are those conditions in a study that is somewhat out of the control of the research, but if removed from the study, the study would not matter (Simon & Goes, 2017). The researcher makes assumptions to anticipate any potential limitations of the research design, sampling, data collection, instruments, and data analysis.

Assumptions present in this study were that the nursing faculty participants answered the questions on the survey honestly. For this study, there was no need to label or code because all surveys were anonymous; however, there was no control over the responses provided by the participants. Another assumption was that the STSS scale would serve as an appropriate instrument to measure STS level and the level of distress or impairment in functioning. The STSS was a good instrument for measuring the participants' level of STS and was found to be methodologically correct in previous studies (Badger et al., 2008; Benuto et al., 2018; Bride et al., 2004, 2016; Dominquez-Gomez & Rutledge, 2009; Jacobs et al., 2019; Perron & Hiltz, 2006; Stamm, 2002; Ting et al., 2005;). Lastly, there was an assumption that the nurse faculty population selected would agree to participate.

Limitations are potential weaknesses in the study that the researcher has no control over and generally include the study's design, sampling, data collection, instrumentation, and data

analysis (Theofanidis & Fountouki, 2019). The first limitation of this study was that participants may be unwilling to participate due to time constraints. This study's survey was distributed through participants' work emails; however, it was completed on the participant's own time. Therefore, they may have been rushed in answering and not answering truthfully. The participant's publicly available work emails may not be current and therefore no longer relevant and could potentially cause questionable validity. Another limitation of this study was the generalizability of using a purposeful sample versus a random sample of nursing faculty within the Minnesota State system. The sampling may not be generalizable to nursing faculty outside the Minnesota State system.

Delimitations are characteristics in the researcher's control, such as research questions, theoretical background, location, and population (Simon & Goes, 2017). They are the researcher's boundaries or limits for the study to be successful (Theofanidis & Fountouki, 2019). Delimitations to this study were found in recruiting participants from only the undergraduate nursing programs within the Minnesota State system. Therefore, those outside the Minnesota State system were not eligible, nor were graduate faculty within and out of the Minnesota State system.

The rationale for participants to be undergraduate nursing faculty was to narrow down the population and make it more accessible. Another delimitation was that the FISTS scale may not be a suitable instrument to measure participants' level of distress and functioning and may not demonstrate external validity. The FISTS scale showed validity in one current research study; however, it has not been tested alone (Armes et al., 2020) as of this dissertation.

## **Search Terms and Process**

Many resources were used in the review of this study's literature. The resources included the Winona State University (WSU) library and other online libraries such as Google Scholar to locate empirical studies and secondary traumatic stress searches. Keywords used in the databases were secondary trauma, STS, vicarious trauma, burnout, compassion fatigue, PTSD, higher education, STS and educators, and STS and nurse faculty. Keywords used to locate relevant methodologies, designs, and analysis were quantitative dissertations, surveys, quantitative methods, and quantitative approaches. The databases used were EBSCO, ProQuest, SAGE, Google Scholar, CINAHL, Research Gate, correspondence with original authors, text books, and the WSU online library.

All empirical literature for Chapter 2 underwent a comprehensive review of its historical and theoretical relevance with the intent to find saturation in the literature on secondary trauma. In exhausting the literature, a gap was found in how secondary trauma affects higher education faculty, specifically nursing faculty.

## **Summary**

This quantitative survey method research aimed to explore if nursing faculty within the Minnesota State system were affected by their work with traumatized students and if they experienced significant distress or impairment. The theoretical framework used for this study was the CSD theory designed by McCann and Pearlman (1990a). The review of literature established that few researchers had studied STS in higher education, and no research, to date, has focused on STS in nursing faculty. There was an increased need for further research to examine STS in higher education educators due to the increase of students experiencing trauma and mental illness (Alisic, 2012; Kishor et al., 2018; Napolitano, 2017).

Chapter 2 details sections related to trauma, mental illness, and STS. The first chapter focused on the introduction, background of the problem, the gap in the literature, and the theoretical framework. Chapter 2 includes a literature review on historical trauma, student trauma and mental health, STS in mental health, healthcare professionals, and academia. The following section details the theoretical framework used for this study. Chapter 3 concentrates on the methodology, design, population and sample, data collection, and analysis.

### **Review of the Literature**

This chapter explored trauma, its role in STS, and how it affects professionals providing direct contact to individuals suffering from trauma. Trauma and mental illness continue to be present in colleges and universities across the nation and are redefining the role of the educator to incorporate the unfamiliar and inexperienced task of the counselor. In an attempt to be empathetic and supportive to students, educators are exposed to the indirect trauma shared by the student. As a result, the educator experiences emotional and physical symptoms resembling PTSD, such as intrusion, avoidance, and arousal, which is termed secondary traumatic stress (Motta, 2008).

This quantitative study aimed to explore how nursing faculty within the Minnesota State system were affected by their work with traumatized students and if they experienced significant distress or impairment associated with their work with traumatized students. The literature review offers historical content on trauma, student mental health, Covid-19 trauma and mental health, and STS. This chapter introduces the CSD theory's theoretical framework by McCann and Pearlman (1990a).

### **History of Trauma**

A traumatic event is an intense experience that can cause emotional or psychological harm and is deeply disturbing (Carlson & Dalenberg, 2000). The history of trauma and its symptoms was first established from research on rape and incest, war, the Holocaust, and community violence (Figley, 2006). The diagnosis of PTSD was not formally recognized until 1980 with the third edition of the Diagnostic and Statistical Manual of Mental Health (DSM), and with this came evidence that trauma led to mental illnesses (APA, 1980). Research on war trauma, its causes and effects, was primarily disregarded and found illegitimate, and therefore, was not initially published (Horowitz, 2006).

Burgess and Holmstrom (1974) and Herman et al. (1989) were pioneers in studying rape and incest-related trauma and mental illness. Burgess and Holmstrom's (1974) research involved female rape victims admitted to the hospital with symptoms similar to PTSD and they coined the definition of rape trauma syndrome. Their research brought to light the effects of rape and the crisis intervention counseling desired. Herman et al. (1989) had similar symptomatology findings regarding women having suffered intrafamilial incest as children and noted the positive correlation between childhood incest and acquiring borderline personality disorder in adulthood. These leaders set the stage for understanding the prevalence of traumatic outcomes and mental illness in victimized women.

Similar to the beginnings of rape trauma, little was initially known about the effects of war on soldiers and their families. World War II shed a dim light on what was occurring to veterans returning home from combat. Lidz (1946) studied veterans suffering from debilitating nightmares that led to suicide and depression, or what he later termed combat neuroses. Blanchard et al. (1982) referred to combat neuroses as combat fatigue, later changing the term to combat PTSD after studying soldiers returning from Vietnam. Blanchard et al. (1982) research

proved a positive correlation between the soldier's wartime experiences in Vietnam and the sympathetic nervous system responses to flashback triggers such as gun firing, soldiers screaming, and mortars. The flashbacks induced an increase in blood pressure, heart rate, respiratory rate, and body temperature that is now a significant sign of a PTSD diagnosis (Blanchard et al., 1982).

Intrusion, another significant sign of PTSD, was studied and introduced by Horowitz and Solomon (1975) after studying the intrusive visual imagery, images, and memories present in Vietnam soldiers after experiencing combat. Horowitz and Solomon (1975) found that intrusive imagery is induced by personal perceptions about the traumatic event and most often involves elaborations and distortions when remembering the event. Furthermore, Horowitz and Solomon (1975) discovered that intrusive imagery varied depending on the individual's traumatic event stressor in relation to the current stressor being experienced and the intensity of that stressor. Stressors, good or bad, dictate the occurrence and intensity of intrusion.

At the same time that Vietnam veteran's PTSD was becoming a critical health issue, Rosenheck and Nathan (1985) started to research the effects the veteran's PTSD had on those around them. Rosenheck and Nathan (1985) started a children's therapy program to study secondary trauma in children whose fathers served in Vietnam and had PTSD. Findings revealed that children who were exposed to their father's PTSD, such as flashbacks, nightmares, and intrusive imagery, were reliving the traumatic events and suffered from the same PTSD symptoms as their fathers (Rosenheck & Nathan, 1985). Rosenheck and Nathan (1985) opened the door to the new concept of STS.

Figley (2006) also contributed to combat PTSD and the idea of compassion fatigue, which he later termed STS. Through his research on Vietnam veterans, Figley (2006) started to address the symptoms of trauma that were incurred not from the first-hand accounts of events but rather the secondhand accounts of other soldiers' symptoms of intrusion, avoidance, and arousal. The PTSD-like symptoms of STS were related to what they saw happening to other soldiers and what they heard from other veterans' experiences rather than an actual or perceived harm to themselves (Figley, 2006). This experience of STS transitioned into the families of traumatized veterans. Figley (1983) recorded the same PTSD symptoms affecting the parents, significant others, and children of the veterans after exposure to the traumatic event through verbal communication and witnessing the veteran family members' flashbacks and intrusive thoughts.

Figley et al. (2002) also studied the concept of secondary trauma in nurses, medics, chaplains, social workers, physicians, and psychologists following the horrific events of September 11, 2001. The conclusion was that working with traumatized individuals leads to traumatization (Figley et al., 2002). Figley (2006) expressed hope for the future study of trauma by stating, "always consider the further consequences of trauma beyond the individual" (p.57).

Comparable to Figley's research on secondary trauma, Daniele (1981) studied the effect Holocaust survivors had on therapists and discovered two phenomena's, conspiracy of silence and countertransference, both involving trauma. After World War II, Daniele (1981) discovered that most concentration survivors noted that society in general, specifically therapists, would not listen to their stories and experiences, therefore silencing them. Daniele (2006) comments, "When we fail to listen, explore, understand, and help, we too inflict the trauma after the trauma or secondary injury to victims" (p. 35), resulting in the conspiracy of silence that leaves feelings of isolation and betrayal.

The main reason therapists failed to listen, ask questions, understand, and treat the victims is due to countertransference and STS, although this term had not been defined. (Daniele, 1981). Daniele (1981) found several countertransference themes in researching the therapist's reactions, thoughts, and feelings towards Holocaust survivors. Daniele (1981) found that the therapist internalized and was traumatized by the survivors' recount of the events and it induced bystanders' guilt, rage, dread and horror, shame, grief, and mourning. These emotional responses were provoked by the individual's cognitive, emotional, intellectual, social, and functioning development processes or cognitive schemas (McCann & Pearlman, 1990a; Vyskocilova & Prasko, 2014).

Present-day trauma involves the trauma of the past, such as rape, war, and community violence, but also incorporates new theories like mental illness, emotional and sexual abuse, hate crimes or discrimination, substance abuse, natural or manufactured disasters (Silverman & Glick, 2010), poverty, neglect, witnessing violence, and parental incarceration (Hinojosa et al., 2019). Trauma impacts mental health and negatively affects an individuals' physical, emotional, mental, and spiritual well-being, which can follow through to adulthood (Raimondi, 2019).

### **Student Trauma and Mental Health**

Defining present-day trauma is not as easy as one might venture, as trauma has many definitions depending on the profession. The differences in definitions provide a valuable context within each profession. However, within a school system, the definition needs to be consistent, clear, and concise, so it does not further complicate or confuse professionals. Gross (2020) provided the following definition of trauma in an educational context to use going forward:

“Trauma is any significant psychologically distressing experience, including acts of omission and commission, and regardless of whether these experiences are recognized by those who encounter them, occurring at any point or points in the life of a person that has the probability of disrupting his or her learning success and quality education outcomes in an ongoing manner throughout the person's participation in the educational system” (p.17).

Traumatic experiences such as divorce, poverty, maltreatment, violence, a family history of substance abuse or suicide, and incarcerated parent during childhood are associated with adverse childhood events (ACEs) (Karatekin & Ahluwalia, 2020). ACEs are traumatic events experienced in childhood that impact a child's physical, emotional, and mental well-being (Crandall et al., 2019). Felitti (2002) reports an 80% chance that a child who has experienced two or more ACEs will experience a decrease in mental health as an adult. The higher the number of traumatic events, the more a child is at risk.

However, response to trauma vary and depends on the individual's circumstances, such as biological factors, developmental stage, the type of trauma experienced, and world experiences (McCann & Pearlman, 1990a). No two people will have the same triggers or responses to trauma. To complicate matters, most individuals will not recognize their triggers or that they suffer from trauma. This lack of recognition makes the responses to the trauma hard to detect, and they often go unnoticed in most school settings. These responses are repeatedly mistaken for other childhood disorders and issues such as attention deficit hyperactivity disorder (ADHD), oppositional defiance disorder (ODD) (Soma, 2020), and somatic disorders (Kealy et al., 2018).

The trauma faced during childhood is often correlated to mental illness in adulthood (McKay et al., 2021) and linked to depression, anxiety, PTSD, and suicide (Battis, 2020). Trauma is currently the number one reason children and adults endure mental illness, as two-thirds of school-age children have experienced at least one ACE (Napolitano, 2017). Mental health illnesses related to trauma have increased in children over the last decades, with close to 30% of traumatized children developing mental illness (Alisic, 2012). Depression, anxiety, and PTSD are the most common mental health problems students experience, with a staggering 78% of school-age children suffering from a dual diagnosis of both depression and anxiety (CDC, 2020). 80% of these children will never receive the mental health services they need (Anderson & Cardoza, 2016).

Trauma and mental illness also affect college students, whether experienced in childhood or adulthood. Karatekin and Ahluwalia (2020) found that college is an increasingly stressful time and students with high childhood ACEs are at a higher risk of mental illness, suicidal thoughts, and suicidal behaviors across campuses. The American Health Association (2018) reported that 98.4% of college students surveyed experienced stress, with 44.4% stating they encounter more than average stress levels originating from insecurities and poverty. Nearly 50 % of students at community colleges suffer from mental health problems, and only 12% of community colleges employ licensed counselors (Kishor et al., 2018).

The exacerbation of mental illness in college student's is linked to a rise in suicide and suicidal thoughts (Liu et al., 2019). Ebert et al. (2019) found that 7.8% of the 13,984 students surveyed had a suicide plan, while Mortier et al. (2018) found that first-year college students had a 4.6-6.4 % higher risk of suicidal thoughts and behaviors than the general public and concluded that the first onset of suicidal thoughts and behaviors begins in college. Depression, anxiety, non-

suicidal self-injury, suicidal ideation, and suicide attempts have increased to almost double from 2007 to 2018 among U.S college students (Duffy et al., 2019).

### ***COVID-19***

The federal government declared the COVID-19 pandemic a disaster on March 13, 2020 (Federal Emergency Management Agency, 2021). COVID-19 has caused a significant increase in mental illness worldwide (Xiong et al., 2020) and is emerging as a public health crisis nationally, with an increase in mental illness from 9.2% to 9.7%: the highest ever in one year (Mental Health America, 2022). For example, Riley Hospital for Children in Indianapolis saw a 250% increase in suicide attempt hospitalizations from October 2019 to October 2020 (Chatterjee, 2021). Leeb et al. (2020) found a 24% increase in emergency room visits for mental health illness in children between the ages of five and 11 and a 31% increase for those ages 12 to 17 from March 2020 through October 2020. The outbreak of COVID-19 also showed a rise in college students reporting depression and increasing difficulty accessing treatment. Martinez (2020) surveyed 18,764 college students across 14 campuses and reported a 5% increase in depression from pre-COVID 2019 to 2020 and an almost 10 % increase in academic decline due to mental health. The Surgeon General declared a youth mental health crisis on the cusp of COVID-19 on December 7, 2021, and estimates that more than 6,600 suicides, ages 10-24, were recorded in 2020 (Office of the Surgeon General, 2021).

The introduction of quarantining, school closures, stay-at-home orders, and social isolation substantially impacted school-age children and college students during the pandemic. Imran et al. (2020) discussed that quarantining contributed to the decline in children and adults' psychological health and the consequences are feelings of isolation, loneliness, lack of social involvement, and fear. Holmes et al. (2020) anticipated that social isolation and loneliness will

continue to be major contributors to future depression, anxiety, and suicide. School closures were linked to a decrease in academic performance and mental health support, lack of structure, and increases in abuse, hunger, and neglect (Caron et al., 2020). The increase in screen time due to distance learning was associated with psychological distress, irritability, anxiety, and inattentiveness (Imran et al., 2020). The protective measures enforced during the pandemic have had negative consequences for all, such as an increase in substance abuse, physical abuse, suicide, and social disconnection and will not be fully recognized for years (Holmes et al., 2020).

As the number of children and adults experiencing trauma, mental illness, and adverse effects from the pandemic increase (Brunner et al., 2014), the responsibilities of recognition and treatment have shifted to educators. Educators are forced to take the role of the caregiver, as seen in occupations such as social workers but lack the appropriate training, resources, and support for students despite holding master's degrees or higher in education (Raimondi, 2019). The continuous exposure to these students and their trauma has generated a new phenomenon, STS.

### **Secondary Traumatic Stress**

The concept of trauma in the workplace is relatively new and is empathy-based (Rauvola et al., 2019). In an attempt to be empathetic and supportive, the individual exposed to the trauma starts to take on the feelings and experiences as a first-hand event (Gil & Weinberg, 2015). This condition is known as STS and can occur after exposure to an individual's trauma leading to PTSD-like symptoms (Figley, 1995). STS develops due to the individual's exposure to indirect trauma and empathetic responses. It focuses on symptoms, individual and organizational factors such as a personal history of trauma, work training and hours, supervision and support, and fatigue indications such as total exposure, self-care, and job demands (Rauvola et al., 2019). It is rapidly becoming an occupational hazard to those providing direct services (Bride et al., 2004)

and is not limited to caring occupations such as nursing and counseling (Rauvola et al., 2019). Professionals affected by STS also include lawyers, clergy, probation officers, veterinarians, teachers (Nikischer, 2018) and academic officers (Raimondi, 2019).

The traumatic accounts experienced by these professionals involve symptoms of intrusion, avoidance, and arousal. Intrusion is vivid descriptions of trauma, thoughts, images, dreams, and flashbacks (Bride, 2007). Avoidance entails evading activities, people, and places; and arousal is anxiety, irritability, difficulty sleeping, and concentrating (Bride, 2007). Individuals can also experience symptoms of exhaustion, changes in eating habits, low self-esteem and depression, and physical complaints (Motta, 2008). Susceptibility to STS is linked to individual factors such as a past personal history of trauma, frequency and length of exposure to the primary or secondary trauma, and perceived coping abilities (Baird & Kracen, 2006). However, Armes et al. (2020) found that a prior history of childhood or adult trauma was linked to distress and functional impairment and not STS. McCann and Pearlman (1990a) stated that continuous exposure to traumatized individuals can negatively reshape one's world views and environment.

Research showed that individuals working in high trauma caring occupations such as nursing, counseling, firefighters, and law enforcement were affected by secondary trauma (Rauvola et al., 2019); however, individuals working in any profession with direct contact such as school administration, staff, and the faculty of primary and secondary schools (Baicker, 2020) were susceptible as well.

### ***Mental Health and Medical Professionals***

Current research recognized that mental health providers such as social workers, counselors, therapists, psychologists, and psychiatrists were the first professionals documented to have experienced STS. Numerous research studies reported STS reactions within these occupations (Adams et al., 2008; Bride et al., 2004; Bride, 2007; Figley, 1995; McCann & Pearlman, 1990b; Motta, 2008). Bride (2007) found that 89% of social workers state they “occasionally” work with trauma or trauma-related clients, whereas 53% state they “often” work with traumatized clients. The research also demonstrated a direct link between exposure to trauma and adverse effects of STS (Lee et al., 2017).

Mental health providers with continuous exposure to traumatized clients were at an increased risk of STS and were twice as likely to experience PTSD-like symptoms than the general population (Bride, 2007). Armes et al. (2020) found that those working with children, such as child welfare or protective services who were exposed to daily child abuse, experience a significantly higher rate of STS than social workers in other areas. Mental health providers were also at higher risk for STS due to longer work hours, increased patient loads, lockdown effects, and tele-counseling brought on by COVID-19.

The PTSD like symptoms of STS experienced by these professionals were avoidance, intrusion, and arousal and were dependent on the individual's ability to cope and adjust to stress, modify behavioral and cognitive efforts to deal with stress, and the availability and willingness to reach out for resources (Gil & Weinberg, 2015). In addition, trauma was also associated with declines in the cardiovascular, gastrointestinal, immune, musculoskeletal, neurological, endocrine, and reproductive systems that led to chronic physical conditions (Lee et al., 2017).

Mental illness and unhealthy habits such as addiction were also likely with STS (Armes et al., 2020).

Consequences from encounters with traumatized clients, both children, and adults, along with the above symptoms, led to the premature departure of many in the field of human services (Bride, 2007). Hussein (2018) identified that child welfare workers who worked with troubled or at-risk families dealt with greater case complexity, such as multiple social problems, child abuse, and hostile caregivers requiring more interventions with fewer resources. Itzick and Kagan (2017) found that child welfare workers were more likely to leave the profession than other social workers due to higher levels of STS and were at a greater risk of occupational turnover (Armes et al., 2020).

Extensive research on STS in healthcare professionals has been published within the last decade and has primarily focused on doctors and nurses. Medical professionals were more prone to STS depending on the type of patient and workplace. Doctors and nurses working with trauma and pediatric patients or patients who remind the provider of past trauma or a relative were at higher risk (Gates & Gillespie, 2008). Those working in emergency departments were found to have higher levels of STS due to constant exposure to traumatic patient injuries (Rodén-Foreman et al., 2017). These occupational groups were also more prone to STS as they are at high risk for indirect traumatic events (Ogińska-Bulik et al., 2021).

Nurses have been studied frequently for STS due to the nature of their profession in direct patient care. Research showed that the level of STS depends on the specialty they work in (Abendroth & Flannery, 2006; Dominquez-Gomez & Rutledge, 2009; Quinal et al., 2009; Townsend & Campbell, 2009). Nurses working in critical care units and those trained as sexual

assault examiners were more likely to be exposed to traumatic events such as shooting, stabbing, sexual assault, and suicide and were at a higher risk of STS (Gates & Gillespie, 2008).

Nurses working in women's health, such as obstetrics and gynecology, were also at higher risk for STS due to the increased likelihood of sexual and physical abuse and traumatic birth outcomes (Gates & Gillespie, 2008). Pediatric nurses shared this high risk for secondary trauma due to exposure to traumas such as accidents, abuse, shaken baby syndrome, drownings, life-threatening illness, and the death of a younger population (Kleis, 2020).

Townsend and Campbell (2009) reported that 25% of forensic nurses had elevated levels of STS. In contrast, Dominquez-Gomez and Rutledge (2009) concluded that 33% of emergency department nurses met the criteria of STS and, similarly, 38% of oncology nurses (Quinal et al., 2009). Regardless of rates and levels, all specialty areas experiencing STS had the same PTSD symptoms of avoidance, arousal, and intrusion that affected their health negatively (Beck, 2011).

New research showed those at the front lines of COVID-19, such as those working in nursing homes, have seen an increase in STS due to a lack of personal protective equipment, exposure to high levels of suffering patients, high mortality rates, social pressure, overextended work hours, and fear (Blanco-Donoso et al., 2020). Secosan et al. (2020) reported that STS in healthcare professionals working on the frontlines of the COVID-19 pandemic was directly correlated to insomnia, exhaustion, and mental health complaints. Health care professionals with secondary trauma were at risk for occupational burnout, causing a decrease in retention, early departure from the profession, and shortages in staff (Hetzl-Riggin et al., 2020; McKinless, 2020; McKinley et al., 2017).

### *Academia*

Current research claimed that two-thirds of school-age children have suffered from a traumatic event (Napolitano, 2017), such as a natural disaster, community violence, physical, sexual, or emotional abuse, neglect, food scarcity, poverty, and loss (Karatekin & Ahluwalia, 2020). The majority of children in the United States spend 180 days a year (Parinduri, 2014) and 6.64 hours daily in grades K-12 (National Center for Education Statistics, n.d). Therefore, teachers and administrators in K-12 are the first contacts outside of the family to discover a student's trauma and place the teachers in a position of educator, caregiver, counselor, and advocate (Miller & Flint-Stipp, 2019).

While most teachers feel a sense of self-fulfillment and competence when helping to navigate student issues, there is a price to caring, with as many as 50% of teachers at high risk of STS (Miller & Flint-Stipp, 2019). Baicker (2020) claimed that female educators, those who are highly empathetic, those working in high poverty districts, educators with no administrative support, new and inexperienced educators, and those with unresolved past trauma were at the highest risk for STS.

Teachers have a long history of experiencing stress, exhaustion, fatigue, and depression but never had a name for what was plaguing them; it was thought of as “a bad day” (Walker, 2019). K-12 educators experience common PTSD symptoms like numbing, agitation, stress, sadness, irritability, and the use of substances to forget, along with fear, anxiety, avoidance, and arousal that affect their overall health and well-being (Miller & Flint-Stipp, 2019). These experiences were normalized as caring about their students (Walker, 2019) and were detrimental to the educators and had consequences. The resulting STS on teachers led to burnout, job dissatisfaction, and turnover, as 75% of teachers indicated plans to change careers or retire early

(Christian-Brandt et al., 2020). Previous research has shown that STS affects teachers and administrators in K-12; however, there is limited research to show the effects in higher education, specifically in nursing faculty.

Lynch and Glass (2018) examined how secondary trauma affects student affairs professionals in higher education. Lynch and Glass (2018) found that the growing number of mental illnesses among college students and a decrease in funding for mental health staff and support positions increased the likelihood that student affairs officers encounter student trauma. 87% (n=493) of the 617 participants indicated they had supported a student through at least two traumas within the year, with the death of a loved one, sexual violence, suicide, mental illness, and hate crimes/discrimination being the most common traumas reported (Lynch & Glass, 2018). Lynch and Glass (2018) concluded that exposure to student trauma increased the PTSD symptoms of intrusion, arousal, and avoidance in student affairs professionals.

Raimondi (2019) also noted an increase in the number of college students suffering from trauma and mental illness and how it affected student affairs professionals. Raimondi (2019) noted that students were coming to college with more complex emotional issues and were not utilizing counseling centers when available. Raimondi (2019) also claimed that students trust and seek out individuals such as student affairs officers because of prior interactions and relationship building. These interactions increased student affairs professional's exposure to student trauma without adequately being prepared for a counseling role (Raimondi, 2019).

However, there is a lack of research on higher education faculty. Faculty teaching in social work, counseling, nursing and women's studies have a higher rate of primary and secondary trauma because they encounter traumatic situations in their fields and indirect trauma

from working with students. However, little attention has been given to the educators working on training these future professionals (Nikischer, 2018). The significance of this study was to determine the degree of nursing faculty in higher education experiencing secondary trauma and the overall effect.

### **Theoretical Framework Literature**

The development of the CSD theory was designed by McCann and Pearlman (1990a) to integrate the existing literature on trauma with an individuals' cognitive, emotional, intellectual, social, and functioning development processes in order to understand the unique experiences, effects, and responses to trauma (McCann & Pearlman, 1990a). This theory was created to provide therapists with a framework for understanding and exploring their responses to client trauma. The CSD theory explains that personal history shapes how trauma is defined, experienced, and the degree of adaptation.

The experiences, effects, and responses to trauma are based on three psychological systems: the self, psychological needs, and cognitive schemas (McCann & Pearlman, 1990a). Understanding which systems are vulnerable to disruption aids in identifying how an individual experiences trauma and secondary trauma. In the face of trauma, each person will adapt and cope within their current contexts and earlier experiences, developing their self, needs, and schemas (McCann & Pearlman, 1990b).

#### **The Self**

The CSD theory views self as an individuals' cognitive, emotional, mental, and intellectual foundation. It is the “center of the individual's psychological universe” (Kohut, 1977, p.311). The self's primary function is maintaining the individual's identity and positive self-

esteem and regulating all interactions the individual has with the world around them (McCann & Pearlman, 1990a). The individual's ability to maintain these essential functions depends on how they internalize and assimilate to each interaction. Over time, these interactions will continue to develop the self and shape the individual's future experiences (McCann & Pearlman, 1990a). Self-capacities help the individual maintain an identity and positive self-regard, while ego resources help the individual relate to the interactions with the world.

### ***Self-Capacities and Ego Resources***

Self-capacities are how an individual maintains the self. Four self-capacities are seen in the wake of trauma. The experience, understanding, and toleration of trauma are dependent on properly functioning self-capacities. McCann and Pearlman (1990a) describe the first self-capacity as the individual's ability to internalize and regulate big emotions such as anger and joy in a way that will protect identity and self-esteem. Second is the individual's view of being alone with oneself, either lonely and needing others or secure (McCann & Pearlman, 1990a). The last two self-capacities are accepting criticism without permanent damage to self-esteem and the ability to self-soothe and recover from emotional distress (McCann & Pearlman, 1990a).

Ego resources are broken down into two groups and help the individual relate to the world. The first group includes the resources of an individual's intelligence, willpower, initiative, personal growth, awareness of psychological needs, and a multiple-perspective view of self and others (McCann & Pearlman, 1990a). These resources are necessary for an individual to process trauma. The second grouping of resources includes foreseeing consequences, developing mature relationships, setting personal boundaries, and executing good judgment (McCann & Pearlman, 1990a). These resources are necessary for protecting individuals from future traumatic stress. If

any of these resources are not fully developed, profound implications can arise from the trauma experienced (McCann & Pearlman, 1990a).

### **Psychological Needs**

An individual's psychological needs are the motivation behind behaviors and help to shape interactions with others (McCann & Pearlman, 1990a). Most individuals are unaware of psychological needs, such as the frame of reference, safety, trust and dependency, esteem, independence, power, and intimacy, and that they are influenced by genetics and the environment (McCann & Pearlman, 1990b). The psychological need of frame of reference refers to the structure an individual develops to understand experiences. Safety is the need to be secure from harm. Trust and dependency refer to the need to depend on others, esteem is to be validated and valued by others, independence is the need to control one's behavior, power is the need to exert control over others, and intimacy is the need to develop relationships and connectedness to others (McCann & Pearlman, 1990b).

An individual's genetic predisposition towards temperament, intellect, physical health, stamina, resilience, and appearance influences how they will respond and relate to the world and then learn and elicit these psychological needs (McCann & Pearlman, 1990a). Individuals' differences in psychological needs will determine how they respond to trauma (McCann & Pearlman, 1990b).

### **Cognitive Schemas**

Cognitive schemas are beliefs, expectations, and assumptions about one's psychological needs and develop within the psychological needs of the frame of reference, safety, trust and dependency, esteem, independence, power, and intimacy listed above (McCann & Pearlman,

1990b). Paivio (1990) describes cognitive schemas as “mental structures that represent our general knowledge of objects, situations, and events” (p.27). McCann and Pearlman (1990a) found that schemas are impacted by traumatic experiences and change how one remembers the trauma.

Therapists' schemas can be impacted and changed when working with clients who suffer from trauma (McCann & Pearlman, 1990b). Exposure to direct or indirect trauma can change an individual's beliefs and understanding of safety, independence, intimacy, trust, power, and self-esteem (McCann & Pearlman, 1990b). The change in individuals' schemas directly affects how the individual will remember past trauma and react to current and future traumatic events, whether direct or indirect (McCann & Pearlman, 1990b).

### ***Impact on Schemas***

Examples of the impact on therapists' schemas can be the loss of safety when intruding thoughts of being violated are experienced after working with clients who detailed their trauma. Trust can be lost after working with clients who described events of deceit, betrayal, or have had their trust violated, and esteem can diminish into bitterness or cynicism after hearing accounts of the malicious acts of others towards clients or humanity (McCann & Pearlman, 1990b). A therapist's perception of independence is shaken after exposed to clients' accounts of crimes in which independence was lost, such as rape, and the therapist may experience an increase or decrease in the intensity of power after exposed to events that left them powerless (McCann & Pearlman, 1990b). The intimacy and closeness with family, friends, and coworkers diminish as the therapist tries to separate exposure to trauma from life outside of work (McCann & Pearlman, 1990b). The schemas that individuals develop can be positive or negative and become

increasingly more established with time, and are vulnerable to life's experiences, good or bad (McCann & Pearlman, 1990a).

### **Changes in Memory**

The disruption to an individual's schemas, as discussed above, determines how the individual's trauma memory is altered. One alteration is in the imagery of the memory. Imagery relates to the visual reminders of trauma in flashbacks, dreams, or intrusion of thoughts and comes without warning (McCann & Pearlman, 1990b). These visual reminders are usually only a glimpse into the trauma memory but lead to anger, depression, anxiety, and emotional numbing.

Some individuals will experience memories whole with both imagery and verbal memory. Other individuals will remember an emotion that went with the experience of the trauma but may not be conscious of the actual trauma, such as sudden anxiety, sadness, or rage (McCann & Pearlman, 1990a). Individuals may also move in and out of remembering an event. McCann and Pearlman (1990a) call this "Approach vs. Avoidance", where the individual could re-experience the trauma through memory or denial that the memory exists.

The CSD theory "views the unique impact of trauma as arising from an interaction of aspects of the event that are psychologically meaningful to the individual with aspects of the individual, including his or her psychological resources, defense, and needs" (Pearlman, 1998, p.8). The self, including capacities and ego resources, psychological needs, and cognitive schemas, impact each other and how the individual experiences the trauma.

### **Summary**

A traumatic event is an intense experience that can cause emotional or psychological harm and is deeply disturbing (Carlson & Dalenberg, 2000) and is currently the number one

reason children and adults endure mental illness (Napolitano, 2017). The history of trauma stems from direct exposure to rape, incest, war, and violence. Current childhood trauma research focuses on divorce, poverty, maltreatment, violence, a family history of substance abuse or suicide, and incarcerated parents (Karatekin & Ahluwalia, 2020). The research included mental illness, emotional and sexual abuse, hate crimes or discrimination, substance abuse, natural or manufactured disasters (Silverman & Glick, 2010), poverty, neglect, witnessing violence, and parental incarceration (Hinojosa et al., 2019) in both children and adults.

Trauma is also experienced through indirect exposure, such as listening to another's account of trauma. STS is a condition in which an individual exposed to trauma starts to take on the feelings and experiences as a first-hand event (Gil & Weinberg, 2015) and draws on their empathetic responses, personal history of trauma, and worldly experiences (Rauvola et al., 2019).

Professions in direct contact with individuals who have experienced and shared their trauma are at risk for STS. STS plays on individuals' empathy and willingness to want to help. Research showed that occupations such as mental health providers, medical professionals, and educators have a history of high levels of STS (Bride et al., 2004; Bride, 2007; Figley, 1995; Figley et al., 2002; McCann & Pearlman, 1990b; Miller & Flint-Stipp, 2019; Motta, 2008; Ogińska-Bulik et al., 2021). It is rapidly becoming an occupational hazard to those providing direct services (Bride et al., 2004). The CSD theory by McCann and Pearlman (1990a) helps understand how STS affects individuals within these professions by investigating an individual's history and how that history shapes the individual's definition of trauma, their experiences, both past and present, and their degree of adaptation. The experiences, effects, and responses to

trauma are based on three psychological systems: the self, psychological needs, and cognitive schemas (McCann & Pearlman, 1990a).

Present-day research provided very little information on how STS affects educators in higher education and, more specifically, those who are training in high-risk occupations such as nursing. This quantitative study aimed to explore how nursing faculty within the Minnesota State system were affected by their work with traumatized students and if they experienced significant distress or impairment. Chapter 3 detailed the research methodology used for exploring this study.

### **Research Methodology**

This quantitative survey method research aimed to explore how nursing faculty within the Minnesota State system were affected by their work with traumatized students and if they experienced significant distress or impairment. The literature review on secondary trauma suggested that individuals working in a helping profession endure continual exposure to other's (students) trauma and were at risk of experiencing trauma themselves (Figley, 1995). Those affected by STS often experienced emotional and physical symptoms resembling PTSD, as established by the DSM-V, such as intrusion, avoidance, arousal, anger, anxiety, emotional exhaustion, depression, irritability, difficulty concentrating and sleeping, physical ailments, and addictive behaviors (Motta, 2008).

Chapter 3 explains how this quantitative survey study was conducted, including design and rationale, research questions to be answered, population and sample selection, informed consent and confidentiality, and instrumentation. Chapter 3 concludes with the data collection procedure and analysis.

## Research Design

This research design involved a cross-sectional, non-experimental, correlational quantitative survey method. Quantitative research looks at the interaction between measurable variables that are statistically analyzed using instruments versus observation, as seen in the qualitative methods (Creswell & Creswell, 2020). This study used a cross-sectional research method, as the researcher collected data over a short and specific period (Johnson & Christensen, 2019). Due to the time constraints of writing a dissertation, a longitudinal approach was not conducive to this study. A survey is a non-experimental method that includes questionnaires to provide a numerical description of specific characteristics and trends in a sample population (Creswell & Creswell, 2020). The researcher used a non-experimental correlational method because there was no intent to investigate treatments or interventions in which the variables or subjects would be manipulated or controlled, as seen in experimental quantitative methods (Johnson & Christensen, 2019).

Nardi (2021) discussed the advantages of conducting a quantitative survey, such as allowing for a larger population that is less costly and time-intensive, using standardized questionnaires, being more straightforward to code and replicate, providing anonymity, and being preferred when discussing sensitive topics. However, there are disadvantages to this method, such as a low survey return rate which could decrease generalizability, requires skill in developing questionnaires, assumptions that the correct participant is answering the survey, difficulty in explaining or expanding on questions, and participants drawing from experiences that may not be reliable (Nardi, 2021).

## Research Questions/Hypotheses

This quantitative survey method research aimed to explore how nursing faculty within the Minnesota State system were affected by their work with traumatized students and if they experienced functional impairment. This dissertation had two alternative hypotheses and two null hypotheses associated with the research questions:

RQ 1: Does the amount of exposure to student trauma relate to the level of secondary traumatic stress experienced by nursing faculty?

$H_a$ : There will be a relationship between the amount of exposure to student trauma and the level of STS experienced by nursing faculty.

$H_0$ : There will not be a relationship between the amount of exposure to student trauma and the level of STS experienced by nursing faculty.

RQ 2: Is there a relationship between the reported STS and the level of functional impairment experienced by nursing faculty?

$H_a$ : There will be a relationship between reported STS and the level of functional impairment experienced by nursing faculty.

$H_0$ : There will not be a relationship between reported STS and the level of functional impairment experienced by nursing faculty.

Investigating these questions helped to determine how nursing faculty were affected by their exposure to traumatized students and what level of functional impairment they experienced.

## Population and Sample Selection

This study was conducted within the Minnesota State system. Minnesota State has 35 undergraduate nursing programs. According to publicly available faculty email listings within each of the 35 colleges' websites, there were approximately 511 listed nursing faculty employed full-time, part-time, or adjunct at the time of this dissertation. The nursing programs included licensed practical nursing, registered nursing, and Bachelor of Science in nursing.

This quantitative study employed a purposeful single-stage sampling method to select the faculty from 35 nursing programs. Palinkas et al. (2015) explained that purposeful sampling involves finding individuals that share traits that the researcher wants to study. The common traits needed for this study were undergraduate nursing faculty and employed at a Minnesota State college or university. Purposeful sampling allowed for making generalizations within the nursing faculty population. The sample selection depended on the individual's willingness and availability to participate and the individual's ability to effectively communicate their experiences, thoughts, and beliefs through a survey form.

The criterion for sample selection included undergraduate nursing faculty that were full-time, part-time, or adjunct nursing faculty and currently employed throughout the colleges within the Minnesota State system. The size of population surveyed included all faculty from undergraduate nursing programs within the Minnesota State system. Taherdoost (2017) explained that a sample size needs to be adequate in order to avoid biases and errors and to provide generalizability and therefore suggests using the equation in Figure 1 for calculating the proper sample size:

## Figure 1

### *Sample Size Equation*

$$n = \frac{p(100-p)z^2}{E^2}$$

This formula is solving for  $n$ , as  $P$  corresponds to the percentage occurrence, which Barlett et al. (2001) suggested being at 50% to maximize the variance and sample size.  $E$  represents the margin of error the researcher accepted; a 5% margin of error is sufficient (Taherdoost, 2017).  $Z$  served as the level of confidence that the survey findings are accurate; 95% to 99% is agreeable to most research (Taherdoost, 2017). This researcher went with 95% percent. According to Gill et al. (2010), using a population size of  $N=511$ , a sample size of 220 was needed. This sample size met the criteria of a confidence level of 95% and a margin of error set at 5%. This researcher sent the survey out to all 511 faculty members to secure a desired return rate of 220.

### **Informed Consent and Confidentiality**

Informed consent was obtained on the survey (see Appendix E). Participants needed to consent in order to progress in the survey process. Written permission to use the STSS and FISTS was received through personal communication with the copyright owner (B. Bride, personal communication, August 3, 2021) (see Appendix B). All participant response data remained confidential through anonymous surveys, and therefore names are not matched to responses. There was no identifying information from the participants. All research data will remain securely stored on a personal flash drive locked in a home filing cabinet and deleted no later than three years after collection.

## **Instrumentation**

This quantitative survey method research aimed to explore if nursing faculty within the Minnesota State system are affected by their work with traumatized students and if they experience significant distress or impairment. This study used a demographics questionnaire and survey (see Appendix A), the Secondary Traumatic Stress Scale (STSS) (Bride et al., 2004) (see Appendix C), and the Functional Impairment from Secondary Trauma Scale (FISTS) (Bride, 2013) (see Appendix D) (Bride et al., 2016) to aid in answering the research questions. The researcher created and distributed the survey through Qualtrics.

### ***Demographic Questionnaire***

The demographics questionnaire requested standard information regarding participants such as gender, ethnicity(race), age, marital status, the highest level of education earned, and if they were currently employed in a nursing program at a Minnesota State college. It also included specifics on the participant's career, such as faculty rank and level of nursing currently teaching. The demographic questionnaire was not correlated to the specific research questions but provided information for additional future research.

Two survey questions were added to the demographic questionnaire. First was a 16 item 'select all that applies', inquiring which types of student trauma the participant had been exposed to since January 1, 2021. The first eight types of trauma included mental illness such as depression, anxiety, PTSD, sexual assault or abuse, death of a loved one, hate crimes and/or discrimination, substance abuse, and natural or manufactured disasters (Silverman & Glick, 2010).

The following eight types of trauma included were poverty, physical abuse, emotional abuse, neglect, witnessing violence, caregiver mental illness, caregiver substance abuse, parental incarceration, and exposure to community violence (Hinojosa et al., 2019). The second question used a ‘multiple-choice dropdown’ consisting of six items investigating the frequency of participants exposure to student trauma since January 1, 2021 (none, 1-5 times, 6-10 times, 11-15 times, 16+ times). Respondents were only allowed to select one. These additional questions provided the correlation and support between the exposure to student trauma and the level of STS nursing faculty experienced and contributed to the body of knowledge.

### **Secondary Traumatic Stress Scale**

The STSS is a self-reported scale that includes 17 items designed to measure STS. The STSS breaks down secondary trauma into three distinct symptomatology subscales: intrusion (add items 2, 3, 6,10,13), avoidance (add items 1, 5, 7, 9, 12, 14, 17), and arousal (add items 4, 8, 11, 15, 16). The three subscales were derived from the *DSM-V* criteria for diagnosing trauma and stressor-related disorders: intrusion from criteria B, avoidance from criteria C, and arousal from criteria D (American Psychiatric Association, 2013). Bride et al. (2004) were consistent with the *DSM-V* symptom criteria of trauma and stressor-related disorders diagnosis.

The STSS collected data regarding the level of STS participants experienced working with traumatized students, as shown by the participants' overall score when adding all subscales. The STSS levels were classified as “little to no” STS, “mild” STS, “moderate” STS, “high” STS, and “severe” STS from the cumulative item scoring.

The STSS scale was specifically designed to measure STS in helping professionals versus direct trauma exposure, as seen with PTSD, compassion fatigue, and stress (Bride et al., 2004).

Until the development of this scale, trauma measurements were geared towards PTSD, stress, compassion fatigue, and burnout, such as the National Stressful Events Survey PTSD Short Scale (NSESSS) (LeBeau et al., 2014), the Professional Quality of Life Scale (PROQOL) (Stamm, 2010), the Compassion Fatigue Scale (Adams et al., 2008), and the Perceived Stress Scale (Cohen et al., 1983). The “clients to students” modification was made to address the nursing faculty's correct exposure population.

### ***Functional Impairment from Secondary Trauma Scale***

The FISTS is a 7 item 5-point Likert scale (0=none, 4=great deal) to assess how much distress or impairment the participants had experienced because of exposure to student trauma. The FISTS measures distress or impairment in social, occupational, familial, sexual, psychological, emotional, and physical functioning (Bride et al., 2016). The FISTS inquired how much significant distress or impairment resulted from working with traumatized students in social, occupational, familial, sexual, psychological, emotional, and physical functioning of professional and personal life. This scale answered the research question: Are nursing faculty experiencing significant functional distress or impairment because of their work with traumatized students?

### **Reliability**

Reliability refers to the internal consistency of the test to produce similar findings each time it is performed (Johnson & Christensen, 2019). Quantitative researchers most commonly use a reliability coefficient (Cronbach, 1951). The STSS and the FISTS used Cronbach's coefficient alpha to assess internal consistency, as it is an indicator of how efficiently all the scale items measure the same theory and are interrelated. (Tavakol & Dennick, 2011).

### ***STSS***

The STSS was initially developed, with the guidance of experts in secondary trauma, to include 65-items in three subscales. This first version was tested among 37 direct service providers (Bride et al., 2004). The results were analyzed using the Statistical Package for the Social Sciences (SPSS) for each subscale, and each item was examined quantitatively using coefficient alpha. The next step was viewing each item through a qualitative lens, looking at content and context. Items that performed poorly quantitatively or qualitatively were thrown out. All remaining subscales had above .80 alpha levels (Bride et al., 2004). Cronbach (1951) recommends that a maximum alpha level measuring between .80 and .90 is sufficient for concluding reliability and internal consistency.

The STSS was decreased to 50 items and underwent re-testing with 200 college of social work alumni. The testing was repeated to find reliability in each item and was decreased further to the current 17 items in the STSS. This final revision was tested among 287 social workers and found the STSS subscale of intrusion to have an  $\alpha = 0.80$ , the subscale avoidance an  $\alpha = 0.87$ , and the subscale arousal  $\alpha = 0.83$ . The STSS combined total had an  $\alpha = 0.93$  (Bride et al., 2004).

### ***FISTS***

The FISTS scale is a 7 item, 5-point Likert scale that underwent testing with 539 direct care social worker participants to correlate STS to functional distress and impairment in the areas of social, occupational, familial, sexual, psychological, emotional, and physical functioning (Bride et al., 2016). Bride et al. (2016) found an internal consistency alpha level of 0.95,

consistent with Cronbach's recommendation of reliability falling between 0.80 and 0.90 (Cronbach, 1951).

### **Generalizability**

Generalizability or transferability is how the research results will be applied to other populations (Merriam & Tisdell, 2016). The STSS was initially tested on a group of direct service providers, alumni of a school of social work, and licensed social workers to confirm validity. Ting et al. (2005) studied the STSS among 515 mental health social workers and found the internal consistency ( $\alpha$ ) for the STSS as a whole 0.94, with the subscale intrusion 0.79, avoidance 0.85, and arousal 0.87. Factor loadings ranged from 0.46 to 0.82, the  $t$ -value from 9.27 to 15.12, and then from 0.29 to 0.62 (Ting et al., 2005).

Benuto et al. (2018) investigated the STSS among 135 victim advocates and found the Cronbach's alpha coefficient to be 0.93 with a 95% confidence interval and a comparative fit index (CFI) of 0.934, a root mean square error of approximation (RMSEA) of 0.065, and a standardized root mean square residual (SRMR) of .054. In order to prove that the data fit the hypothesis, a CFI would need to be 0.90 or greater and the RMEA 0.08 or below (Hoyle, 1995). Jacobs et al. (2019) explored the STSS among 220 midwives from a hospital in Switzerland and found the internal consistency ( $\alpha$ ) for the STSS as a whole 0.92 with the subscale intrusion 0.84, avoidance 0.91, and arousal 0.91.

Stamm (2002) studied the STSS among 374 caregivers, Red Cross volunteers, volunteer debriefers, and trauma professionals and found internal consistency ( $\alpha$ ) for the STSS 0.87. Perron and Hiltz (2006) conducted a study on the STSS among 58 child forensic interviewers and found internal consistency ( $\alpha$ ) for the STSS 0.92. Badger et al. (2008) used the STSS among

121 trauma center social workers and found internal consistency ( $\alpha$ ) for the STSS 0.93.

Dominquez-Gomez and Rutledge (2009) found internal consistency ( $\alpha$ ) for the STSS 0.92 in their study of 67 emergency room nurses. The FISTS has not been validated in its use alone and therefore has not demonstrated external validity when this dissertation was written.

### **Validity**

Validity refers to the truthfulness of the research (J. Redman, personal communication, September 15, 2021). The validity of the research shows that what the researcher intended to measure for the particular population was actually measured and then interpreted correctly (Johnson & Christensen, 2019). Validity is evidenced by the content, internal structure, criterion, coefficients, convergent, and discriminant (Johnson & Christensen, 2019).

### ***STSS***

The STSS measured convergent and discriminant validity. Convergent validity is how two or more measurements of related constructs or traits are related, and discriminant validity is the extent to which nonrelated constructs or traits are comparable (Campbell & Fiske, 1959).

Bride et al. (2004) used the Bonferroni family-wise error rate to validate a comparison alpha rate of 0.00179, confirming convergent validity (Weisstein, 2021). The family-wise error rate (Type I error) was used to ensure that the null hypothesis was not incorrectly rejected, resulting in a false positive (Freund et al., 2010). Bride et al. (2004) did not find correlations between the STSS and its subscales and the discriminant variables of age, ethnicity, and income.

Factorial validity refers to the validity of variables within research that cannot be measured directly, such as opinions or perceptions (Gefen & Straub, 2005). It measures the internal structure of the test being performed and shows how the test parts are related to one

another. Factorial validity was tested using the confirmatory analysis through the structural equation modeling (SEM) technique. Bride et al. (2004) used four fit indices: Goodness of Fit Index (GFI), the Comparative Fit Index (CFI), the Incremental Fit Index (IFI), and the root-mean-square error of approximation (RMSEA) to show how the data fit the hypothesis. The GFI =0.90, CFI =0.94, IFI=.094, and RMSEA=0.069 (Bride et al., 2004). In order to prove that the data fit the hypothesis, a GFI, CFI, and IFI would need to be 0.90 or greater and the RMEA 0.08 or below (Hoyle, 1995).

Bride et al. (2004) also used factor loadings, *t*-values, and squared multiple correlations to show validity. Each of the 17 items on the STSS had a factor loading ranging from 0.58 to 0.79 (Bride et al., 2004). A factor loading of 0.30 or higher shows the item is statistically significant (Tavakol & Wetzel, 2020). Each of the 17 items had *t*-values ranging from 10.13 to 15.68 (Bride et al., 2004). When using a confidence level of 95% ( $\alpha=.05$ ), the *t*-value needs to be greater than 2 (Sullivan, n.d.). The squared multiple correlations ( $R^2$ ) for each of the 17 items range from 0.33 to 0.63 (Bride et al., 2004). The squared multiple correlation measures the fraction of the difference in a variable that may be explained by the other variables (Nardi, 2021). The square multiple correlation can range from 0 to 1, so the more significant the outcome, the greater the correlation (Nardi, 2021).

### ***FISTS***

The FISTS has not been validated in its use alone. In a study involving 539 currently employed clinical social worker participants, Armes et al. (2020) found the validity of the FISTS to the STSS showed a positive correlation with a *p* value <.01, meaning a 1% chance that the null hypothesis is correct (Tanha et al., 2017).

### **Data Collection Procedure**

Once approval from the Institutional Review Board (IRB) (see Appendix E) was granted, the survey was designed in Qualtrics. The distribution of the survey was sent through employees' Minnesota State email. Email addresses for nursing faculty that met the criteria were gathered from each college website as they are listed and public knowledge. All participants' responses remained confidential through anonymous surveys. All collected data is stored on a personal flash drive locked in a home filing cabinet and will be deleted no later than three years after collection.

### **Data Analysis**

This quantitative survey method research aimed to explore if nursing faculty within the Minnesota State system were affected by their work with traumatized students and if they experienced significant distress or impairment. The data was collected through the online format, Qualtrics, comprising of the demographic questionnaire, the STSS, and FISTS. The target population was 511, with an overall sample size of 220 desired, from the 35 nursing programs within the Minnesota State Colleges and Universities.

This quantitative survey method research examined the following research questions:

**RQ 1:** Does the amount of exposure to student trauma relate to the level of secondary traumatic stress experienced by nursing faculty?

**RQ 2:** Is there a relationship between the reported STS and the level of functional impairment experienced by nursing faculty?

The data analysis attempted to prove or disprove a significant relationship between nursing faculty exposure to student trauma and the level of STS that resulted, and the level of STS

related to an increase in functional impairment. This quantitative study used Qualtrics survey reports, Excel, R, and JMP statistical programs to analyze descriptive and inferential statistics. The WSU Statistical Consulting Center also provided statistical analysis, reports, tables, figures, and support.

The raw data was pulled from the Qualtrics survey reports and prepared using Excel before analyzing. There were two survey questions added to the demographic questionnaire. First was the 16 item 'select all that applies' question inquiring which types of student trauma the participant had been exposed to since January 1, 2021. This question was labeled mental health such as depression, anxiety, and PTSD "1", sexual assault or abuse "2", death of a loved one "3", hate crimes or discrimination "4", substance abuse "5", natural or manufactured disasters "6", poverty "7", physical "8", emotional abuse "9", neglect "10", witnessing violence "11", caregiver mental illness "12", caregiver substance abuse "13", parental incarceration "14", exposure to community violence "15", and other "16". Secondly was the 'multiple-choice dropdown' consisting of six items that investigated the frequency of participants' exposure to student trauma since January 1, 2021. Respondents were only allowed to select one. These were labeled 0 or never "1", 1-5 times "2", 6-10 times "3", 11-15 times "4", 16+ times "5".

The STSS 17 item responses were converted to a numerical scale. The numerical conversion was recorded Never=1, Rarely=2, Occasionally=3, Often=4, and Very Often=5. The total score was then summed for each participant and categorized by the severity level. "Little to no" STS was a score of 27 or less, "Mild" STS was a score of 28-37, "Moderate" STS was a score of 38-43, "High" STS was a score of 44-48, and "Severe" STS was a score of 49 and above.

The FISTS 7 item responses were also converted to a numerical scale. The numerical conversion was recorded as “None” =0, “A little” =1, “Some” =2, “A lot” =3, and “A great deal” =4. Then, a total score was computed for each participant. Total scores ranged from no (0) functional impairment to the highest (28) impairment.

Descriptive statistics were used to describe, summarize, and explain the participant demographic characteristics (Johnson & Christensen, 2019). Inferential statistics were used to test the research hypotheses and determine generalizability (Nardi, 2021). The descriptive statistics included participant demographic data such as gender, race, age, marital status, the highest level of education, faculty rank, and type of nursing program currently teaching. The survey also involved two added questions related to the frequency of exposure to student trauma and types of student trauma. These additional questions provided the correlation and support between the exposure to student trauma and the level of STS nursing faculty experience.

The demographic data were gathered and analyzed through Qualtrics, and a report was formulated. The data was then exported from Qualtrics to an Excel spreadsheet to create tables and bar graphs as visuals for displaying the frequency distribution, which summarized the frequencies of each data value (Nardi, 2021) and, the central tendency, which provided the mean or average of each data value (Johnson & Christensen, 2019). The demographic questionnaire was not correlated to the specific research questions but may provide information for additional future research.

In order to answer the research questions, inferential statistics were used to conclude by comparing, testing, and predicting the data to test the hypothesis and generalize results to the larger population (Johnson & Christensen, 2019). The null hypothesis for both questions needed

to be rejected to accept the alternative hypothesis. This testing was done by determining whether there was a significant correlation or just happened by chance through statistical testing of the  $p$ -value using a significance level of .05.

Research question one involved comparing the frequency of exposure to student trauma to the severity of the total STSS scores. Pearson chi-square test was performed to determine a statistically significant relationship between the two. Additionally, a one-way analysis of variance (ANOVA) was conducted with Tukey's Honest Significant Difference (HSD) for a post hoc comparison to determine which group means were significantly different (Johnson & Christensen, 2019). This analysis found the mean of each group, plus or minus the standard error, to determine differences in the means and find any statistical significance. The confidence interval used for each group was 95%.

Analyzing research question two involved conducting a one-way ANOVA, using a protected F-test ( $p$ -value  $<.05$ ) as a threshold for further statistical analysis to determine if the relationship between the total scores from the FISTS and the severity level of the total STSS was statistically significant. A Tukey's HSD for a post hoc comparison was used to determine which group's means differed significantly (Johnson & Christensen, 2019). This analysis found the mean of each group, plus or minus the standard error, to determine differences in the means and find any statistical significance. The confidence interval used for each group was 95%.

## **Summary**

This quantitative survey method research aimed to explore if nursing faculty within the Minnesota State system were affected by their work with traumatized students and if they experienced significant distress or impairment. The research design involved a cross-sectional,

non-experimental quantitative survey method using a cross-sectional research method, as the researcher collected data over a short and specific period (Johnson & Christensen, 2019).

Quantitative research looks at the interaction between measurable variables that can be statistically analyzed using instruments versus observation, as seen in qualitative (Creswell & Creswell, 2020). This study employed a purposeful single-stage sampling method to select 511 nursing faculty from 35 Minnesota State nursing programs to get the minimum size of 220 participants.

This study used a survey that collected gender, age, ethnicity, marital status, and level of education. It also incorporated two additional questions, which types of student trauma the participant had been exposed to in the last year and how often participants had been exposed to student trauma in the last year. The STSS collected data regarding the level of secondary trauma participants had experienced by working with traumatized students. The FISTS assessed how much distress or impairment the participants experienced due to student trauma exposure. The questionnaire, survey, and scales were distributed to participants through Qualtrics. The WSU Statistical Consulting Center provided help in the statistical analysis, reports, and support.

Chapter 3 consisted of this researcher's dissertation method, research design, and data analysis methods. Next, Chapter 4 will provide an in-depth data analysis, methods, and results using descriptive findings from the research questions and hypotheses.

### **Analysis and Results**

This quantitative survey method research aimed to explore how nursing faculty within the Minnesota State system were affected by their work with traumatized students and if they experienced significant distress or functional impairment in daily life. Prior research showed that

individuals working in high trauma occupations, such as social workers, nurses, firefighters, and police officers, were affected by their work with trauma (Rauvola et al., 2019). Current studies also found that teachers in K-12 were at great risk for significant distress and impairment from their work with student trauma (Baicker, 2020). However, there is still limited research on educators in higher education, specifically those educators working on training future professionals for direct contact occupations such as nursing (Nikischer, 2018).

Educators are increasingly exposed to student trauma, and present-day research indicated a gap in the literature on how STS affects educators in higher education and, more specifically, those who are training the high-risk occupations such as nursing. Currently, it is not known if nursing faculty from Minnesota State are experiencing STS by their work with traumatized students or if they are experiencing significant functional distress or impairment because of their work with traumatized students. Therefore, this study's results could add to the current body of knowledge on STS in direct contact professions.

Chapter 4 reviews the research questions investigated, methods used for data collection, and the population investigated. This chapter concludes with a description of how data were analyzed and the resulting statistical findings.

### **Research Questions or Hypotheses**

This dissertation had two alternative and two null hypotheses associated with the research questions:

RQ 1: Does the amount of exposure to student trauma relate to the level of secondary traumatic stress experienced by nursing faculty?

$H_a$ : There will be a relationship between the amount of exposure to student trauma and the level of STS experienced by nursing faculty.

$H_0$ : There will not be a relationship between the amount of exposure to student trauma and the level of STS experienced by nursing faculty.

RQ 2: Is there a relationship between the reported STS and the level of functional impairment experienced by nursing faculty?

$H_a$ : There will be a relationship between reported STS and the level of functional impairment experienced by nursing faculty.

$H_0$ : There will not be a relationship between reported STS and the level of functional impairment experienced by nursing faculty.

Investigating these questions helped to determine how nursing faculty were affected by their exposure to traumatized students and what level of functional impairment they had experienced.

### **Data Collection**

This study used a Qualtrics survey which included a demographics section along with the modified Secondary Traumatic Stress Scale (STSS) and the Functional Impairment from Secondary Trauma Scale (FISTS) (Bride et al., 2016) to answer the research questions. The demographics questionnaire requested standard information regarding participants such as gender, age, ethnicity(race), marital status, and the highest level of education earned. It also included specifics of the participant's career, such as faculty rank and level of nursing currently teaching. The demographic questionnaire was not correlated to the specific research questions but may provide information for additional future research.

There were two survey questions added to the demographic questionnaire. First was a 16 item 'select all that applies' question, inquiring about which types of student trauma the participant had been exposed to in since January 1, 2021. The first eight trauma choices identified were depression, anxiety, PTSD, sexual assault or abuse, death of a loved one, hate

crimes or discrimination, substance abuse, and natural or manufactured disasters (Silverman & Glick, 2010). The following eight trauma choices identified were poverty, physical, and emotional abuse, neglect, witnessing violence, caregiver mental illness, caregiver substance abuse, parental incarceration, and exposure to community violence (Hinojosa et al., 2019). The second question used a 'multiple-choice dropdown' format consisting of six items that investigated the frequency of exposure to student trauma in the last year (0 or never, 1-5 times, 6-10 times, 11-15 times, 16+ times). Respondents were only allowed to select one.

The survey was designed in Qualtrics. Distribution of the survey was sent through employees' Minnesota State email once approval from the IRB was granted. Email addresses for nursing faculty that meet the criteria for participation were obtained from each Minnesota State college website as they are listed and publicly available. All participants' responses remained confidential through anonymous surveys. All collected data is stored on a personal flash drive locked in a home filing cabinet and will be deleted no later than three years after collection.

Informed consent was obtained on the opening page of the demographic questionnaire and survey. Participants needed to consent in order to progress in the survey process. All participant response data remained confidential through anonymous surveys as names will not be matched to responses. Therefore, there will be no identifying information from participants.

The population for this study consisted of 511 participants. According to Gill et al. (2010), using a population size of  $N=511$  is needed to achieve a desired sample size of 220. This sample size,  $n=220$ , meets the confidence level of 95% and a margin of error set at 5%. The goal of this data collection was to receive 220 completed surveys. 511 surveys were sent out on December 7, 2021, via email, with reminder emails on December 18, 2021, January 5, 2022, January 11, 2022, January 14, 2022, and January 18, 2022.

However, only 192 agreed to participate, as nine declined, representing a 37.6% response rate. According to Qualtrics, most survey response rates fall between 20% and 30% (Qualtrics, 2021). However, two surveys were excluded from the analysis because they did not meet the employment criteria within the Minnesota State system, and 15 surveys were excluded because of missing data.

### **Description of Demographics**

The following section provides descriptions of the sample demographics related to the study. Research for this study focused on undergraduate nursing programs within the Minnesota State System. Minnesota State has 35 colleges with undergraduate nursing programs. The undergraduate nursing programs included licensed practical nursing, registered nursing, and Bachelor of Science in nursing. The criterion for sample selection included nursing faculty that are full-time, part-time, or adjunct nursing faculty and are currently employed throughout the colleges within the Minnesota State system.

Results of the participant demographics, pulled from the Qualtrics survey reports, showed females ( $n=165$ , 94.29%), males ( $n=9$ , 5.14%), prefer not to say ( $n=1$ , 0.57%), and non-binary/third gender ( $n=0$ ). Race showed White ( $n=167$ , 95.43%), Black or African American ( $n=5$ , 2.86%), American Indian or Alaska Native ( $n=1$ , 0.57%), Asian ( $n=1$ , 0.57%), other ( $n=1$ , 0.57%), and Native Hawaiian or Pacific Islander ( $n=0$ ). The average age of participants was rounded to 49. Marital status showed married ( $n=149$ , 85.14%), divorced ( $n=12$ , 6.86%), never married ( $n=13$ , 7.43%), widowed ( $n=1$ , 0.57%), separated ( $n=0$ ). Table 1 displays gender, race, and marital status.

**Table 1***Gender, Race, and Marital Status*

<b>Variable</b>	<b>Categories</b>	<b><i>n</i></b>	<b>%</b>
Gender	Female	165	94.29
	Male	9	5.14
	Prefer not to say	1	0.06
Race	White	167	95.43
	Black/African American	5	2.86
	American Indian or Alaska Native	1	0.57
	Asian	1	0.57
	Other	1	0.57
Marital Status	Married	149	85.14
	Never married	13	7.43
	Divorced	12	6.86
	Widowed	1	0.57

Highest level of education results showed professional degree ( $n=102$ , 58.29%), doctorate ( $n=51$ , 29.14%), and 4-year degree ( $n=22$ , 12.57%). Faculty rank results showed full-time tenure ( $n=90$ , 51.43), full-time non-tenure ( $n=36$ , 20.57%), adjunct part-time ( $n=31$ , 17.71%), adjunct full-time ( $n=10$ , 5.71%), part-time tenure ( $n=4$ , 2.29%), and part-time non-tenure ( $n=4$ , 2.29%). Type of nursing program currently teaching results showed 2-year RN ( $n=77$ , 44.0%), bachelor's RN ( $n=75$ , 42.86%), and LPN ( $n=23$ , 13.14%). Table 2 displays highest level of education, faculty rank, and type of nursing program currently teaching in.

**Table 2***Education, Rank, and Program*

<b>Variable</b>	<b>Categories</b>	<b><i>n</i></b>	<b>%</b>
Education	Professional	102	58.29
	Doctorate	51	29.14
	4-year degree	22	12.27
Rank	Full-time tenure	90	51.43
	Full-time non-tenure	36	20.57
	Adjunct part-time	31	17.71
	Adjunct full-time	10	5.71
	Part-time tenure	4	2.29
	Part-time non-tenure	4	2.29
Program	2-year RN	77	42.86
	Bachelor's RN	75	44
	LPN	23	13.14

The most frequently observed categories were female ( $n=165$ , 94.29%), white ( $n=167$ , 95.43%), married ( $n=149$ , 85.14%), professional degree ( $n=102$ , 58.29%), full-time tenure ( $n=90$ , 51.43%), and teaching in a 2-year RN program ( $n=77$ , 44%).

**Preparation of Raw Data**

The raw data was pulled from the Qualtrics survey reports and prepared using Excel before analyzing. Two survey questions were added to the demographic questionnaire along with the STSS and FISTS. First was the 16 item 'select all that applies' survey question inquiring about which types of student trauma the participant has been exposed to in the last year. The types of trauma-exposed to question was labeled mental health such as depression, anxiety, and PTSD "1", sexual assault or abuse "2", death of a loved one "3", hate crimes or discrimination "4", substance abuse "5", natural or manufactured disasters "6", poverty "7", physical "8", emotional abuse "9", neglect "10", witnessing violence "11", caregiver mental illness "12",

caregiver substance abuse “13”, parental incarceration “14”, exposure to community violence “15”, and other “16”. Secondly was the ‘multiple-choice dropdown’ consisting of six items to investigate the frequency of participants’ exposure to student trauma in the last year.

Respondents were only allowed to select one. These were labeled 0 or never “1”, 1-5 times “2”, 6-10 times “3”, 11-15 times “4”, 16+ times “5”.

The STSS 17 item questionnaire responses were converted to a numerical scale. The numerical conversion was recorded Never=1, Rarely=2, Occasionally=3, Often=4, and Very Often=5. Each participant’s total score was then summed and categorized by the severity level. “Little to no” STS is a score of 27 or less, “Mild” STS is a score of 28-37, “Moderate” STS is a score of 38-43, “High” STS is a score of 44-48, and “Severe” STS is a score of 49 and above.

The FISTS 7 item questionnaire responses were also converted to a numerical scale. The numerical conversion was recorded as “None” =0, “A little” =1, “Some” =2, “A lot” =3, and “A great deal” =4. Then, a total score was computed for each participant. Total scores ranged from no (0) functional impairment to the highest (28) impairment.

### **Data Analysis**

This quantitative survey method research aimed to explore how nursing faculty within the Minnesota State system were affected by their work with traumatized students and if they experienced significant distress or impairment. The original research questions and hypotheses were:

RQ 1: Does the amount of exposure to student trauma relate to the level of secondary traumatic stress experienced by nursing faculty?

$H_a$ : There will be a relationship between the amount of exposure to student trauma and the level of STS experienced by nursing faculty.

$H_0$ : There will not be a relationship between the amount of exposure to student trauma and the level of STS experienced by nursing faculty.

RQ 2: Is there a relationship between the reported STS and the level of functional impairment experienced by nursing faculty?

$H_a$ :: There will be a relationship between reported STS and the level of functional impairment experienced by nursing faculty.

$H_0$ : There will not be a relationship between reported STS and the level of functional impairment experienced by nursing faculty.

To answer the research questions, the data concerning what types of trauma and frequency of exposure to student trauma were analyzed along with the STSS and the FISTS responses using the Qualtrics reports and Excel.

Participants were asked to answer how often, since January 1, 2021, they had been exposed to student trauma. Results of the frequency of exposure to student trauma showed that 51.43% ( $n=90$ ) indicated being exposed to trauma “1-5 times”, 22.86% ( $n=40$ ) “6-10 times”, 9.71% ( $n=17$ ) “16 + times”, 8% ( $n=14$ ) “11-15 times” and 8% ( $n=14$ ) “never”. Figure 2 shows the frequency of exposure to student trauma by participants.

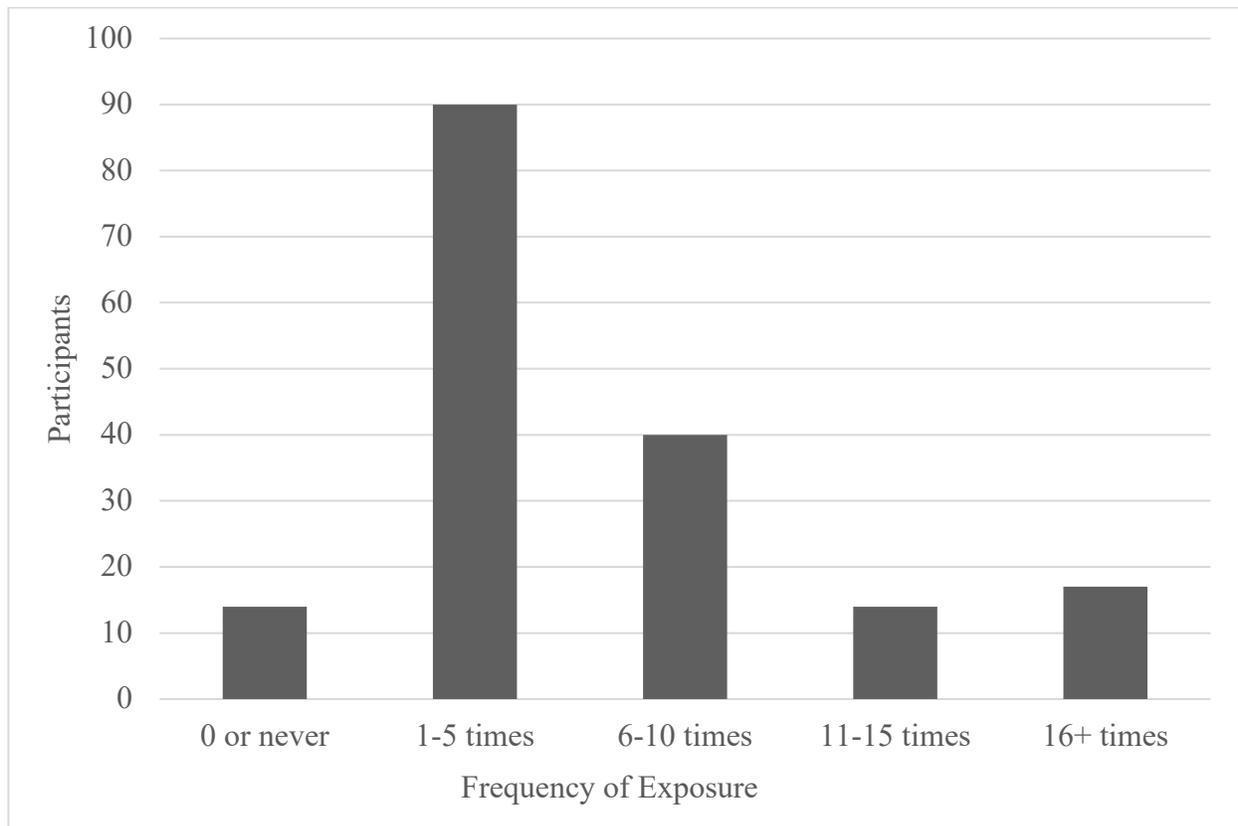
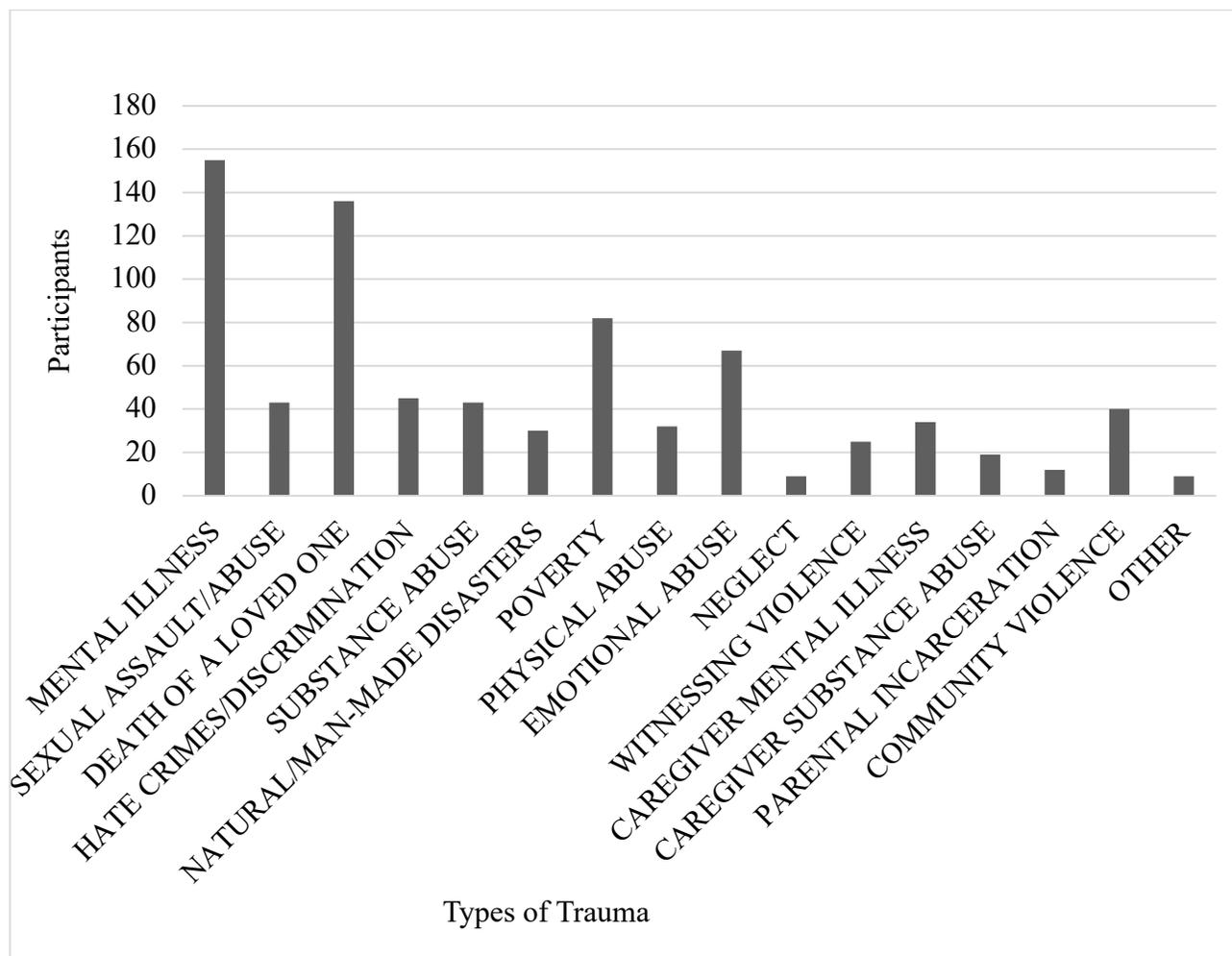
**Figure 2***Frequency of Exposure to Student Trauma*

Figure 3 shows the results of the types of student trauma the participants had been exposed to since January 1, 2021. The survey results showed that mental illness (depression, anxiety, and PTSD) ( $n=155$ ) was the most common type of trauma-exposed to, as indicated by 19.85%. Further analysis showed the following ranking order from most to least common: death of a loved one at 17.41% ( $n=136$ ), poverty at 10.5% ( $n=82$ ), emotional abuse 8.58% ( $n=67$ ), hate crimes or discrimination 5.76% ( $n=45$ ), substance abuse 5.51% ( $n=43$ ), sexual assault or abuse 5.51% ( $n=43$ ), exposure to community violence 5.12% ( $n=40$ ), caregiver mental illness 4.35% ( $n=34$ ), physical abuse 4.1% ( $n=32$ ), natural or manufactured disasters 3.84% ( $n=30$ ), witnessing violence 3.2% ( $n=25$ ), caregiver substance abuse 2.43% ( $n=19$ ), and parental incarceration 1.54% ( $n=12$ ). Student trauma types neglect 1.15% ( $n=9$ ) and other 1.16% ( $n=9$ ) were least

common. Participants were allowed to write in comments for the selection of “other.” The comments recorded were “pregnant after being raped,” “international student with family in a war zone,” “suicidal thoughts,” and “PTSD from pandemic, illness, and burnout.”

**Figure 3**

*Types of Student Trauma*



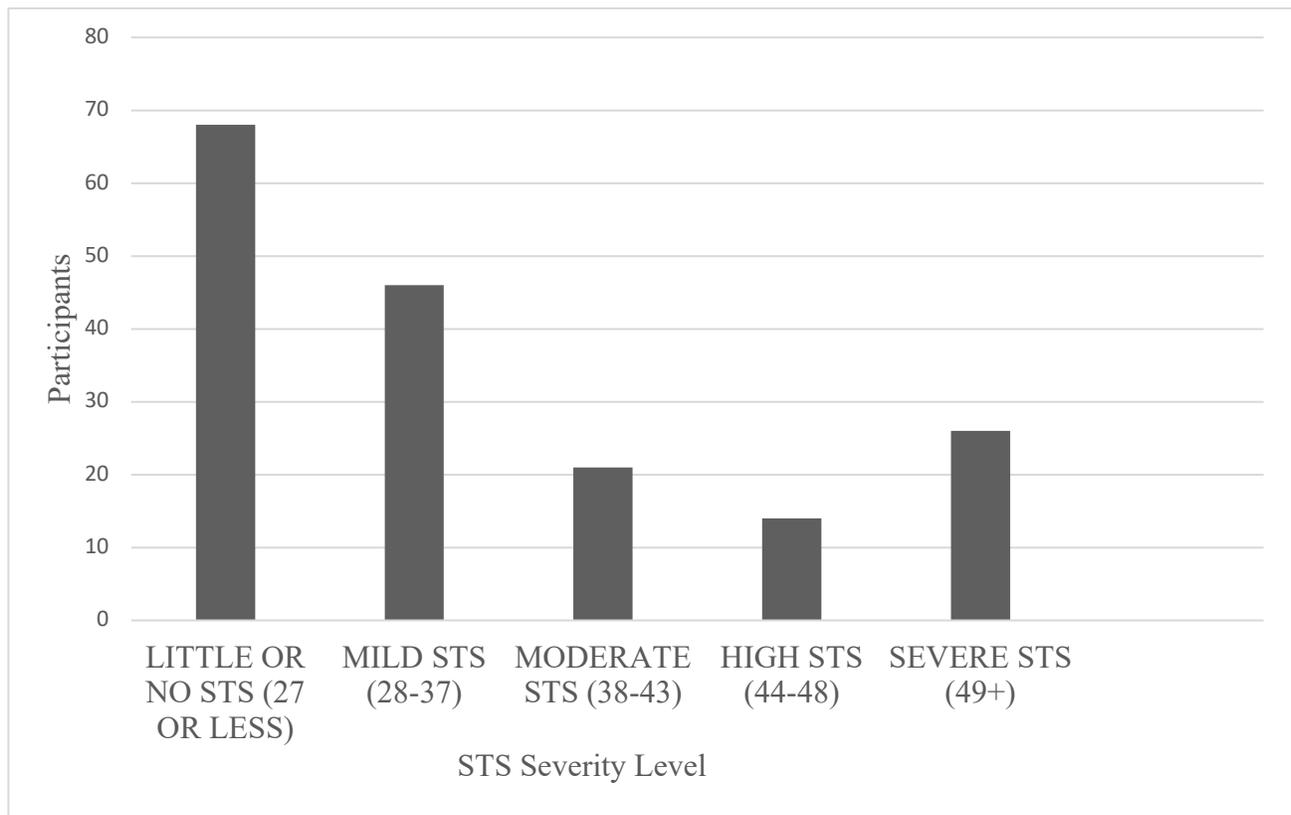
*Note.* Respondents could choose more than one type of trauma.

Participant responses to the 17 items STSS were summed individually and placed into one of the following categories: “Little to no” STS, a score of 27 or less, “Mild” STS, a score of 28-37, “Moderate” STS a score of 38-43, “High” STS a score of 44-48, and “Severe” STS a

score of 49 and above. Figure 4 shows the secondary traumatic stress levels of the 175 participants. The results showed that 38.9% ( $n=68$ ) had little to no STS, 26.3% ( $n=46$ ) mild, 12% ( $n=21$ ) moderate, 8% ( $n=14$ ) high, and. The mean score is 33.63, which would be placed into the Mild STS level of 28-37.

**Figure 4**

*Secondary Traumatic Stress (STS) Levels*



Participants 7 item responses to the FISTS were summed individually with “None” =0, “A little” =1, “Some” = 2, “A lot” = 3, and “A great deal” = 4. Total scores could range from no functional impairment to the highest 28. Participants functional impairment scores ranged from 0 to 17 out of a possible 28. 33.14% ( $n=58$ ) of participants scored 0, 5.14% ( $n=9$ ) scored 1, 5.17% ( $n=10$ ) scored 2, 6.86% ( $n=12$ ) scored 3, 9.14% ( $n=16$ ) scored 4, 5.71% ( $n=10$ ) scored 5, 4.57% ( $n=8$ ) scored 6, 7.43% ( $n=13$ ) scored 7, 2.29% ( $n=4$ ) scored 8, 2.86% ( $n=5$ ) scored 9, 2.29%

( $n=4$ ) scored 10, 0.57 ( $n=1$ ) scored 11, 4% ( $n=7$ ) scored 12, 4.57 ( $n=8$ ) scored 13, 2.29 ( $n=4$ ) scored 14, 0.57% ( $n=1$ ) scored 15, 2.29 ( $n=4$ ) scored 16, and 0.57% ( $n=1$ ) scored 17. No participant scored higher than 17 out of 28. The mean value was 4.49 out of a possible 28.

The statistical programs R and JMP were used to analyze the original research questions:

RQ 1: Does the amount of exposure to student trauma relate to the level of secondary traumatic stress experienced by nursing faculty?

$H_a$ : There will be a relationship between the amount of exposure to student trauma and the level of STS experienced by nursing faculty.

$H_0$ : There will not be a relationship between the amount of exposure to student trauma and the level of STS experienced by nursing faculty.

RQ 2: Is there a relationship between the reported STS and the level of functional impairment experienced by nursing faculty?

$H_a$ : There will be a relationship between reported STS and the level of functional impairment experienced by nursing faculty.

$H_0$ : There will not be a relationship between reported STS and the level of functional impairment experienced by nursing faculty.

Research question one involved comparing the frequency of exposure to student trauma to the severity of the total STSS scores. Pearson chi-square test was performed to determine a statistically significant relationship between the two by providing a  $p$ -value. Table 3 shows the counts of the frequency of exposure to student trauma labeled “0 or never”, “1-5 times”, “6-10 times”, “11-15 times”, and “16 or more” by the severity of the total STSS categories of “Little or None,” “Mild,” “Moderate,” “High,” and “Severe.” The  $p$ -value was .0218. The response of being exposed to student trauma “1-5 times” was the most common, with 51.43% ( $n=90$ )

respondents. The STS level of “Little or No” within the “1-5 times” frequency of exposure was the most common group with 22.29% ( $n=39$ ) respondents. The subsequent most common frequency was the “6-10 times,” which was 22.86% ( $n=40$ ), with the majority ( $n=16$ ) of this group reporting in the “Mild” STS category. The frequency response of “16 or more times” showed 9.71% ( $n=17$ ), with most responses falling in the “Little or None” STS level, and frequency responses of “0 or Never” and “11-15” times both showed 8% ( $n=14$ ) with most falling into the “Little or None” STS level.

**Table 3**

*Counts of Frequency of Exposure by STS Level*

	Little to No	Mild	Moderate	High	Severe	Total	p-value
0 or never	11	2	0	1	0	14	0.0218
1-5 times	39	30	10	4	7	89	
6-10 times	9	16	6	5	4	40	
11-15 times	7	1	2	1	3	14	
16+ times	6	3	1	4	3	17	
Total	72	52	19	15	17	175	

From Winona State University Statistical Center, personal communication, 2022.

Additionally, a one-way analysis of variance (ANOVA) was conducted with Tukey’s Honest Significant Difference (HSD) for a post hoc comparison to determine which group means were significantly different. This analysis found the mean of each group, plus or minus the standard error, to determine differences in the means and find any statistical significance. The confidence interval used for each group was 95%. Table 4 summarizes the total STS level by the frequency of exposure to trauma. The subscript B for the “0 or Never” frequency of exposure shows sufficient evidence that it was different from the other four categories with an average STS score of 21.9, which places it in the “Little to no” STS and a p-value .0011. For all other

frequencies, subscript A shows no evidence of a difference in STS score across the different frequency categories.

**Table 4**

*Summary of Frequency of Exposure by Total STS Score*

Frequency	n	mean $\pm$ std error	95% CI	p-value
0 or never	14	21.9 $\pm$ 2.9 B	(16.2, 27.5)	0.0011
1-5 times	90	30.6 $\pm$ 1.1 A	(28.4, 32.9)	
6-10 times	40	34.6 $\pm$ 1.7 A	(31.3, 38.0)	
11-15 times	14	34.1 $\pm$ 2.9 A	(28.5, 39.8)	
16+ times	17	36.1 $\pm$ 2.6 A	(31.0, 41.3)	

*Note.* Data expressed as LSM  $\pm$  SE. Groups with the same superscript letter indicate not significant. Different superscript letters indicate significant differences ( $p$ -value  $<$  0.05). From Winona State Statistical Center, personal communication, February 22, 2022.

Analyzing research question two involved conducting a one-way ANOVA while using a protected F-test ( $p$ -value  $<$  .05) as a threshold for further statistical analysis in order to determine the relationship between the total scores from the FISTS and the severity level of the total STSS was statistically significant. A Tukey's HSD for a post hoc comparison determined which group means were significantly different. This analysis found the mean of each group, plus or minus the standard error, to determine differences in the means and find any statistical significance. The confidence interval used for each group was 95%. Table 5 summarizes the total impairment score by the STS category. The  $p$ -value was  $<$  .0001 indicating a statistically significant increase in functional impairment as the STS levels became increasingly severe. The superscript letters A, B, C, D, and E show sufficient evidence that the average functional impairment differed between all groups.

**Table 5***Summary of Functional Impairment by STS Level*

STS Category	n	mean $\pm$ std error	95% CI	p-value
Little to No	72	2.1 $\pm$ 0.3 <sup>E</sup>	(1.5, 2.7)	< 0.0001
Mild	52	4.9 $\pm$ 0.4 <sup>D</sup>	(4.2, 5.6)	
Moderate	19	8.3 $\pm$ 0.6 <sup>C</sup>	(7.1, 9.4)	
High	15	10.7 $\pm$ 0.7 <sup>B</sup>	(9.4, 12.0)	
Severe	17	13.9 $\pm$ 0.6 <sup>A</sup>	(12.7, 15.2)	

*Note.* Data expressed as LSM  $\pm$  SE. Groups with the same superscript letter indicate not significant. Different superscript letters indicate significant differences ( $p$ -value < 0.05). From Winona State Statistical Center, personal communication, February 22, 2022.

**Results**

This quantitative survey method research aimed to explore how nursing faculty within the Minnesota State system were affected by their work with traumatized students and if they experienced significant distress or impairment.

In analyzing research question one, Does the amount of exposure to student trauma relate to the level of secondary traumatic stress experienced by nursing faculty of exposure to student trauma relate to the level of secondary traumatic stress experienced by nursing faculty, it was found that there was statistically significant evidence to conclude that the total STS levels differed across the frequency of exposure categories with a  $p$ -value of .0218. The STS category of “Little or None” within the “1-5 times” of exposure was the most common group with 22.29% ( $n=39$ ).

The severity of the total STS levels differed across the frequency of exposure showing an increase in STS with the increase of exposure, a  $p$ -value of .0011. However, the most significant difference was found between the “0 to never” exposure category and the “1-5 times”, “6-10

times”, “11-15 times”, and the “16+ times” categories. There was no difference found between the “1-5 times”, “6-10 times”, “11-15 times”, and the “16 or more” categories. The “1-5 times” averaged a 30.6 STS score, “6-10 times” averaged a 34.6 STS score, “11-15 times” averaged a 34.1 STS score, and the “16+ times” averaged a 36.1 STS score which are all placed into the “Mild” STS level and shows no difference.

A  $p$ -value  $< .05$  indicates a rejection of the null hypothesis. In analyzing the data, the  $p$ -value was  $< .0011$ , which rejects research question one’s null hypothesis and accepts the alternative hypothesis concluding that there is a relationship between the frequency of exposure to student trauma and the level of STS experienced by faculty.

In analyzing research question two, Does the level of secondary traumatic stress experienced by nursing faculty relate to the level of functional impairment, it was found that there was statistically significant evidence to conclude that there was an increase in functional impairment with an increase in the STS level with a  $p$ -value  $< .0001$ . The higher the STS level, the more functional impairment was reported. There was a statistical significance that the mean functional impairment differed between all the categories. The “Little to no” STS level had a functional impairment average of 2.1 out of 28, “Mild” averaged 4.9, “Moderate” averaged 8.3, “High” averaged 10.7, and “Severe” averaged 13.9.

This concluded that as the STS levels increased, the functional impairment mean scores increased. The most common category with 41.1% ( $n=75$ ) was in the STS level of “Little to no,” with a functional impairment average of 2.1 out of a possible 28. The next most common level with 29.7% ( $n=52$ ) was “Mild” STS with a functional impairment average of 4.9 out of 28. In analyzing the data, the  $p$ -value was  $< .0001$ , which rejects research question two’s null hypothesis

and accepts the alternative hypothesis concluding that there is a relationship between the reported STS and the level of functional impairment experienced by nursing faculty.

### **Limitations**

Four critical conditions limited this study. The first fundamental limitation was the sample size. According to Gill et al. (2010), with a population size of  $N=511$ , 220 responses are needed to meet the sample size criteria of a confidence level of 95% and a margin of error set at 5%. However, the response rate of this study was 37.6% with 192 participants. The second fundamental limitation was in the sample demographics, with the majority of participants being female ( $n=165$ , 94.29%), white ( $n=167$ , 95.43%), and full-time tenure ( $n=90$ , 51.43%). The third key limitation was a time constraint, as there was limited time to collect data. It would have been beneficial to have more time to collect additional surveys. The last key limitation was using a purposeful sample versus a random sample of nursing faculty within the Minnesota State system. Therefore, it may not be generalizable to nursing faculty outside the Minnesota State system.

This study also had key delimitations that restricted it. The first delimitation was that the study was limited to only nursing faculty in higher education. Secondly, the study criteria only included nursing faculty teaching in an undergraduate nursing program. Lastly, the study was limited to only the Minnesota State system. Therefore, those outside the Minnesota State system, teaching in graduate or doctoral programs and not nursing faculty, were ineligible. The results may or may not be generalizable to other colleges in or out of Minnesota.

### **Summary**

This quantitative study aimed to explore how nursing faculty within the Minnesota State system were affected by their work with traumatized students and if they experienced significant distress or impairment. The analysis report summarized the responses to the survey regarding the

frequency of exposure to student trauma and how it relates to STS experienced by the nursing faculty and their functional impairment experienced.

Chapter 5 summarizes the overall study, the findings, conclusion, and summary of this study. Chapter 5 also provides the theoretical, practical, and future implications. Finally, Chapter 5 concludes with recommendations for future research and practice related to secondary traumatic stress and nursing faculty.

### **Discussion and Conclusions**

The increase in childhood and adult trauma and mental illness is a challenge for educators in the K-12 setting and could lead to STS (Miller & Flint-Stipp, 2019). STS was found to impact those in direct care occupations by increasing occupational turnover (Armes et al., 2020), premature departure of specialty or career (Bride, 2007), a decrease in retention, contributing to shortages in staff (Hetzl-Riggin et al., 2020; McKinless, 2020), burnout, job dissatisfaction, and early retirement (Christian-Brandt et al., 2020). Research identified STS in social workers, nurses, firefighters, and law enforcement, and to a small degree, teachers working in K-12 settings. However, previous research has not encompassed educators in higher education and, more specifically, nursing faculty. It would be reasonable to argue that if STS is present within K-12 educators, it is also present in higher education.

The theoretical framework that guided this dissertation was the Constructivist Self Development (CSD) theory, designed by McCann and Pearlman (1990a). The rationale for selecting this framework was to integrate the literature on STS with an individuals' cognitive, emotional, intellectual, social, and functional development processes to understand the unique experiences, effects, and responses to trauma (McCann & Pearlman, 1990a). In the face of trauma, individuals will adapt and cope within their current contexts and earlier experiences,

developing their self, needs, and schemas (McCann & Pearlman, 1990b). This individualism will ultimately result in varying degrees of distress in daily functioning, affecting personal and professional life.

This quantitative survey method research aimed to explore how nursing faculty within the Minnesota State Colleges and Universities were affected by their work with traumatized students and if they experienced functional impairment. Until this research, it was unknown if Minnstate nursing faculty were experiencing STS because of their work with traumatized students or if they experienced significant functional distress or impairment.

Chapter 5 presents the research results and a summary discussion and conclusions of the study. Chapter 5 also acknowledges the study's implications and recommendations for future research and practice.

## **Discussion and Conclusions**

This quantitative dissertation involved 175 participants who completed online surveys through Qualtrics. The survey consisted of demographic's sections, two questions related to exposure to student trauma, the STSS, and the FISTS. The data Analysis involved the Qualtrics reports, Excel, and the statistical programs R and JMP to explore the following research questions:

RQ 1: Does the amount of exposure to student trauma relate to the level of secondary traumatic stress experienced by nursing faculty?

$H_a$ : There will be a relationship between the amount of exposure to student trauma and the level of STS experienced by nursing faculty.

$H_0$ : There will not be a relationship between the amount of exposure to student trauma and the level of STS experienced by nursing faculty.

RQ 2: Is there a relationship between the reported STS and the level of functional impairment experienced by nursing faculty?

$H_a$ : There will be a relationship between reported STS and the level of functional impairment experienced by nursing faculty.

$H_0$ : There will not be a relationship between reported STS and the level of functional impairment experienced by nursing faculty.

The survey results showed that the most commonly selected frequency of exposure was “1-5 times,” with roughly 51% ( $n=90$ ) of the nursing faculty since January 1, 2021. Overall, roughly 92% ( $n=161$ ) experience student trauma versus 8% ( $n=14$ ) who never experienced exposure.

Similarly, Lynch and Glass (2018) found that 87% of their 617 student affairs officer participants indicated being exposed to student trauma such as the death of a loved one or mental illnesses, and the exposure increased the likelihood of STS. Bride (2007) also found that out of 282 participants, roughly 89% had been exposed to client trauma within the categories of “occasionally,” “often,” and “very often” versus 11% “rarely or never” being exposed.

The most common type of student trauma exposure was to mental illnesses such as depression, anxiety, and PTSD, followed by the death of a loved one and poverty. Battis (2020) stated that trauma was linked to the development of depression, anxiety, and PTSD, and college is an increasingly stressful time (Karatekin & Ahluwalia, 2020), with roughly 50% of students suffering from these mental health problems (Kishor et al., 2018).

The results of the STSS alone showed that 38.9% ( $n=68$ ) of participants were classified as having a “Little to no” STS severity level, while roughly 61% ( $n=107$ ) experienced STS at a level of mild or higher. The categories were “Little to no STS,” a score of 27 or less, “Mild” STS, a score of 28-37, “Moderate” STS, a score of 38-43, “High” STS, a score of 44-48, and

“Severe” STS a score of 49 and above. The average of all 175 participants was classified in the “Mild” level. This level of STS is comparable to Miller and Flint-Stipp (2019) claim that as many as 50% of teachers are at risk for STS.

The FISTS total scores ranged from no functional impairment to a possible high of 28. The results showed that “no” functional impairment was the most common score at 33.14% ( $n=58$ ) of participants. The highest score was 17 as no participant reached 28. The mean score of 175 participants was 4.49. However, roughly 67% ( $n=117$ ) of participants did have functional impairment ranging from 1 to 17. In their study, Armes et al. (2020) found that higher STS levels were related to an increase in functional impairment.

The individual’s history of trauma will determine what they consider trauma, if they recognize the exposure to student trauma, and if the trauma affects them. According to the CSD theory of McCann and Pearlman (1990a), personal history shapes how an individual defines trauma, how it is experienced, and the degree to which they will adapt. Each individual uses their own experiences, effects, and responses to trauma to recognize, interpret, and cope with someone else’s trauma (McCann & Pearlman, 1990b). Personal history of trauma may have played a role in the results as data gathered from the survey was all self-reported.

Using Pearson chi-square and ANOVA with Tukey’s HSD, the results of research question one showed statistically significant evidence to conclude that the amount of exposure to student trauma was related to the level of STS the nursing faculty participants experienced,  $p$ -value .0218. The severity of the STS levels did show differences across the frequency of exposure. The most common frequency of trauma exposure was “1-5 times” and correlated to an STS level of “Little to no,” with roughly 22% ( $n=39$ ) participants.

There was also a statistically significant p-value of .0011, as the total STS score increased with the increase of frequency exposure. However, the only difference was found between the “0 to never” exposure category and the “1-5 times”, “6-10 times”, “11-15 times”, and the “16+ times” categories, with an average of 21.9 which falls in the “Little to no” STS level. There was no difference found between the “1-5 times”, “6-10 times”, “11-15 times”, and the “16 + times” categories. The “1-5 times” averaged a 30.6 STS score, “6-10 times” averaged a 34.6 score, “11-15 times” averaged a 34.1 score, and the “16+ times” averaged a 36.1 score which would all be placed into the “Mild” STS level and showed no difference.

This showed there was a jump from “little to no” STS to a “mild” STS level as the exposure to trauma went from “never” being exposed to being exposed “1-5 times”. These results concluded a relationship between the frequency of exposure to student trauma and the level of STS experienced by faculty. Lee et al. (2017) found comparable data indicating exposure to trauma is related to STS and its severity (p-value <.01). Armes et al. (2020) also found that the relationship between exposure to trauma and STS was statistically significant (p-value <.001).

Using ANOVA with a protected F-test (p-value <.05) and Tukey’s HSD, research question two showed that the relationship between the STS level from the STSS and functional impairment was statistically significant, p-value <.0001. There was evidence to conclude that functional impairment was increased with an increase in the STS level. The higher the STS level, the more functional impairment was reported.

There was also sufficient evidence that the average functional impairment differed between all groups. The “Little to no” STS level had a functional impairment average of 2.1 out of 28, “Mild” averaged 4.9, “Moderate” averaged 8.3, “High” averaged 10.7, and “Severe” averaged 13.9, which shows that as the STS levels increased in severity, the functional

impairment mean scores also increased. These results concluded a relationship between the reported STS levels and the functional impairment experienced by nursing faculty. Armes et al. (2020) also found that the relationship between STS and functional impairment was statistically significant,  $p$ -value  $<.001$ , and a statistical significance between exposure to trauma, STS, and functional impairment,  $p$ -value  $<.01$ .

This study showed that most nursing faculty experienced exposure to trauma while working with students. The most common types of trauma that nursing faculty were exposed to were depression, anxiety, PTSD, the death of a loved one, and poverty. However, trauma also came in many other forms such as emotional abuse, hate crimes or discrimination, substance abuse, sexual assault or abuse, exposure to community violence, caregiver mental illness, physical abuse, natural or manufactured disasters, witnessing violence, caregiver substance abuse, and parental incarceration, and neglect as research has predicted (Hinojosa et al., 2019; Silverman & Glick, 2010).

Most nursing faculty had experienced STS levels with their work with traumatized students, as roughly 61% experienced levels between “Mild and Severe.” On a positive note, nearly 39% did not experience STS. The amount of exposure to student trauma determined what level of STS the nursing faculty participants had experienced. An increase in exposure to trauma led to an increase in STS. However, this was only shown between the frequency of exposure group of “0 or never” with a “little to no” STS level and all other groups. An increase in exposure leading to an increase in STS level was not significant between any other groups as they all fell into the STS level of “Mild.”

Nursing faculty also experienced functional impairment in social, occupational, familial, sexual, psychological, emotional, and physical functioning of professional and personal life

related to the level of STS. The more severe the STS was, the more functional impairment they experienced. However, in general, most faculty did not experience high levels of functional impairment, with the highest score being 17 out of a possible 28 and roughly 33% not experiencing any functional impairment.

### **Strengths of the Study**

There were several strengths to this study. First, the exploration of STS in higher education, specifically nursing faculty, was not investigated before this study. Secondly, the STSS and FISTS instruments used to collect data were reliable and valid in previous trials. Additionally, the STSS and FISTS instruments were limited in the literature to the population of social workers before this study. Lastly, the researcher recruited participants from various educational backgrounds teaching in different nursing program settings.

### **Limitations of the Study**

There were several limitations identified in this study. This study used a purposeful sampling method consisting of only nursing faculty teaching in an undergraduate program within the Minnesota State system, which may not be generalizable to the overall population. Additionally, almost 95% of participants were female and White. Second, this study was limited by the sample size. The goal was to have 220 completed responses from N=511 to meet the sample size criteria of a confidence level of 95% and a margin of error set at 5%. However, this study concluded with n=175, a response rate of 37.6%.

Third, the STSS and FISTS instruments used to collect data were previously explicitly developed for social workers and needed to be tailored to educators. The instruments were altered only slightly by changing “clients” to “students.” Lastly, this study had time constraints for the researcher and possible time constraints for the participants, which may have played a

role in their unwillingness to complete the survey. Additionally, participants may not have been familiar with the term and definition of STS to appropriately complete the survey drawing on their own experiences, even though this information was provided in the consent form.

## **Implications and Recommendations**

### ***Theoretical Implications***

The theoretical framework guiding this study focused on McCann and Pearlman's (1990a) CSD Theory, which integrates the literature on trauma and STS with an individual's cognitive, emotional, intellectual, social, and functional development processes as a way in which to understand the individual's unique experiences, effects, and responses to trauma. The CSD theory helps to explain how an individual's history shapes their definition, experiences, and results of trauma in their everyday functioning. Personal history of trauma can influence how an individual will define trauma, the experience of the trauma, and how it will affect them. Furthermore, an individual's encounter with trauma could be primary or secondary to another's narrative. Trauma that is secondary can lead to STS depending on how the exposed individual defines, experiences, and is affected by it.

The implications of this study's findings suggest that McCann and Pearlman's CSD theory is accurate when addressing STS. While all 175 participants indicated working with various student trauma, 8% claimed having never been exposed to student trauma, and 38.9% were categorized as having little to no STS from the STSS. However, 92% of the population expressed having been exposed, resulting in 61% experiencing STS as mild to severe.

The theory by McCann and Pearlman (1990a) may be part of why all participants responded that they work with student trauma, but not all indicated being affected or resulted in STS. The CDS explains that an individual's experiences, effects, and responses to trauma are

based on three psychological systems: the self, psychological needs, and cognitive schemas. When faced with trauma, whether primary or secondary, each individual will adapt and cope within their current contexts and earlier experiences, developing their self, needs, and schemas (McCann & Pearlman, 1990b).

Looking at the history of trauma literature, experts proved that the effects of rape, incest, war, the Holocaust, and community violence led to PTSD and STS. A case could be made that the type of trauma-exposed to is a major influencer on how the individual will be affected. The type of student trauma could explain how the participants experienced the trauma, its effect on them, and how they responded. This study showed that the most common student trauma participants worked with was mental illness such as depression, anxiety, and PTSD. The survey did not allow for participants to go into detail on what was the root cause of the student trauma.

### ***Implications and Recommendations for Practice***

The findings of this study suggested that nursing faculty are experiencing exposure to a large variety of student trauma while teaching in various nursing programs. The effects of student trauma have led to nursing faculty experiencing mild to severe levels of STS. STS has also impacted their professional and personal life by causing impairment in social, occupational, familial, sexual, psychological, emotional, and physical functioning.

The COVID-19 pandemic has brought new challenges for nurse educators, such as increased workload and faculty shortages, clinical site uncertainties, quick transition to online teaching, technological struggles, faculty attrition, and a decrease in the quality of instruction (Sacco & Kelly, 2021). These challenges have created increased stress and anxiety levels in both faculty and students, which has resulted in an upsurge of emotional and physical exhaustion, especially for inexperienced faculty members (Sacco & Kelly, 2021).

The practical implications of this study show that exposure to student trauma can lead faculty to experience the PTSD symptoms of STS, such as intrusion, avoidance, and arousal. Intrusion involves the vivid descriptions of trauma, images, dreams, or flashbacks (Bride, 2007). Avoidance is displayed through avoiding people, places, activities, or situations (Motta, 2008). Arousal symptoms consist of anxiety, irritability, and trouble concentrating or sleeping (Figley, 1995). STS has been shown to increase functional impairment in an individual's daily life.

Functional impairment refers to the loss of ability to carry out daily functions in the individual's social, occupational, familial, sexual, psychological, emotional, and physical domains due to disease or disorders (Hantke et al., 2020). It is essentially the inability to carry out activities of daily living and is a significant factor in the diagnosis of mental illness (Womble & Kincheloe, 2020). STS and functional impairment in nursing faculty could contribute to the ongoing nursing shortage in education and clinical institutions. The increase in stress causes emotional, mental, and physical fatigue, known as burnout, which is a significant factor in turnover (Morris, 2022) among nurse educators and can lead to exhaustion, job dissatisfaction, and the intent to leave a position (Christian-Brandt et al., 2020; Sacco & Kelly, 2021).

The Minnesota State system could benefit from the results discovered in this study regarding the effects of STS and functional impairment on nursing faculty. Although the results pertain to only nursing faculty, they could also be beneficial to increasing job satisfaction, decreasing burnout and exhaustion, and retaining all higher education faculty. Future recommendations from this study would be to implement professional development and education in STS for faculty, staff, and students, initiate collaboration and partnerships with mental health professionals and industry and charter a trauma-sensitive culture.

Nurse educators often lack the education and coping mechanisms to handle the challenges of communicating and caring for those experiencing distress from trauma (Lauridsen & Munkejord, 2022). The lack of coping mechanisms can lead to STS, unhealthy behaviors, and maladaptive coping. Professional development in trauma-informed and restorative practices has shown to increase self-awareness, compassion for others, emotional security, coping with stress, and trauma understanding and response (Lauridsen & Munkejord, 2022).

The recommendation to collaborate with mental health professionals would address the effects of STS in faculty, as shown in this study, and the effects of trauma experienced by the students. Collaboration could allow institutions of higher education to partner with mental health professionals to provide training and screening for STS, possible treatment and referrals for both faculty and students, supervision in identifying students and faculty at risk, and divide the responsibilities and concerns between the education and health sectors as to not leave the school or educator as a silo in fixing the problem (Soneson et al., 2020). The most significant benefits would come from an in-school mental health professional employed or contracted to the school.

Another recommendation would be to use screening tools and health questionnaires such as the STSS by mental health care professionals. Screening tools could be beneficial in detecting students and faculty at risk for developing a mental illness or those suffering from trauma-related issues such as STS. Universal screening is ideal for school settings as it provides risk identification and management at no cost, travel, appointments, or referrals. (Siceloff et al., 2017).

Lastly, combating trauma starts with changing culture from the traditional to a trauma-responsive system. A culture change must be rooted in theory and practice and depends upon all team members such as, legislators, the community, administrators, faculty, staff, and students.

The Substance Abuse and Mental Health Services Administration defines a trauma-informed school as possessing the four Rs: realize, recognize, respond, and resist re-traumatization, that not only includes students experiencing trauma but also the welfare of the educators interacting with them (Luthar & Mendes, 2020). Initiation of such recommendations needs to be a priority for policymakers and leaders locally, state-wide, and federally.

### ***Recommendations for Future Research***

Findings from this study led to five recommendations for future research. This study used nursing faculty from the Minnesota State system as the sample. Therefore, the first recommendation for future studies should be to increase the sample size to include other college and university systems within Minnesota. Future researchers could also use nursing faculty on a national scope. This study only focused on the nursing faculty of undergraduate programs and could benefit from including those teaching in graduate nursing programs.

Nursing faculty within higher education served as the sample for this study. Future research would examine the effects of STS within other educational disciplines within higher education, especially those at increased risk, such as social work, counseling, and women's studies (Nikischer, 2018). Another recommendation for future research would be to use a qualitative methodological approach for exploring STS within higher education. This study used a quantitative methodology to examine the effects of STS on nursing faculty.

Lastly, this study used the Secondary Traumatic Stress Scale and the Functional Impairment from Secondary Trauma as instruments to measure STS and functional impairment levels. Future research could adopt a variety of available instruments for measuring STS and PTSD. Instruments that have been used in previous research on STS are the Secondary Trauma Questionnaire (Motta et al., 1999, 2001, 2004), the Compassion Fatigue Scale (Adams et al.,

2008), and the Questionnaire for Secondary Traumatization (Weitkamp et al., 2014). The STSS scale was used for this study because of its reliability and validity in similar direct care professions, the ability to obtain the authors' permission to use it, and the ease and clarity of the scale itself.

This study sought to contribute to the existing knowledge on STS by expanding upon the recommendations by Armes et al. (2020), Benuto et al. (2018), Bride et al. (2004), Lynch and Glass (2018), Miller and Flint-Stipp (2019), Motta et al. (1999), Motta (2008), Nikischer (2018) and Raimondi (2019) for future research. Additionally, the literature presented in Chapter 2 confirms an extensive amount of research on STS in various disciplines, excluding higher education. The recommendations drawn from this study could provide a broadening of knowledge on STS in higher education.

### **Summary**

The increased exposure to student trauma led to secondary traumatic stress in nurse educators and affected their professional and personal lives. Roughly 92% ( $n=161$ ) out of 175 participants were exposed to one or more student traumas, with 61% ( $n=107$ ) experiencing mild or higher levels of STS. The amount of student trauma was found to be correlated to STS. Those participants experiencing STS also had some level of functional impairment, with 67% ( $n=117$ ) having a score of one through 17 out of a possible 28. The severity level of STS was related to the level of functional impairment reported.

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## **Appendix A: Primary Instrument**

### **Secondary Traumatic Stress and its Effects on Nurse Faculty**

#### **Introduction:**

You are invited to participate in a research study regarding Secondary Traumatic experiences in nursing faculty. For this study, Secondary Traumatic Stress is defined as the persistent emotional and physical distress a person experiences after indirect exposure to a student's trauma, through a first-hand account of a traumatic event (Figley, 2015). Your participation in this study will help to better understand the occurrence and effects of secondary trauma on nursing faculty. This research is being carried out by Devon Luthens, a doctoral student at Winona State University.

#### **Procedure:**

If you agree to participate as a subject in this research, you will be asked to complete an online survey that will ask you about your experiences with traumatized students and how that has affected your daily function, both personal and professional. The survey will include (a) demographic items, (b) 2 questions regarding exposure to student trauma, (c) the 17-item Secondary Traumatic Stress Scale, and (d) the 7-item Functional Impairment from Secondary Traumatic Stress Scale. You can expect that this will take approximately 15-20 minutes.

#### **Potential Risks of Participation:**

The research survey will collect sensitive information. The risks associated with this study are psychological or emotional risks (e.g., fear, stress, confusion, guilt, loss of self-esteem, depression, triggering of past emotional experiences). The research survey may result in undesired changes in thought processes and emotion (e.g., episodes of depression, embarrassment, distress). Participants may opt- out or stop the survey at any point. Participants may make arrangements for these difficulties to be dealt with by a professional such as a primary care provider or mental health professional.

#### **Potential Benefits of Participation:**

While there will be no direct benefits to participating this research, however, you will provide information that will help add to the body of knowledge and recognition on how nursing faculty are affected by their work with traumatized students.

#### **Statement of Confidentiality:**

Your survey responses will not have any identifying information and will be stored for three years. They will only be available to Devon Luthens.

#### **Voluntary Nature of the Study:**

Participation is voluntary, and you may stop participating at any time. All surveys will be anonymous, and the researcher will not be able to see who participates.

If you have questions about your rights as a participant, contact Human Protections Administrator Brett Ayers at 507-457-5519 or [bayers@winona.edu](mailto:bayers@winona.edu). This project has been

reviewed by the Winona State University Institutional Review Board for the protection of human subjects.

**Statement of Consent:**

If you agree to participate, responding to the survey and questionnaire questions constitutes your consent. Click “Yes” if you agree to participate in this study. Click “No” if you do not wish to participate in this study. See the attached consent form.

WSU IRBNet ID# Date of WSU IRB  
approval: 1830791-2

- I agree to participate
  - I do not wish to participate
- 

What is your gender?

- Male
  - Female
  - Non-binary / third gender
  - Prefer not to say
- 

What is your race?

- White
- Black or African American
- American Indian or Alaska Native
- Asian
- Native Hawaiian or Pacific Islander
- Other

What is your age?

Please drag the slider to your age:

0 10 20 30 40 50 60 70 80 90 100

Click to write Choice 1 (1)



---

What is your marital status?

- Married
- Widowed
- Divorced
- Separated
- Never married

---

What is your highest level of education earned?

- 4 -year degree
- Professional degree
- Doctorate

Are you currently employed at one of the Minnesota State Colleges and Universities as nursing faculty?

- Yes
  - No
-

What is your faculty rank?

- Full-time tenure
- Part-time tenure
- Full-time non-tenure
- Part-time non-tenure
- Adjunct full-time
- Adjunct part-time
- None of the above

What type of nursing program do you currently teach in? Select all that apply.

- Bachelor's RN
- 2- year RN
- LPN
- None of the above

Since January 1, 2021, what types of student trauma have you been exposed to? Select all that apply.

- mental illness such as depression, anxiety, PTSD
- sexual assault or abuse
- death of a loved one
- hate crimes and/or discrimination
- substance abuse

- natural or man-made disasters
- poverty
- physical abuse
- emotional abuse
- neglect
- witnessing violence
- caregiver mental illness
- caregiver substance abuse
- parental incarceration
- community violence

Since January 1, 2021, how often have you been exposed to any of the student trauma listed in the above question?

- 0 or never
- 1-5 times
- 6-10 times
- 11-15 times
- 16+ times

## Secondary Traumatic Stress Scale

The following 17-item is a list of statements made by persons who have been impacted by their work with traumatized students. Read each statement then indicate how frequently the statement was true for you in the past year by selecting the corresponding number next to the statement.

	Never (1)	Rarely (2)	Occasionally (3)	Often (4)	Very Often (5)
I felt emotionally numb.... (1)	<input type="radio"/>				
My heart started pounding when I thought about my work with students.... (2)	<input type="radio"/>				
It seemed as if I was reliving the trauma(s) experienced by my student(s).... (3)	<input type="radio"/>				
I had trouble sleeping.... (4)	<input type="radio"/>				
I felt discouraged about the future.... (5)	<input type="radio"/>				
Reminders of my work with students upset me.... (6)	<input type="radio"/>				
I had little interest in being around others.... (7)	<input type="radio"/>				
I felt jumpy.... (8)	<input type="radio"/>				

I was less active than usual.... (9)	<input type="radio"/>				
I thought about my work with students when I didn't intend to.... (10)	<input type="radio"/>				
I had trouble concentrating.... (11)	<input type="radio"/>				
I avoided people, places, or things that reminded me of my work with students.... (12)	<input type="radio"/>				
I had disturbing dreams about my work with students.... (13)	<input type="radio"/>				
I wanted to avoid working with some students.... (14)	<input type="radio"/>				
I was easily annoyed.... (15)	<input type="radio"/>				
I expected something bad to happen.... (16)	<input type="radio"/>				
I noticed gaps in my memory about student sessions.... (17)	<input type="radio"/>				

### Functional Impairment from Secondary Trauma Scale

In the areas of social, occupational, familial, sexual, psychological, emotional, and physical functioning of your professional and personal life, how much **significant distress or impairment** has resulted from your trauma work

with students. Read each statement then indicate how frequently the statement was true for you in the past year by selecting the corresponding number next to the statement.

	None	A Little	Some	A Lot	A Great Deal
How much significant distress or impairment in your <b>social functioning</b> has resulted from your trauma work with students?	<input type="radio"/>				
How much significant distress or impairment in your <b>occupational functioning</b> has resulted from your trauma work with students?	<input type="radio"/>				
How much significant distress or impairment in your <b>familial functioning</b> has resulted from your trauma work with students?	<input type="radio"/>				
How much significant distress or impairment in your <b>sexual functioning</b> has resulted from your trauma work with students?	<input type="radio"/>				
How much significant distress or impairment in your <b>psychological functioning</b> has resulted from your trauma work with students?	<input type="radio"/>				
How much significant distress or impairment in your <b>emotional functioning</b> has resulted from your trauma work with students?	<input type="radio"/>				
How much significant distress or impairment in your <b>physical functioning</b> has resulted from your trauma work with students?	<input type="radio"/>				

**Appendix B: STSS and FISTS Author Permission**

Brian Bride <bbride@gsu.edu>

Tue 8/31/2021 4:31 PM

To: Luthens, Devon L

Hi Devon,

Thanks for writing again...I knew I was forgetting an email.

I am attaching the scale, a couple articles, and another scale that may be of use. The second scale is the measures impairment due to STS.

You have permission to use both either or both.

I also have not come across anything about STS in educators at the college or graduate school level. So, great topic!!

One thing to consider as you are designing your study....Are you wanting to look at students' personal traumas? Or students STS?

Best,

Brian

***Brian E. Bride, Ph.D., M.S.W., M.P.H.***

***Distinguished University Professor***

***School of Social Work***

***Georgia State University***

***55 Park Place, NE, 5th Floor***

***Atlanta, Georgia 30302***

***(404) 413-1052***

***[bbride@gsu.edu](mailto:bbride@gsu.edu)***

## Appendix C: Original STSS

### SECONDARY TRAUMATIC STRESS SCALE

The following is a list of statements made by persons who have been impacted by their work with traumatized clients. Read each statement then indicate how frequently the statement was true for you in the past **seven (7) days** by circling the corresponding number next to the statement.

NOTE: "Client" is used to indicate persons with whom you have been engaged in a helping relationship. You may substitute another noun that better represents your work such as consumer, patient, recipient, etc.

	Never	Rarely	Occasionally	Often	Very Often
1. I felt emotionally numb.....	1	2	3	4	5
2. My heart started pounding when I thought about my work with clients.....	1	2	3	4	5
3. It seemed as if I was reliving the trauma(s) experienced by my client(s).....	1	2	3	4	5
4. I had trouble sleeping.....	1	2	3	4	5
5. I felt discouraged about the future.....	1	2	3	4	5
6. Reminders of my work with clients upset me.....	1	2	3	4	5
7. I had little interest in being around others.....	1	2	3	4	5
8. I felt jumpy.....	1	2	3	4	5
9. I was less active than usual.....	1	2	3	4	5
10. I thought about my work with clients when I didn't intend to.....	1	2	3	4	5
11. I had trouble concentrating.....	1	2	3	4	5
12. I avoided people, places, or things that reminded me of my work with clients.....	1	2	3	4	5
13. I had disturbing dreams about my work with clients.....	1	2	3	4	5
14. I wanted to avoid working with some clients.....	1	2	3	4	5
15. I was easily annoyed.....	1	2	3	4	5
16. I expected something bad to happen.....	1	2	3	4	5
17. I noticed gaps in my memory about client sessions.....	1	2	3	4	5

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Intrusion Subscale (add items 2, 3, 6, 10, 13)

Avoidance Subscale (add items 1, 5, 7, 9, 12, 14, 17)

Arousal Subscale (add items 4, 8, 11, 15, 16)

TOTAL (add Intrusion, Arousal, and Avoidance Scores)

Intrusion Score \_\_\_\_\_

Avoidance Score \_\_\_\_\_

Arousal Score \_\_\_\_\_

Total Score \_\_\_\_\_

**Bride, B.E.**, Robinson, M.R., Yegidis, B., & Figley, C.R. (2004). Development and validation of the Secondary Traumatic Stress Scale. *Research on Social Work Practice, 14*, 27-35.

## Appendix D: Original FISTS

### Functional Impairment from Secondary Trauma Scale

In the following areas of functioning, how much **significant distress or impairment** has resulted from your trauma work with clients:

		<i>None</i>	<i>A Little</i>	<i>Some</i>	<i>A Lot</i>	<i>A Great Deal</i>
1	... Social functioning?	0	1	2	3	4
2	... Occupational functioning?	0	1	2	3	4
3	... Familial functioning?	0	1	2	3	4
4	... Sexual functioning?	0	1	2	3	4
5	... Psychological functioning?	0	1	2	3	4
6	... Emotional functioning?	0	1	2	3	4
7	... Physical functioning?	0	1	2	3	4

NOTE: A total score should be derived by summing the responses.

Citation: Bride, B.E. (2013). The Functional Impairment from Secondary Trauma Scale (FISTS). Unpublished manuscript.

## Appendix E: IRB Approval



Winona State University Institutional Review Board (IRB)  
Human Protections Administrator  
Maxwell 161  
Winona, MN 55987  
507.457.5519 or [bayers@winona.edu](mailto:bayers@winona.edu)

DATE: November 30, 2021

TO: Devon Luthens  
FROM: Winona State University IRB

PROJECT TITLE: [1830791-2] Secondary Traumatic Stress and its Effects on Nurse Faculty  
SUBMISSION TYPE: Revision

ACTION: DETERMINATION OF EXEMPT STATUS  
REVIEW TYPE: Administrative Review

Thank you for your submission of Revision materials for this research study. The IRB has determined this project is exempt according to 45 CFR 46.101(b). You may begin your research.

While your project is exempt from further review, you must report to the IRB any significant modifications in your protocol, consent form, and/or data collection tool(s). All serious and unexpected events, non-compliance, or complaints must also be reported to this office.

For all reports, please use the report form in IRBNet Forms and Templates Document Library and refer to the "How to Do Everything" document for instructions.

We will retain a copy of all your submitted materials and a copy of this correspondence within our records.

If you have any questions, please contact the Human Protections Administrator at 507.457.5519 or [bayers@winona.edu](mailto:bayers@winona.edu). Please include your project title and reference number in all correspondence with this committee.

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within the Winona State University IRB records.