

**PREVALENCE OF SECONDARY TRAUMATIC STRESS DISORDER AMONG
STUDENT NURSES OF KENYA MEDICAL TRAINING COLLEGE AT THE
NAIROBI CAMPUS**

NORMAN KAKANYO RAMATSIPELE

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**A thesis submitted to the Department of Psychiatry in partial fulfilment of the
requirement for the award of Master of Science Degree in Clinical Psychology,
University of Nairobi**

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DECLARATION FORM

I hereby declare that the research on prevalence of secondary traumatic stress disorder among students of nursing at Kenya Medical Training College –Nairobi Campus is my own work and is submitted in partial fulfilment of Master of Science degree in Clinical Psychology.

I have not submitted it in part or as whole to any other university. All sources that I have quoted have been indicated and acknowledged by means of reference.

Norman Kakanyo Ramatsipele

Signature _____

Date _____

APPROVAL

This research has been submitted for the award of the degree of Master of Science in Clinical Psychology at the University of Nairobi.

With our approval:

SUPERVISORS

SIGNED _____ DATE _____

PROFESSOR DAVID M NDETEI PROFESSOR OF PSYCHIATRY
DEPARTMENT OF PSYCHIATRY, COLLEGE OF HEALTH SCIENCES,
UNIVERSITY OF NAIROBI.

SIGNED _____ DATE _____

DR.PIUS KIGAMWA SENIOR LECTURER
DEPARTMENT OF PSYCHIATRY, COLLEGE OF HEALTH SCIENCES,
UNIVERSITY OF NAIROBI

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DEDICATION

I dedicate this thesis to my family who have allowed me to come to Kenya to pursue my dream of being a Clinical Psychologist

ABBREVIATIONS AND ACRONYMS

DSM III	Diagnostic and Statistical Manual Third Edition
DSM IV	Diagnostic and Statistical Manual Fourth Edition
IQ	Intelligence Quotient
KMTC	Kenya Medical Training College
KNH	Kenyatta National Hospital
PTSD	Post traumatic Stress Disorder
STSD	Secondary Traumatic Stress Disorder
WHO	World Health Organisation

DEFINITION OF SIGNIFICANT TERMS

Burnout-can be defined as feeling of exhaustion, a cynical attitude toward the job and people involved in the job and through a reduced personal accomplishment or work efficiency (Lee & Ashforth, 1993)

Cognition- a term referring to the mental processes involved in gaining knowledge and comprehension. These processes include thinking, knowing, remembering, judging, and problem solving. These are higher-level functions of the brain and encompass language, imagination, perception, and planning. (Cherry ,2013)

Compassion fatigue-has been defined as a combination of physical, emotional, and spiritual depletion associated with caring for patients in significant emotional pain and physical distress (Anewalt, 2009; Figley, 1995). Although many definitions of compassion fatigue are now found in the literature, Joinson (1992), a nurse, was the first to describe the concept in her work with emergency room personnel. She identified compassion fatigue as a unique form of burnout that affects individuals in care giving roles

Epidemiology -the study (or the science of the study) of the patterns, causes, and effects of health and disease conditions in defined populations. It is the cornerstone of public health, and informs policy decisions and evidence-based medicine by identifying factors for disease and targets for preventive medicine. Epidemiologists help with study design, collection and statistical analysis of data, and interpretation and dissemination of results (including peer review and occasional systematic review). Epidemiology has helped develop methodology used in clinical research, public health studies and, to a lesser extent, basic research in the biological sciences Porta (2008)

Self esteem- is a term used in psychology to reflect a person's overall emotional evaluation of his or her own worth. It is a judgment of oneself as well as an attitude toward the self. Self-

esteem encompasses beliefs (for example, "I am competent," "I am worthy") and emotions such as triumph, despair, pride and shame. Hewitt (2009)

Post traumatic stress disorder- Post-traumatic stress disorder (PTSD) is a debilitating psychological condition triggered by a major traumatic event, such as rape, war, a terrorist act, death of a loved one, a natural disaster, or a catastrophic accident. It is marked by upsetting memories or thoughts of the ordeal, "blunting" of emotions, increased arousal, and sometimes severe personality changes. DiGiovanni(1999)

Trauma-direct personal experience of an event that involves actual or threatened death or serious injury, or other threat to one's physical integrity; or witnessing an event that involves death, injury, or a threat to the physical integrity of another person; or learning about unexpected or violent death, serious harm, or threat of death or injury experienced by a family member or other close associate (Criterion A1). The person's response to the event must involve intense fear, helplessness, or horror (or in children, the response must involve disorganized or agitated behaviour) (Criterion A2). (p. 463) (APA, 2000)

Secondary trauma is commonly referred to as "the stress resulting from helping or wanting to help a traumatized or suffering person (Figley 1995)

Spirituality-1.the state or quality of being dedicated to God, religion, or spiritual things or values, especially as contrasted with material or temporal ones

2. The condition or quality of being spiritual
3. A distinctive approach to religion or prayer:
4. (Often plural) Church property or revenue or a Church benefice Collins (2009)

Vicarious trauma- is a transformation in the self of a trauma worker or helper that results from empathic engagement with traumatized clients and their reports of traumatic experiences. McCann and Pearlman (1990)

RESEARCH ABSTRACT

Introduction

Secondary trauma is commonly referred to as "the stress resulting from helping or wanting to help a traumatized or suffering person. Figley (1995)

Objective

The specific objectives of the study will be to determine the prevalence rate of secondary stress disorder among students of nursing at KMTC campus and investigate socio demographic factors of the respondents

Study design

This was a cross sectional descriptive study

Study Population and sampling method

The students of nursing participated in the study. Only the students who have worked in the clinical area were interviewed.

Sample population was 90 students which is 10% of the population and systematic random sampling was used to identify the respondents.

Data analysis

Data was analyzed using SPSS version 17.0; descriptive statistics was used and data presented in tables, pie charts and graph

Instruments

A structured socio-demographic questionnaire and Secondary Traumatic Stress Scale instrument were used to asses for secondary traumatic stress.

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CHAPTER ONE

1.1 Introduction and Background

A growing body of literature exists on the prevalence and psychological sequelae of sexual abuse, family violence and other forms of physical and psychological trauma and their treatments. However, less attention has been focused on the experience of clinicians who treat these clients who are likely to exhibit symptoms of STSD (Cunningham, 1999). Substantial literature on epidemiological studies estimates that between 36% and 81% of the general population experience a traumatic event sometime in their lives (Cusack et.al, 2004).

Figley (2004) reported that there are few reports of the incidence and prevalence of STSD. Bride (2005) in his study on Prevalence of Secondary Traumatic Stress among Social Workers, found that social workers engaged in direct practice are highly likely to be secondarily exposed to traumatic events through their work with traumatized populations and are likely to experience at least some symptoms of STSD. A survey of 558 mental health and law enforcement professionals by Follette et al (1994) assessed current and past trauma experiences, exposure to traumatic client material, and the sequelae of both of those types of personal and professional trauma experiences. Results indicated that 29.8% of therapists and 19.6% of officers reported experiencing some form of childhood trauma. There was some evidence that professionals with a history of child abuse reported significantly higher levels of symptoms that have been associated with trauma survivors in past research. Cunningham, Maddy (2004) in studies of community violence, exposure rates of both victims and witnesses to violence are high. In an urban sample, 65% of respondents reported being a victim of violence and 98% witnessed a violent act (Rosenthal, 2000). In rural samples 76% to 82% of respondents were victims of violence and 93% to 96% were witnesses (Scarpa, 2003). Furthermore, research studies indicate that individuals exposed to trauma have psychological difficulties (Scarpa, 2003) and that those difficulties persist over time (Schwab-Stone et al., 1999). . Stoesen (2007) found that incidence of STSD among child welfare workers was higher than in social and other human service fields. Blanchard et al on their studies of STSD of college students following September 11 attacks found a STSD prevalence of 9.9% for females and 4.8%for males. Kokonya (2004) in his study on compassion fatigue and burnout syndrome among the medical worker at KNH found prevalence rate of compassion fatigue among nurses to be 32.9% while among doctors it was 29.9%. In a study by Mbatha (2004), on prevalence of secondary traumatization among

caretakers in Kakuma refugees' camp, Kenya, prevalence rate of secondary traumatization was found to be 37% (low to moderate levels of PTSD) and 63% (extremely high levels of PTSD).

1.2 Statement of the problem

Recently, PTSD has become a recognised problem in human service professions. Studies have been conducted among teachers, medical practitioners, social workers, telephone call centres, psychologists, psychiatrists and psychotherapists (Deary et al., 2002; Farber, 1985; Maslach, 1982; Otto, 1986). However, studies on nursing students' PTSD are limited. Maslach (1993) has suggested that studies on PTSD should focus on specific work settings. This study focussed on the nursing students' nature of PTSD.

The students of nursing are usually placed in trauma areas such as casualty and surgical wards where patients who have survived traumatic events such as road traffic accidents, fires, rape, domestic violence, bomb blasts to name a few, are managed.

These students participate actively in the care of these patients. Due to their daily exposure to the survivors' trauma material, like any other health professionals they may be at risk of secondary traumatisation. The KMTC students are also charged with taking care of patients suffering from life threatening illnesses, during their clinical placement.

Research suggests that individuals working in the caring and psychotherapeutic professions are among those likely to suffer adverse psychological consequences resulting from direct client work activities (Figley, 2003b; SabinFarrell & Turpin, 2003).

The upsurge of HIV/AIDS in Kenya has created a rapidly increasing need for student nursing as has substance abuse. Many nurses either ignore or minimize the debilitating effects of reduced capacity or interest in being empathic or bearing the suffering of such clients. In Kenya, for example, VCT and nurses handle high loads of clients. Nurses who provide care to these clients are emotionally exhausted and drained (Figley, 2003b; Maslach, 1982).

Nurses rate high in providing high levels of sustained interpersonal interaction among human service providers (Farber & Heifetz, 1982).

Nurses are naturally prone to STSD. Veninga and Spradley (1981) describe STSD as natural 'wear and tear' of a worker. A number of studies have indicated that STSD is mentally and physically debilitating for workers, costly to institutions and agencies, and harmful to clients (Cherniss, 1980; Edelwich & Brodsky, 1980; Farber, 1983; Rogers, 1987). Studies conducted among teachers indicate that most teachers are abandoning the profession due to STSD (Dworkin, 1987).

Nurses' STSD has personal, relational and productivity consequences. These consequences of STSD are observed through expressed symptoms in the practitioner. With time, STSD development ceases to be an internal dynamic and becomes an outward response. In Maslach and Jackson's (1981) study, three dimensions of STSD emerged: Emotional exhaustion, depersonalization of clients, and lack of feelings of personal accomplishment. Maslach and Jackson (1981) describe emotional exhaustion as depletion of emotional resources. They also characterize depersonalization as the development of negative, cynical attitudes and feelings towards one's clients. The lack of feelings of personal accomplishment is the tendency to view negatively one's work with clients.

Agencies, institutions and organizations whose main function is to provide therapeutic services to needy people may be creating unwellness for their workers. A safe, comfortable and supportive work environment facilitates the maintenance of workers' motivation and self efficacy. The failure of care organizations, agencies and institutions to provide safety and support for their workers generates worker disillusionment and apathy. The Soderfedt, Soderfedt and Warg's (1995) study found that organizations could either promote job satisfaction or contribute to STSD. Unsupportive administrations, lack of professional challenge, low salaries, and difficulties encountered in providing client services are predictive

of higher STSD rates (Beck, 1987; Himle, Jayaratne & Thyness, 1986). Individual staff members suffer and the resulting loss of experienced staff can diminish the quality of client services (Dworkin, 1987).

At a personal and organizational level, strategies utilized in the management of STSD condition may be ineffective. There is a need for studies to be carried out to determine effective strategies of handling STSD at a personal and institutional level. Failure to respond urgently and appropriately generates practitioner's lowered effectiveness and productivity. Welfel (1998) suggests that supervision is an essential component in prevention and treatment of vicarious trauma. Responsible supervision creates a relationship in which practitioners feel safe to express fears, concerns and inadequacies. Organizations with a weekly group supervision format establish a venue in which personal and work issues may be processed and normalized as part of the work of the organization (Bell, 1998).

The challenge of nurses' STSD can no longer be ignored in a developing country like Kenya. If urgent measures are not taken to curb STSD condition in practitioners, the effects on workers, clients and organizations may reach alarming levels.

The data in the KMTC clinic show that between the year 2009 and 2010 a total of 93 students were treated for psychological disorders such as anxiety, hysteria, depression and substance use disorders. These kinds of disorders may be associated with secondary trauma. In the counselling office a total of 120, a majority from nursing, complain of disturbed sleep, anger, nightmares and loss of control. Others have complained of disturbing memories of the patients they have managed in clinical areas. A number of students have alcohol related problems. The symptoms experienced by these students are among the symptoms of secondary trauma documented by Pearlman and Saakvite (1996).

1.3 Purpose of the study

The purpose of this study was to assess the prevalence rate of secondary traumatic stress on the students of Kenya Medical Training College, Nairobi campus and make recommendations.

1.4 Significance of the study

This study provided data that will enable the government to come up with treatment strategies that will address issues of secondary traumatic stress and to formulate policies to curb this disorder. It will also help management of KMTC find strategies of curbing this problem. Using knowledge gleaned from this study regarding this problem will enable them to identify students affected and send them to relevant authorities for assistance. The findings will also equip the students with knowledge regarding the problem thus reducing or curbing its existence. The findings from the study will also help other health institutions to formulate meaningful strategies to curb this phenomenon.

1.5 Justification of the study

It is very important to conduct research on secondary stress disorder .Research into secondary stress disorder provides us with new information on how the disorder develops , what causes secondary stress symptoms to worsen ,how it may contribute to other problems (such as depression, or physical health ailments) and how it can best be treated.

Students especially those in Nursing provide care to severely traumatized victims who seek treatment in the health institutions they are placed in to provide care. These students like any other professionals interact with trauma material from survivors, hence their vulnerability to develop secondary stress .This research seeks to assess the effects of secondary trauma among these students.

The findings from this study will provide KMTC and other training institutions with data to enable them to come up with strategies related to either prevention or treatment of secondary trauma or secondary stress disorder on students.

CHAPTER TWO

LITERATURE REVIEW AND THEORITICAL FRAMEWORK

2.1 Introduction

This chapter deals with the theoretical background of secondary traumatic stress disorder, history of the concept of secondary traumatic stress disorder, who is at risk of secondary traumatic stress disorder, symptoms of secondary traumatic stress disorder, factors that cause secondary traumatic stress disorder and effects of secondary traumatic stress disorder on; cognition, psychologically, on self esteem, safety, trust and intimacy, spirituality, and academic performance

2.2 Constructivist Self-Development Theory (CSDT)

Constructivist Self-Development Theory emphasizes the interaction between the work experience and the self of the worker. CSDT as described by Saakvitne & Pearlman (1996) describe the concept of vicarious and secondary trauma as a theoretical model of psychological adaptation to severe trauma. Nurses who incorporate or develop an understanding of what CSDT is, allow the professionals to cope with traumatic matter based on their current circumstances and early experiences, specifically, interpersonal, familial, cultural and social experiences (Saakvitne & Pearlman, 1996). When professionals are exposed to events that do not fit within their current perceptions of reality, unreasonable or unclear beliefs protect the professional and its meaning from the harm caused by the trauma in an attempt to protect oneself from harm. This can be observed in nursing professional who begins to see all parents or caregivers as guilty of allegations of abuse or neglect or the opposite in the case of abused children.

Professionals affected by secondary traumatic stress may become less emotionally accessible due to a decrease in access to emotions (Saakvitne & Pearlman, 1996). Trippany, Kress and Wilcoxon (2004) discuss the hazards in the potential for clinical error and therapeutic

impasse increase as the vulnerability that the worker experiences increases. This results in the worker compromising therapeutic boundaries such as inappropriate contact, forgotten appointments and unreturned phone calls. The worker may also feel anger toward the client if the client has not complied with some idealized response to therapy and may result in the worker doubting their skill and knowledge and potentially lose focus on clients' strengths and resources (Trippany, et al., 2004). Other hazards the client may be subjected to when the worker is experiencing secondary trauma include a decreased ability to attend to external stimuli, misdiagnosis and "rescuing" by the worker and in addition, the client may attempt to protect the worker, which may create an ethical bind based on exploitation of the client.

According to this theory, there are five components of self; frame of reference, self capacities, ego resources, psychological needs and cognitive schemas, and memory and perception (Saakvitne & Pearlman, 1996). A professional's frame of reference includes the professional's sense of identity and their views of self, relationships, spirituality and the world. Self-capacities refer to the professional's ability to manage strong emotions, feel entitled to be alive and deserving of love and to hold on to an inner awareness of caring for others. These are reflected in the professional's abilities to self-soothe and maintain a sense of inner equilibrium (Saakvitne & Perlman, 1996). Ego resources relate to the capacity for self-awareness, insight and empathy striving to accomplish personal growth. Ego resources include the ability to foresee consequences, make self-protective judgments, and establish healthy boundaries (Saakvitne & Perlman, 1996). Psychological needs and cognitive schemas are the professional's needs for safety, control, esteem, trust and intimacy. These are reflected in schemas about others such as trust in others and esteem for others and about oneself such as self-trust and self-esteem (Saakvitne & Perlman, 1996). Lastly, memory and perception are affected by traumatic events, which result in fragmented memories. Saakvitne and Pearlman (1996) recognize that memory and perception are complex and multimodal. They describe

how any experience is processed and recalled through several modalities, including the cognitive, visual, emotional, somatic and sensory, and behavioral and this result in the worker's memory being fragmented because of the dissociation or disconnection to aspects of the experience. Saakvitne and Pearlman (1996) give example as the narrative (cognitive) being recalled without the feelings or images, or the feeling, rather of panic or terror, or an image (flashback), without a narrative context. Within these components of CDST that vicarious and secondary trauma emerges where a worker may find disconnected from his or her sense of identity.

2.3 History of the Concept of Secondary Traumatic Stress disorder

Figley (1983) first defined "secondary traumatic stress" as the experiencing of considerable emotional duress in persons who have had close contact with a trauma survivor. Later, Figley (1983) commented that "families and other interpersonal networks are powerful systems for promoting recovery following traumatic experiences" (cited in Figley, 1995a, p. 5). He argued that system members can be "traumatized by concern" and that secondary trauma occurs "when the traumatized stress appears to 'infect' the entire system after first appearing in only one member" (Figley, 1995a, p. 5).

The individual close to the survivor may then become an indirect victim of the trauma, a secondary survivor (Figley, 1995a). The initial development of this concept resulted from Figley's examination of the family members of individuals traumatized either by natural disasters or war. However, he now recognizes the susceptibility to STSD of not only trauma workers (such as emergency workers), in addition to family members, but also mental health professionals.

In his discussion of the evolution of STSD, Figley mentions the various terms that have been used over the years to denote the idea that there is a "'cost of caring' for others in emotional

pain" (Figley, 1995a, p. 9). Examples of these terms include: secondary victimization, co-victimization, secondary survivor, emotional contagion, rape-related family crisis (specific to rape), "proximity effects" on female partners of war veterans, generational effects of trauma, the need for family "detoxification" from war-related traumatic stress, and "saviour syndrome" (see Figley, 1995a, p. 9, for further elaboration of the history of these terms as well as the original authors of these terms). He suggests that currently, "compassion stress and compassion fatigue (CF) are appropriate substitutes". (Figley, 1995a, p. 9) for secondary traumatic stress.

2.4 Who is at risk for secondary traumatic disorder?

However, traumatic events do not occur in a vacuum. Rather, traumatic events hold tremendous meaning for those touching the survivors' lives, affecting all persons involved. In fact, the effects and ramifications of trauma are not limited solely to the survivor, but have also been shown to affect those that help the survivor, such as emergency medical workers or health care providers for seriously ill patients, and most recently in the literature, mental health professionals Baird (1999)

A growing body of literature exists on the prevalence and psychological sequelae of sexual abuse, family violence and other forms of physical and psychological trauma and their treatments. However, less attention has been focused on the experience of clinicians who treat these clients who are likely to exhibit symptoms of secondary traumatic stress disorder (Cunningham, 1999). Substantial literature on epidemiological studies estimates that between 36 % and 81 % of the general population experience traumatic event in their lives (Cusack et al, 2004). Kokonya (2004) in his study of compassion fatigue and burnout syndrome among medical workers at KNH found prevalence of compassion fatigue among nurses to be 32.9 % while among doctors it was 29.9%. In a study by Mbatha (2004), on prevalence of vicarious traumatization among caretakers in Kakuma refugee camp, Kenya prevalence rate of

vicarious trauma was found to be 37% (low to moderate levels of vicarious trauma) and 63% (extremely high levels).

According to Figley (1995) all professionals, paraprofessionals or family members who work with and/or assist traumatized or distressed children, adults or families. Examples of such professionals:

Nurses- Researchers have suggested that ongoing exposure to graphic accounts of human cruelty, trauma, and suffering, as well as the healing work within the therapeutic relationship that is facilitated through 'empathic openness' (as is the case in compassion fatigue), may leave healthcare providers, including nurses, vulnerable to emotional and spiritual consequences (Dunkley & Whelan, 2006).

Additional factors beyond empathy have been identified as contributing to the development of STSD. One factor considers the characteristics of healthcare professionals, including their previous personal history of abuse and/or personal life stressors, personal expectations, need to fulfill all patient needs, and inadequate training/inexperience. Another factor involves the characteristics of the treatment, such as invasiveness, life-threatening nature, and long-term effects, as well as its context, such as the type of patient and the political, social, and cultural context within which the treatment occurred and the traumatic event took place (Pearlman & MacIan, 1995; Pearlman & Saakvitne, 1995b). For example, ongoing advances in medical technology are now able to keep patients alive for longer periods of time, yet the eventual outcome is not altered. By this it means that the patient still succumbs to the disease or injury; death has only been delayed. When a healthcare system places greater value on curative intent than on supportive care, situations, such as futility of care, may occur. For nurses involved in providing such futile care, the lasting imprint may be STSD.

Nursing student- There is growing clinical evidence that health professionals working with survivors of traumatic events may develop traumatic symptoms themselves. During their clinical practice, nursing students are also at risk of experiencing secondary traumatic stress. 168 medical students were surveyed to determine the presence of secondary traumatic stress and explore the relations to personality factors and motivation. The findings support the need for specific training on trauma exposure and traumatic stress management in nursing education. Assessment should be connected to prevention and intervention efforts Figley(1995)

Counsellors- Counsellors in virtually all settings work with clients who are survivors of trauma. Trauma can generally be defined as an exposure to a situation in which a person is confronted with an event that involves actual or threatened death or serious injury, or a threat to self or others' physical well-being (American Psychiatric Association, 2000).

STSD has been referred to as involving "profound changes in the core aspects of the therapist's self" (Pearlman & Saakvitne, 1995b, p. 152). These changes involve disruptions in the cognitive schemas of counselors' identity, memory system, and belief system. STSD has been conceptualized as being exacerbated by, and perhaps even rooted in, the open engagement of empathy, or the connection, with the client that is inherent in counseling relationships (Pearlman & Saakvitne, 1995b). VT reflects exposure of counselors to clients' traumatic material and encompasses the subsequent cognitive disruptions experienced by counselors (Figley, 1995; McCann & Pearlman, 1990). These repeated exposures to clients' traumatic experiences could cause a shift in the way that trauma counselors perceive themselves, others, and the world.

These shifts in the cognitive schemas of counselors can have devastating effects on their personal and professional lives. By listening to explicit details of clients' traumatic

experiences during counseling sessions, counselors become witness to the traumatic realities that many clients experience (Pearlman & Mac Ian, 1995), and this exposure can lead to a transformation within the psychological functioning of counselors.

Police officers-Officers who fall victim to vicarious traumatization may demonstrate changes in their core sense of self or psychological foundation. These alterations include shifts in the officers' identities and worldviews; their ability to manage strong feelings, maintain a positive sense of self, and connect with others; their spirituality or sense of meaning, expectation, awareness, and connection; and their basic needs for safety, self-esteem, trust, dependency, control, and intimacy. These effects, which disrupt officers' professional and personal lives, are cumulative and potentially permanent. Tovar (2011)

Journalists-Journalists, especially reporters who cover conflict and disaster, are as vulnerable to stress and trauma as other professionals, from firefighters and disaster counsellors to combat soldiers. Foreign reporters often work alone in the field, with limited support. The results can be tragic when stress rises to debilitating levels and goes untreated. Journalists may abuse drugs or alcohol and struggle in their marriages and personal relationships. They may endure, often silently, such recurring problems as lack of sleep, hyper-arousal or emotional numbness. Ward (2012)

2.5 Symptoms of Secondary Stress

According to Conrad (2010) these are the symptoms of secondary stress;

There are three main categories of psychological PTSD symptoms, according to Figley (1995a), which can manifest in people (significant others, therapists) who help trauma survivors: (1) re-experiencing of the survivor's traumatic event; (2) avoidance of reminders and/or numbing in response to reminders; and (3) persistent arousal. Additional types of symptoms include (1) physical complaints (i.e. somatic complaints such as headaches, sleep

problems, etc.); (2) addictive or compulsive behaviours; and (3) "impairment of day-to-day functioning in social and personal roles" (i.e. lateness, appointment cancellations, etc.; Dutton & Rubinstein, 1995, p. 85). Another type of STSD problem involves relational disturbances, which can occur both in the personal and professional realms. "Personal relationships may suffer due to increased stress or difficulty with trust and intimacy" (p.87). Trauma workers' sensitivity to similar victim-victimizer dynamics in their own personal relationships may also increase. Other indicators of STSD psychological distress or dysfunction include distressing emotions such as sadness, depression, etc. (Dutton & Rubinstein, 1995).

Psychological. Re-experiencing the client's or significant others' traumatic event can occur in several ways: (1) recollections of the event or traumatized person; (2) dreams of the event/traumatized person; (3) suddenly re-experiencing the event/traumatized person; (4) and having distressing reminders of the event/traumatized person (Figley, 1995a, p. 8).²⁴

Avoidance/numbing symptoms can involve (1) efforts to avoid thoughts/feelings; (2) efforts to avoid activities/situations; (3) psychogenic amnesia; (4) diminished interest in activities; (5) detachment/estrangement from others; (6) diminished affect; and (7) a sense of foreshortened future (Figley, 1995a, p. 8).

Symptoms of persistent arousal can include: (1) difficulty falling/staying asleep; (2) irritability or outbursts of anger; (3) difficulty concentrating; (4) hypervigilance for the traumatized person; (5) exaggerated startle response; and (6) physiologic reactivity to cues (Figley, 1995a, p. 8).

Therapist-specific STSD Responses. In the therapy relationship the counselor may respond to the client's traumatic material in one of two extremes: over-identification or detachment.

The trauma worker may over-identify with the offender and therefore begin to look for "culpable behaviour in the victim" or have difficulty with the victim's anger towards the actual offender. The trauma worker may also over-identify with the client to the point of becoming "paralyzed by his/her reactions to the client's traumatic experience," or, alternatively, taking "excessive responsibility for the client's life, perhaps in an attempt to gain control over an overwhelming situation" (Dutton & Rubinstein, 1995, p. 88).

With the over-identified psychotherapist, the survivor has neither safety nor the implicit permission to experience the full impact of his or her traumatic experience, since to do so may be overwhelming for the therapist, whose response may then be to rescue, derail, or otherwise impede the therapeutic process. (Dutton & Rubinstein, 1995, p. 8)

While distancing enables the therapist to get a better grip on her/his emotions and vulnerable feelings (by blocking out the traumatic material), "it leaves the client survivor emotionally isolated and alone, detached even from those who are intent on helping"(Dutton & Rubinstein, 1995, p. 88). Through detachment or distancing, "it is easier to exercise authoritarian controlling behaviour" (p. 87). Consequently, this detachment may result in sexual misconduct and boundary violations, particularly among "therapists who detach from their own empathetic responses to their clients' traumatic material" (p. 87).

"Distancing may also take the form of withdrawal from family, friends, or colleagues, perhaps out of the belief that no one could understand their distressed response to their work" (Dutton & Rubinstein, 1995, p. 88).

2.6 Factors that cause secondary traumatic stress disorder

As previously stated, vicarious and secondary trauma are caused by the indirect exposure to or knowledge of another's traumatic experiences (Siegfried, 2008; Bride, 2007; Figley, 1995). In light of these circumstances, it is clear that individuals in the helping professions

are exceptionally vulnerable to experiencing STSD and vicarious trauma. In general, the nature of the work and the use of empathy as a tool in working with clients is a significant risk factor for developing secondary traumatic stress. According to researchers, empathy appears to be a major conduit for the transmission of trauma from a primary to a secondary source. As a result, professionals who convey and experience empathy open themselves up to a client's distress and trauma and thus are at greater risk of experiencing trauma on a secondary basis (Figley, 1995).

In addition, several other factors have been identified which appear to contribute to higher rates of secondary traumatic stress. Specifically, an individual's prior history of trauma or abuse can lead to increased vulnerability to secondary traumatic stress. According to researchers, an individual can potentially over identify with a client and incorporate a client's emotions such as pain, sadness, fear, and distress into their own experience (Skovholt, 2001). Similarly, an individual's unresolved trauma or emotional issues can be triggered by a client's disclosure of trauma leading to an increased risk for secondary stress symptoms. Finally, exposure to a child's pain or trauma is frequently described as more difficult for professionals to process than exposure to adult trauma. According to research, police officers, fire fighters, medical staff, and other crisis workers indicate that they are most susceptible to secondary stress when working with children (Figley, 1995).

2.7 Effects of secondary trauma

2.7.1 Effects of secondary trauma on cognition

Since the mid 90's, there has been mounting research evidence that traumatic events do not necessarily have to be experienced directly for traumatization to occur (Lev-Wiesel & Amir, 2001; Linley & Joseph. 2005; Pieper, 1999). The phenomenon of secondary stress disorder has been described as a cumulative process of continued exposure to traumatic materials or images (Linley & Joseph. 2005). It ultimately leads to lasting cognitive changes such as

thoughts. Perceptions and interpretations are negatively transformed (McCann and Pearlman, 1990). Verbal exposure to traumatic materials theoretically also has the ability to change cognitive schemas as well as memory systems (Rae Jenkins & Baird, 2002). These alterations can potentially become disruptive to the person's psychological or interpersonal functioning (McCann and Pearlman, 1990), manifesting as flashbacks, nightmares or intrusive thoughts (Rae Jenkins & Baird, 2002). Some believe that the latter constitutes the hallmark of posttraumatic stress disorder or PTSD (Barlow & Durand, 2001; McNally, 2003).

Silver et al. (2002) worked with the victims of the September 11th terrorist attack on the US world trade centre and asserts that, "other studies have shown that simply watching traumatic events on television can be traumatizing especially to those individuals who had pre-existing mental or physical health difficulties or had a earlier exposure to the attacks" The potential adverse impact of working directly with clients who have a history of trauma (including sexual and physical abuse, single traumatic events, military combat, medical trauma.), has been referred to interchangeably as 'burnout', 'compassion fatigue', 'secondary traumatic stress' (STS) and more recently, VT (Danieli, 1988 ;McCann & Pearlman, 1990)

Cunningham, (2003) on Impact of Trauma Work on Social Work Clinicians: Empirical Findings. The article described a study of social work clinicians working with two types of trauma: (1) the human-induced trauma, sexual abuse, and (2) the naturally caused trauma, cancer. The effect on clinician's cognitive schemas and the confounding variables of personal history of abuse and years' experience are described. Clinicians who worked primarily with clients who were sexually abused reported more disruptions in cognitive schemas than clinicians who worked with clients who had cancer. Implications for social practice and education are described.

According to a study carried out by Kinyanjui (2008) on vicarious trauma among University students: a case study of USIU 85% said there are things they would never want to see or hear of which child molestation ranked the highest (23%) rape, dismemberment and murder (19%). 48% reported that they were Scared, terrified; 28% reported they felt sad, sorry; 23% reported they had fear; 19% had anger and 14% felt terrible and disturbed, 28% said they get nightmares, or live in fear and were angry and violent with those around them, 48% said watching or reading about violence affects their concentration in class.

A study by Perron and Hiltz(2006) examined factors associated with burnout and secondary trauma among forensic interviewers of abused children. Sixty-six forensic interviewers who are affiliated with advocacy centers across the United States completed an online survey. Results indicate that organizational satisfaction has a moderate inverse relationship with burnout and a slight inverse relationship with secondary trauma. The number of forensic interviews conducted or length of employment in forensic interviewing did not have a strong relationship with either burnout or secondary trauma.

Helen A.H. Sinclair, Conal Hamill (2007) in their search for the answer to the question; Does secondary trauma affect oncology nurses? In their literature review they suggest that trauma not only affects individuals who are primarily present, but also those with whom they discuss their experience. If an individual has been traumatized as a result of a cancer diagnosis and shares this impact with oncology nurses, there could be a risk of secondary traumatization in this population. The purpose of their paper was to introduce the concept of secondary traumatization and argue that it should be explored in oncology nursing. Their review highlighted that empirical research in secondary traumatization is largely limited to the mental health professions, with a strong recommendation for the need to empirically determine whether this concept exists in oncology nursing.

2.7.2 Psychological effects of secondary trauma

Before the term 'secondary stress disorder' was used, researchers investigated the emotional responses of psychotherapists working with Holocaust survivors and found a range of emotional reactions to hearing survivors' stories. These were labeled 'counter transference themes' and included guilt, rage, shame, dread and horror, grief and mourning and inability to contain intense emotions. Further, a number of defense mechanisms among psychotherapists were identified including avoidance, denial and clinging to the professional role.

A comparison study on vicarious trauma among those who treat survivors of sexual abuse and sexual offenders by Ineke et al. (2004) compared vicarious trauma in a random sample of male and female clinicians who treat survivors (n=95) and those who treat offenders (n=252). A national survey was conducted with members of the Association for the Treatment of Sexual Abusers (ATSA) and the American Professional Society on the Abuse of Children (APSAC). These data were used to test the relative contribution of variables theorized to contribute to two vicarious trauma effects (avoidance and intrusions) using the Impact of Event Scale. The sample reported high levels of avoidance and intrusions.

A study on Secondary Stress Disorder: a study on Secondary Traumatic Stress Levels in Claims Workers in the Short-Term Insurance Industry in South Africa by Ludick et al. (2007) whose aim was to determine the effects of working conditions, including dealing with traumatized clients and distressing materials, on claims workers in the short-term insurance industry. Stress-related illness and lowered productivity has become one of the most serious and pressing workplace health issues and their study sheds light on a particular group of workers who have largely been overlooked in the investigation of vicarious trauma.

Baird, Stephanie; Jenkins, Sharon Rae (2003) in their study which investigated three occupational hazards of therapy with trauma victims: vicarious trauma and secondary traumatic stress (or "compassion fatigue"), described therapists' adverse reactions to clients'

traumatic material, and burnout, a stress response experienced in many emotionally demanding “people work” jobs. Among 101 trauma counselors, client exposure workload and being paid as a staff member (vs. volunteer) were related to burnout sub-scales, but not as expected to overall burnout or vicarious trauma, secondary traumatic stress, or general distress. Also more educated counselors and those seeing more clients reported less vicarious trauma while Younger counselors and those with more trauma counseling experience reported more emotional exhaustion. The findings advocates for training, treatment, and agency support systems.

2.7.3 Effects of secondary trauma on self esteem

Secondary traumatic stress was measured in the study group of claims workers along the dimensions of secondary traumatic stress, compassion satisfaction and burnout. Particular emphasis was placed on secondary traumatic stress as this is the actual measure of secondary traumatization. Self- esteem and optimism/pessimism were also investigated to further broaden the understanding of the effect on the study group by their working conditions. These constructs were measured using the ProQOL-Rill, the Mehrabian MSE and MOP Scales, and the scores determined on a scale of low, moderate or high. Scores on the study variables were generally found to be moderate except in the case of secondary traumatic stress, where scores were found to be high. The findings suggest that secondary traumatization occurred in the study group.

2.7.4 Effects of secondary trauma on safety

A study by Iliffe, Gillian (2000) to explore the impact of secondary trauma on counselors working with domestic violence (DV) clients reviewed that the eighteen counselors with high case loads, of Domestic Violence clients, described classical symptoms of vicarious trauma, and reported changes in cognitive schema, particularly in regard to safety, world view, and gender power issues. Mbatha (2004) in her study on Secondary Traumatization among

caretakers, results indicated that 63% had extremely high STSD levels while 37% had low to moderate levels of STSD. Within the STSD subscales substantial disruption was found in safety subscale -both self subscale (mean == 67) and other subscales, self esteem subscale (mean 68) and self-control subscale (mean = 70).

2.7.5 Effects of secondary trauma on trust and intimacy

In an article by Clark and Gioro (2007) on nurses' indirect trauma and prevention which they have cited in Journal of Nursing Scholarship they say that despite the fact that many nurses are traumatized indirectly, few recognize the insidious development of such trauma. They advocate that nurses who are informed about trauma and are able to actively maintain a balanced personal and professional life are in the best position to bring themselves and their clients through the many hazards of trauma work. They go on to depict that the implications of secondary trauma for nurses and clients are serious and complex and require more research.

2.7.6 Effects of secondary trauma on spirituality

STSD can lead an individual to question prior belief systems, personal values and attitudes about a spirituality as well as meaning of life (Jankowski, 2007). Mclean et al.(2004) study of 116 Australian therapists working primarily with traumatized clients, measure outcome variables of secondary traumatization , burnout and trauma symptomatology (intrusion and avoidance). A measure of beliefs about the therapeutic process was constructed for the present study and examined together with other predictor variables, such as years of experience as a therapist, percentage of time spent in clinical work with clients, predominant client group, and recent and direct exposure to trauma in the therapist. Therapist beliefs were found to predict vulnerability to STSD and burnout.

A study on The Effects of Secondary Trauma on Female Counselors of Working with Sexual Violence Survivors by Laura J. Schauben and Patricia A. Frazier (1995) whose primary

purpose of was to assess the effects on counselors working with sexual violence survivors. Results showed that counselors who had a higher percentage of survivors in their caseload reported more disrupted beliefs, (particularly about the goodness of other people), more symptoms of posttraumatic stress disorder, and more self-reported vicarious trauma. Symptomatology was not related to counselors' own history of victimization. A study by Brady et. al on found Therapists with higher levels of exposure to sexual abuse material reported significantly more trauma symptoms but no significant disruption of cognitive schemas they also found that Spiritual wellbeing was more damaged by VT, in those clinicians who saw more sexual abuse survivors.

2.7.7 Effects of secondary trauma on academic performance

Exposure to violence potentially jeopardizes the development of urban, minority children (Bell & Jenkins, 1993; Dyson, Yeung, Brooks-Gunn, & Smith, 1990; Martinez & Richters, 1993). In addition to its impact on children's physical and psychological well-being, violence may interfere with basic developmental trajectories by negatively impacting social, academic, and behavioral functioning and peer relationships. Possible effects of violence exposure on children can include difficult behavioral functioning or traumatic stress responses, such as aggression or intrusive symptoms respectively, which may interfere with academic performance and positive peer relationships. The experience of violence exposure also may profoundly alter children's perceptions of themselves and others. Specifically, "[Violence] affects children's views of the world and of themselves, their ideas about the meaning and purpose of life, their expectations for future happiness, and their moral development" (Margolin & Gordis, 2000).

Swenson and Johnson (2003) in their study on the effects of vicarious exposure to the September 11, terrorist attacks in an academic community, just after the three-month period that delineates acute from chronic post-traumatic stress. The study results indicated that

despite time and distance from the site of the terrorism, all segments of a college community continue to experience some degree of distress. Such distress could interfere with academic performance, personal health, and relationship stability.

According to a study carried out by Kinyanjui (2008) on secondary trauma among University students: a case study of USIU; 48% of respondents agreed that watching or reading about violence affects their concentration in class. While 90% agreed that watching and reading about violence had an impact on their daily life.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Research Scope

3.1.1 Objectives of the study

Specific objectives were to;

- a) Determine the prevalence rate of secondary traumatic stress (STS) among students of nursing at KMTC
- b) Describe the socio-demographic factors of the respondents

3.1.2 Hypothesis

3.1.2.1 Null hypothesis

There is no statistically significant difference in the prevalence of STSD among students of nursing in KMTC –Nairobi and that found among other Kenyan health workers

3.1.2.2 Alternate hypothesis

There is a statistically significant difference in the prevalence of STSD among students of nursing in KMTC and that found among other Kenyan health workers.

3.1.3 Research question

What is the prevalence rate of STSD among students of clinical nursing in KMTC, Nairobi?

3.2 Study site

The study was carried out at KMTC Nairobi campus.

3.3 Study design

This will be a cross sectional descriptive study.

3.4 Target population

The study population comprised of 90 students from the department of Nursing. The students are enrolled for Diploma course.

3.5 Sampling design and sampling procedures

Systematic random sampling was used in this study whereby those who meet the inclusion criteria were randomly chosen for the study. This was a sampling procedure in which a starting point was selected by a random process and then every nth number on the list is selected. Every third student was selected for the study as this guaranteed equal chance of being chosen when one meets the criteria.

Ninety (90) students in second year were selected for the study.

Sample size calculation

Sample population was calculated using the formula by Yamane (1967)

$$n = \frac{N}{1 + n(e)^2}$$

Where n= sample size

N= Population

e = Precision level of +10% or -10% at 95 % confidence interval

$$n = \frac{500}{1 + 500(0.1)^2}$$
$$= \frac{500}{1 + 500(0.1)^2}$$

$$\begin{aligned}
 & 1 + 500 \times 0.01 \\
 = & \frac{500}{6} \\
 & \\
 = & 83.33 \\
 & \\
 = & 80 \text{ (Rounded to the nearest number)}
 \end{aligned}$$

Israel (1992) indicated that the sample size can further be adjusted by 30 % to cater for non responses .The sample for this study will be adjusted by 30%

$110/100 \times 80 = 88 = 90$ this will be the sample under the study.

There were no non responses.

3.6 Research instruments

Data was collected using Secondary Traumatic Stress Scale and socio-demographic questionnaire

The secondary traumatic stress scale was developed by Bride in 1999 (Bride, Robinson & Figley ,2004). It is a 17-item instrument with Likert-type choices operationalized “to measure intrusion, avoidance, and arousal symptoms associated with indirect exposure to traumatic events via one’s professional relationships with traumatized clients” (Bride, Robinson, Yegidis, & Figley, 2004, p.27). Respondents were instructed to read each item and indicate how frequently the item was true for them in the past 7 days using a 5-choice, Likert-type response format ranging from 1 (never) to 5 (very often).

3.7 Data processing, management and analysis

The collected data was stored on computer media (flash discs and CDs) and analyzed using the SPSS version 17.0. Results were considered to be statistically significant when $p < 0.05$. Results were analyzed using univariate and bivariate descriptive statistics. Graphical presentations of data such as percentages, means, standard deviations and graphs, tables and charts were used. There were no interviews.

3.8 Inclusion and exclusion criteria

3.8.1 Inclusion

All KMTC students doing second year in diploma in nursing and doing clinical work.

The students who gave consent

3.8.2 Exclusion criteria

All KMTC students doing diploma in Nursing who were absent during the interview

Those students who did not sign the consent form

3.9 Ethical consideration

Before undertaking the study, approval was sought from the University of Nairobi's Department of Psychiatry, the Ethics and Research Committee (ERC) of KNH and the Research and Ethics Committee of KMTC. All the participants were explained the purpose of the research and written consent was obtained from each respondent. Those who wished to withdraw from the study were allowed to do so and they were not to be victimised or be denied any benefit from the study. All ethical issues regarding personal information were treated with confidentiality.

3.10 Research procedure

Systematic random sampling method was used.

Those selected to participate were given explanation about the research and were allowed to ask questions. The study was done in a classroom. When they were satisfied those willing to participate voluntarily signed the consent form and went on to complete the Secondary Traumatic Stress Scale and the socio demographic questionnaire .The researcher collected the completed questionnaire and analyze the data using SPSS version 17.0.STSS was administered in the classroom.

TIMELINE

Activity	Duration	Time
Preparation & research clearance		July 2013-September2013
Data collection	4 weeks	September 2013
Data analysis	4 weeks	October 2013
Report writing	4 weeks	November 2013

BUDGET

	ITEM	COST KES	TOTAL
A	Proposal writing and preparation		
1	Proposal typing and printing	3,500	
2	Photocopies	3,000	
3	KNH Ethics committee	2,000	
			8,500
B	Questionnaires		
1	Typing, printing and photocopying	20,250	
			20,250
C	Support staff		
1	Statistician	25,000	
			25,000

	ITEM	COST KES	TOTAL
D	Transport and communication		
1	Proposal preparation	3,500	
2	Telephone and Email	6,000	
3	Transport	3,000	
			12,500
E	Data processing and report		
1	Typing preliminary report	5,000	
2	Photocopies for supervisors	3,000	

3	Final draft typing	2,000	
4	Printing and binding final copy	2,000	
5	Binding of ten books	10,000	
			22,000
	Total cost		88,250
	Contingencies		10,525
	GRANDTOTAL		98775

CHAPTER FOUR

RESULTS

Of the 90 students that participated in the study 35 of them which is 39 % experienced secondary traumatic stress disorder.

Among the 90 students that participated in the study, 55(61.1%) were female (fig 1)

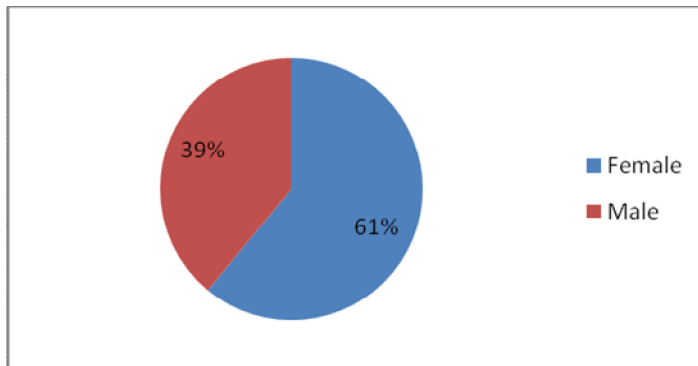


Fig 1: Distribution of students by gender

The mean age of the students was 23.1 (SD 3.3). Majority 82(91.1%) were Christians (fig 2)

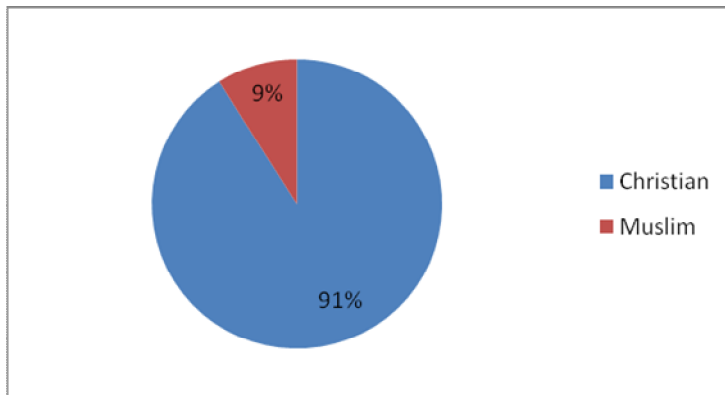


Fig 2 Distribution of students by religion

Majority 78(86.7%) were single and only 8(8.9%) were married (fig 3)

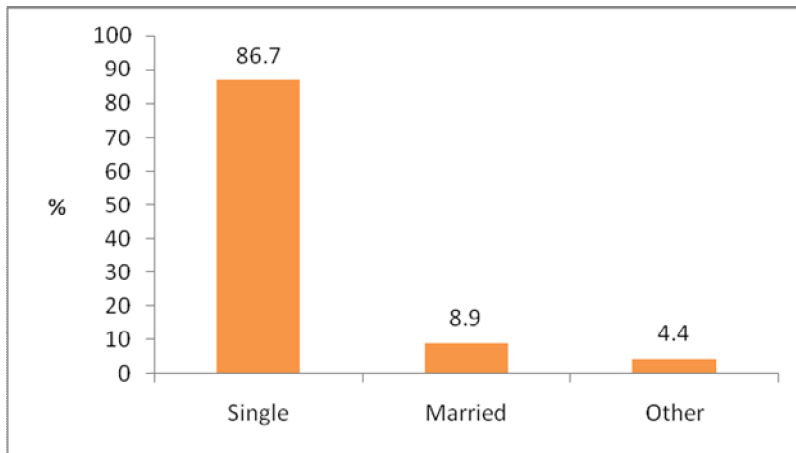


Fig 3: Marital status of students

Over three quarters of the students 70(77.8%) had never attended training on secondary trauma or related topics. Only 18(20%) had attended for between 1-3 times (fig 4)

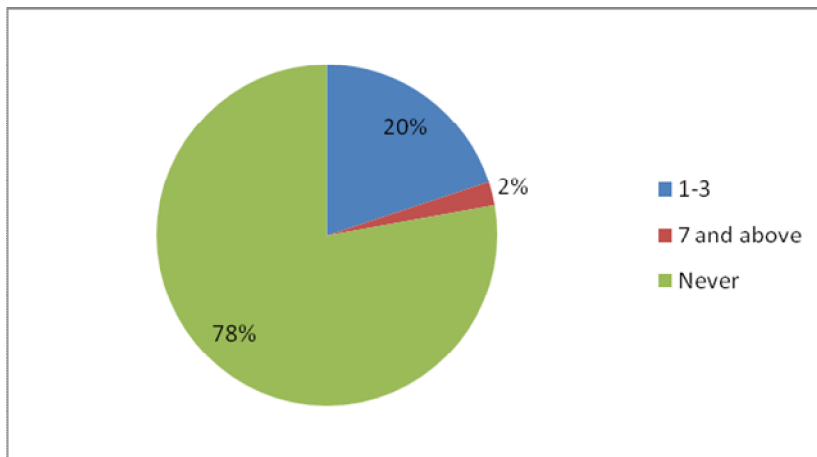


Fig 4: Frequency attended training on secondary trauma

According to 83(92.2%) of the students, patient load number affect the likelihood of developing secondary trauma stress. The level of work related stress among nursing students was reported as medium 52(57.8%)

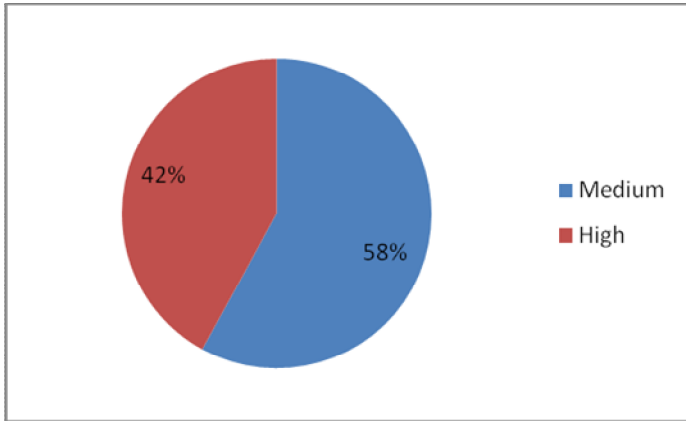


Fig 5: Level of work related stress among nursing students

Seventy four (82.2%) had been approached by other colleagues seeking help to manage their stress as a result of trauma that they encounter in their practice.

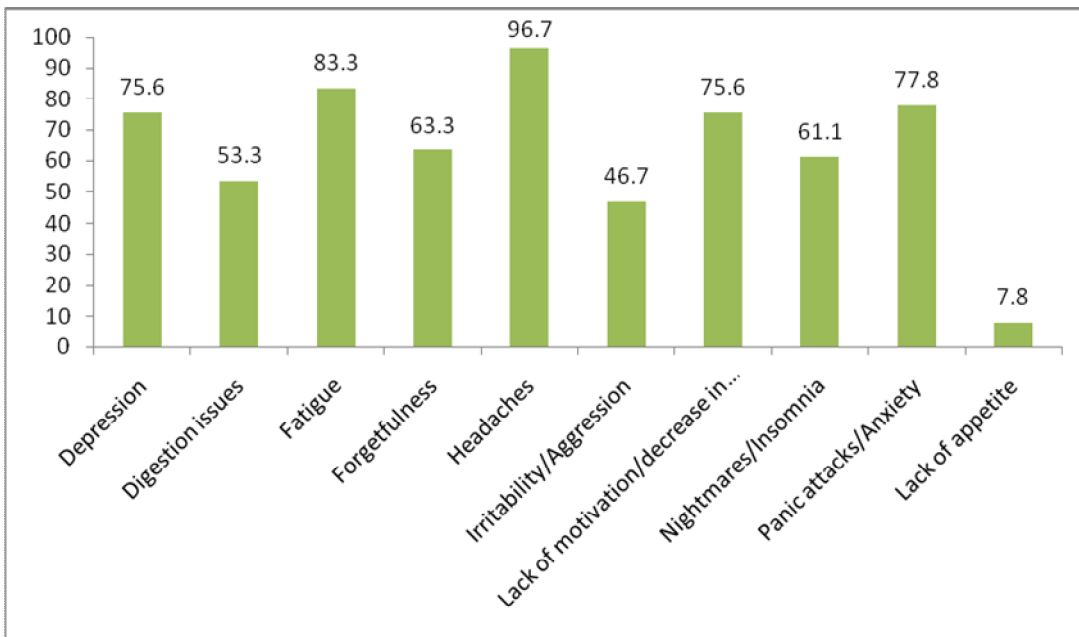


Fig 6: Symptoms associated with secondary trauma

Among the symptoms associated with secondary trauma experienced or shared by colleagues, more than three quarters reported fatigue 75(83.3%), Headaches 87(96.7%) , lack of

motivation/decrease in work performance 68(75.6%) and panic attacks/anxiety 70(77.8%) as indicated in figure 6. Only 7(7.8%) reported lack of appetite.

Table 1: Needs in managing secondary trauma

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean (SD)
Nursing professional may be affected by the things they hear or see at work	38(47.5)	33(41.3)	8(10)	1(1.3)	0(0)	1.7(0.7)
Nursing professional may be impacted by their client's experiences in the field	18(22.5)	26(32.5)	17(21.3)	13(16.3)	6(7.5)	2.5(1.2)
There is sufficient support services at work place for nursing professionals	11(13.8)	21(26.3)	14(17.5)	20(25)	14(17.5)	3.1(1.3)
There is sufficient counselling services outside work place for nursing professionals	11(13.8)	15(18.8)	29(36.3)	17(21.3)	8(10)	3.0(1.2)
Due to nature of nursing, it is possible	39(48.8)	29(36.3)	6(7.5)	4(5.0)	2(2.5)	1.8(1.0)

for nursing professional to be personally affected by the incidents that they witness in their practice						
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Majority of the students agreed that nursing professional may be affected by the things they hear or see at work 71(88.8%) and that due to nature of nursing, it is possible for nursing professional to be personally affected by the incidents that they witness in their practice 68(85.1%). They also agreed that nursing professional may be impacted by their client’s experiences in the field 44(56%). On average, they agreed that Nursing professional may be affected by the things they hear or see at work (mean score 1.7), nursing professional may be impacted by their client’s experiences in the field (mean score 2.5) and that due to nature of nursing (mean score, it is possible for nursing professional to be personally affected by the incidents that they witness in their practice (mean score 1.8) as in table 1. However they were neutral on whether there is sufficient support services at work place for nursing professionals (mean score 3.1) and whether there is sufficient counselling services outside work place for nursing professionals (mean score 3.0)

Among the students, 39(45.9) rarely felt emotionally numb, 34(40%) had their heart occasionally start pounding when they thought about work with clients their heartfelt jumpy. 16(18.8) occasionally had trouble in concentrating, thought about work with clients when didn’t intend to and wanted to avoid working with some clients as in table 2

Table 2: Secondary traumatic stress scale

Statement	Never	Rarely	Occasionally	Often	very often
Felt emotionally numb	20(23.5)	39(45.9)	16(18.8)	9(10.6)	1(1.2)
Heart started pounding when thought about work with clients	19(22.4)	24(28.2)	34(40)	5(5.9)	3(3.5)
Seemed as if was reliving the trauma(s) experienced by clients	28(32.9)	30(35.3)	15(17.6)	11(12.9)	1(1.2)
Had trouble sleeping	41(48.2)	21(24.7)	12(14.1)	7(8.2)	4(4.7)
Felt discouraged about the future	39(45.9)	9(10.6)	17(20)	19(22.4)	1(1.2)
Reminders of work with clients upset	34(40)	23(27.1)	11(12.9)	5(5.9)	12(14.1)
Had little interest in being around others	36(42.4)	28(32.9)	15(17.6)	2(2.4)	4(4.7)
Felt jumpy	37(43.5)	31(36.5)	8(9.4)	9(10.6)	0(0)
Was less active than usual	39(45.9)	14(16.5)	16(18.8)	15(17.6)	1(1.2)
Thought about work with clients when didn't intend	8(9.4)	31(36.5)	23(27.1)	16(18.8)	7(8.2)

to					
Had trouble in concentrating	21(24.7)	33(38.8)	16(18.8)	5(5.9)	10(11.8)
Avoided people, places, or things that remind of work with clients	45(52.9)	14(16.5)	7(8.2)	12(14.1)	7(8.2)
Had disturbing dreams about work with clients	42(49.4)	25(29.4)	9(10.6)	9(10.6)	0(0)
Wanted to avoid working with some clients	17(20)	31(36.5)	20(23.5)	8(9.4)	9(10.6)
Was easily annoyed	27(31.8)	29(34.1)	23(27.1)	1(1.2)	5(5.9)
Expected something bad to happen	46(54.1)	21(24.7)	9(10.6)	2(2.4)	7(8.2)
Noticed gaps in my memory about client sessions	22(25.9)	35(41.2)	22(25.9)	2(2.4)	4(4.7)

Table 3: Secondary stress scale

Subscale	Mean (SD)
Intrusion score	11.5(3.7)
Avoidance score	15.3(5.7)
Arousal score	10.3(4.1)
Total score	37.1(12.3)

As indicated in table 3, the average intrusion score was 11.5(sd3.7), avoidance score 15.3(sd 5.7) arousal score 10.3(sd 4.1) while the total score was 37.1(sd 12.3)

Table 4: Correlation between age and secondary traumatic stress score

	Stress score
Age	r=-0.181 p=0.098

Correlation between age and secondary traumatic stress score was negative. This implies that the stress score decreases with increase in age though was not statistically significant (r=-0.181, p=0.098) as in table 4

Table 5: Differences in mean secondary traumatic stress score by gender, religion and marital status

Characteristic	Mean score(SD)	statistic	P-value
Gender			
Male	35.7(12.2)	0.821	0.414
Female	37.9(12.3)		
Religion			
Christian	37.5(12.4)	1.150	0.253
Muslim	32.0(9.2)		
Marital status			
Single	36.7(12.5)	F=3.573	0.033
Married	33.4(6.6)		
Other	52.0		

As indicated in table 5, mean secondary traumatic stress score did not vary significantly by gender and religion ($p > 0.05$). However, it varied significantly by marital status ($F = 3.573$, $p = 0.033$). Post hoc analysis indicated that there was a significant difference in mean secondary traumatic stress score between married and others (sep/div/widowed) ($p = 0.014$), single and others ($p = 0.012$). The others (sep/wid/div) had higher mean secondary traumatic stress score compared with single and married.

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Discussion

Among the 90 students that participated in the study 35 of them which is 39% experienced secondary traumatic stress disorder. In a study by Mbatha (2004), on prevalence of vicarious traumatisation among caretakers in Kakuma refugee camp, Kenya, prevalence rate of vicarious traumatisation was found to be 37% (low to moderate levels of vicarious trauma).

Majority of participants in the study were females at 61 %.According to figure 1 majority of the respondents rendering a mental health service were females, indicating that nursing is predominantly a female profession in comparison to males who accounted for 39 %.

Existing research has found that generally, females are more prone to experiencing affective disorders than the male sex. This could be due to the fact that women are more emotionally orientated and empathise easier with others than what men do (McCarroll, Ursano, Fullerton, & Lundy, 1993). This research sought to establish whether this is true; that a relationship does exist between the gender of the nursing students and their experience of secondary traumatic stress disorder (STSD).

Symptoms of STSD have been found to be more prevalent among female rather than male trauma workers and other professionals (Kassam-Adams, 1995; McCarroll, Ursano, Fullerton, & Lundy, 1993). In a study of psychotherapists who treat sexual trauma victims, Kassam-Adams (1995) noted that female therapists reported greater trauma symptoms than male therapists. Likewise, in a study of Operation Desert Storm (McCarroll et al., 1993), female soldier mortuary workers also reported higher levels of distress than males. Similarly, female police officers were found to be more likely to report symptoms than male officers.

This is consistent with Cunningham's (2003:454) finding that 82% of social work clinicians rendering services to victims of trauma were females. Furthermore, in Trippany et al (2003:50) study on factors influencing secondary traumatic stress , the sample consisted of 114 self-identified female therapists. The researcher is of the opinion that females generally assume the "caring" role and therefore work in the helping professions as nurses, social workers and teachers.

It would seem from a Christian world view (Tillich, 1959) that students who derived meaning from religion may find comfort and strength from their faith that would lessen the intensity of STSD .This hypothesis was not supported by the research.

Despite recent evidence that suggests that healthcare professionals are far less religious than the clients they serve, the vast majority still regard religion as beneficial (91%) rather than harmful (9%) to mental health (Delaney, Miller, & Bisono, 2007). Indeed, most healthcare professionals ascribed importance to spirituality and believed it to be relevant to treatment. This finding is particularly encouraging given that in the US population, most adults profess belief in God (95%), claim a religious affiliation (94%), and say that religion is very or fairly important in their lives (85%), (Gallup & Lindsay, 1999).

Studies have consistently shown positive correlations between religious involvement and mental health (Gartner, Larson, & Allen, 1991; Hackney & Sanders, 2003); Miller & Thorenson, 2003; Koenig & Larson, 2001; Koenig, McCullough, & Larson, 2001; Larson et al., 1992; Payne, Bergin, Bielema, & Jenkins, 1991; Seybold & Hill, date). In fact, a recent meta-analysis of 49 studies clearly demonstrated a moderate but consistent link of positive religious coping with better psychological adjustment to distress (Ano & Vasconelles, 2005).

Existing support for religion and spirituality as a balm has also been supported by research in psychoneuroimmunology. For instance, Creswell et al. (2005) found that affirmation and

reflection of personal values can keep neuroendocrine and psychological stress at low levels, mirroring work by Olff, Langeland, & Gersons (2005) and Charney (2004) who concluded that highly resilient children, adolescents, and adults have exceptional abilities to form supportive social attachments and are altruistic toward others, central tenets common to most of the world's religious spiritual traditions.

Religion and spirituality can be not only a beacon but an albatross, as negative religious coping or spiritual struggle has been linked with distress, inflammation, poorer recovery from medical illnesses and even mortality (Ai et al., 2003; Ai, Lemieux, et al., 2009; Ai, Park, et al., 2007; Fitchett, Rybarczyk, Demarco, & Nicholas, 1999; Pargament et al., 1999; Sherman, Simonton, Latif, Spohn, & Tricot, 2005). Thus, although most studies have coalesced and found consistent salutatory effects, attention to an individual's specific beliefs and practices is necessary. Serlin (2004) asserted that religious and spiritual competency include a familiarity with differences between spirituality and religion, ability to differentiate between a healthy and pathological religious or spiritual experience, and an understanding of how spirituality can be both a problem and a helpful dimension to psychotherapy.

Adams et al (2001:368) found that new, inexperienced nurses reported more disturbances in beliefs about themselves and more somatic symptoms than older, more experienced nurses. Cunningham (2003:457) also reported that clinicians new to trauma work experienced symptoms of secondary trauma.

At the same time, however, Nelson-Gardell and Harris (2003:22) did not find that years of experience and age increased the risk of secondary traumatic stress. Trippany et al (2003:55) concluded from their study that career longevity, namely years of experience, did not increase the risks of vicarious trauma.

The level of stress among nursing students is perceived by peers to be very high, regardless of the workers relationship status or age. The notion that workers who are married are happier and/or less stressed was supported as the data analysis indicated that regardless of a worker's relationship status, the perceived stress among healthcare workers was evident as perceived by their peers and the measure of association (Gamma) showed no relationship. Perceived stress was also high amongst workers regardless of the worker's age. Both young and old workers perceive high stress irrespective of their years and 82.2% of the participants reported that they had been approached by other colleagues seeking help to manage their stress level as a result of the trauma that they encountered in the field. Due to proximity, an understanding of the nature of the job and the organization, colleagues are the easiest source to debrief or brainstorm.

Researchers in the field of trauma generally agree that symptoms of secondary traumatic stress disorder (STS) parallel symptoms of post-traumatic stress disorder (PTSD) and mimic the experiences of individuals who are directly exposed to trauma (Siegfried, 2008; Figley, 1999; McCann & Pearlman, 1989). In essence, the symptoms that comprise STS are the same symptoms that characterize PTSD (Bride, 2007). The sole differentiating feature between STS and PTSD is whether an individual experiences trauma directly or indirectly.

In general, symptoms of secondary traumatic stress fall within three main categories: intrusion, avoidance, and arousal. Symptoms of intrusion include re-experiencing trauma via nightmares, flashbacks, or distressing imagery. In contrast, symptoms of avoidance refer to persistent efforts to avoid people, places, or activities that remind an individual of a traumatic event. At the same time, avoidance can also involve avoiding thoughts, feelings, or relationships associated with trauma. Finally, arousal includes symptoms such as increased anxiety, hyper vigilance, issues with concentration and focus, physical aggression, irritability, and emotional instability (APA, 2000).

In addition to these three major categories, research indicates that symptoms of secondary traumatic stress can also include exhaustion, physical illness, social isolation, alienation, diminished efficiency, a sense of hopelessness, sadness, and despair (Siegfried, 2008; Figley, 1995). Furthermore, individuals may experience feelings of incompetence, emotional numbness, and a loss of faith in prior beliefs and expectations. Secondary trauma may also increase a sense of personal risk, lack of safety, cynicism, and mistrust of others (Schauben & Frazier, 1995; Herman, 1992).

Experiencing secondary trauma not only results in worker stress (see figure 5), but also substantially vast incidents of symptoms reported by colleagues that include digestion issues by 53.3% of participants, fatigue by 83.3%, forgetfulness by 63.3%, headaches by 97%, 47% of the participants reported irritability and/or aggression, 76% of the participants marked lack of motivation and/or a decrease in work performance, nightmares and/or insomnia by 61%, panic attacks and/or anxiety by 78% and participants noted hopelessness and 8 % reported lack of appetite.

Somatisation refers to the process whereby we translate emotional stress into physical symptoms. Examples are tension headaches, frequent stress-induced migraines, gastrointestinal symptoms, stress-induced nausea, unexplained fainting spells, etc. The ailments are very real, but the root cause is largely emotional and stress related. You may be able to identify which organ/body part is your vulnerable area: many people say it's their gut, stomach, or head. Someone may have an upset stomach every time she is anxious or stressed. She used to think it was food poisoning, but finally had to come to the conclusion that not all restaurants in our fine city could possibly have tainted food! Mathieu(2009)

Hypochondriasis refers to a form of anxiety and hypervigilance about potential physical ailments that we may have (or about the health of our loved ones). When it is severe,

hypochondria can become a debilitating anxiety disorder. Mild versions of hypochondria can happen to many of us who work in the health care field. A good example of this is a physician in a dermatology office who became convinced that every mole on her body was likely cancer. If you work in cancer care, particularly at the diagnostic end, you may find yourself over worried about every bump and bruise on your child or yourself. The media and the internet can fuel the flames of hypochondriasis. Mathieu (2009)

Working from a theoretical framework that acknowledges and enhances client strengths and focuses on solutions in the present can feel empowering for client and professional and reduce the risk of secondary trauma (Arte Sana, 2003). The emphasis in healthcare professionals of empowerment and linkages plays a major role in assisting people with coping strategies. Empowerment is when an individual gains the ability to achieve their goals and maximize their capacities. There are different forms of empowerment focused ideas where a professional can maximize their capacities and in avoiding secondary trauma. These ideas include the workload, work environment, group support, supervision and self-care, including coping mechanisms and resiliency factors that minimize the effects of secondary trauma in the professional.

Healthcare professionals who provide direct services to clients affected by trauma may benefit from opportunities to participate in social change activities. Agencies might consider providing community education and outreach or working to influence policy. Such activities can provide a sense of hope and empowerment that can be energizing and can neutralize some of the negative effects of trauma work (Arte Sana, 2003). In addition, organizations can also maintain an attitude of respect (Pearlman & Saakvitne, 1995) for both clients and workers by acknowledging that work with trauma survivors often involves multiple, long-term services. Developing collaborations between agencies that work with traumatized clients

can provide material support and prevent a sense of isolation and frustration at having to go it alone (Arte Sana, 2003).

A safe, comfortable, and private work environment is crucial for those healthcare professionals in settings that may expose them to violence (Pearlman & Saakvitne, 1995). Workers need to have personally meaningful items in their workplace that include pictures of their children or of places they have visited, scenes of nature or quotes that help them remember who they are and why they do this work and by placing inspiring posters or pictures of scenic environments, the organization can model the importance of the personal in the professional (Arte Sana, 2003).

Trauma-specific education diminishes the potential of secondary trauma. Empowerment can present itself in the form where individuals name their experience and provide a framework for understanding and responding to it (Arte Sana, 2003). Efforts to educate staff about secondary trauma can begin in the job interview (Urquiza, Wyatt, & Goodlin-Jones, 1997). Agencies have a duty to warn applicants of the potential risks of trauma work and to assess new workers' resilience (Pearlman & Saakvitne, 1995). Ongoing education about trauma theory and the effects of secondary trauma, including the symptoms, can be incorporated in staff training and meetings, formal trainings as well as individual supervision. This information provides a useful context and helps healthcare professionals to feel more competent and have more realistic expectations about what they can accomplish in their professional role (Arte Sana, 2003). If the professional feels prepared in encountering a traumatic event, by educating and preparing the professional, the effects of the event may be reduced.

In emergency, first responders and trauma work, staff opportunities to debrief informally and process traumatic material with supervisors and peers are mandatory. In nursing, debriefing

in this context is not made. Critical incident stress debriefing is a formalized method for processing specific traumatic events. In nursing, professionals find support in the form of talking to coworkers and not so often, supervisors or administrative staff. Peer support groups may help because peers can often clarify colleagues' insights, listen for and correct cognitive distortions, offer perspective, reframing, and relate to the emotional state of the nurse (Catherall, 1995). Group support can take a variety of forms, such as consultation, treatment teams, case conferences, or clinical seminars, and can be either peer led or professionally led, however, most importantly, peer led groups should not substitute for, self-care or clinical supervision (Arte Sana, 2003). Should potential problems in support groups arise, consideration should be made to discuss this possibility before it happens and normalize the experience of secondary trauma and its impact on the individual and the group (Arte Sana, 2003).

An essential component in the prevention and healing of secondary trauma is effective supervision. Responsible supervision creates a relationship in which the healthcare professional feels safe in expressing fears, concerns, and inadequacies (Welfel, 1998). Organizations with a weekly group supervision format establish a venue in which traumatic material and the subsequent personal effect may be processed and normalized as part of the work of the organization (Arte Sana, 2003). In addition to providing emotional support, supervisors can also teach staff about secondary trauma in a way that is supportive, respectful, and sensitive to its effects (Pearlman & Saakvitne, 1995). If at all possible, supervision and evaluation should be separate functions in an organization because a concern about evaluation might make a worker reluctant to bring up issues in his or her work with clients that might be signals of secondary trauma (Arte Sana, 2003). In nursing, many professionals encounter the same type of trauma. In United States of America (USA) The Employee Assistance Program is available to workers in the county or state employment

setting however, workers with health insurance get coverage that provides mental health services.

The term "resilience" is reserved for unpredicted or markedly successful adaptations to negative life events, trauma, stress, and other forms of risk. If we can understand what helps some people to function well in the context of high adversity, we may be able to incorporate this knowledge into new practice strategies (Fraser, Richman & Galinsky, 1999, p.136).

Resilience is a complex and multi-dimensional term with various definitions. In the past, discussions regarding resilience concentrated on individual traits and attributes. In particular, resilience was described in terms of specific characteristics and coping mechanisms that allowed an individual to prevail in the face of hardship and trauma. Today, however, the concept of resilience has grown to include a broader social, developmental, and environmental framework (Goldstein & Brooks, 2005).

Specifically, resilience is now conceptualized as a process in which various resources or strengths engage and interact to shield an individual, family, or community from negative outcomes despite significant risks or trauma (Kragh & Huber, 2002).

According to the literature, "family cohesion" (Goldstein & Brooks, 2005, p.13) and close engagement promotes healthy adaptation. In addition, supportive ties and peer relations also mitigate the effects of stress and trauma. Extensive social support, individual growth and autonomy and "an internal locus of control" (Ward, Martin & Distiller, 2007, p. 167) also provide protective benefits to the professional.

Working with clients who have experienced traumatic events challenges many of the beliefs held in the dominant culture about justice and human cruelty and knowledge of oppression, abuse, violence, and injustice can be a difficult and isolating aspect of work for many

healthcare workers (Arte Sana, 2003). Identification of vicarious trauma as a distinct construct encourages those in the profession to reexamine the relationship between trauma and this type of healthcare worker distress (Arte Sana, 2003). Secondary trauma can be manageable if the resources and education are in place to assist the professional in understanding their feelings.

Developing support systems as a way to cope with the experiences resulting in secondary trauma is methodically identified in the literature. Peer support groups can often clarify colleagues' insights, listen for and correct cognitive distortions, offer perspective and/or reframing, and relate to the emotional state of the healthcare worker (Catherall, 1995). Peer support groups can take a variety of forms, such as consultation, treatment teams, case conferences, or clinical seminars, and can be either peer led or professionally led (Arte Sana, 2003).

5.2 Conclusion

Majority of students experienced secondary traumatic stress disorder though they were not aware of what it is. It seemed to affect female students more than their male counterparts. It also seemed like factors like religion, marital status, workload, training on secondary trauma and nature of the profession play a contributory role on how one handles secondary traumatic stress disorder.

5.3 Recommendations

- Increase awareness on what secondary traumatic stress disorder is.

- Reduce the students' workload.

- Avail services of professionals like psychologists or psychiatrists who are trained in various aspects of mental health

5.4 Limitations of the study

There was a financial constraint due to lack of a financier. This study was therefore self-funded.

The instrument was not validated locally. The instrument that was used was Trauma and Attachment Belief Scale (TABS) questionnaire. Tabs was previously called Trauma Stress Institute Belief Scale(1991).It was developed by Pearlman and Mc Cann in 1988 based on Constructivist Self Development Theory, it was renamed TABS in 2003 after refinement.

The study was carried in one institution in Kenya which is a small representation of people exposed to secondary traumatic stress in Kenya.

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APPENDICES

APPENDIX 1: SOCIO-DEMOGRAPHIC QUESTIONNAIRE

1. Age _____

2. Gender _____

3. Religion _____

4. Marital status _____

5. What are your views on secondary trauma among students? (E.g. what do you know about secondary trauma)


6. What influenced your views about secondary trauma among nursing students?

7. How often have you attended training on secondary trauma or related topics?

1-3 _____ 4-6 _____ 7+ _____ Never _____

Part II. Perceptions of Stressors and Impact

8. Is there evidence that overwork is associated with seeing trauma?

9. For question 9: Please answer the questions with a check  as they most closely describe you.


	<i>1 Low</i>	<i>2 Med</i>	<i>3 High</i>
In your view, what is the level of work related stress among nursing students?			

10. Have you been approached **by other colleagues** seeking help to manage **their stress level** as a result of the trauma that they encounter in their practice? Yes_____ No_____

11. **Have any of your colleagues** experienced or shared any of the following symptoms associated with secondary trauma:

- 1 Depression_____
- 2 Digestion Issues_____
- 3 Fatigue_____
- 4 Forgetfulness_____
- 5 Headaches_____
- 6 Irritability/Aggression_____
- 7 Lack of motivation/decrease in work performance_____
- 8 Nightmares/Insomnia_____
- 9 Panic Attacks/Anxiety_____
- 10 Other (please list) _____

III. Needs in managing Secondary Trauma

For questions 12 through 16: Please answer the questions with a check  as they most closely describe you.

SA-Strongly Agree; A-Agree; N-Neutral; D-Disagree; SD-Strongly Disagree

	<i>1</i> <i>SA</i>	<i>2</i> <i>A</i>	<i>3</i> <i>N</i>	<i>4</i> <i>D</i>	<i>5</i> <i>SD</i>
12. In my view, nursing professionals may be affected by the things they hear or see at work.					
13. In my view, nursing professionals may be impacted by their client's experiences in the field.					
14. In my view, there is sufficient support in the work place for nursing professionals.					
15. In my view, there are sufficient counseling services outside of the work place for nursing professionals.					
16. Due to the nature of nursing, it is possible for nursing professionals to be personally affected by the incidents that they witness in their practice.					

APPENDIX 2: 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.

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

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

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

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

TOTAL (add Intrusion, Arousal, and Avoidance Scores)

Intrusion Score _____

Avoidance Score _____

Arousal Score _____

Total Score _____

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

APPENDIX 3: INFORMED CONSENT EXPLANATION

My name is Norman Kakanyo Ramatsipele, from the Department of Psychiatry; University of Nairobi. I am doing a research on prevalence of secondary traumatic stress disorder (STSD) among students of nursing at KMTC, Nairobi Campus. I will also use the information for my Master's Degree dissertation in Clinical Psychology from the same university.

Although I have the permission of the management to talk to you, I would like to explain what I intend to do so that you can decide for yourself whether to participate or not.

I would like to request your participation in the research to determine the prevalence of STSD among students of nursing, to determine socio-demographic variables associated with STSD in the above group and to compare the rates of STSD in the above group with those found in other studies. If you agree to participate I will ask you to read and respond appropriately to a list of questions that ask your personal details and issues to deal with how you feel about STSD. This exercise will not take more than fifteen minutes.

Right to withdraw from the study

Your participation is voluntary.

Your acceptance to participate in this study does not prevent you from withdrawing from the study anytime. Your withdrawal will be not penalized in any way, for example you will not be denied the services that you are receiving from this facility or incur the wrath of the researcher. If you do not want to complete the questionnaire seal it and drop it in the tamper proof box.

Personal and General Benefits

If the researcher discovers that you have a problem that needs attention you will be referred for appropriate management. On the other hand, if you want to get in touch with me do one or all of the following:

Text me a message on this number 077340 6890 and I will call back.

Or

Write a letter to me on this address: Norman Kakanyo Ramatsipele, P.O Box 754-00606, Sarit Centre, Nairobi.

The results of this study could be used to introduce a component of STSD among care providers in this institution and other centres in Kenya and beyond.

You will not be paid money for participating in this study but part or the whole of this study finding can be availed to you on request.

Or

If you have further questions about the study you can contact Prof. Chindia, M.L., Secretary of Ethics and Research Committee Kenyatta - National Hospital on telephone +25421 726300-9

Confidentiality

Your personal details will not appear in the final report therefore nobody will know that you filled the questionnaire. I will not be able to associate any response in the questionnaire with you because after answering the questions you will fold the questionnaires and slot them in a tamper proof box. There will be very many questionnaires inside that box such that it will not be possible for me to associate you with any of them.

Risk/Discomfort

The only risk from this study may be the uncomfortable feeling you might experience when I ask invasive questions surrounding STSD.

Last but not least there are no right or wrong answers.

CONSENT FORM

I _____, having been explained the nature of the study and the implication of my participation, by Norman Kakanyo Ramatsipele, P.O Box 754-00606, Sarit Centre, Nairobi, telephone number 0773406890 do hereby give my consent to participate in the study. By signing this assent form I am once again affirming that I have understood everything contained in the assent explanation. I understand that I can withdraw from the study and I will not lose any benefits or rights that I may have.

Name: _____

Signature: _____

Date: _____

Witnessed by

Name: _____

Signature: _____

Date: _____

KENYATTA NATIONAL HOSPITAL ETHICS AND RESEARCH COMMITTEE APPROVAL LETTER



UNIVERSITY OF NAIROBI
COLLEGE OF HEALTH SCIENCES
P O BOX 19676 Code 00202
Telegrams: varsity
(254-020) 2726300 Ext 44355

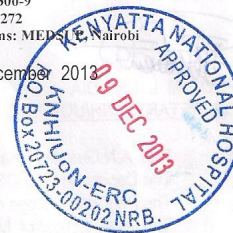
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P O BOX 20723 Code 00202
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Fax: 725272
Telegrams: MEDS Nairobi

Ref: KNH-ERC/A/398 Link: www.uonbi.ac.ke/activities/KNHUoN 9th December 2013

Norman Kakanyo Ramatsipele
Dept. of Psychiatry
School of Medicine
University of Nairobi



Dear Norman

RESEARCH PROPOSAL: PREVALENCE OF SECONDARY TRAUMATIC STRESS DISORDER AMONG STUDENTS OF KENYA MEDICAL TRAINING COLLEGE AT THE NAIROBI CAMPUS(P410/07/2013)

This is to inform you that the KNH/UoN-Ethics & Research Committee (KNH/UoN-ERC) has reviewed and **approved** your above proposal. The approval periods are 9th December 2013 to 8th December 2014.

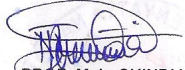
This approval is subject to compliance with the following requirements:

- Only approved documents (informed consents, study instruments, advertising materials etc) will be used.
- All changes (amendments, deviations, violations etc) are submitted for review and approval by KNH/UoN ERC before implementation.
- Death and life threatening problems and severe adverse events (SAEs) or unexpected adverse events whether related or unrelated to the study must be reported to the KNH/UoN ERC within 72 hours of notification.
- Any changes, anticipated or otherwise that may increase the risks or affect safety or welfare of study participants and others or affect the integrity of the research must be reported to KNH/UoN ERC within 72 hours.
- Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. (*Attach a comprehensive progress report to support the renewal*).
- Clearance for export of biological specimens must be obtained from KNH/UoN-Ethics & Research Committee for each batch of shipment.
- Submission of an *executive summary* report within 90 days upon completion of the study. This information will form part of the data base that will be consulted in future when processing related research studies so as to minimize chances of study duplication and/or plagiarism.

For more details consult the KNH/UoN ERC website www.uonbi.ac.ke/activities/KNHUoN.

"Protect to Discover"

Yours sincerely



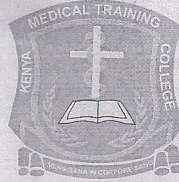
PROF. M. L. CHINDIA
SECRETARY, KNH/UON-ERC

c.c. Prof. A.N.Guantai, Chairperson, KNH/UoN-ERC
The Deputy Director CS, KNH
The Principal, College of Health Sciences, UoN
The Dean, School of Medicine, UoN
The Chairman, Dept. of Psychiatry, UoN
AD/Health Information, KNH
Supervisors: Prof. David M. Ndeti, Dr.Pius Kigamwa

"Protect to Discover"

KENYA MEDICAL TRAINING COLLEGE APPROVAL LETTER

Telegrams: "MEDTRAIN" Nairobi
TELEPHONE: NAIROBI 2725191, 2725711/14
Fax:2722907 Email: info@kmtc.ac.ke
Please address all correspondence to:



KENYA MEDICAL TRAINING COLLEGE
P.O BOX 30195-00100
NAIROBI

The Director
When replying please quote
KMTC/ADM/74/VOL.III

3rd April, 2014

Ref: No.

Date.....

Norman Kakanyo Ramatsipele
University of Nairobi
P O Box 30197
NAIROBI

HOD Nursing
Take note and facilitate data collection for your 2nd year pre-service and ensure full compliance with all ethical issues pertaining to the study.

PERMISSION TO COLLECT DATA

Your request to collect data on "Prevalence of Secondary Traumatic Stress Disorder among Students of KMTC Nairobi Campus" is with us.

This is to inform you that your application has been granted. Please note that you are required to report to the Principal, KMTC Nairobi Campus before embarking on the data collection exercise.

J
11/4/14

On completion of the study, you will be expected to submit one (1) Hard and a Soft copy of the research report to the Director's office.

Best wishes

Class Teacher sept 2012
Class -

Dr. C. Olang'o Onudi
DIRECTOR

facilitate data collection. *Mugiri* *11/4/2014*

Copy to: The Principal
KMTC
Nairobi Campus