The Impact of Burnout, Vicarious Trauma and Secondary Traumatic Stress on Job Satisfaction in Nurses: A Comparison of Sexual Assault Nurse Examiners (SANEs) and Emergency Nurses

by

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ABSTRACT

Occupational stress is a major concern in Canadian society, and nurses have been identified as a high-risk population. In this study, levels of occupational stress (vicarious trauma, secondary traumatic stress, and burnout) were examined in Sexual Assault Nurse Examiners (SANEs) and Emergency nurses. Our objectives were: 1) to compare levels of occupational stress between groups, 2) examine the relationships between occupational stress and job satisfaction, and 3) examine the relationship between job satisfaction, intention to leave, and absenteeism. Results showed no significant group differences on vicarious trauma and secondary traumatic stress, but significantly higher levels of burnout in Emergency nurses, and intention to leave one’s job significantly predicted job satisfaction in Emergency nurses. Although SANEs did not experience greater occupational stress, open-ended data indicated negative consequences to this work. However, both groups also spoke to the positive rewards of helping those in need. Implications for nursing practice are also discussed.
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INTRODUCTION
CHAPTER 1

INTRODUCTION

Occupational stress is a major health concern in Canada (Statistics Canada, 2011) which may result in significant absenteeism and turnover in the workplace (Davey, Cummings, Newburn-Cook & Lo, 2009) – a major cost to individual organizations and the Canadian healthcare system (Strachota, Normandin, O’Brien, Clary & Krukow, 2003).

Nurses are the largest health profession in Canada, with over 300,000 regulated nurses (Statistics Canada, 2006). Nurses have been identified as experiencing high levels of occupational stress, due to work overload, role conflict, aggression (Lim, Bogossian & Ahern, 2010) and working with traumatized patients (e.g., Austin, Goble, Leier & Byrne, 2009). An adverse consequence to occupational stress in nurses is absenteeism (taking days off work), low job satisfaction and leaving the job (turnover).

Sexual Assault Nurse Examiners (SANEs) or Sexual Assault/Domestic Violence (SADV) nurses are specially trained to conduct sexual assault (SA) examinations in acute-care settings, and work in close contact with SA survivors (men, women, and children) as well victims of domestic violence. Although preliminary research has begun to explore the negative psychological effects that these nurses may experience, further research is necessary to better understand the psychological impact of working with trauma patients, as well as the occupational consequences.

In the current study, we examined levels of occupational stress (operationalized as burnout, vicarious trauma, and secondary traumatic stress/compassion fatigue) in SANEs and a comparison sample of Emergency nurses, as well as the association of these stressors to overall job satisfaction. Nurses who have not completed all of their training (described
in detail in section 5.3) are referred to as Sexual Assault/Domestic Violence Nurses, while Sexual Assault Nurse Examiners (SANEs) are those that have completed all training. However, both SADV nurses and SANEs can perform the SA/DV exam. For clarity, both groups will be referred to as “SANEs” in the current study.

The objectives of this study were to: 1) examine levels of occupational stress within and between groups; 2) examine the association between occupational stress in job satisfaction in each group; and 3) explore the association between job satisfaction, intention to leave work, and absenteeism in each group. In addition, since research on SANEs is limited, a final objective of this study is to explore variables that are potentially predictive of occupational stress and job satisfaction, such as experience level of the practitioner. That is, we sought to better understand whether level of experience, or training, is protective against occupational stress and low job satisfaction in SANEs.

The results of this study will add to the limited research examining occupational stress in nurses from a Canadian healthcare perspective. Given that the health of nurses has an important impact on patient care and quality of service, this study will contribute new knowledge on an under-researched population (SANEs).
BACKGROUND
CHAPTER 2

OCCUPATIONAL STRESS & OCCUPATIONAL HAZARDS

2.1. Occupational Stress

Work stress or occupational stress has been defined as “the harmful physical and emotional responses that occur when job requirements do not match the worker’s capabilities, resources, and needs” (National Institute for Occupational Health and Safety, 1999). It has been well described that occupational/work stress is detrimental to one’s health and well-being, as well as to organizations, in terms of lowered productivity and healthcare costs (Strachota, Normandin, O’Brien, Clary & Krukow, 2003). Indeed, previous research has found that highly stressed individuals are 46% more costly (in terms of healthcare expenditures) than those without this risk (Goetzel, Anderson, Whitmer, Ozminkowski, Dunn & Wasserman, 1998). In Canada, occupational stress is a major health concern, with approximately 1 in 4 Canadian workers describing their work as the primary source of stress (Statistics Canada, 2011).

2.2. Occupational Stress in Nurses

It has been well established that nurses are a group that experience high levels of stress (e.g. McGibbon, Peter & Gallop, 2010; Lim, Bogossian & Ahern, 2010) and experience higher levels of stress at work compared to the general working population (Statistics Canada, 2006). In a 2005 study, Statistics Canada surveyed 19,000 Canadian nurses to examine the relationship between work environment and the health of Canadian nurses. The findings revealed that nurses (compared with the general working population) experience lower co-worker support, report their jobs as highly physically
demanding, have greater role overload, (too much work to do in the time allowed) and experience higher than average levels of job strain. Moreover, a higher proportion of nurses indicated that they were dissatisfied with their job (compared to a matched sample). In this survey, the authors operationalized work stress using a number of categories, such as job strain, organizational support, physical demands and job security (Statistics Canada, 2006). Work/occupational stressors have also been operationalized as the individual, psychological consequences that may develop in response to working with people.

Consequences of work stress are detrimental to organizations and the public. A high degree of occupational or work stress has been shown to be strongly inversely correlated with job satisfaction (Zangaro & Soeken, 2007). Job satisfaction is highly and negatively correlated with intention to leave, suggesting that as job satisfaction decreases, the intent to leave one's job increases (Irvine & Evans, 1995). Leaving one's job, or “turnover” in nurses, has been characterized as a global concern, due to its substantial impact on the financial performance of healthcare systems and likely, the quality of patient care (Hayes, et al., 2006). The cost of a turnover per nurse has been estimated to be over $21,000, (O'Brien-Pallas et al., 2006) which highlights the need for researchers to more carefully examine the causes and consequences of nurse turnover.

Occupational stress has been examined and defined differently across studies. Three often cited occupational stress constructs that occur in nurses and other healthcare professions are: burnout, vicarious trauma, and secondary traumatic stress (also referred to as “compassion fatigue”). Although these constructs are often used interchangeably, each
construct is defined uniquely and may measure different aspects of occupational stress. As a result, each is discussed in detail below.

2.3. Burnout

Burnout is defined as “a syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among individuals who do ‘people’ work of some kind” (Maslach, 1982, p. 3) and encompasses three domains: Emotional Exhaustion (EE), Depersonalization (DP), and Personal Accomplishment (PA). Emotional Exhaustion is conceptualized a “depletion of one’s emotional resources” and is central in pattern of burnout (Maslach, 1982, p. 3). Depersonalization follows emotional exhaustion, and reflects a change in a helper’s response from caring to callous and detached. That is, once a helper becomes exhausted from providing care and emotional support, he/or she may detach from subsequent patients or clients. Reduced personal accomplishment, or a feeling of distress or guilt about one’s job and his or her ability to perform it effectively, may then follow. Within the helping relationship, a number of factors may be specifically related to burnout, including the focus on the problems, the lack of positive feedback to the helper, the level of emotional stress, and the possibility of change or improvement (Maslach, 1982).

The extant literature has described the negative outcomes related to burnout. Lowered job performance has been shown to be related to burnout, which includes aspects of absenteeism, intention to leave one’s job, and turnover (Maslach, Schaufeli & Leiter, 2001). Moreover, numerous studies have pointed to the inverse relationship between the burnout factors (emotional exhaustion, depersonalization and reduced personal accomplishment) and job satisfaction (Maslach, 2001).
Demographic factors have also been examined as risk factors of burnout. Maslach (2001) points to gender, age, marital status and education as demographic variables that have examined in relation to burnout. According to Maslach (1982), both women and men experience similar rates, but women tend to experience more emotional exhaustion, and men are more likely to experience depersonalization. However, this may be confounded by the differences in occupations by gender – women are more likely to be nurses, social workers or counsellors, and men are more likely to be physicians and police officers. Age has been consistently linked to burnout, indicating that burnout is higher in younger employees, or, the risk of experiencing burnout is higher early in one’s career (Maslach, 2001). Studies of marital status also suggest that those who are not married are at higher risk for burnout (Maslach, 2001). Finally, some studies have suggested that those with more education experience higher levels of burnout, but further research is needed to understand this finding, as it is somewhat counterintuitive.

In addition to specifically job-related outcomes, burnout has been shown to be related to numerous detrimental psychological outcomes, such as depression, (Maslach, 2001) psychological withdrawal from work, lowered morale, reduced self-esteem and more daily life hassles (Baird & Jenkins, 2003). However, research on the negative health consequences of burnout is limited (Maslach, 2001).

2.4. Vicarious Trauma

Vicarious trauma (VT) was first described by McCann & Pearlman in 1990, who conceptualized it as the negative cognitive changes that occur in therapists who regularly treat traumatized clients. They hypothesized that the experience of trauma disrupts one’s “cognitive schemas”, such as dependency/trust, safety, power, independence, esteem,
intimacy, and frame of reference, and by virtue of working closely with trauma survivors, clinicians may also experience disruptions in these same schemas (McCann & Pearlman, 1990). Put another way, due to being repeatedly exposed to stories about abuses of trust, powerlessness, and lack of safety, these cognitions may become part of the carer’s own schemas – leading to “vicarious traumatization” (Chouliara, Hutchison & Karatzias, 2009). VT has also been viewed as a type of “countertransference”, where the distressing emotions and images described by the clients become related to the therapist (McCann & Pearlman, 1990). Vicarious trauma is “pervasive, that is, potentially affecting all realms of the therapist’s life; cumulative, in that each client’s story can reinforce the therapist’s gradually changing schemas; and likely permanent, even if worked through completely” (McCann & Pearlman, 1990, p. 136).

The symptoms of VT have been described as akin to those of post-traumatic stress disorder, (PTSD) such as intrusive imagery and physiological reactions. Other symptoms may include disruptions in feelings of safety, trust and intimacy; leading to flashbacks, dreams, painful emotions or intrusive thoughts about their clients’ trauma (Baird & Jenkins, 2003). These may be due to changes in sensory systems, which may lead to these PTSD-like symptoms (Pearlman and Saakvitne, 1995). Similar to PTSD symptoms, some studies have hypothesized that symptoms of VT can be cued – that is, a healthcare worker may become “triggered” by exposure to a cue that reminds them of the traumatic story of their client (Sabin-Farrell & Turpin, 2003). VT appears to build across time, as healthcare providers continue to be exposed to traumatic material over the course of his/her career (Tabor, 2011). Factors that are associated with VT include a personal history of trauma, caseload, level of experience, coping strategies, and gender differences (Tabor, 2011).
VT can been differentiated from burnout by emphasizing its development as a consequence of close work with others’ trauma stories – as opposed to burnout, which may be the result of high stress, low control work environments, which may or may not include being exposed to others’ negative experiences.

2.5. Secondary Traumatic Stress (Compassion Fatigue)

Secondary traumatic stress, (STS) also referred to as compassion fatigue, (CF) was defined by Figley as “the natural, consequent behaviours and emotions resulting from knowledge about a traumatizing event experiencing by a significant other. It is the stress resulting from helping or wanting to help a traumatized or suffering person” (Figley, 1995, p.10). Secondary traumatic stress, like vicarious trauma, is viewed as developing in response to work with victims of trauma, but is a “state of tension and preoccupation with the traumatized patients” (Figley, 2002 p. 1435). The symptoms of STS are nearly identical to those of post-traumatic stress disorder (PTSD), with the exception that the DSM-IV PTSD diagnosis requires the individual to have directly witnessed or experienced a traumatic event (Baird & Jenkins, 2003). STS involves a “secondary” hearing/witnessing of the traumatic event (i.e., not directly). Thus, the symptoms of STS include re-experiencing the traumatic event(s), avoidance or numbing of reminders of the traumatic event, and persistent arousal (Figley, 2002).

The “causes” of STS have been conceptualized by Figley (2002). He explains that the development of STS is based on the underlying assumption that empathy and emotional energy are at the core of successfully working with a traumatized client, but the provision of this to others involves a cost to the therapist/carer. He outlines 10 variables that may cause/prevent STS: empathic ability, empathic concern, exposure to the client, empathic
response, compassion stress, sense of achievement, disengagement, prolonged exposure, traumatic recollections and life disruption.

Some research has investigated demographic factors and STS. In a review by Bride (2004), he notes that age has been inconsistently associated with STS; with some studies showing no relationship, and others reporting younger age associated with higher levels of STS. This inconsistency was similarly found with gender, as most studies have indicated no relationship, but one study finding that female therapists had greater symptoms of STS. For level of education, one study showed that psychologists had lower levels of STS than social workers. However, other studies have failed to find any relationship. Thus, the current evidence is inconsistent and further research is needed to clarify these relationships.
CHAPTER 3
REVIEW OF BURNOUT, VT AND STS STUDIES IN HEALTHCARE WORKERS

As discussed in the preceding chapter, burnout, VT and STS are independent constructs, measuring unique aspects of occupational stress. However, a common element of each construct is that it arises out of work with people, that is, doing “people work” of some sort. While VT and STS are hypothesized to occur in those working with a traumatized population, burnout is related to workplace variables such as workload, poor support from co-workers, and job structure (Baird & Jenkins, 2003). Burnout has been well-described in nurses, due to high levels of job strain and role overload (Statistics Canada, 2006). Conversely, VT and STS are most often studied in sexual assault counsellors, social workers, and mental health workers, who are often exposed, in great detail, to their patient’s/client’s trauma history. In the following sections, the literature on burnout, VT and STS will be reviewed in nurses and those treating sexual trauma victims, as these two populations are often cited in the literature.

3.1. Studies measuring Burnout

Research on burnout has proliferated since its inception in the early 1990’s, and of the three occupational stress concepts, has the most substantial base of empirical research. Burnout has been examined in numerous professions, including nurses (e.g. Heckman, 2012), physicians (e.g. Vicentic et al., 2013) and correctional officers (e.g. Finney, Stergiopolous, Hensel, Bonato & Dewa, 2013). In a Dutch study, the prevalence of burnout was estimated at about 4-7% of the working population (Schaufeli & Enzmann, 1998).
Since the literature is vast, this review will focus on groups relevant to the study at hand – namely, nurses and those working with victims of trauma.

Johnson & Hunter (1997) examined levels of burnout in counsellors working with victims of sexual assault. Results indicated that counsellors working with victims of sexual assault had higher levels of emotional exhaustion on the Maslach Burnout Inventory (MBI) and use more avoidance coping strategies compared to counsellors not treating sexual assault victims.

In a mixed method study, Killian (2008) examined compassion fatigue and burnout in clinicians treating survivors of childhood sexual abuse. In the qualitative phase, participants were asked how they recognize stress, how their personal and professional lives were affected by their work stress, as well as the coping skills used to alleviate this stress. Four themes were gleaned from the data: recognizing symptoms of work stress, risk factors in developing burnout, definitions of self-care, and self-strategies. Participants spoke about intrusive thoughts about clients’ experiences, and how these were often difficult to forget. Risk factors included high caseload demands, personal history of trauma, an unsupportive work environment and a lack of a supportive social network. Types of self-care that were described were spirituality, debriefing, and exercise. In the quantitative study, 104 therapists treating trauma survivors completed a survey which included measures of burnout (measured using five items from the emotional exhaustion scale of the MBI). Findings showed that work drain, lack of work morale, and neuroticism were all significantly associated with burnout. “Work drain” was defined as a “condition where job-related stress spills over and affects one’s ability to enjoy off-work hours at home” (Killian, 2008, p. 38).
In a doctoral dissertation, Hazell (2010) investigated job stress, burnout, job satisfaction and intention to leave in a sample of 129 registered nurses in the U.S. Job stress was measured by the Expanded Nursing Stress Scale (ENSS), the MBI was used to measure burnout, job satisfaction was measured using the Professional Turnover Questionnaire (Price & Mueller, 1981) and intention to leave was measured using four items from the intention to leave scale (Kim, Price, Mueller and Watson, 1996). The results from this study showed that burnout significantly predicted job satisfaction, with personal accomplishment having the strongest association, and job satisfaction significantly predicted intention to leave.

### 3.2. Studies measuring vicarious trauma

As previously described, VT usually develops over time, and results in changes in one’s cognitive schemas about power, safety, and trust. As a result, much of the extant literature examining VT focuses on those treating trauma victims over a longer period of time, such as trauma therapists and social workers treating sexual assault survivors. Two of the seminal papers examining VT in healthcare workers are Schauben and Frazier’s (1995) study of female sexual violence counsellors and Pearlman and Maclan’s (1995) study of trauma therapists (Sabin-Farrell & Turpin, 2003). Schauben and Frazier’s (1995) study of female counsellors revealed a positive correlation between a higher caseload of sexual violence survivors and symptoms of PTSD, VT, and disruptions in schemas (self and other). Conversely, Pearlman and Maclan’s (1995) results showed that a higher caseload of trauma survivors was associated with lower disruptions in beliefs. However, those therapists who were newer to this type of work (i.e., less experienced) had higher levels of disruptions in beliefs.
Since these articles were published, a number of studies have examined VT in people working with trauma survivors. Two reviews have also looked at this question (Chouliara, Hutchison & Karatzias, 2009; Sabin-Farrell & Turpin, 2009). Chouliara and colleagues’ review indicated that all studies reported some negative psychological disruption in trauma/sexual violence workers. Sabin-Farrell & Turpin (2009) performed a review of qualitative studies examining VT in trauma counsellors, with findings suggesting detrimental affective and physical reactions after work with traumatized populations.

Chouliara, Hutchison & Karatzias (2009) also outline some of the limitations of the current literature on VT, and suggest that future studies should provide a clearer definition of the population that counsellors work with (e.g., child sexual abuse, adult sexual assault), should use a comparison group, should report on caseload with more precision, and should consider more carefully the tool used to measure VT.

### 3.3. Studies measuring Secondary Traumatic Stress/Compassion Fatigue

STS/CF has also been examined in a number of studies. In a review, Beck (2011) identified seven studies (both quantitative and qualitative) examining STS in nurses. The findings suggested that STS was evident in each study, and the rates of elevated STS ranged from 25% - 78% in different nursing specialities.

In a qualitative study, Austin, Goble, Leier, & Byrne (2009) interviewed five nurses about their feelings of compassion fatigue. They identified six themes: running on empty (fatigue, having little to give to patients emotionally), shielding myself (distancing from patients, providing only the basics), being impotent as a nurse (hopelessness about change), losing balance: it overwhelms everything (overwhelming nature of CF), the kind of
nurse I was (feeling like one *used* to be empathic) and trying to survive (feeling that one is not living up to his/her expectations as nurses).

In a national study of 154 social workers, Choi (2011) found that the mean score on the STSS was in the mild range, reporting that 42% of the sample had little or no symptoms of secondary traumatic stress, 28.5% had mild symptoms, 12% had mild symptoms, 10.4% had high STS symptoms, and 7% had severe STS symptoms.

In a Canadian study, Buchanan, Anderson, Uhlemann & Horowitz (2006) surveyed mental health professionals using the Impact of Events Scale (Weiss & Marmar, 1995) and the Compassion Fatigue Self-Test for Practitioners (Figley, 1995). Two-hundred and eighty men and women responded to the survey, and results indicated that about a third of respondents self-reported experiencing STS at the time of the survey. Another interesting finding from this study was that those experiencing the highest levels of distress worked in community settings with high caseloads of trauma victims.

Although STS/CF is a newer occupational stress construct (in comparison to burnout and VT), the research base continues to grow. However, much of the current research suffers from that similar to research on VT – a lack of conceptual clarity. That is, many authors use the terms VT and STS interchangeably, although the definitions and symptoms of each are unique.

3.4. **Summary of research examining vicarious trauma, secondary traumatic stress and burnout**

The research examining burnout, vicarious trauma, secondary traumatic stress continues to develop and expand. However, a continued shortfall of the current research is a lack of operational clarification of terminology. The terms are often used as synonyms, although each is thought to encompass a distinct domain of experience. As mentioned, VT
and STS are specifically thought to occur as a result of working with victims of trauma, where hearing about one’s traumatic experience in detail can cause changes or difficulties in the individual providing treatment. Conversely, although burnout can develop while working with trauma survivors, this is not viewed as a necessary condition for burnout to develop. Rather, burnout is “situational”, and develops as a response to “chronic, everyday stress” (Maslach, 1982, p. 11). Moreover, some of the current literature does not clarify and/or justify the choice of measurement instrument to measure occupational stress constructs. This leads to a continued “muddying” of the literature; such that is it unclear which construct is being measured.
CHAPTER 4

SEXUAL ASSAULT NURSE EXAMINERS & SEXUAL
ASSAULT/DOMESTIC VIOLENCE NURSES

The focus of the present study is to examine levels of occupational hazards and the relationship with job satisfaction in Sexual Assault Nurse Examiners. SANEs were chosen as the group of interest since the function of these nurses is to closely work with individuals (adults and children) who have experienced sexual assault. In addition, SANEs work with victims of domestic violence, collecting information about the physical assault (or potentially, both physical and sexual assault) and documenting physical injuries. The following section details the role of a SANE and provides information on the development and rationale behind SANE programs.

4.1. Development of Sexual Assault Nurse Examiner (SANE) programs

Sexual Assault Nurse Examiners are specially trained to respond to victims of sexual assault and domestic violence. SANE programs first developed in the United States in the 1970’s, in response to the inadequate treatment of sexual assault victims in the emergency department. As Linda Ledray explains in the SANE development guide (U.S. Department of Justice) a number of factors led to the development of specialized sexual assault/domestic violence programs. For instance, sexual assault victims were required to wait in public places, that is, in busy emergency departments for many hours, where their physical wounds were viewed as less serious than other emergency patients. They were restricted from eating, drinking or urinating in case of evidence destruction, and doctors and nurses were not specially trained to collect forensic evidence that would be vital in legal contexts (Ledray, 2005). In addition, emotional reactions were not necessarily attended to in these
contexts. Moreover, sensitive forensic examinations often could be conducted by male physicians, if another source was not available. As a result of these shortcomings, the first SANE programs were established. Currently, there are more than 450 SANE programs in the United States alone.

In Canada, Sexual Assault Treatment Centres/SANE programs are found in most provinces, and are proliferating in rural settings, such as Northern Ontario (M. Barton, personal communication, January 4, 2013). In Ontario, the Ministry of Health and Long-term Care (MOHLTC) established the Ontario Network of Sexual Assault /Domestic Violence Treatment Centres (SA/DVTC) in 1993, which provides support to the 35 Ontario SA/DVTCs and establishes standardized care. The centres are staffed by part-time and full-time nurses, who are available 24 hours a day, 7 days a week.

Previous research has evaluated the efficacy and acceptability of SANE programs. In a quantitative study, Stermac and Stipe (2002) found that the average treatment time was shorter for SANEs than physicians, as well as shorter waiting periods for SANES versus physicians. Moreover, the percentage of service interruptions was appeared higher for physicians than SANEs. In a review by Campbell, Patterson & Lichty (2005), the authors describe five domains of effectiveness of SANEs: psychological effectiveness, medical/healthcare effectiveness, forensic effectiveness, legal effectiveness and community change effectiveness. Specifically, previous research has shown that women receiving care from a specialized sexual assault centre indicated feeling “listened to” (Malloy, 1991) and cared for by people with expertise (Eriksen et al, 2002). Moreover, SANE forensic kits have been shown to be more accurate and complete compared to those of non-SANE nurses and
physicians (Sievers, Murphy & Miller, 2003). In sum, a number of studies suggest the benefits of receiving care from a SANE nurse.

4.2. Sexual Assault/Domestic Violence Examinations

SANEs are typically the first point of contact for sexual assault victims in hospital settings. In Ontario, SANE programs are located within hospital settings. If physical injuries exist, patients will initially be treated in the emergency department prior to meeting with the SANE (D. Pavlic, personal communication, March 2013). If agreeable (and if consent is provided by the patient), SANEs are trained to offer the following services: Support and crisis counseling for the patient, completion of the forensic evidence kit (discussed in detail below), physical assessment, provision of medication if required (e.g. emergency contraceptive, antibiotics), information and referral to enhance the continuity of care for the patient, and can provide expert testimony in court, when necessary. ¹

The SANE will typically collect information about the assault, including whether drugs or alcohol were involved (drug facilitated sexual assault; DFSA), if a condom was used, and an assessment of physical injuries (e.g., if a weapon was used). The physical assessment involves noting any physical injuries (e.g. bruising or swelling) and will indicate any injuries on a body diagram (including pelvic injuries). Photographs may also be taken if injuries are visible, and patients must provide consent for photography. Relevant medical history may also be collected, including information on medical conditions, current medications, immunization history and pregnancy. If agreeable, the patient may consent to a pregnancy test, and baseline testing for sexually transmitted

¹ From "Sexual assault Nurse Examiner training manual" developed by the Ontario Network of Sexual Assault/Domestic Violence Treatment Centres
illnesses (STIs) (such as gonorrhea, trichomonas or chlamydia) or hepatitis B may be conducted. If at risk, the individual may choose to undergo treatment for HIV. Patients are closely monitored over time for any possible side-effects of these medications or treatments. Pregnancy prophylaxis (e.g. Plan B) may also be provided up to five days post-assault (D. Pavlic, personal communication, March 2013).

The forensic examination is conducted using the Centre of Forensic Science’s Sexual Assault Examination Kit (SAEK). The kit involves twelve steps, with directions for each step and items to collect evidence enclosed in twelve separate envelopes. Samples should be collected in conjunction with the information known about the assault; that is, certain steps maybe omitted if it is clear that no forensic data would exist. The twelve steps are: 1) collection of clothing (if available); 2) oral samples to collect any DNA from assailant; 3) fingernail samples (if indicated by the assault description); 4) skin samples (swabbing areas of the body where saliva from the assailant may remain on the body); 5) head hair samples (combing the hair and collecting any hairs shed); 6) blood samples (used for forensic analysis as well as testing for STIs); 7) pubic hair and foreign materials collection; 8) external genitalia samples (if indicated by the assault history); 9) vaginal samples; 10) rectal samples (if indicated by assault description); 11) DNA reference sample (involves swabbing the inside of the mouth in order to collect patient’s DNA; and 12) urine samples (sent for forensic analysis).

In addition to physical evidence, SANEs also provide emotional support to sexual assault victims. The nurse may assist with finding shelter, provide education about psychological sequelae of assault, and if the patient is agreeable, can refer patients to short-term counselling services. SANEs also work with clients experiencing domestic violence. In
these cases, physical injuries are typically documented, (with photography if possible) safety planning is discussed, resources are provided, and counselling is offered\(^1\).

### 4.3. SANE training in Ontario

To become a SANE in Ontario, the nurse will have completed the Sexual Assault Nurse Examiner Provincial Training Program, run by the Ontario Network of Sexual Assault and Domestic Violence Treatment Centres. The provincial training program is offered 1-2 times per year, and nurses must have at least 1 year of experience on the SA/DV roster to be qualified to attend the training. Authorization to be designated a SANE involves three phases: 1) 40 hours of classroom instruction to learn SANE skills, 2) supervised vaginal examinations of non-assaulted women, and 3) completion of sexual assault examinations, supervised by a SANE or physician. Finally, a supervising physician or SANE will evaluate the trainee on the two sexual assault cases, using a checklist of skills\(^1\).

Nurses who have not completed all of their training are referred to as Sexual Assault/Domestic Violence Nurses, while Sexual Assault Nurse Examiners (SANEs) are those that have completed all training. However, both SADV nurses and SANEs can perform the SA/DV exam, and thus the term “SANEs” will be employed throughout the study.

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\(^1\) From “Sexual assault Nurse Examiner training manual” developed by the Ontario Network of Sexual Assault/Domestic Violence Treatment Centres
CHAPTER 5

REVIEW OF PREVIOUS STUDIES EXAMINING NEGATIVE CONSEQUENCES TO SANE WORK

As previously discussed, a number of articles have investigated the negative consequences to working closely with sexual assault victims. However, few studies have explored the negative psychological effects that SANEs experience as a result of their work with traumatized patients. In order to review the extant literature examining the impact of SANE work, MEDLINE, EMBASE and PsycInfo were searched for terms relating to sexual assault nurses, “sexual assault nurse examiners” “forensic nurse”, and terms relating to occupational stress. The search resulted in over 300 articles; however, a small number specifically examined negative consequences to the nurse. These studies are discussed below.

Using a qualitative methodology, Maier (2011) interviewed 40 SANEs in the U.S. and found that 51% felt they had experienced vicarious trauma as a result of their work. Feelings associated with vicarious trauma were crying, feeling helpless, looking at the world differently, detachment, and difficulty sleeping. In terms of burnout, 46% of interviewees felt that had experienced some degree of burnout due to their work as a SANE. Causes of burnout were related to the number of hours working, lack of support, treating child victims, and treating victims of physically violent or brutal rapes. The author also explored coping strategies, and found that talking to family members, program coordinators, or fellow SANEs were helpful exercises, as well as detaching and moving on from difficult cases (Maier, 2011).
Townsend & Campbell (2009) explored correlates of secondary traumatic stress and burnout in SANEs using a job demands-resources model of burnout. The results from this study showed that protective factors against STS included peer support, satisfaction with compensation, SANE-only facilities, age, and education, and factors that were protective against burnout were peer support, compensation satisfaction, age, and higher education. The authors also found that programs that were more oriented towards prosecution were positively associated with burnout.

In a doctoral dissertation, Lenehan (1996) interviewed 12 SANEs in the U.S., exploring the emotional effects they experienced as a result of their work with SA victims, as well as the effect on relationships. In regards to the emotional consequences, respondents described significant anger, directed at perpetrators, the justice system, doctors, and in some cases, the victims themselves. The author also described “ambivalence and distancing” on behalf of some SANEs, which may be related to symptoms of STS (e.g. emotional numbing, avoidance of certain patients). SANEs also described symptoms similar to those conceptualized in VT, describing changes in their views of themselves and others. For example, some described being excessively hypervigilant, a sense of pervasive danger and paranoia and decreased trust in others. Moreover, some explained how these changes in themselves had negatively affected their relationships with spouses and children. For example, some women described that their work with sexual assault survivors affected their own sexuality, in part due to intrusive memories). Conversely, there were also positive aspects to SANE work; such as advocating for clients, a sense of power and self-esteem, and for many, a sense of gratification from their work.
In an unpublished master's thesis, French (2006) found that approximately 75% of SANE in a sample in Kentucky had endorsed symptoms of compassion fatigue. Specifically, half of the sample endorsed emotional symptoms such as sadness, grief, dread, anxiety, horror, fear, anger/rage or shame. Predictors of elevated compassion fatigue were nurses earlier in their career, and those with less experience as a SANE. Importantly, the author noted that nurses with high levels of compassion fatigue saw 80% of all victims (seen by study respondents).

In a recent article, Weis & Coy (2013) reported on the levels of vicarious trauma (measured by the STSS) in nurses providing care to SA victims in Ohio. To meet criteria for VT, the respondent would have to indicate experiencing the particular symptom, and the individual was required to endorse at least one symptom in the intrusion category, two in the arousal category, and three in the avoidance category (see appendix H for STSS). Based on this rubric, 38% of the sample met criteria for vicarious trauma.

Seng and Seubol (2004) interviewed SANE three times over a period of one year to explore their perceptions of role transition (learning to be a SANE) and stress. Nurses who chose to train as SANE explained the importance of considering the stress level of working with a sexual assault population before becoming a SANE. Moreover, some participants spoke about their emotional responses when treating SA victims who reminded them of someone in their life. Interestingly, instead of speaking of this as stressful, they used this as a motivation to provide better care to patients.

Some authors have also discussed the issue of role conflict in SANE. This conflict stems from SANE's dual, and often divergent roles as empathic nurses, caring for a traumatized client, and that of evidence collectors (Downing & Mackin, 2012). In one of the
few studies undertaken in Canada, DuMont and Parnis (2001) compared SANE and non-SANEs (nurses who had not yet completed SANE training) on a number of variables, including their perceptions of role conflict. Specifically, the authors asked participants whether they had ever experienced a "dilemma" between their role as a caregiver and a forensic evidence collector. Results showed that significantly more SANE experienced this dilemma compared to non-SANEs.

This review reveals that relatively few studies have examined the psychological effects of working with trauma survivors. A number of gaps in the extant literature can be identified through this review:

1) There are very few Canadian studies exploring the negative psychological consequences of SANE work.

2) Most studies used a qualitative methodology only.

3) The occupational stress constructs (STS, VT and burnout) were not clearly operationalized. For instance, in one study, participants were asked if they had ever experienced 'burnout'. It is unclear how individual SANE understood this term.

4) Comparison samples were rarely used.

5) Instruments used to measure occupational stress constructs varied across studies.

6) Studies did not adequately examine or measure the workplace consequences of occupational stress (e.g. attitudes towards their job, intention to leave current position).
CHAPTER 6
RATIONALE, RESEARCH QUESTIONS & HYPOTHESES

6.1. Rationale

As discussed above, very few studies have examined the negative consequences that SANEs experience as a result of their work. Moreover, very few of these have used a quantitative methodology to explore occupational hazards in this group of nurses. As SANE programs continue to grow throughout the Canada, it becomes important to examine the potential negative consequences of this work.

Therefore, this study attempts to address some of the gaps in the current literature by using a Canadian sample of SANEs, and a mixed-method methodology. Further, we included a comparison sample of Emergency nurses, who are also a group at high risk for psychological consequences and high turnover (Helps, 1996). To our knowledge, this study will be the first to collect data on three types of occupational stressors (burnout, secondary traumatic stress and vicarious trauma) and job satisfaction in Canada.

6.2. Research Questions and Hypotheses

The primary purpose of this study was to examine levels of occupational stress in SANEs, and the relationships between occupational stress, job satisfaction, and intent to leave one's job. The research questions and hypotheses for this study are as follows:

**Research Question 1:** What levels of VT, STS, and burnout are found in SANEs? Are these different from those of Emergency nurses?

**Hypothesis:** Levels of STS and VT will be greater in SANEs than Emergency nurses (due to the nature of SANE work with SA survivors), but levels of burnout will not be significantly
different between the two groups (due to other factors not related to working with SA survivors).

**Research Question 2:** Are VT, STS and burnout related to job satisfaction in SANEs and Emergency nurses?

*Hypothesis:* Levels of VT, STS and burnout will be inversely related to levels of job satisfaction in both SANEs and Emergency nurses.

**Research Question 3:** Is there an association between job satisfaction, intention to leave work, and absenteeism among both SANEs and Emergency nurses?

*Hypothesis:* Low levels of job satisfaction will be associated with greater absenteeism and intention to leave in both SANEs and Emergency nurses.

**Research Question 4:** How do nurses perceive the impact of their work with victims of trauma? Do nurses perceive that specialized training is protective against VT, STS, and burnout?

*Hypothesis:* Open-ended questions are included to explore nurses' perceptions regarding the impact of their work on job satisfaction and to their personal life.

**Exploratory Questions:** Since this is a relatively unexplored area, our exploratory questions are: How do levels of VT, STS, burnout and job satisfaction vary by caseload, experience, or demographics?
METHODS
7.1. Study design

This study used a cross-sectional design at a single time point. All questionnaires were included in a single survey package.

7.2. Recruitment

Two groups of nurses were included in this study: Sexual Assault Nurse Examiners and Emergency nurses.

*SANE recruitment.* To recruit our sample of SANEs, we planned to call each Ontario treatment centre publicly listed on three websites: the Ontario Network of Sexual Assault/Domestic Violence Treatment Centres (SADVTC), the website of the International Association of Forensic Nurses (http://www.forensicnurse.org/) and the Sexual Assault Nurse Examiner-Sexual Assault Response Team (www.sane-sart.com) website. However, since many centres employ only one or two full-time SANEs, it was difficult to make contact with the coordinator to provide information on a site-by-site basis. As a result, we contacted the Provincial Coordinator of the Ontario Network of Sexual Assault/Domestic Violence Treatment Centres. The network was established by the Ministry of Health and Long Term Care (MOHLTC) and provides leadership and support for each of the 35 hospital based centres in Ontario\(^2\). The information sheet was provided to the Provincial Coordinator, who reviewed the details of the study. The Provincial Coordinator sent the information sheet with the URL to the study to nurses across Ontario at SADVTC’s. Initial

\(^2\) www.satontario.com
contact to centres began in early March, 2013, and the provincial coordinator was contacted in May 2013. Data was collected between March 11th, 2013 and August 8th, 2013.

Emergency nurses. To recruit our sample of emergency nurses, we contacted the President of the Emergency Nurses Association of Ontario (ENAO), who agreed to post the information sheet with the survey link as well as a direct link to the survey on their website. Moreover, the ENAO agreed to send the information sheet to all ENAO members via email. In order to increase participation, we also contacted the National Emergency Nurses Association (NENA) who agreed to send an email with the information sheet to their Ontario members. The initial email and posting of the survey link was sent at the end of February 2013, and data was collected between February 28th, 2013 and July 19th, 2013.

7.3 Eligibility Criteria

The following are eligibility criteria for each sample of nurses:

SANEs:

1) Registered Nurse, Registered Practical Nurse, or Nurse Practitioner within Ontario
2) Have completed training in sexual assault examinations and authorized by hospital to complete sexual assault examinations independently
3) Facility with English permitting completion of study measures
4) Ability to provide informed consent

For emergency nurses:

1) Registered Nurse, Registered Practical Nurse or Nurse Practitioner within Ontario
2) Have received training to work as an Emergency nurse or completed certification to work as an Emergency nurse in a Canadian institution
3) Facility with English permitting completion of study measures
4) Ability to provide informed consent
7.4. Sample size

According to Stevens (2002), in Social Science research, fifteen subjects per predictor are needed for a reliable regression model. Following this rule, and with our study design which includes four major outcome measures, 60 participants are required to have adequate power.

7.5. Measures

Sociodemographic/Work-related Questions. Participants were asked to complete an online survey package consisting of sociodemographic information and a number of questionnaires. The sociodemographic information included the following variables: age, gender, income, highest level of education, marital status and ethnic background. Questions addressing aspects of one’s job were also included in the survey and were: work status (currently working/not currently working), work time (part time/full time), nursing group (RN vs. other), number of years working as a nurse (in any capacity) and number of years working in the specialty (i.e., SANE or emergency).

In addition, SANEs were asked to report on additional work-related variables that are specific to their role. These were: number of sexual assault (SA) exams conducted (total), number of SA exams conducted in past 30 days, average number of SA exams performed per month, number of hours dedicated to SANE role per week, number of non-SANE hours per week spent working, and the number of nurses in their organization trained to conduct sexual assault examinations. The purpose of these questions was to gain a better understanding of the relationship between the level of experience conducting examinations and occupational stress.
Emergency nurses were asked two additional work-related questions. The first asked participants to state the number of hours worked per week, and the second asked them to estimate the percentage of patients seen in the past month who were victims of SA. The purpose of these additional questions was to explore how the number of hours worked was related to other variables of interest, and the second question was to note whether Emergency nurses also see many SA victims.

Both groups were also asked to report on absenteeism and intention to leave. Specifically, both samples were asked about the approximate number of shifts missed in the past 30 days and 6 months. To measure intention to leave, participants were asked to rate, on a scale from 0 to 10, how much they intend to leave a) their current position and b) the nursing profession. The purpose of these questions was to evaluate any potential relationship between measures of occupational stress and the intention to leave one’s job/miss shifts.

Open-ended Questions. Both groups were also asked to respond to open-ended questions. Firstly, both were asked to report on their training, in order to gather information on the various methods of training to become SANE(S/SADV) nurses or emergency nurses. The questions were:

SANEs:

*Please explain the training process you completed in order to conduct Sexual Assault examinations (e.g., completed a hospital-based program, completed online education, received training through a college or university, etc.). Please include the length of time it took you (e.g. hours, length of training) to become qualified to conduct examinations.*

Emergency:

*Please explain the training process you completed in order to work as an Emergency Nurse in Ontario (e.g., certification program, training within your hospital, etc.). Please include the approximate length of time this process took (not including a Bachelor’s degree or a diploma*
The online survey also included open-ended questions, which provided the ability to provide more depth to the quantitative results. Participants were asked to report to these questions if they chose to, and to write as much (or as little) as they chose. The SANE survey included the following questions:

_Taking into account your work with traumatized patients, how do you feel this has affected your attitude and satisfaction towards your job? Please feel free to write as little, or as much, as you like._

_The questions thus far have asked you to rate any symptoms you’ve experienced as a result of your work with traumatized patients. In your own words, how do you feel your work with traumatized patients has affected your personal life (e.g. changes in feelings of safety or relationships)? Please feel free to write as little, or as much, as you would like._

_Previously, you described the training you underwent to conduct sexual assault examinations. In your own words, how well did this training prepare you for the psychological and emotional aspects of this job? Please feel free to write as much, or as little, as you like._

The Emergency nurse survey included the following open-ended question:

_Taking into account your work with patients who have experienced a traumatic event, (such as a sexual assault) how do you feel this has affected your attitude and satisfaction towards your job? Please feel free to write as little, or as much, as you like._

uestionnaires. Five questionnaires were used to assess secondary traumatic stress, vicarious trauma, burnout, and job satisfaction.

**1) Secondary Traumatic Stress Scale (STSS)**

The STSS is a 17-item, self-report scale measuring secondary traumatic stress symptoms associated with indirect exposure to a client’s traumatic events (Bride, Robinson, Yegidis & Figley, 2004). The three subscales of the STSS (intrusion, avoidance and arousal) are similar to PTSD symptom categories in the DSM-IV (American Psychiatric Association, 2000). Respondents are asked to rate their level of agreement with a statement on a 5 point scale ranging from 1 (never) to 5 (very often). Sample items include:
“I had trouble sleeping”, “I had little interest in being around others” and “reminders of my work with clients upset me”. Scoring of the STSS can be done via symptom, or as a total score (Bride, 2007). Scores below 28 indicate little or no STS, 28-37 as mild STS, 38-43 as moderate, 44-48 as high STS, and 49 and above is interpreted as severe STS.

A number of studies have employed the STSS with populations servicing highly traumatized clientele. In a large cross-sectional study in the U.S., Bride (2007) found that social workers in direct practice experienced symptoms of secondary traumatic stress disorder, with a mean STSS score of 29.69 (SD=10.74). Although the social workers in this study worked with diverse backgrounds, more than 80% indicated that their clients were moderately, severely, or very severely traumatized (Bride, 2007). In addition, in a national sample of social workers who work with survivors of family violence or sexual assault, Choi (2011) reported a mean score on the STSS of 32.07 (SD=10.39), indicating mild secondary traumatic stress.

The STSS has been shown to have good internal consistency and convergent and discriminant validity (Bride, Robinson, Yegidis, & Figley, 2004).

(2) Trauma and Attachment Belief Scale (TABS)

The Trauma and Attachment Belief Scale (Pearlman, 2003) is an 84-item self-report scale measuring disruptions in cognitive schemas, that is, one’s beliefs about oneself as well as others (Pearlman, 2003). The TABS measures five cognitive domains: safety, trust, esteem, intimacy and control, and assesses both self-and other beliefs (e.g. self-safety and other-safety) – thus, there are 10 subscales. Respondents are asked to rate their level of agreement to a statement on a six-point scale ranging from “Disagree strongly” to “Agree Strongly”. Sample items include “I believe I am safe”, and “You can’t trust anyone.” The
range of possible scores is 84-509, with higher values indicating higher levels of cognitive disruption. The TABS manual suggests reporting TABS scores as $T$-scores. A $T$-score less than 29 is interpreted as extremely low disruption, 30-39 very low, 40-44 low average, 45-55 average, 56-59 high average, 60-69 very high, and 70 or more is extremely high, or substantial disruption (Pearlman, 2003).

The manual provides data on a comparison sample of 266 trauma therapists in the U.S., and found a mean $T$-score of 44 (SD=9) (Pearlman 2003). Pearlman and Mac Ian (1995) reported a mean raw score of 184 in self-identified trauma therapists, using the TSI Belief Scale (an earlier form of the TABS, but are statistically equivalent, Van Deusen & Way, 2006). Cowgur (2006) reported a mean TABS score of 172.25 (SD=32.72) in Emergency nurses in the U.S., and Kadambi & Truscott (2004) reported a mean TSI Belief score of 146.56 in Canadian professionals providing counselling to victims of sexual violence.

The TABS is the only tool that has been specifically designed to measure vicarious trauma (Sabin-Farrell & Turpin, 2003). Internal consistency and test-retest reliability estimates for the TABS total score have been shown to be strong (0.96 and 0.75, respectively) as have the subscales scores (Pearlman, 2003).

(3) Maslach Burnout Inventory (MBI – Human Services Survey)

The MBI-HSS (Maslach & Jackson, 1986) is the most often utilized measure of burnout. It is a 22-item, self-report questionnaire assessing the three aspects of burnout: emotional exhaustion (EE), depersonalization (DP), and personal accomplishment (PA). Respondents are asked to respond to the frequency of the items on a 7 point Likert scale ranging from 0 (never) to 6 (every day). Sample items from the measure include: “I feel
emotionally drained from work”, “I can effectively deal with the patient’s problems” and “I don’t really care what happens to patients”.

The MBI manual states that each aspect should be measured and reported separately, since the relationships between each aspect have not been well established (Maslach et al., 1986). Emotional exhaustion is calculated by summing the scores from questions 1, 2, 3, 6, 8, 13, 14, 16 and 20; with higher scores indicating greater levels of emotional exhaustion (range of possible scores is 0-54). Depersonalization is calculated using items 5, 10, 11, 15 and 22, with higher scores suggesting greater levels of depersonalization (range of possible scores on DP range between 0-30). Finally, the score for personal accomplishment is calculated by adding items 4, 7, 9, 12, 17, 18, 19 and 21. Unlike EE and DP, higher scores indicate greater feelings of personal accomplishment (and low burnout) and can range from zero to 48. Table 1 displays categories of scores on the MBI based on mean scores. The MBI has been shown to have good internal consistency, with Maslach and Jackson (1986) reporting reliability coefficients of 0.90 for EE, 0.79 for DP, and 0.71 for PA.

Table 1. Categorization of scores on the MBI\textsuperscript{a,b} and mean of standardization sample.

<table>
<thead>
<tr>
<th>MBI Subscale</th>
<th>Range of Experienced Burnout</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
<td>Average</td>
</tr>
<tr>
<td>Emotional Exhaustion</td>
<td>≤18</td>
<td>19-26</td>
</tr>
<tr>
<td>Depersonalization</td>
<td>≤5</td>
<td>6-9</td>
</tr>
<tr>
<td>Personal Accomplishment</td>
<td>≥40</td>
<td>34-39</td>
</tr>
</tbody>
</table>

\textsuperscript{a}from MBI human services manual  
\textsuperscript{b} Medicine subsample  
\textsuperscript{c} higher numbers indicate higher personal accomplishment and thus low burnout  

(4) McCloskey/Mueller Satisfaction Scale (MMSS)

The MMSS is a 31-item self-report scale assessing satisfaction of hospital nurses in 8 domains: satisfaction with extrinsic rewards, scheduling, family/work balance, co-workers,
interaction, professional opportunities, praise/recognition, and control/responsibility. These domains measure three dimensions of reward: safety rewards (e.g. safety from potential threat), social rewards (need to belong) and psychological rewards (e.g. autonomy and appreciation) (Mueller & McCloskey, 1990). Respondents are asked to rate their level of satisfaction with each item on a five-point Likert scale on items such as: “opportunities with social contact with your colleagues after work”, “salary”, and “your amount of responsibility”. Cronbach alphas for the total scale is 0.89 and test-retest reliability was reported as 0.69 (Mueller & McCloskey, 1990).

7.6. Procedure

Both samples completed all questionnaires online using Survey Wizard, an institutional survey tool. As discussed, both SANEs and Emergency nurse organizations were sent an email with the information letter (appendix B & C) which contained a clickable link to the survey (or in the case of the Emergency Nurses Association of Ontario, both an email and a direct link to the survey via website).

After clicking on the link, participants were automatically taken to a site with the title of the study, which asked the participant to enter an email address. It was clearly stated on this page that the email address would only be used to return to the survey if needed (i.e., for the participants to modify their responses) and that the email address would not be shared with the investigator and removed from the system once the study is complete.

After entering the email address, the participant was taken to an informed consent page (appendix D & E). At the bottom of this page, it was stated “Clicking the link below signifies that the study has been thoroughly described to you and you agree to participate.” If
agreeable, the participant would click "please continue", which would then lead to the survey.

At the end of the survey, information for receiving a summary of results was provided, as well as a page of community resources for support.

7.7. Data analyses

All analyses (with the exception of exploratory analyses) were conducted using IBM SPSS 21 and results were considered significant at the 5% level.

Research Question 1: Between groups comparison of STS, VT and burnout. An independent samples T-test was performed to compare the difference in scores on the MBI (EE, DP and PA), STSS, TABS, and MMSS between SANEs and Emergency nurses.

Research Question 2: Relationship between occupational hazards and job satisfaction. A multiple variable linear regression was conducted with forced simultaneous entry to explore associations between job satisfaction and MBI, STSS, TABS, stratified by nurse type (SANE or Emergency nurse).

Research Question 3: Relationship between job satisfaction, absenteeism, and intent to leave. A second multiple variable linear regression model with forced simultaneous entry was conducted to explore associations between job satisfaction, absenteeism, and intention to leave.

For our regression models, the unstandardized beta coefficients and their corresponding standard errors are reported, and an alpha of 0.05 was set for our level of significance. For all multiple regression models, we tested the assumptions underlying a multiple regression model.
**Exploratory Questions.** We used both multivariable linear regressions and linear regressions to examine relationships between occupational stressors, job satisfaction, and variables such as age, education, and work-related variables, such as number of sexual assault examinations. For all univariate analyses, we employed an alpha level of 0.01 in order to adjust for the high number of analyses.

7.8. Missing data

Prior to conducting our analyses, the data was thoroughly explored for missing data. Of the 91 people who accessed the online survey, we included only those participants who completed all of the six surveys (TABS, STSS, MMSS, MBI-EE, MBI-DP & MBI-PA).

Participants with more than 10% of data missing within a measure were excluded from the analysis. For those missing less than 10% of data, the total score was computed by taking an average across valid responses and multiplying by total items in scale. However, the TABS manual provides substituted scores when missing data exists (Pearlman, 2003), therefore, for those participants with missing data on the TABS, (missing less than 8 items) we substituted in these scores instead of the mean of valid response score.

Twenty respondents were excluded due to missing data; thus, our final sample size was 71 participants.

7.9. Analysis of open-ended data

Qualitative content analysis was used to analyse open-ended questions. Hsieh and Shannon (2005) define content analysis as “a research method for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns” (Hsieh & Shannon, 2005, p. 1278). Using the textual data, we developed codes derived from the actual text, and codes were combined to
create larger categories of themes (Morgan, 1993). To develop the codes, the responses to each question were examined separately and considered distinct from one another. For each question, the responses were read thoroughly, in order to become more familiar with the data. Next, each response was read again, and comments that appeared illustrative of a certain concept were highlighted. Next, these highlighted comments were coded as a broad code, and were eventually condensed into a smaller number of larger, or overarching codes, or themes.

Open-ended data is presented using a qualitative descriptive approach. As detailed in Sandelowski (2000), qualitative descriptive studies aim to present data as a “straight descriptive summary” (p. 339), and is an appropriate methodology for health sciences research (Sandelowski, 2000). Thus, our overarching themes are presented using words derived from the actual data, and is presented without interpretation. That is, the themes and corresponding descriptions are based fully on the data provided by the respondents.
RESULTS
CHAPTER 8

RESULTS

8.1. Participants

Ninety-four people attempted the survey. Four people had no data, suggesting that they accessed the survey, but entered no information, and thus were removed from all reporting. Demographic data for the remaining 91 participants are presented in Table 2. Forty-three SANEs and 48 Emergency nurses provided demographic data on age, gender, ethnicity, marital status, education, income, work-time (part-time work or full-time), nursing group (type of nurse), nursing years (that is, years working as a nurse in any specialty) and specialty years (years working as a SANE or an Emergency nurse). The groups were compared on demographic variables, using a Chi square test of independence for categorical variables and a t-test for continuous data. The groups differed only on two variables, gender (p<0.05) and specialty years (p<0.05).

SANEs were also asked to report on questions specific to their responsibilities as a SANE, that is, sexual assault examinations. This data is presented in Table 3, and provides information on the total number of sexual assault (SA) exams ever conducted, the number of SA exams conducted in the past month, the number of SA exams typically completed in a month, the number of hours dedicated to one’s role as a SANE, and the number of SANEs in that particular hospitals’ program.

Emergency nurses were also asked to report on the percentage of sexual assault patients seen in the past month. Thirteen (26%) reported that to the best of their knowledge, none of their patients in the past month were SA victims, 28 (56%) reported that less than 10% of their patients were SA victims, two (4%) reported 11-20%, two (4%)
reported that between 21-40% of their patients were SA victims, and one (2%) reported that more than 50% of his/her patients were SA victims. Four participants did not respond to the question.
**Table 2. Sample Characteristics**

<table>
<thead>
<tr>
<th></th>
<th>SANE (n=43)</th>
<th>Emergency Nurse (n=48)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age, mean, SD, years</strong></td>
<td>42.9 (12.1)</td>
<td>43.8 (12.3)</td>
<td>0.73</td>
</tr>
<tr>
<td><strong>Gender, n%</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>43 (100%)</td>
<td>42 (87.5)</td>
<td>0.018</td>
</tr>
<tr>
<td>Male</td>
<td>0</td>
<td>6 (12.5)</td>
<td></td>
</tr>
<tr>
<td><strong>Ethnicity, n%</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>39 (90.7)</td>
<td>41 (85.4)</td>
<td>0.60</td>
</tr>
<tr>
<td>Black</td>
<td>1 (2.3)</td>
<td>1 (2.1)</td>
<td></td>
</tr>
<tr>
<td>South Asian</td>
<td>0</td>
<td>2 (4.2)</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>3 (7)</td>
<td>3 (6.3)</td>
<td></td>
</tr>
<tr>
<td>Did not answer</td>
<td>0</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Marital Status, n%</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>24 (55.8)</td>
<td>29 (60.4)</td>
<td>0.66</td>
</tr>
<tr>
<td>Not Married</td>
<td>19 (44.2)</td>
<td>19 (39.6)</td>
<td></td>
</tr>
<tr>
<td><strong>Education, n%</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>College diploma or some university</td>
<td>16 (37.2%)</td>
<td>20 (41.7)</td>
<td>0.50</td>
</tr>
<tr>
<td>University degree</td>
<td>21 (48.8)</td>
<td>18 (37.5)</td>
<td></td>
</tr>
<tr>
<td>Graduate degree</td>
<td>6 (14)</td>
<td>10 (20.8)</td>
<td></td>
</tr>
<tr>
<td><strong>Income, n%</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26,000-50,000</td>
<td>1 (2.3)</td>
<td>0</td>
<td>0.237</td>
</tr>
<tr>
<td>51,000-75,000</td>
<td>5 (11.6)</td>
<td>10 (20.8)</td>
<td></td>
</tr>
<tr>
<td>76,000-100,000</td>
<td>13 (30.2)</td>
<td>18 (37.5)</td>
<td></td>
</tr>
<tr>
<td>100,000 or more</td>
<td>24 (55.8)</td>
<td>18 (37.5)</td>
<td></td>
</tr>
<tr>
<td>Prefer not to answer</td>
<td>0</td>
<td>2 (4.2)</td>
<td></td>
</tr>
<tr>
<td><strong>Work Time, n%</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Part-time</td>
<td>11 (25.6)</td>
<td>9 (18.8)</td>
<td>0.71</td>
</tr>
<tr>
<td>Full-time</td>
<td>30 (69.8)</td>
<td>36 (75)</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>2 (4.7)</td>
<td>3 (6.3)</td>
<td></td>
</tr>
<tr>
<td><strong>Nursing Group, n%</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RN</td>
<td>40 (93%)</td>
<td>47 (97.9)</td>
<td>0.34</td>
</tr>
<tr>
<td>Other</td>
<td>3 (7)</td>
<td>1 (2.1)</td>
<td></td>
</tr>
<tr>
<td><strong>Nursing Years, n%</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-10 years</td>
<td>14 (31.8)</td>
<td>14 (28)</td>
<td>0.90</td>
</tr>
<tr>
<td>11-20 years</td>
<td>10 (22.7)</td>
<td>13 (26.0)</td>
<td></td>
</tr>
<tr>
<td>More than 20 years</td>
<td>19 (43.2)</td>
<td>21 (42)</td>
<td></td>
</tr>
<tr>
<td>Missing</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td><strong>Specialty Years</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-5 years</td>
<td>21 (48.8)</td>
<td>11 (22.9)</td>
<td>0.029</td>
</tr>
<tr>
<td>5-10 years</td>
<td>9 (20.9)</td>
<td>6 (12.5)</td>
<td></td>
</tr>
<tr>
<td>More than 10 years</td>
<td>13 (30.2)</td>
<td>26 (54.2)</td>
<td></td>
</tr>
<tr>
<td>Don’t know</td>
<td>0</td>
<td>1 (2.1)</td>
<td></td>
</tr>
<tr>
<td>Missing</td>
<td>0</td>
<td>4 (8.3)</td>
<td></td>
</tr>
</tbody>
</table>

*Total household income; RN=Registered Nurse; Total years working as a nurse, Total years working in specialty area (i.e. SANE or emergency)*
Table 3. Characteristics of SANE-related responsibilities

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>(n=43)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total number of SA exams conducted</strong> (n, %)</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>1 (2.3)</td>
</tr>
<tr>
<td>1-10</td>
<td>7 (16.3)</td>
</tr>
<tr>
<td>11-20</td>
<td>3 (7)</td>
</tr>
<tr>
<td>21-30</td>
<td>5 (11.6)</td>
</tr>
<tr>
<td>31-40</td>
<td>4 (9.3)</td>
</tr>
<tr>
<td>More than 40</td>
<td>22 (51.2)</td>
</tr>
<tr>
<td>Don’t know</td>
<td>1 (2.3)</td>
</tr>
<tr>
<td><strong>Number of SA exams conducted in past 30 days</strong> (n, %)</td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>12 (27.9)</td>
</tr>
<tr>
<td>1-2</td>
<td>12 (27.9)</td>
</tr>
<tr>
<td>3-5</td>
<td>11 (25.6)</td>
</tr>
<tr>
<td>5-10</td>
<td>3 (7)</td>
</tr>
<tr>
<td>More than 10</td>
<td>4 (9.3)</td>
</tr>
<tr>
<td>Don’t know</td>
<td>1 (2.3)</td>
</tr>
<tr>
<td><strong>Number of SA exams conducted in an average month</strong> (n, %)</td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>8 (18.6)</td>
</tr>
<tr>
<td>1-2</td>
<td>11 (25.6)</td>
</tr>
<tr>
<td>3-5</td>
<td>14 (32.6)</td>
</tr>
<tr>
<td>5-10</td>
<td>4 (9.3)</td>
</tr>
<tr>
<td>More than 10</td>
<td>3 (7)</td>
</tr>
<tr>
<td>Don’t know</td>
<td>3 (7)</td>
</tr>
<tr>
<td><strong>Number of SA hours per week</strong> (n, %)</td>
<td></td>
</tr>
<tr>
<td>Less than 10</td>
<td>7 (16.3)</td>
</tr>
<tr>
<td>10-20 hours</td>
<td>14 (32.6)</td>
</tr>
<tr>
<td>21-40 hours</td>
<td>12 (27.9)</td>
</tr>
<tr>
<td>41-50 hours</td>
<td>5 (11.6)</td>
</tr>
<tr>
<td>51-60 hours</td>
<td>2 (4.7)</td>
</tr>
<tr>
<td>More than 60 hours</td>
<td>2 (4.7)</td>
</tr>
<tr>
<td>Don’t know</td>
<td>1 (2.3)</td>
</tr>
<tr>
<td><strong>Number of SANEs at organization</strong></td>
<td></td>
</tr>
<tr>
<td>Less than 5</td>
<td>2 (4.7)</td>
</tr>
<tr>
<td>More than 5</td>
<td>40 (93.3)</td>
</tr>
<tr>
<td>Don’t know</td>
<td>1 (2.3)</td>
</tr>
</tbody>
</table>

SA=Sexual Assault

8.2 Research Question 1: Differences in occupational hazards between groups

We hypothesized that SANEs would have higher scores on VT and STS compared to Emergency nurses due to their close work with sexual trauma victims. Conversely, we hypothesized that groups would not differ significantly on levels of burnout, since burnout
is not related to working with trauma victims, but instead, of general work with people. To test this hypothesis, an independent samples T-test was conducted for the TABS (vicarious trauma), STSS (secondary traumatic stress), MBI-EE (emotional exhaustion), MBI-DP (depersonalization) and MBI-PA (personal accomplishment).

**Trauma and Attachment Beliefs Scale (TABS).** The means and standard deviations of the TABS for each sample are displayed in Table 4. The data from one SANE was removed due to more than 10% of missing data within the TABS scale. Therefore, data was available for 33 SANEs and 37 Emergency nurses. For SANEs, the mean raw score on the TABS was 232.2 (SD=22.3) and 233.1 (SD=29.7) for Emergency nurses. The TABS manual suggests reporting TABS scores as T-scores, thus each raw score was transformed into its corresponding T-score and is presented in Table 4. Contrary to our hypothesis, the difference in vicarious traumatization between SANEs and Emergency nurses was not significant \( t(68) = 0.13, p=0.89 \).

**Secondary Traumatic Stress Scale (STSS).** The means and standard deviations for the STSS are displayed in Table 4. Contrary to our hypothesis, groups did not differ on secondary traumatic stress \( [t(69) = 0.064, p=0.95] \).

**Maslach Burnout Inventory (MBI).** The means and standard deviations from each subscale of the MBI are displayed in Table 4. Contrary to our hypotheses, Emergency nurses reported significantly more emotional exhaustion compared to SANEs \( t(69) = -2.63, p=0.011 \). According to the MBI manual, scores between 17 and 26 indicate moderate emotional exhaustion. For depersonalization, Emergency nurses reported higher levels of depersonalization compared to SANEs \( t(69) = -3.11, p=0.003 \). This suggests low depersonalization for SANEs and moderate depersonalization for emergency nurses.
Finally, for personal accomplishment, on average, SANEs reported experiencing significantly higher levels of personal accomplishment compared to Emergency nurses \(t(4.75), p<0.001\). Scores between 32 and 38 on the PA subscale indicate moderate burnout while scores above 39 indicate low burnout.

### 8.3. Job Satisfaction

Mean scores on the McCloskey Mueller Satisfaction Scale (MMSS) are also displayed in Table 4. The data from two Emergency nurses and 1 SANE was excluded due missing data. Thus, data from 33 SANEs and 35 Emergency nurses was used in the calculation of scores. The results show that SANE are more satisfied with their job compared to Emergency nurses (\(p<0.001\)).

<table>
<thead>
<tr>
<th></th>
<th>SANE (n=34)</th>
<th>Emergency (n=37)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean (SD)</td>
<td>Mean (SD)</td>
<td></td>
</tr>
<tr>
<td>TABS(^1)</td>
<td>49.9 (8.5)</td>
<td>50.2 (11.3)</td>
<td>ns</td>
</tr>
<tr>
<td>STSS</td>
<td>34.9 (11.2)</td>
<td>34.7 (11.6)</td>
<td>ns</td>
</tr>
<tr>
<td>MBI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotional Exhaustion</td>
<td>17.9 (12.7)</td>
<td>25.4 (11.5)</td>
<td>0.011</td>
</tr>
<tr>
<td>Depersonalization</td>
<td>4.8 (5.8)</td>
<td>9.7 (7.5)</td>
<td>0.003</td>
</tr>
<tr>
<td>Personal Accomplishment</td>
<td>39.8 (5.3)</td>
<td>33.46 (5.9)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>MMSS(^2)</td>
<td>113.96 (19.8)</td>
<td>96.54 (18.63)</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

\(^1\)TABS: SANE, n=33; reported as T-scores  
\(^2\)MMSS: Emerg, n=35

### 8.4. Research Question 2: Relationship between VT, STS, Burnout and Job Satisfaction

A stratified, multiple linear regression was conducted to examine the relationship between job satisfaction and occupational hazards (VT, STS and burnout) in each group.
(SANE and Emergency nurse). The purpose of multiple linear regression is to predict a dependent variable (e.g. job satisfaction) from a set of potential predictors (e.g. STS and VT). In multiple linear regression, a model is fit to the data, which is then used to predict values of the dependent variable from two or more independent variables (Field, 2009). The regression was stratified by group, meaning that two separate multiple linear regression analyses were conducted for SANEs and Emergency nurses using the same independent and dependent variables.

Prior to interpreting any findings, the assumptions underlying a multiple regression analysis were checked. Specifically, we examined collinearity diagnostics, standardized residuals, and P-P plots. For collinearity, the tolerance ranged from 0.446 and 0.912 in SANES and standardized residual ranged from -2.000 1.720. For the Emergency nurse sample, tolerance ranged from 0.268 to 0.716. P-P plots and scatterplots with ZRESID on the Y axis and ZPRED on the Y axis were also examined, and all diagnostic tests were deemed to be satisfactory.

The total score for MMSS was entered as the dependent variable (criterion), and the independent (predictor) variables included in the model were STSS, TABS, MBI-EE, MBI-DP and MBI-PA. All were entered in one step using forced simultaneous entry. Table 5 summarizes the results from both multiple linear regression analyses. For SANEs, the model with all five predictors approached significance $R^2=0.326, F(5, 26) = 2.52, p=0.055$. The $R^2$ value of 0.326 indicates that about 33% of the variability in job satisfaction is accounted for by the model. As seen in Table 4, only EE was significantly associated with job satisfaction ($p=0.010$). The negative $B$ of -1.003 indicates that an inverse relationship
between job satisfaction and Emotional Exhaustion – that is, a one unit decrease in EE would yield a 1.003 unit increase in predicted job satisfaction.

Table 5. Multiple variable linear regression showing predictors of job satisfaction.

<table>
<thead>
<tr>
<th>Factor</th>
<th>B</th>
<th>SE</th>
<th>t</th>
<th>p</th>
<th>( R^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SANE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vicarious trauma</td>
<td>0.036</td>
<td>0.150</td>
<td>0.240</td>
<td>0.812</td>
<td></td>
</tr>
<tr>
<td>Secondary traumatic</td>
<td>0.175</td>
<td>0.356</td>
<td>0.491</td>
<td>0.627</td>
<td></td>
</tr>
<tr>
<td>Emotional Exhaustion</td>
<td>-1.003</td>
<td>0.360</td>
<td>-2.785</td>
<td>0.010</td>
<td>0.326</td>
</tr>
<tr>
<td>Depersonalization</td>
<td>1.176</td>
<td>0.695</td>
<td>1.691</td>
<td>0.103</td>
<td></td>
</tr>
<tr>
<td>Personal Accomplishment</td>
<td>0.971</td>
<td>0.609</td>
<td>1.595</td>
<td>0.123</td>
<td></td>
</tr>
<tr>
<td><strong>Emergency Nurse</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vicarious trauma</td>
<td>-0.160</td>
<td>0.119</td>
<td>-1.338</td>
<td>0.510</td>
<td></td>
</tr>
<tr>
<td>Secondary traumatic</td>
<td>0.218</td>
<td>0.433</td>
<td>0.503</td>
<td>0.618</td>
<td></td>
</tr>
<tr>
<td>Emotional Exhaustion</td>
<td>-0.534</td>
<td>0.400</td>
<td>-1.335</td>
<td>0.192</td>
<td>0.441</td>
</tr>
<tr>
<td>Depersonalization</td>
<td>-0.745</td>
<td>0.649</td>
<td>-1.148</td>
<td>0.261</td>
<td></td>
</tr>
<tr>
<td>Personal Accomplishment</td>
<td>0.086</td>
<td>0.510</td>
<td>0.169</td>
<td>0.867</td>
<td></td>
</tr>
</tbody>
</table>

Dependent variable: job satisfaction (MMSS)
\( ^1 \)Model approached significance (p=0.055)

For Emergency nurses, the model with the five predictors was significant \( R^2=0.441, F(5, 29) = 4.578, p<0.01 \), indicating that the model accounted for 44% of the variance in job satisfaction. However, Table 5 shows that neither vicarious trauma, secondary traumatic stress, or burnout were significantly associated with job satisfaction in the sample of Emergency nurses.

8.5. Research Question 3: Relationship between absenteeism, intention to leave, and job satisfaction

A second multiple linear regression was performed to examine the relationship between absenteeism, intention to leave one's current position, and job satisfaction in both samples. As with the previous regression mode, we used the “split group” function to
stratify analyses based on group (SANE or Emergency). Total MMSS score was included as the independent variables, and intention to leave position and absenteeism were included as dependent variables. Intention to leave was a scale variable with possible scores ranging from 0 (definitely will not leave) to 10 (definitely intend to leave). The mean score for intention to leave position for SANEs was 2.85 (SD=3.19), and 3.64 (SD=3.42) for Emergency nurses. An independent-samples T-Test showed this difference as non-significant $t(68) = -0.992, p=0.32$.

For absenteeism, we included a dichotomized variable (absenteeism_6mos) with two levels: no shifts missed and more than one shift missed. We created a dichotomous variable since our original variable with 4 levels (missing no shifts, between 1-5, 6-10 and 11-15) revealed that the vast majority of participants reported missing no shifts or between one and five shifts (approximately 90% in each sample). In the SANE sample, 18 (52.9%) participants reported missing no shifts over the past 6 months and 16 (47.1%) missed 1 or more shifts. In Emergency nurses, an equal number (18, or 48.6%) reported missing no shifts or 1 or more shifts in the past 6 months.

Prior to interpreting the results, the assumptions underlying a multiple regression analysis were checked (multicollinearity, standardized residuals, and P-P plots) and all were satisfied. The results of the multivariable linear regression are displayed Table 6. For SANEs, the model with both predictors was significant, with $R^2=0.227, F(2, 30) = 4.410, p=0.021$, indicating that 22.7% of the variability in job satisfaction was accounted for by the model. However, neither intent to leave position nor absenteeism was significantly associated with job satisfaction.
For Emergency nurses, the model was significant, $R^2=0.289$, $F(2, 30) = 6.103$, $p<0.01$.

As seen in Table 6, intention to leave one’s position was significantly associated with job satisfaction ($p<0.01$). The negative B of -3.018 specifies an inverse relationship between intention to leave emergency nursing and job satisfaction, where Emergency nurses who have a higher intention to leave their job are experiencing less job satisfaction.

<table>
<thead>
<tr>
<th>Factor</th>
<th>B</th>
<th>SE</th>
<th>t</th>
<th>p</th>
<th>$R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SANE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leave position</td>
<td>-1.744</td>
<td>1.034</td>
<td>-1.687</td>
<td>0.102</td>
<td>0.227</td>
</tr>
<tr>
<td>Absenteeism</td>
<td>-12.099</td>
<td>6.523</td>
<td>-1.855</td>
<td>0.073</td>
<td></td>
</tr>
<tr>
<td><strong>Emergency Nurse</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leave position</td>
<td>-3.018</td>
<td>0.864</td>
<td>-3.492</td>
<td><strong>0.002</strong></td>
<td>0.289</td>
</tr>
<tr>
<td>Absenteeism</td>
<td>0.077</td>
<td>5.732</td>
<td>0.013</td>
<td>0.989</td>
<td></td>
</tr>
</tbody>
</table>

Dependent variable: job satisfaction (measured via MMSS)

### 8.6. Exploratory Analyses: Predictors of occupational hazards in SANEs

We conducted a series of univariate, exploratory analyses to examine potential predictors of STS, VT and burnout in SANEs only, using variables collected in both groups as well as variables collected only in SANEs. These included: age, marital status, education, nursing years, specialty years, total number of SA exams conducted, number of SANE exams conducted in the past month, average number of SANE exams conducted per month and number of hours per week dedicated to SANE work. All independent variables were dichotomized to maintain adequate power for the analyses. Due to the number of variables, significance levels were set at 0.01.
Univariate linear regression models were performed with the dependent variables (STS, VT, EE, DP or PA) and each of the nine potential factors listed above. For the STS, none of the potential factors were significantly predictive. For the TABS, only the number of SA exams conducted in the past month approached significance at the 0.01 level \[ F(1,31)=7.139, \ p=0.012 \]. For the EE dimension of burnout, none of the variables significantly predicted emotional exhaustion. For DP, the number of years working as a SANE was highly predictive of DP \( (p=0.009) \) and total number of SA exams approached significance \( (p=0.011) \). As with the previous predictors, the B weights reflect negative associations between depersonalization and number of years as a SANE. None of the nine factors were significant predictors of personal accomplishment in SANEs.

### 8.7. Exploratory Analyses: Predictors of occupational hazards in Emergency nurses

In order to explore the relationship between potential predictors of STS, VT and burnout in Emergency nurses, a series of exploratory, univariate linear regressions were performed with the dependent variable as STSS score, TABS score, EE score, DP score or PA score and the following factors: age, gender, education, marital status, nursing years, specialty years (years working as an emergency nurse), work hours (number of hours worked per week), and percent SA. This last question asked emergency nurses to report on the percentage of patients in the past month who were sexual assault victims. An alpha level of \( p=0.01 \) was set for all univariate regressions.

None of the variables were significant predictors of TABS score or STSS score. Age was significantly predictive of depersonalization \( [b=-0.228, F(1, 35) = 10.22, p=0.003] \) and marital status approached significance \( [b=5.879, F(1, 35)=6.131, p=0.018] \) in predicting depersonalization.
8.8. **Exploratory Analyses: Predictors of occupational hazards in total sample**

A final multivariable linear regression analysis was conducted to include demographic variables (age, gender, marital status, income, education), work-related variables (work time, nursing years, specialty years) as well as group (SANE or Emergency) occupational hazards (TABS, STSS, EE, DP, PA) and job satisfaction (MMSS). We set a significance level of 0.05 for each regression model.

The regression model for the TABS was found to be non-significant \[ R^2=0.223, F(9, 56) = 1.354, p=0.231 \] as was the model for STSS \[ R^2=0.136, F(9, 57) = 0.998, p=0.453 \] and EE \[ R^2=0.223, F(9, 57) = 1.821, p=0.084 \]). However, the models for DP, PA and MMSS were all highly significant and are displayed in Table 7.

For the depersonalization model, \[ R^2=0.384, F(9, 57) = 3.941, p=0.001 \] both nurse type and age were significant predictors of depersonalization. Since nurse type was coded 0=SANE, 1=Emergency, a positive B value suggests a positive relationship with the outcome (depersonalization), that is, being an Emergency nurse is predictive of higher depersonalization. Conversely, the regression results suggest that with increasing age, depersonalization scores are expected to decrease.

For personal accomplishment, the model was highly significant \[ R^2=0.348, F(9, 57) = 3.383, p=0.002 \]. Nurse type was shown to be a significant predictor of levels of PA, and the B weight suggests a negative relationship – that is, being a SANE (coded as 0) is predictive of higher personal accomplishment. Moreover, income was also significantly predictive of personal accomplishment in all nurses. The model suggests that as income increases, scores on personal accomplishment decrease. Lower scores on personal accomplishment indicate high burnout.
Finally, for job satisfaction, the model was significant \( R^2=0.415, F(9, 54) = 4.248, p<0.001 \) and revealed a significant relationship between nurse type and job satisfaction. Nurse type was shown to be a significant predictor of levels of job satisfaction, and the negative B weight suggests an inverse relationship – that is, being an Emergency nurse (coded as 1) is predictive of lower job satisfaction. In addition, income was shown to be a significant predictor of job satisfaction, indicating that lower income is associated with higher job satisfaction.

Table 7. Multivariable linear regression models including group as a predictive variable.

<table>
<thead>
<tr>
<th>Factor</th>
<th>B</th>
<th>SE</th>
<th>t</th>
<th>p</th>
<th>( R^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depersonalization</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.384**</td>
</tr>
<tr>
<td>Nurse type</td>
<td>4.890</td>
<td>1.569</td>
<td>3.116</td>
<td>0.003</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-0.264</td>
<td>0.098</td>
<td>-2.702</td>
<td>0.009</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>-4.261</td>
<td>3.765</td>
<td>-1.132</td>
<td>0.262</td>
<td></td>
</tr>
<tr>
<td>Income(^a)</td>
<td>0.939</td>
<td>1.780</td>
<td>.527</td>
<td>0.600</td>
<td></td>
</tr>
<tr>
<td>Marital status</td>
<td>1.052</td>
<td>1.804</td>
<td>.583</td>
<td>0.562</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>-3.268</td>
<td>1.723</td>
<td>-1.896</td>
<td>0.063</td>
<td></td>
</tr>
<tr>
<td>Work time</td>
<td>1.245</td>
<td>1.517</td>
<td>.821</td>
<td>0.415</td>
<td></td>
</tr>
<tr>
<td>Nursing years</td>
<td>-0.894</td>
<td>2.374</td>
<td>-0.376</td>
<td>0.708</td>
<td></td>
</tr>
<tr>
<td>Specialty years</td>
<td>-1.182</td>
<td>1.486</td>
<td>-0.795</td>
<td>0.430</td>
<td></td>
</tr>
</tbody>
</table>

| Personal Accomplishment |       |      |       |      | 0.348**   |
| Nurse type             | -6.753| 1.418| -4.764| <0.001|           |
| Age                    | 0.069 | 0.088| .783  | 0.437|           |
| Gender                 | 1.612 | 3.402| .474  | 0.637|           |
| Income\(^a\)           | -3.927| 1.608| -2.442| 0.018|           |
| Marital status         | -1.954| 1.629| -1.199| 0.235|           |
| Education              | 1.690 | 1.557| 1.085 | 0.282|           |
| Work time              | -1.354| 1.371| -0.988| 0.327|           |
| Nursing years          | 0.167 | 2.145| .078  | 0.938|           |
| Specialty years        | 0.777 | 1.343| .579  | 0.565|           |

| MMSS                 |       |      |       |      | <0.001** |
| Nurse type           | -20.908| 4.718| -4.431| <0.001|           |
| Age                  | 0.338 | 0.304| 1.112 | 0.271|           |
| Gender               | 20.121| 14.131| 1.424 | 0.160|           |
| Income\(^a\)         | -15.987| 5.351| -2.988| 0.004|           |
| Marital status       | -3.608| 5.501| -.656 | 0.515|           |
| Education            | -0.452| 5.291| -.085 | 0.932|           |
| Work time            | 1.787 | 4.598| .389  | 0.699|           |
| Nursing years        | 8.398 | 7.394| 1.136 | 0.261|           |
| Specialty years      | 3.705 | 4.448| .833  | 0.409|           |

\(^a\)0=less than $100,000, 1=$100,000 or more
MMSS=McCloskey Mueller Satisfaction Scale
8.9. Open-ended data

A number of open-ended questions were included in the survey (see section 7.5, p. 33 for details). Briefly, participants were asked to describe their process of training for their particular specialty, their reflections on how work with trauma victims affect their satisfaction with their job, and SANEs were also asked to discuss how work with sexual trauma survivors affected their personal life, and finally, if and how training prepared one for the challenges of the job.

Training. Thirty-eight SANEs and 47 Emergency nurses provided details on their training.

SANE. Most (74%) SANEs reported receiving in-hospital training/orientation, with the duration varying between two to five days. Most (66%) also participated in a form of shadowing or “buddying” with other SANEs or a physician, and again, the duration of shadowing varied between respondents. For instance, some nurses shadowed, or were supervised by OB/GYN physicians, in order to develop better skills with vaginal examinations. Thirty participants (79%) reported completing the 40-hour provincial SANE training program. Most (66%) reported completing online SANE training, which ranged from 12 hours to 40 hours, and 8 (21%) respondents completed further education (in addition to their nursing education). Specifically, these nurses completed a Forensic Studies certificate through Mount Royal University (typically done through online/distance learning).

Emergency nurses. Forty-seven Emergency nurses provided information on their training process, which like the SANE sample, appeared varied. Many (57%) reported receiving training within their hospital, which may include preceptorship (a period of time in which the trainee works closely with an experienced nurse). The duration differed
between respondents, from a few days to two months (however, one participant with only a few days orientation was a highly experienced nurse). In addition, one nurse was trained in the Canadian Forces. Many reported engaging in regular continuing education for new procedures, as well as obtaining other certification important to their role in the emergency department (e.g. Trauma Nursing Core Course and Pediatric Advanced Life Support). Thirty-six percent completed formal education specific to Emergency nursing, mostly in the form of post-RN college programs, while 32% were Emergency Nurse Certified (national credentialing exam offered through the Canadian Nurses Association).

The results from both samples indicated that training is varied, potentially by institution and the time of training.

The impact of work with trauma victims on attitudes and job satisfaction (SANE). Twenty-nine SANEs responded to this question. A number of central themes, or broad categories, emerged from the data. They include: worry about my work and my clients’ future, difficulty leaving work behind, changes in your view of the world, the emotional toll of working with trauma survivors, support/lack of support, and the rewarding nature of SANE work. Each theme is described in more detail below.

Worry about my work and my clients’ future

Worry was expressed in two ways. Firstly, participants spoke about worrying about their patients. This was expressed as worry about the future of their patients, especially if the victim is a child. The other “worry” that was expressed was worry that one’s documentation (i.e., information provided in the SAEK and any supporting documentation) is accurate. As one participant expressed:

“I worry that my documentation is stellar, without anything left out, due to the fact that there is always a looming worry that I will be called to court for this case and
As mentioned in section 4.2., the sexual assault evidence kit (SAEK) involves extensive documentation and collection of forensic evidence. It can play a central major role in prosecuting sexual assault crimes, and therefore, SANEs must be confident that the evidence and information collected is accurate.

**Difficulty leaving work behind**

Another comment that was repeatedly made was the notion that certain cases are more difficult to let go of, or “difficult to leave at work”. SANEs spoke about cases that remained with them, sometimes due to the severity of the incident, if children were the patient undergoing the exam, or for one SANE, if the life circumstances of the victim were similar to hers. One SANE said:

“Details surrounding the case stay with me which creates emotional struggles for me. I often leave with concern and worry and I wish I could have done more for my client”.

Another participant noted that cases in which the patient was similar in age and family structure would “stay on her [my] mind”, since this brought up questions of what life circumstances brought the patient to this point in his/her life.

**Changes in your view of the world**

A number of SANEs spoke about shifts or changes in their view of the world. These changes seemed to encompass the notion that the world is unsafe, or that people are capable of terrible things. One participant used the word “cynical” to describe her feelings in relation to safety in her environment, and wondered whether good people still exist. Another SANE expressed this feeling in the following way:
“I do feel a sadness or type of loss for them [sexual assault victims] and at times feel hopeless by the horrible things that happen to people.”

For one, the impact of this work was so strong that she has considered leaving her job. She stated:

“I do have thoughts of leaving this work because I do not want to be exposed to more stories of how terrible human beings can treat each other.”

The emotional toll of working with trauma survivors

Some SANEs also expressed the emotional toll of their work with sexual trauma victims. SANE work was described as “exhausting”, “discouraging”, and causing “fatigue”. One nurse articulated how her work sometimes causes emotional struggles in her personal life, since difficult cases are hard to move on from. Similarly, another nurse mentioned that the difficulties of this work affect her personally, in her home life.

Support/lack of support

Nurses referred to the important role of support, both personal/social, as well as institutional/organizational support. Some felt supported by their workplace, with one participant describing a “debriefing council”, which she felt she could access for support if needed, to discuss difficult cases. Another praised the support of her team, noting that she was able to schedule shifts that worked well for her, and that her team is usually supportive if she needed to miss her shift. However, the lack of support was also mentioned as a cause of “traumatic feelings”. As one SANE expressed:

“The working environment and support of hospital administration/ management have a key role in the work environment and has a role in the nurse feeling she herself is safe and respected in her role. This can diminish vicarious trauma as she feels she can verbalize anxiety comfortably and in a timely way.”
Another nurse spoke about experiencing less support in her current workplace, which she felt led to feeling more upset in her home life. Finally, one nurse highlighted the role of patients’ chronic mental health conditions, and specifically, that her role as a SANE is more difficult since she is not trained in providing mental health support. Time constraints were also conceptualized as a subcategory of support. SANE programs in Ontario are typically open 24 hours a day, 7 days a week, thereby requiring nurses to take late night or overnight shifts. Although one participant was satisfied with her shift-work and felt comfortable missing a shift if needed (with another SANE to cover said shift), others felt the opposite. “Double duty” was mentioned as a struggle, since SANEs are required to perform alternative duties (such as follow-up care) while at the same time being on-call. Thus, there is concern of being available for these returning clients in the time that one is away performing an examination. Another expressed the difficulty in having time with family, since the “hours are difficult”, and can be “pulled away” at any time (if she is on-call).

The rewarding nature of SANE work

In spite of the difficult cases and emotional toll of SANE work, more than half spoke to the strong sense of gratification and satisfaction that comes from working with victims of sexual assault. Many described their work as “rewarding”, and felt that they were “making a difference” by providing care and support to this vulnerable demographic. One responded expressed satisfaction that she could help in a small away in the immediate aftermath of a trauma, even though the cases are difficult to move on from. As one person very eloquently expressed, “it is a split feeling of gratefulness and personal compromise”. Another described feeling like she was “meant” to work with traumatized patients, and expressed her sense of calmness and control when she is treating a sexual assault
survivor. Others spoke to the positive personal or professional changes they experienced as a result of SANE work. For example, one nurse felt that she had become a better, and more rounded nurse by engaging in SANE work, and one expressed gaining a deeper appreciation of the strength and courage of survivors. Several nurses spoke to feeling rewarded by positive outcomes, both of the trauma survivor, and the assault case. In regards to positive changes for the trauma survivor, one nurse said:

“I am much more aware of how hard these patients have to work to heal - has given me more of an appreciation for these folks and the strength and courage they display. This work is very rewarding particularly when you see the positive changes people make as they make their way through their recovery”.

Similarly, one participant specifically pointed to the sense of satisfaction when, as a result of her work [in part], a perpetrator would be arrested:

“The best reward of this work is when a perpetrator is made accountable for their actions”.

Some SANES also expressed feeling confident in their care, and felt strongly about their competence as a SANE.

**The impact of work with trauma victims on attitudes and satisfaction**

(*Emergency*). Thirty-two Emergency nurses responded to this open-ended question, which asked them to reflect on the ways that work with traumatized patients may affect their attitudes towards work and job satisfaction. The themes that were commonly discussed can be categorized in the following way: helping patients and hoping to make a difference, bad things happen to good people, detaching from emotional responses, and workplace support. Each theme is elaborated on in the sections below.

*Helping patients and hoping to make a difference*
Many Emergency nurses expressed that part of the satisfaction they take from their job is the result of helping patients and their families, making a difference in their lives, and having an impact on their situation. By helping the patients, there was a sense of helping a family through a very difficult time, or as one person put it, “making these times more tolerable”. Working with patients and families experiencing a traumatic situation, and being able to provide support to these individuals was viewed as “fulfilling” and a “privilege”, and lead to a sense of satisfaction, and for one individual, pride. One Emergency nurse expressed her role as a care provider in the following way:

“There are days when you encounter people at their gravest hour and if you can have some impact on their situation, no matter how small; that keeps you going. When a patient has been through a trauma, you can’t make it better with words. Being an ER nurse is not about being a hero or saving lives; those things almost happen by proxy. I think being an ER nurse is more about the small things we do to make a big impact on patients’ lives.”

There was a sense that by helping a patient, one was doing their job as an Emergency nurse. However, one nurse highlighted the importance of being able to help patients through difficult situations without “owning the experience yourself”.

*Bad things happen to good people*

An interesting comment that was repeated in various ways by Emergency nurses was the belief that bad things happen to good people, and having to accept this truth in order to achieve satisfaction as a nurse. As one nurse put it, “…I know I live in an evil world, I accept that evil happens”. For two nurses, the word “jaded” was used to describe this feeling. One person said:

“I feel more satisfaction in the fact that I understand that we are doing everything possible to help that patient through their experience as well as provide good support for family. It does leave me feeling more jaded in a sense knowing about all of the things that can go wrong to good people though.”
Another nurse emphasized the point of the ER is to deal with situations where bad things can happen to good people, and that the reaction of the patient or their family is at the core of what leads to satisfaction or dissatisfaction. In other words, patients who are thankful for the support and effort are important to a nurse’s sense of satisfaction.

*Detaching from emotional responses*

A theme that emerged from the open-ended question was that of needing to detach from one’s emotions in order to be a healthy person, and an effective healthcare provider. Some spoke to the tendency to simply become accustomed or desensitized to hearing and being exposed to patients’ traumas, and with experience, becoming able to move on more quickly. One Emergency nurse explained the necessity of detaching herself somewhat, in order to be able to perform duties the way they should be done (i.e., in a non-judgmental manner). Finally, one nurse spoke to this concept of “detachment” distinctly from other nurses, explaining how feeling detached has infiltrated her life outside of work. The participant explained a feeling of detachment in intimate relationships and with friends, due to traumatic experiences both within and outside of work; highlighting the broad negative effects of work with trauma patients.

*Workplace support*

A number of nurses expressed concerns with the support received at work, their workload, time-constraints, lack of resources, and their safety while on the job. Firstly, some nurses indicated a lack of support from management in creating a supportive work environment. There were comments that suggested that debriefing with peers would help improve job satisfaction, but that this was not encouraged, nor is the opportunity to do so...
provided. One nurse referred to the lack of resources to assist nurses with dealing with these concerns, and when they are available, it is only during standard working hours (i.e. Monday to Friday, 8:00-4:00pm). This was viewed as not particularly helpful, since it was suggested that incidents occur with higher frequency on weekends. Finally, one nurse provided insight into what she termed “battered syndrome”, that is, dealing with physically, verbally, and emotionally abusive patients. This was viewed as compounded by a challenging workload, and other workplace issues.

**The impact of trauma work on one’s personal life.** This question was only posed to SANEs, of which twenty-seven provided responses. Nurses spoke of negative and positive effects to their personal lives, and provided insight on ways to counter these effects. The themes from this question were: increased awareness of safety, negative effects on relationships, and positive changes to oneself.

*Increased awareness of safety*

Safety was conceptualized in various ways and was described as being related to the safety of oneself, children, and the world as a whole. A number of respondents specifically spoke of an increased awareness of their children’s safety after working with trauma survivors. Participants described feeling more “vigilant” about their children’s safety, educating them about the perception they may convey based on their behaviour, and experiencing a heightened concern of their children going out with friends. Interestingly, this seemed to encompass women with teenaged children, adult children with kids of their own, and even the children of friends.

Participants also spoke about changes, hypervigilance, or an increased awareness of their own personal safety and the potential for danger as a direct result of working with
victims of sexual assault. Some described feeling less safe when out in public, and others explained a feeling that her ‘eyes had been opened’, that is, a newfound awareness of the potential for, and possibility of, danger occurring. In addition, some participants stated feeling more concerned about using alcohol in public, which was also expressed as a heightened concern with children (concerned about the safety of drug facilitated sexual assault). Finally, for some, there was also a sense that one’s view of the world had been altered. One person explained this thought in the following way:

“I feel as though my view of the world has changed. I feel that I have more insight into safety issues, so I am therefore more vigilant and aware of potential societal dangers. I don’t feel as safe, given the experiences I hear from my clients.”

The negative effects on relationships

SANEs also discussed the negative effects of their work on the personal relationships (intimate relationships, family, and friends). In general, much of the detrimental aspects of the job were related to the difficult hours (shift work) and being on-call. As previously described, some SANEs feel their work is both emotionally and physically draining. Here, respondents once again spoke about wanting to spend more time with family and friends, but are constrained by the schedule (i.e., working shift work as well as being on-call as a SANE). SANEs spoke about their commitment to the program and the work, while at the same time finding themselves without energy, and simply too tired to spend time with family and friends.

Some expressed negative intrapersonal changes that inevitably affected relationships. For example, one participant explained having “angry outbursts for no reason” to family members, and another SANE expressed having more difficult laughing at her partner’s jokes, feeling more “intolerant” of humour. What is more, there was a sense
of having difficulty “letting go” of the traumatic material, and being able to fully enjoy one’s free time. There were also comments about the negative effects to one’s sexual relationships as a result of working with sexual trauma survivors.

Although participants spoke of the deleterious consequences of being a SANE, there were also a number of comments about the importance of having a supportive family to enhance resilience to these consequences. Some expressed feeling lucky or grateful to have a supportive family, who can understand and accept the hectic schedule, as well as provide a calming and supportive home.

Positive changes to oneself

Some participants also described positive changes in themselves, which they viewed as a result of working with trauma patients. For instance, SANEs expressed feeling more mature, feeling more in-control of emotions, feeling stronger, and feeling better equipped to handle everyday problems (as was expressed by one SANE, “don’t sweat the small stuff”). In addition, a deeper understanding of societal issues and vulnerabilities associated with trauma was expressed by one SANE.

Did training prepare you for the emotional aspects of SANE work? The last open-ended question in the survey asked respondents to discuss if they felt the training received was able to prepare them for the difficult emotional and psychological aspects of SANE work. In total, twenty-six SANEs responded. Generally, of those nurses who specifically answered the question of whether the actual training to become a SANE (include the SANE certification program, buddying, etc.) prepared them for SANE work, half (50%) specifically mentioned that occupational hazards were discussed in their training. Some of these individuals felt this training prepared them to handle the difficulties associated with
trauma work, while others felt that no amount of training can prepare one for the real-life experience of treating these patients. One SANE illustrated this idea in the following way:

“I don’t think any amount of training can really prepare you to the level of intimacy you have when caring for this patient population. Having a theoretical understanding is important but it’s the practical understanding that is most valuable.”

The remaining comments generally focused on ways to support oneself in the face of emotionally difficult clients. Firstly, many SANEs specifically spoke about the importance of debriefing with others (peers, superiors or managers) when confronted with a difficult case. Some programs have monthly team meetings, where these cases can be brought up and discussed. However, further investigation into these comments suggested that debriefing is not as simple as initially suggested. This is because time to debrief is not always available, and as one person explained, most debriefing has to be done on one’s own time, and there is not always this opportunity. Furthermore, there are concerns about revealing one’s feelings of burnout, vicarious or secondary traumatic stress to a superior, lest the superior remove shifts from the SANE.

Participants also discussed the importance of self-reflection after a difficult case, as well as self-care and trying to build work-life balance, as ways to cope with the stress associated with SANE work. One’s level of prior nursing experience appeared to help with stress, as some nurses explained that their level of experience (in other areas of nursing) helped them deal with this work.

Finally, one participant highlighted the fact that although she is highly trained, the level of responsibility of the SANE plays a major role in the negative psychological and emotional consequences. To elaborate, the SANE is the healthcare practitioner who is in charge of the care of this patient, and although the SANE may consult with other healthcare
providers (e.g. emergency physician), the sole responsibility of care as well as the support and services put in place after the examination (e.g. shelters, police involvement) is coordinated by the SANE. As this SANE explained,

“It is paramount in my mind during all client encounters that the way I handle this situation could positively or negatively affect the way the client processes this event moving forward. That is a lot of emotional/psychological responsibility that I put on myself.”
DISCUSSION
CHAPTER 9
DISCUSSION

9.1. Discussion

The objectives of this study were to examine levels of occupational stress and job satisfaction in SANEs and Emergency nurses, to explore the relationship between occupational stressors and job satisfaction, and to investigate the relationship between job satisfaction and absenteeism, intention to leave. Open-ended questions also provided further information, which allowed for a more in-depth understanding of the experience of occupational stress and its effect on the lives of nurses. We also conducted a number of exploratory analyses with our sample of SANEs, since this population has not been adequately studied thus far.

Our first question addressed current levels of vicarious traumatization, secondary traumatic stress, and burnout within and between groups. Contrary to our hypothesis, SANEs and Emergency nurses did not differ in the level of vicarious traumatization. Compared to previous studies with have examined VT using the TABS (see section 7.5), both samples appear to be experiencing elevated levels of vicarious traumatization. However, according to the recommendations outlined by Pearlman (2003), both groups are experiencing an average level of vicarious trauma.

As with the TABS, levels of secondary traumatic stress did not differ between SANEs and Emergency nurses, and scores within both groups suggests mild secondary traumatic stress (Bride, 2007). The nurses in our sample demonstrated levels of secondary traumatic stress that are on par with previous studies (see section 7.5 on previous research using the
Taken together, it appears that both SANE and Emergency nurses experience levels of STS that are similar to other healthcare workers providing care to victims of trauma.

In contrast to vicarious trauma and secondary traumatic stress, emergency nurses were more emotionally exhausted, experienced more depersonalization, and reported less personal accomplishment than SANEs. However, according to the MBI manual's ranges of experienced burnout (see Table 1, p. 37), Emergency nurses would still fall in the average level of burnout category for each subscale. The elevated level of burnout in Emergency nurses, compared to nurses of other specialities, has been reported in numerous studies (Browning, Ryan, Thomas, Greenberg & Rolniak, 2007). This points to the possibility that there is something unique about the context and environment in which Emergency nurses work, which may increase their risk of burnout. Staffing levels, relationships with physicians, uncontrolled patient volume, erratic workload, time and work pressures, lack of resources, (e.g. bed shortages) lack of managerial support and violence/aggression against staff have all be noted as particularly stressful factors related to working in an emergency setting (Potter, 2006; Helps, 1997). A number of these factors were mentioned by Emergency nurses in our sample, such as a lack of support/resources, time constraints, and safety from aggressive patients.

The elevated level of vicarious trauma for SANEs is consistent with previous research. Wanting to resign, looking at the world differently, detaching from victims, increased hypervigilance or paranoia, and negative effects have all been mentioned as resulting from work with sexual assault victims (Maier, 2011; Lenihan, 1996). SANEs in this study spoke about their increased concerns about their own personal safety, as well as the safety of loved ones, as a direct result of working with SA victims. Moreover, it is
difficult for SANEs to leave some cases at work – sometimes leading to negative effects on relationships with families and typically, male partners. Nonetheless, SANEs also spoke in detail of the gratifying and rewarding nature of their job, as well as the positive changes to themselves as people, and in their job as nurses. These positive comments were similarly described in Lenehan’s (1996) study, where SANEs described positive changes in self-esteem, confidence, knowledge of the reality of the world, feeling better prepared for violence, appreciation for family and friends, and gratification from this work. Conversely, SANEs in our sample appeared to be quite resilient to the effects of burnout. Compared to the MBI comparison subsample of medical workers (physicians and nurses) reported in the MBI manual, the SANEs in our sample presented with less burnout in all domains of the MBI, including higher levels of personal accomplishment.

Since no current research has yet to examine predictors of occupational hazards in SANEs, we conducted a number of exploratory analyses to address this. Our results generally showed that a greater level of experience (i.e., age, number of years working in position, number of sexual assault exams) was protective against vicarious trauma, emotional exhaustion, and depersonalization. This question has been addressed widely, with inconsistent results. Some studies echo our results, showing that the more interaction and experience with trauma survivors, the less stress (e.g. Baird & Jenkins, 2003), while others show no relationship, and some show that more interaction with trauma victims is related to more vicarious trauma (e.g. Schauben & Frazier, 1995). Further research will be needed to better understand this relationship.

Similarly, our exploratory analyses of Emergency nurses indicated that older age is associated with less depersonalization. This has been supported by the extant literature,
and is one of the most robust consistent predictors or burnout (Maslach, 2001). Thus, it appears those who are younger are at higher risk of burnout – however, as Maslach (2001) emphasizes, age is confounded with amount of experience, and thus those early in their career are more likely to experience burnout. The marital status of Emergency nurses also approached statistical significance as a predictor of burnout, which is a finding echoed by Maslach, Schaufeli, and Leiter, (2001) who note that unmarried individuals are more prone to burnout. This may also speak to the importance of social support – some women spoke of supportive families (in particular, male partners) which seemed to be important when working with trauma survivors.

Finally, our set of explanatory multiple regressions with the full set of participants supported our previous findings. However, in these analyses, higher income was related to less personal accomplishment and less job satisfaction. Although much research has identified the link between income/pay and nurse's job satisfaction, (Lu, Barriball, Zhang & While, 2012) the direction of this finding is puzzling. It is possible that higher pay for nurses' care work may decrease its intrinsic value. However, since this is a purely speculative hypothesis, further exploration into this relationship would be important.

We also sought to examine the relationship between occupational stressors and job satisfaction, but did not find significant associations in either group. Our results showed that Emergency nurses were much less satisfied with their work, but we did not find a significant relationship between occupational hazards and job satisfaction in either group. This lack of association is unexpected, since many studies have pointed to the relationship between stress and job satisfaction (see Lu, Barriball, Zhang & While, 2012 for a review). This suggests that factors other than stress affect nurses' job satisfaction, and were not
included in this research. For example, Chu, Hsu, Price & Lee (2003) found significant associated between predictors such as positive affectivity, negative affectivity, role ambiguity and co-worker support, with job satisfaction. Future studies should include personality factors as predictors of job satisfaction.

Our final question in this study was to explore the relationship between absenteeism, the intention to leave one’s job, and job satisfaction. Only the model with Emergency nurses was significant, and indicated that the lower the levels of job satisfaction, the higher the intent to leave one’s position as an Emergency nurse. Our findings support the existing literature reporting strong associations between satisfaction and intention to leave (e.g. Larrabee et al., 2003). However, previous research has implicated job stress as the precursor to job satisfaction, and job satisfaction has been found to predict one’s intention to leave (Irvine & Evans, 1995). Although our results support the latter statement, our findings did not show the former (i.e., no significant association between stress and job satisfaction). Again, this may suggest alternative reasons for low job satisfaction that were not captured here. Since turnover is so costly to organizations, it is important to explore this connection with further research.

9.2. Implications for Nursing Practice

Our results indicated that nurses experience considerable stress as a result of their work. Emergency nurses in particular experience substantial burnout and low job satisfaction, which is associated with higher levels of turnover intention. The implications for nursing practice are many. Firstly, occupational stress has repercussions for the quality of patient care (Potter, 2006). Burned out nurses, with less capacity to feel emotionally connected to patients, who feel detached from their (patient’s) suffering, and who are
generally frustrated, are likely providing care to a compromised degree. Nurses in both groups described the challenging aspects of working with trauma victims, such as needing to emotionally detach from patients, and struggling with their emotional responses to trauma victims.

Strategies to manage occupational stress may be conceptualized as personal and professional/organizational (Pearlman & Saakvitne, 2005). Strategies in the ‘personal’ realm may include those such as self-care (e.g. importance of sleep, exercise, healthy eating), self-reflection, striving for work-life balance, engaging in healing activities (for instance, things that one finds calming), and seeking support from family and friends. Nurses in our study spoke to the importance of reflecting on difficult cases, and many described struggling with work-life balance as well as a separation between work life and home life; suggesting that organizations should include psychoeducation and information about these strategies into training. Professional and organizational strategies may involve supportive supervision, opportunities for professional development and further training, stress-management training, providing opportunities for debriefing, and more control over shift-work. In this study, participants spoke about the importance of debriefing with supervisors as well as peers, but felt that there was neither time nor support for this. Thus, it is important to consider the usefulness of time set aside for nurses to speak about difficult cases. Indeed, some SANE centres in Ontario have monthly team meetings, where SANEs can discuss certain cases. This may also be important from a competency perspective; by allowing nurses to share challenges cases, they are providing education and training to their peers.
Training regarding the signs and symptoms of occupational stressors should also be provided for both SANEs and Emergency nurses. In our SANE sample, only half stated undergoing training on burnout, VT or STS, and some specifically stated that this should be a bigger part of training. It may be useful to educate nurses-in-training about how to recognize early signs and symptoms of vicarious trauma, secondary traumatic stress, and burnout, so that a strategy can be developed before a nurse feels it necessary to leave work. Further, as this research shows, nurses with less experience may be particularly susceptible to occupational stress. Thus, organizations should consider providing this group with extra support and the beginning of their career (Townsend Campbell, 2009).

9.3. Strengths and Limitations

This study is the first to examine the relationship between occupational stressors and job satisfaction in Canadian SANEs. Since SA/DV centres are proliferating throughout Canada, this study presents an important contribution to the existing literature. Further, this study is the only study of SANEs that has employed a comparison group of Emergency nurses, which provided a wealth of information. Moreover, unlike previous research, care was taken to clarify the differentiation between vicarious trauma, secondary traumatic stress (compassion fatigue), and burnout, as these are not equivalent constructs. Therefore, we included validated measures of each type of occupational hazard. The use of open-ended questions is also a strength of this study, and yielded a more in-depth understanding of the experiences of nurses in both groups. We also included a number of exploratory variables to examine issues of caseload (number of patients seen), in order to provide a clearer picture of the role of these specific variables.
This study also had limitations. Non-response bias may limit the conclusions of this study. SANEs and Emergency nurses who chose not to respond to the survey may differ than those who did choose to respond. Similarly, those individuals who responded to the open-ended questions may have different experiences and motivations to provide details on those questions. We also did not calculate a response rate, thus we are unsure of the number of nurses who chose not to respond.

A self-selection bias is also important to consider. Nurses of any background can choose to train as a SANE, suggesting there are personality characteristics of those who choose to do this particular job that may be unique (e.g. strong views towards women's health or advocacy). Moreover, it is possible that those who are particularly distressed by SANE work may leave the job early and thus, leaving a sample that appears healthier. There may also be systematic differences between those that chose to access the survey and those that did not (e.g. those who are particularly satisfied or particularly unsatisfied with their work or organization).

Our small sample size also limits our conclusions. After removing missing data, our sample size may have been too small, and thus future studies should aim for larger sample sizes in order to have higher confidence in results. Moreover, due to our small sample size, we were unable to adjust for some variables, and had to dichotomize variables, which leads to decreased sensitivity.

Emergency nurses as a comparison group may also be a limitation, as some SANEs were likely originally trained as Emergency nurses, and Emergency nurses also likely treat victims of sexual assault. Ideally, a comparison group of nurses who do not care for sexual violence survivors would help to clarify the impact of this type of work. We attempted to
examine this by collecting information on the percentage of trauma survivors seen per month. Future studies should consider the use of groups with less potential overlap.

Our large number of univariate analyses also increased the probability of a Type 1 error. However, these analyses are purely exploratory and will need to be examined in further detail with larger sample sizes.

Finally, there are limitations inherent to those of a survey design. These results may not generalize to nurses outside of this sample, due to the aforementioned issue of self-selecting to participate. In addition, a cross-sectional survey only gives a snapshot in time, and does not explore changes over time. Future research would benefit from a longitudinal study, in particular, examining changes over time, as nurses become more experienced in their work.
CONCLUSION
CHAPTER 10

CONCLUSION

This study showed that SANEs do not experience higher levels of vicarious trauma, secondary traumatic stress, and burnout that Emergency nurses. On the contrary, we found that Emergency nurses experienced significantly more burnout and less job satisfaction than Sexual Assault nurses. Our exploratory analyses in both groups indicated that age and experience are protective against occupational stress. Unlike previous studies, we failed to find a significant association between occupational hazards and job satisfaction. However, open-ended data suggested that nurses in both groups experience detrimental consequences to their well-being as a result of their work. In particular, SANEs expressed changes in their feelings of safety, heightened awareness of surroundings, and a “spilling over” of their work to their personal life, which is consistent with previous research. Emergency nurses spoke of needing to emotionally detaching oneself from difficult patients, and the importance of support from their organization. Notably, both groups spoke to the positive aspects of their work – such as helping people through difficult times, feeling like a more skilled nurse by working with a traumatized population, and a sense of reward and gratification from their work. The implications of the study speak to the importance of training nurses for the possibility of occupational stress, including providing strategies to address early signs and symptoms of occupational hazards, as well as the centrality of organization support. Consideration of these implications is heighted with the knowledge of nursing shortages, and to maintain a strong quality of care for patients and the wider society.
REFERENCES


Appendix A: Phone screen to SANE Centres

Introduction:
Hi, my name is Sheena, and I’m a Masters Student in the Counselling Psychology Program at the Ontario Institute for Studies in Education, at the University of Toronto. I’m conducting a study looking at the stress nurses experience due to the type of work they do. If possible, I would like to connect with your team leader or the director of your SANE program to understand your organization better. Would you be able to provide me his or her name, or a good time to call to speak with this person?

If it is the SANE director/team leader:
To give you more information, I am conducting a study looking at stress in different nursing specialties, and I understand that SANEs often have very complex responsibilities as part of their work. To do this study, the nurse would click on a survey link and complete a set of questionnaires online. The responses are completely confidential and I do not retain any identifying information. I also will not ask what institution the person is employed in, and the person can withdraw from the study at any time by closing the browser. All of the information regarding the study can be found by clicking on the study link. Do you have any questions about the study? [If not] Thank you very much. I can either email you the URL to the study, or give it to you over the phone.

Thank you very much for your help. If you have any questions, please feel free to call me at 416-978-0686 or email me at sheena.bance@mail.utoronto.ca.
Appendix B: Information Sheet (SANE)

My name is Sheena Bance, and I am a Master of Arts student in the Counselling Psychology program at the Ontario Institute for Studies in Education (OISE) at the University of Toronto. I am conducting a study examining the negative consequences that nurses may experience as a result of working with patients who have experienced trauma, and I am extending an invitation for participation in this study. Please read the information below for more information about the study.

Why the Research is Being Done:
Healthcare workers often suffer negative psychological consequences after repeated and prolonged work with traumatized populations. In some cases, these consequences may affect people’s attitudes towards their work as well as their overall satisfaction with their job. Moreover, as a result of these psychological and occupational consequences, people may take time off of work, or leave their jobs. In this study, we are examining levels of these psychological consequences in Ontario nurses, and exploring the relationship of these consequences to one’s satisfaction with their job.

Your Participation in the Study:
As part of this study, you will be asked to complete a number of questionnaires online. You will be asked about your background, as well as if you have experienced a number of symptoms as a result of your work with trauma victims. Some questions will also ask about your feelings towards your job, both by indicating on a survey, and if you choose, by entering written information. The survey should take you approximately 30 minutes to complete. Your participation is completely voluntary, and you are free to refuse to answer any question or end your participation anytime.

What Happens to the Information You Provide:
All of the information is confidential, meaning that no one other than members of the research team will have access to your information. The survey will not include any information that can identify you (i.e. your name, your date of birth, or the institution/organization for which you work). The data collected from the online survey is encrypted and secure, and data will be kept on a password protected computer located at OISE/UT. Any publications or presentations made on the basis of the information provided in this study will not identify you in any way.

Possible Risks of Participation:
It is possible that some of the questions may cause some feelings of discomfort. A resource list is available to you at the end of the online survey if you feel you feel distressed. You may print out the list for your convenience. Your participation is completely voluntary, and you can refuse any question or stop your participation at any time by closing your browser.
Possible Benefits of Participation:
While there is no direct benefit to you for participating in this research, the information you provide may help us to better understand how working with traumatized populations affects nurses psychologically, and in turn, how this affects one’s attitudes and satisfaction towards their work.

To Take Part in this Research:
Your involvement in this research would be appreciated. If you would like to participate, please go to the following internet URL:

surveys.oise.utoronto.ca/surveyviewer2/index.php?surveyID=2DFE8

If you have any questions, please contact Sheena Bance, at sheena.bance@mail.utoronto.ca. If you have further questions about your rights as a research participant, you can contact the Ethics Review Office at ethics.review@utoronto.ca or call 416-946-3273.
Appendix C: Information Sheet (Emergency Nurses)

My name is Sheena Bance, and I am a Master of Arts student in the Counselling Psychology program at the Ontario Institute for Studies in Education (OISE) at the University of Toronto. I am conducting a study examining the negative consequences that nurses may experience as a result of working with patients who have experienced trauma, and I am extending an invitation for participation in this study. Please read the information below for more information about the study.

Why the Research is Being Done:
Healthcare workers often suffer negative psychological consequences after repeated and prolonged work with traumatized populations. In some cases, these consequences may affect people’s attitudes towards their work as well as their overall satisfaction with their job. Moreover, as a result of these psychological and occupational consequences, people may take time off of work, or leave their jobs. In this study, we are examining levels of these psychological consequences in Ontario nurses, and exploring the relationship of these consequences to one’s satisfaction with their job.

Your Participation in the Study:
As part of this study, you will be asked to complete a number of questionnaires online. You will be asked about your background, as well as if you have experienced a number of symptoms as a result of your work with trauma victims. Some questions will also ask about your feelings towards your job, both by indicating on a survey, and if you choose, by entering written information. The survey should take you approximately 30 minutes to complete. Your participation is completely voluntary, and you are free to refuse to answer any question or end your participation anytime.

What Happens to the Information You Provide:
All of the information is confidential, meaning that no one other than members of the research team will have access to your information. The survey will not include any information that can identify you (i.e. your name, your date of birth, or the institution/organization for which you work). The data collected from the online survey is encrypted and secure, and data will be kept on a password protected computer located at OISE/UT. Any publications or presentations made on the basis of the information provided in this study will not identify you in any way.

Possible Risks of Participation:
It is possible that some of the questions may cause some feelings of discomfort. A resource list is available to you at the end of the online survey if feel you feel distressed. You may print out the list for your convenience. Your participation is completely voluntary, and you can refuse any question or stop your participation at any time by closing your browser.
**Possible Benefits of Participation:**
While there is no direct benefit to you for participating in this research, the information you provide may help us to better understand how working with traumatized populations affects nurses psychologically, and in turn, how this affects one’s attitudes and satisfaction towards their work.

**To Take Part in this Research:**
Your involvement in this research would be appreciated. If you would like to participate, please go to the following internet URL:

   surveys.oise.utoronto.ca/surveyviewer2/index.php?surveyID=V48KL

If you have any questions, please contact Sheena Bance, at sheena.bance@mail.utoronto.ca. If you have further questions about your rights as a research participant, you can contact the Ethics Review Office at ethics.review@utoronto.ca or call 416-946-3273.
Welcome!

My name is Sheena Bance, and I am a Master of Arts student in the Counselling Psychology program at the Ontario Institute for Studies in Education (OISE) at the University of Toronto. I am conducting a study examining the negative work and health consequences that nurses may experience as a result of working with patients who have experienced trauma, and I am inviting you to take part in this study. Please read the information regarding the study below.

**Purpose of this Study:**
As a result of working with patients who have been through a traumatic event (for example, a sexual assault, or a serious injury), nurses sometimes experience negative psychological and/or physiological reactions, such as feeling distressed when thinking about a patient or their trauma, or changes in the way one feels about their work (for example, not caring as much about patients). The purpose of this study is to examine the psychological, and workplace consequences that nurses experience as a result of working with traumatized populations. There are three goals to this study: 1) To examine levels of occupational stress in Ontario nurses, 2) to explore possible negative effects of working with patients, and 3) understand the effects of this stress on your feelings towards your work as a nurse.

**Criteria for Participation:**
To participate in this study, you must meet the following criteria:
1) Registered Nurse, Registered Practical Nurse, or Nurse Practitioner within Ontario
2) Have completed training in sexual assault examinations and authorized by hospital to complete sexual assault examinations independently
3) Facility with English permitting completion of study measures
4) Ability to provide informed consent

**Your Participation in the Study:**
If you choose to participate in this study, you will be asked to provide some background information about yourself, such as your gender, age, and years of experience, and complete a number of questionnaires. The questionnaires will ask about the stress you may experience as part of your work, and your attitudes toward your work. These questionnaires should take approximately 30 minutes to complete. It is very important that you complete the survey only once.

**Participation and Withdrawal:**
This study is entirely voluntary. You may choose to not respond to questions you do not feel comfortable answering. If you do not wish to complete the study, you may end your participation
by exiting the survey or closing the web browser. However, since your participation in the study is completely anonymous, if you do choose to withdraw from the study, we will not be able to remove any data that has been entered.

**Possible Risks and Benefits Participation:**
It is possible that some of the questions may cause some feelings of discomfort. A resource list is available to you on the following page if you feel distressed. You may print out the list for your convenience.

While there is no direct benefit to you participating in the study, the information you provide may help us to better understand the stress that nurses experience due to their work and the effects on of this work on one’s attitudes towards their job.

**Confidentiality:**
The information for this study is confidential. Only researchers associated with this study will have access to the data collected. The data collected via the survey will be stored in a secure and encrypted website. Any publications of the study results, including scholarly publications or presentations will not include any information that will make it possibly to identify research participants. The data collected in this study will be kept for 5 years.

**Your Rights as a Research Participant:**
If you have any questions or concerns about this study, please contact the study investigator, Sheena Bance, at sheena.bance@mail.utoronto.ca, or the faculty supervisor of the study, Dr. Lana Stermac at 416-978-0722. If you have any questions about your rights as a research participant, you may contact the University of Toronto Office Of Research Ethics at 416-946-3273 or ethics.review@utoronto.ca.

Thank you for your participation in this study.

*Clicking the link below signifies that the study has been thoroughly described to you and you agree to participate.*

Please continue
Appendix E: Informed Consent Form (Emergency Nurses)

Welcome!

My name is Sheena Bance, and I am a Master of Arts student in the Counselling Psychology program at the Ontario Institute for Studies in Education (OISE) at the University of Toronto. I am conducting a study examining the negative work and health consequences that nurses may experience as a result of working with patients who have experienced trauma, and I am inviting you to take part in this study. Please read the information regarding the study below.

**Purpose of this Study:**
As a result of working with patients who have been through a traumatic event (for example, a sexual assault, or a serious injury), nurses sometimes experience negative psychological and/or physiological reactions, such as feeling distressed when thinking about a patient or their trauma, or changes in the way one feels about their work (for example, not caring as much about patients). The purpose of this study is to examine the psychological, and workplace consequences that nurses experience as a result of working with traumatized populations. There are three goals to this study: 1) To examine levels of occupational stress in Ontario nurses, 2) to explore possible negative effects of working with patients, and 3) understand the effects of this stress on your feelings towards your work as a nurse.

**Criteria for Participation:**
To participate in this study, you must meet the following criteria:

1) Registered Nurse, Registered Practical Nurse or Nurse Practitioner within Ontario
2) Have received training to work as an emergency nurse
3) Facility with English permitting completion of study measures
4) Ability to provide informed consent

**Your Participation in the Study:**
If you choose to participate in this study, you will be asked to provide some background information about yourself, such as your gender, age, and years of experience, and complete a number of questionnaires. The questionnaires will ask about the stress you may experience as part of your work, and your attitudes toward your work. These questionnaires should take approximately 30 minutes to complete. It is very important that you complete the survey only once.

**Participation and Withdrawal:**
This study is entirely voluntary. You may choose to not respond to questions you do not feel comfortable answering. If you do not wish to complete the study, you may end your participation by exiting the survey or closing the web browser. However, since your participation in the study
is completely anonymous, if you do choose to withdraw from the study, we will not be able to remove any data that has been entered.

**Possible Risks and Benefits Participation:**
It is possible that some of the questions may cause some feelings of discomfort. A resource list is available to you on the following page if feel you feel distressed. You may print out the list for your convenience.

While there is no direct benefit to you participating in the study, the information you provide may help us to better understand the stress that nurses experience due to their work and the effects on of this work on one’s attitudes towards their job.

**Confidentiality:**
The information for this study is confidential. Only researchers associated with this study will have access to the data collected. The data collected via the survey will be stored in a secure and encrypted website. Any publications of the study results, including scholarly publications or presentations will not include any information that will make it possibly to identify research participants. The data collected in this study will be kept for 5 years.

**Your Rights as a Research Participant:**
If you have any questions or concerns about this study, please contact the study investigator, Sheena Bance, at sheena.bance@mail.utoronto.ca, or the faculty supervisor of the study, Dr. Lana Stermac at 416-978-0722. If you have any questions about your rights as a research participant, you may contact the University of Toronto Office Of Research Ethics at 416-946-3273 or ethics.review@utoronto.ca.

Thank you for your participation in this study.

*Clicking the link below signifies that the study has been thoroughly described to you and you agree to participate.*

Please continue
Appendix F: Resource List

The following is a list of community resources that can provide information and support. Thank you again for participating in this study.

**Crisis Intervention**

Distress Centres of Ontario
Crisis Line: 416-486-2242

Gerstein Centre (Toronto, ON Canada)
Tel: 416-929-0149
Crisis Line: 416-929-5200
www.gersteincentre.org

**Counselling/Support Services**

Ontario:

Ontario Psychological Association
Referral Service: 416-961-0069 or toll-free 1-800-268-0069

Toronto:
Barbara Schlifer Commemorative Clinic
489 College Street, Suite 503
Toronto, ON, M6G 1A5
Tel: 416-323-9149
www.schliferclinic.com

Family Service Toronto
www.familyservicetoronto.org
Tel: 416-595-9618

Women’s Mental Health Clinic
Toronto General Hospital
8th Floor, Eaton Wing North
Tel: 416-340-3048
http://www.uhn.ca/Clinics__Services/clinics/womens_mental_health.asp

Women’s Health in Women’s Hands
2 Carlton Street, Suite 500
Toronto, ON, M5B 1J3
416-593-7655
www.whiwh.com

Brief Psychotherapy Centre for Women
416-591-2000
2 Carlton Street, Suite 1806
Toronto, ON, M5B 1J3
http://www.womenscollegehospital.ca/programs-and-services/mental-health/brief-psychotherapy-centre-for-women-%28bpcw%29463/

Women’s Connection Program
Parkdale Community Health Centre
27 Roncesvalles Avenue, Suite 301
Toronto, ON, M6R 3B2
womensconnection@pchc.on.ca.

Niagara Region:

Family Counselling Centre
82 Hannover Drive, St Catharines
Tel: 905-937-7731
Toll-free at 1-888-937-7731 (extension 3345)

Hamilton, Halton and Brant Region:

Halton Family Services
235 Lakeshore Rd. E., Oakville
Tel: 905 845-3811
info@haltonfamilyservices.org

Huron, Perth region:

Huron-Perth Centre
Tel: Clinton (519) 482-3931
Tel: Listowel (519) 291-1088
Tel: Stratford (519) 273-3373

Durham, York region:

Durham Mental Health Service
Tel: 905-666-0483 or 1-800-742-1890
Ottawa:

Pinecrest-Queensway
Community Health Centre
1365 Richmond Road, Ottawa, Ontario
613-820-4922
Parry Sound, Muskoka region:

Muskoka-Parry Sound Community Mental Health Service
Muskoka and area Crisis Line - 1-888-893-8333
Parry Sound and area Crisis Line - 1-800-461-5424
Sundridge and area Crisis Line - 1-800-461-5424
Appendix G: Secondary Traumatic Stress Scale

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.

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

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

**Intrusion Score** ______

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

**Avoidance Score** ______

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

**Arousal Score** ______

**TOTAL (add Intrusion, Arousal, and Avoidance Scores)**

**Total Score** ______