Secondary Traumatic Stress and Coping Mechanisms among Mental Health Professionals Working in Different Settings in Addis Ababa: A Cross-sectional Study

By

Mihret Luleseged

Addis Ababa University

College of Education and Behavioral Studies

School of Psychology

November, 2024

Addis Ababa, Ethiopia

Secondary Traumatic Stress and Coping Mechanisms among Mental Health Professionals Working in Different Settings in Addis Ababa: A Cross-sectional Study

By: Mihret Luleseged

Addis ababa university, College of education and behavioral studies, School of psychology

A Thesis Submitted to the School of Psychology, Addis Ababa University in Partial Fulfillment of the Requirements for the Master of Arts Degree in Counseling Psychology

Advisor: Kassahun Habtamu (PhD)

November, 2024

Addis Ababa , Ethiopia

Secondary Traumatic Stress and Coping Mechanisms among Mental health Professionals Working in Different Settings in Addis Ababa: A Cross-sectional Study

Addis Ababa University
College of Education and Behavioral Studies
School of Psychology

By
Mihret Luleseged

Approval by the Board of Examiners

_____	_____
Advisor	Signature
_____	_____
Internal Examiner	Signature
_____	_____
External Examiner	Signature
_____	_____
Head of Department	Signature

Declaration

I, the undersigned, declare that the thesis entitled: "***Secondary Traumatic Stress and Coping Mechanisms among Mental health Professionals Working in Different Settings in Addis Ababa "*** is my original work and has not been presented for any academic purpose in any other university prior this time, and all sources of materials used for this thesis have been duly acknowledged.

Researcher's Name : Mihret Luleseged

Signature _____ Date _____

Acknowledgments

I would like to express my deepest gratitude to my advisor, Dr. Kassahun Habtamu, for his steadfast guidance and supervision throughout this research project. His generosity, patience, and insightful feedback have been a constant source of inspiration, profoundly shaping my research journey.

I am equally grateful to the participants who graciously took the time to complete the self-administered questionnaire. Their contributions are sincerely appreciated and integral to the success of this study.

Finally, I extend my heartfelt thanks to my family and friends for their unwavering moral support. Their encouragement has been a vital source of motivation throughout my academic journey.

Abstract

This study investigated the prevalence and associated factors of secondary traumatic stress as well as coping mechanisms among mental health professionals in Addis Ababa, working in different settings such as governmental hospitals, psychiatry speciality clinics and psychotherapy centers. Using stratified random sampling, 203 participants were selected for the study. The study employed a cross-sectional survey design. Socio-demographic questionnaire , self –developed instruments , Empathy assessment scale , Secondary traumatic stress scale , Life threatening event –Q and Brief cope were administerd . Data were analysed using descriptive statistics (such as percentage and frequency tables) and binary logstic regression. The findings revealed that the prevalence of STS among mental health professionals in Addis Ababa was 36 .9 % ,Female gender , higher Empathy level , personal history of trauma and personal history of psychiatric disorder were found to be significant predictors of STS. Emotion focused coping particularly turning to religion and getting emotional support emerged as vital coping mechanisms. Addictive behaviors were rarely employed. To better manage secondary traumatic stress, mental health institutions should implement routine screening, provide targeted resources, and offer ongoing training, with an emphasis on problem-focused coping. Building resilience through mindfulness and self-care, and tailoring interventions to professionas ' demographics such as gender , are also recommended. Further research on the role of the identified significant predictors of STS such as female gender , Empathy , personal psychiatric disorder and personal history of trauma and secondary traumatic stress is essential for developing effective preventive interventions.

Keywords: *Secondary Traumatic Stress, coping mechanisms, mental health professionals, Addis Ababa*

Table of Contents

List of Tables

List of Figures

Abbreviations and Acronyms

AAHB	Addis Ababa Health Bureau
APA	American Psychiatric Association
Brief COPE	Coping Orientation to Problems Experienced Inventory
EAS	Empathy Assessment Scale
FMHACA	Food Medicine and Health Administration and Control Authority
FMOH	Federal Ministry of Health
LTE-Q	Life threatening Event Questionnaire
ProQOL	Professional Quality of Life
PTSD	Post Traumatic Stress Disorder
STS	Secondary Traumatic Stress
STSD	Secondary Traumatic Stress Disorder
STSS	Secondary Traumatic Stress Scale
SPSS	Stastical Package for Social Science

CHAPTER ONE

INTRODUCTION

1.1. Background of the Study

Traumatic events such as threatened death, sexual violence, and serious injury are common globally (Benjet et al., 2016). For example, the world mental health survey study found that 70.4 % of study respondents experienced one traumatic event in their life time and approximately 52% had experienced more than one traumatic event (Benjet et al., 2016). Some of these events are also common in Ethiopia (Girma et al., 2022). The traumatic nature of these events leads victims to seek interventions to deal with them (Golja et al., 2020). The provision of effective intervention includes helping trauma survivors in dealing with the traumatic experience in which the client slowly and vividly describes the traumatic experience. Mental health professionals' exposure to a narrative of traumatic experiences of trauma survivors (such as fear, helplessness, and horror) on a consistent basis may lead to the emergence of secondary traumatic stress (STS) symptoms (Zimering et al 2003). Secondary traumatic stress (STS) is defined as stress acquired by helping professionals who look after a traumatic patient from helping or wanting to help a traumatized or suffering person (Figley, 1995).

The impact of STS on health care professionals (Franklin & Gkiouleka, 2021), social workers (Samson et al., 2022), and mental health professionals (Leung et al., 2022) plays a tremendous role in many aspects of professional's life including psychosocial, work and physical health. Several studies showed the adverse impact of working with trauma victims or survivors and findings from these studies clearly showed that exposure to indirect traumatic experiences of clients can cause hazardous working conditions for professionals (Figley, 1995; Collins & Long, 2003; Bride, 2007).

Studies identified several associated factors for the development of STS. Some of the major predictive factors includes the level of exposure to traumatic experience (Creamer & Liddle, 2005), personal history of trauma (Figley, 1995; Kassam-Adams, 1999; Cornille & Meyers, 1999; Adams et al 2006). Empathy is also believed to play a significant role in the development of STS (Wagaman et al., 2015). The number of trauma cases in the therapist

caseload and discussion of trauma cases in personal therapy are also found to be important predictors (Creamer & Liddle, 2005). A study done by Noris, Bynere, and Diaz found female gender, age between 40 to 60 years, membership of the minor ethnic group, low socioeconomic status, presence of child at home, psychiatric history and severity of exposure to disaster to be predictive factors for the development of STS (Norris et al., 2002).

To cope with STS symptoms, mental health professionals engage themselves in various coping strategies. For instance, a study done on domestic violence service providers reported coping mechanisms such as peer debriefing, team support, monitoring caseloads, stressing client resilience, physical activities, and participating in pleasurable activities (Iliffe & Steed, 2000). A similar study on sexual violence therapists found that therapists with low levels of stress are those that engage themselves in coping mechanisms such as resolving personal trauma, working on their motivation for work, sharing with role models with positive coping, and building on personal beliefs that minimize the effect of their exposure of traumatic experience (Bell et al., 2003). Another study done on skilled therapists identified some coping skills such as professional, personal, and social support, mindfulness, acceptance of complexity, practicing optimism, creating clear boundaries, professional satisfaction, and drawing meanings from a client's traumatic experience (Harrison & Westwood, 2009). Spending time on spiritual and religious practice is also found to be one of the major coping mechanisms (Dane, 2000). In addition, focusing on service providers' self-care including exercise, meditation, healthy eating, seeking social support and supervision are important ways to cope with stress (Lonne, 2003).

Mental health professionals's exposure to witnessing traumatic experiences and acknowledging the existence of traumatic events in the world may lead to the development of secondary traumatic stress symptoms (Kassam-Adams, 1995). Several researchers found a significant relationship between secondary trauma exposure and psychological distress of psychotherapists. Chrestman (1995) conducted a study on therapists who were members of the International Society for Traumatic Studies and family therapists and found a significant positive association between secondary traumatic exposure and psychological distress of the therapists. Another study carried out in New York City on 81 disaster mental health workers who participated in responding to the terrorist attack of September 11, 2001, reported higher levels of STS symptoms experienced by the disaster mental health workers (Creamer & Liddle, 2005). A study conducted by Bride on social workers found that 15 % of social workers who have direct

contact in the clinical practice fulfill the diagnostic criteria for STS and 19 % for depression (Bride 2004, 2007). A study carried out in South Africa on therapists helping bank employees after bank robberies has found that 10% experienced high levels of STS symptoms (Ortlepp & Friedman, 2002).

In Africa such countries as Rwanda, Somali, Sierra Leone, Sudan and Congo have gone through a traumatic experience at different times in history (Neugebauer et al., 2009). A study conducted in Darfur region of Western Sudan revealed that 25 % of aid workers in Darfur have experienced high level of STS symptoms (Musa & Hamid, 2008). A study on trauma counselors in South Africa showed that almost half of the study participants had a profile that suggests significant risk of adverse psychological outcomes due to elevated levels of burnout and STS (Padmanabhanunni, 2020). Another study carried out in South Africa on HIV lay counselors have found that more than 50 % of the counselors were potentially secondary traumatic stress cases (Peltzer et al., 2014). Another study in Sierra Leone which assessed secondary traumatic stress among psychiatric nurses practicing in psychiatric hospitals found that 33.5 % of the participants demonstrated moderate to high level of STS (Chinaboo, 2022). Very few studies assessed job related stress and burn out among medical professionals (Selamu et al., 2017 ; Anand & Mejid, 2018 ;Adem et al., 2023).

To the knowledge of the researcher, there is no study done in Ethiopia on secondary traumatic stress among mental health care professionals. Most of the available studies on trauma in Ethiopia focused on victims. Very little or no attention is given to secondary traumatic stress indicating a critical gap. Hence, this study aimed to investigate the secondary traumatic stress and coping mechanisms among mental health professionals in Ethiopia.

1.2 Statement of the Problem

Since the last almost ten years, Ethiopia has been going through traumatic events such as conflict and ethnic violence (Ali et al., 2022; Teshome et al.,2023). The common traumatic events include sudden violent death, sudden accidental death, and serious injury and illness (Girma et al., 2022). Indirect exposure to trauma such as caring for and working with traumatized individuals can lead to secondary traumatic stress (Shoji et al., 2014). Mental health professionals are at higher risk of developing STS (Cieslak et al., 2014). When mental health professionals engage in therapy where the focus is clients' experience of trauma, disaster, and abuse they run the risk of developing secondary traumatic stress (Kassam-Adams, 1995). Theoretically, individuals working in the caring professions attempt to alter the behaviors and emotions of their clients by providing emotional support, strategies for coping with emotions, or better cognitive management skills (Bride, 2007; Adams et al., 2006).

Mental health professionals' empathic engagement with traumatized clients often requires professionals to discuss details of the traumatic experience, including role-playing and dramatic reenactment of the events, which are thought to be vital to the therapeutic process but can have significant adverse emotional impact on the caregiver (Figley, 2002). They share the emotional burden of trauma, hear tales of human suffering, and observe emotions of fear, helplessness, and horror experienced by trauma victims (Ortlepp & Friedman, 2002). When professionals report symptoms related to re-experiencing the client's traumatic event, wishing to avoid both the client and reminders of the client's trauma and feeling persistent arousal due to intimate knowledge about the client's traumatic experiences, they are likely to suffer secondary trauma (Figley, 1995, 2002; Jenkins & Baird, 2002).To the knowledge of the researcher, no study has been done in Ethiopia on the prevalence and associated factors of secondary traumatic stress among mental health professionals. The psychological impact of working with trauma victims daily is found to be a research gap in the Ethiopian context. Hence, this study aimed to assess the prevalence of secondary traumatic stress among mental health professionals working in different settings in Addis Ababa.

1.3. Objectives of the Study

1.3.1. General Objective

The general objective of this study is to determine the prevalence and associated factors of secondary traumatic stress among mental health professionals working in different settings in Addis Ababa.

1.3.2. Specific Objectives

The specific objectives of the study are the following.

1) To determine the prevalence of secondary traumatic stress among mental health professional working in different settings in Addis Ababa;
2) To find out the factors associated with secondary traumatic stress among mental health professionals working in different settings in Addis Ababa;
3) To find out the coping mechanisms of secondary traumatic stress employed by mental health professionals working in different settings in Addis Ababa.

1.4. Research Questions

The study intends to answer the following basic research questions.

1. What is the prevalence of secondary traumatic stress among mental health professionals working in different setting in Addis Ababa city?

2.What are the factors that are associated with secondary traumatic stress among mental health professionals who are working in different settings in Addis Ababa ?

3. What are the coping mechanisms that mental health professionals who are working in different settings in Addis Ababa use to deal with secondary traumatic stress?

1.5. Significance of the Study

This study is expected to provide empirical evidence on the prevalence, associated factors, and coping strategies of STS among mental health professionals who are working in different settings in Addis Ababa. Mental health professionals such as psychologists, psychiatrists, clinical psychologists and other mental health professionals can benefit from this study in several ways. 1) The information from this study would help psychotherapists to

advance their awareness and understanding of STS symptoms which in turn help them to be more apt to seek assistance when in need and collaborate with peers and supervisors when in distress. 2) Mental health professionals who knows about factors that increase their vulnerability to develop STS will be able to prevent and protect themselves especially on those that are on a personal level. 3) Professionals who know about coping strategies are likely to practice self-care strategies to prevent and cope with their STS symptoms. Organizations, where psychotherapists practice such as Hospitals, psychotherapy centers and Psychiatry speciality clinics will be provided with a general awareness of STS prevalence and its associasted factors. This would help them take useful measures in scaling up educational programs and training that could be of vital importance to their employees such as self-care training, trauma-informed care training and establishing effective programs for preventing and treating STS.

Professional associations such as the Ethiopian Psychologists' Association, and Ethiopian Psychiatrists' Association would find the results of this study useful 1) in creating awareness among their members on the potential symptoms of STS and also the associated factors that increase the vulnerability of developing STS 2) Advocating and teaching important coping strategies of STS among their members at a personal level, professional level, and organizational level by preparing seminars, training, etc… Furthermore at the national level, the information generated from the study could guide policymakers and implementers in developing effective policies and interventions that can promote the well-being of mental health professionals.

1.6. Scope of the Study

The study was conducted in Addis Ababa, the capital city of Ethiopia. The population of focus for this study was mental health professionals who are engaged in providing psychotherapy in governmental hospitals, psychiatry speciality clinics and private psychotherapy centers . The study specifically examined the prevalence of secondary traumatic stress among psychotherapists, factors associated with secondary traumatic stress, and the coping strategies employed by psychotherapists in the event of STS. The study was conducted on mental health professionals who are currently engaged in providing psychotherapy to clients in the selected setting. The target population in this study was mental health professionals such as psychologists, clinical psychologists, counseling psychologists, psychiatrists, psychiatry nurses,

and psychiatry professionals . The study excluded professionals who are primarily engaged in areas of practice other than providing counseling and psychotherapy.

1.7 Operational Definition of Important Terms

Coping mechanisms: Coping mechanisms measured by Brief COPE.

Empathy: Measured as the total score of respondents on Empathy Assessment Scale

Personal history of trauma: The presence of 1 or more of the nine traumatic events drived from previous litratures in professional's life time.

Personal Life Stressors: The presence of the 12 Life threatening events on Life Threatening Events Questionaire with in the past 6 months.

Secondary Traumatic Stress: A score of 38 or higher score on Secondary Traumatic Stress Scale.

CHAPTER TWO

LITERATURE REVIEW

2.1. Concepts of Trauma and Traumatic Events

According to Substance Abuse and Mental Health Service Administration (SAMHSA, 2012), trauma is defined as an emotional and physical response to one or more physically harmful and life-threatening events or circumstances which cause lasting adverse effects on mental and physical well-being. A traumatized person may feel a range of emotions both immediately after the event and in the long term. A traumatic event is defined as the exposure to death, threatened death, actual or threatened serious injury, or actual or threatened sexual violence (APA, 2013). Traumatic events can be characterized by an extreme sense of powerlessness as well as a disruption of beliefs and expectations. The individual has lost control over the situation and is to a large extent a victim of the circumstance and/or other people (i.e. the perpetrator) (Kleber, 2019). The self-evidence of one's life is gone, the sense of invulnerability, the idea of the benevolence of the world, and the idea that other people can be trusted are devastated, and the obvious certainties of life have disappeared the images one holds of oneself and the environment no longer adequately fit the new situation (Janoff-Bulman, 1992).

Universally exposure to traumatic events is not rare (Kleber, 2019). A World Mental Health Survey carried out among 70,000 adults from 24 countries reported that 70.3% of the respondents experienced one traumatic event at least once in their life (Kessler et al., 2017. Among the reported traumatic events in the survey are intimate partner or sexual violence, accidents or injuries, physical violence, war-related events, the unexpected and traumatic death of loved ones, and traumas that happened to loved ones such as a serious illness of a child.

2.2. Impacts of Traumatic Events

The majority of people exposed to a traumatic event do not develop a disorder such as post-traumatic stress disorder. However, this does not mean that they will not suffer from symptoms and difficulty (Kleber, 2019). Most people will experience symptoms such as intrusions, night mare, and startle reaction and numbness (Kleber et al., 2003). In support of this, a longitudinal study in the Netherlands after a disastrous explosion of fireworks container area

found that 87% of inhabitants suffered from various symptoms such as depression, fear, re-experiences and physical symptoms in the first 2 or 3 weeks after the explosion (Velden et al., 2006). These responses of victims for a traumatic event are considered normal and functional (Frijda, 1986). After a traumatic experience, people might be afraid that it will happen again, they do not feel safe anymore and are constantly alert for danger, they are angry over the neglect of the responsible authorities or they feel rage in the direction of the perpetrator, they get easily irritated at remarks of other people, they blame themselves for being there at the moment of the disaster or having not done anything to prevent the situation. (Frijda,1986). Nevertheless, the intensity and frequency of these distressing and painful responses might not reach the level of disorder. Cognitive approaches to trauma explained that successful processing of the traumatic experience takes place when new information (e.g., the implication of the traumatic experience) is assimilated into existing structures or models and unsuccessful processing occurs when the trauma-related information is not integrated into existing beliefs concerning self-image and world views (Gradl et al., 2023). Findings reported that finding a cause for the extreme event and finding personal benefits in the traumatic experience play a significant role in adjustment after traumatic experience (Park, 2010).

The impact of traumatic events goes beyond those who are directly exposed to the event and affects close relationships, the social environment, and the society at large (Kleber, 2019) . Traumatic events such as natural disaster, technological catastrophes, and acts of mass terrorism are more than individual-level events; they are community-level events that bring harm, pain, and loss to large numbers of people simultaneously (Dückers, 2017). They are often brutal in their severity and broad in their scope (Norris et al., 2008). Many of them involve immediate trauma arising from exposure to death and injury (horror), extreme physical force (terror), and life-threatening situations. This traumatic event result in psychological consequences, such as symptoms of post-traumatic stress disorder, depression, anxiety, and physical ailments (Norris et al., 2008). A traumatic event such as disaster undermines the social fabric of a community. It can lead to dissolution of social networks and to forced or voluntary migration (Kleber et al., 2013). It can lead to a disruption of the provision of social services and an erosion of the health care infrastructure (Dückers, 2017). Social support is found to play a significant role for the effect of traumatic events both at individual and community levels. Research has shown that lack of social

support and lack of sharing of emotion is associated with significant risk for mental health disturbance after going through a traumatic experience (Ozer et al., 2003).

2.3. Definition of Secondary Traumatic Stress

Charles Figley (1995) first defined secondary traumatic stress as the natural consequent behaviors resulting from knowledge about a traumatizing event experienced by a significant other. It is the stress resulting from helping or wanting to help a traumatized or suffering person. STSD is a syndrome of symptoms identical to PTSD except that knowledge about a traumatizing event experienced by a significant other is the stressor associated with STSD (Figley, 1995). Figly (1995) suggested that compassion fatigue is an alternative name of STS. Similarly, Figley and Kleber (1995) defined STS as a term used to describe the natural consequence of caring between two people, one of whom has been initially traumatized, and the other is affected by the first's traumatic experiences. Monero (1999) also defined STS as an occupational hazard for professionals working with a trauma survivor. Bride (2007) defined STS as a condition characterized by fatigue arising from witnessing or listening to the narratives of traumatic events that lead workers to develop symptoms that resemble PTSD symptoms including nightmares, agitation, sleeplessness, flashbacks, and physiological symptoms.

Lombardo and Eyre (2011) defined STS as a combination of physical, emotional, and spiritual depletion related to caring for clients in major emotional agony and physical anguish which leads to reduced capacity of empathy when caregivers focus on clients without practicing self-care. Secondary traumatic stress is similar to PTSD and acute stress disorder but not from a direct experience of trauma but instead from indirect exposure to the trauma of others not necessarily close to the observer such as a client (Bourke & Craun, 2014). Levin and his collogues defined secondary traumatic stress as occupational stress syndrome describing physiological and psychological responses such as intrusive thoughts, avoidance, withdrawal, tension, and disturbed sleep following secondary exposure to challenging events or materials (Levin et al., 2021). STS symptoms are similar to PTSD but have less intensity than PTSD symptoms (Figley, 2002).

Secondary Traumatic Stress has significant negative impact on different aspects of clinicians' life such as physical health, work, family and personal life (Armes et al., 2020). The consequences of STS in mental health professionals in general are wide spread and multi-faceted impacting both their personal and professional lives. Mental health professionals suffering from STS may experience emotional withdrawal and become unavailable to their family and friends (M. A. Dutton & Rubinstein, 2013). STS may also result in poor clinical judgment and therapeutic impasses (Bride et al., 2007) that may lead to poorer client outcomes (Bercier & Maynard, 2015). Organizations will also suffer financially due to poor productivity of professionals, lower quality of service and increased sick leave (White, 2006). STS is also associated with higher rate of staff turnover (Stamm et al., 2002). Therefore, addressing the occurrence of STS is imperative for organizations, the mental health professionals they employ and the clients they serve.The impact of traumatic events goes beyond those who are directly exposed to the event and affects close relationships, the social environment, and the society at large (Kleber, 2019).

2.4. Symptoms of Secondary Traumatic Stress

STS occurs as a reaction to secondary or indirect exposure to traumatic events experienced by another person (Bride et al., 2007). Recent revisions to the diagnostic criteria for posttraumatic stress disorder (PTSD) in the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) have made explicit that repeated exposure to the aversive details of a traumatic event during one's professional duties qualifies as a Criterion A stressor (American Psychiatric Association, 2013). Therefore, STS is a form of PTSD where the exposure is listening repeatedly to the details of a client's traumatic experience. The symptoms of STS are characterized by intrusion, avoidance, physiological hyper arousal, distressing emotions, and functional impairment (Bride et al., 2004). These symptoms can arise suddenly, gradually, or may come and go through time (Bride et al., 2004) .

Intrusion

Professionals with STS *often have* images of the traumatic event of their client which stays long after the session and emerge unexpectedly (Hesse, 2002). Intrusion is the re-experiencing of a traumatic event in the form of illusions, hallucinations, flashbacks, physiological reactivity, and psychological distress (McCann & Pearlman, 1990) when exposed

to internal and external reminders of the event. Intrusion of trauma is flashbacks when an individual thinks he or she is experiencing the trauma or seeing it unfold before his/her eyes. Emotional states that make the individual act or feel as if the traumatic event were recurring is another form of intrusion. Intense physical reactions to reminders of the event include a pounding heart, rapid breathing, nausea, muscle tension, and sweating (APA, 2013) .

Avoidance

Mental health professionals with STS may try to avoid feelings or topics that produce strong feelings such as anxiety , fear and anger in him (Hesse, 2002) .Avoidance occurs as psychtherapists make unconscious effort to avoid thoughts or feelings that remind them of the trauma experienced by their clients (Hesse, 2002). This includes persistent avoidance of activities and places that might be similar to the place or activity where the trauma happened, inability to recall important aspects of the entire traumatic event, detachment from people/diminished interests in relationships and work, restricted affect such as having hard time expressing their feelings of laughter, hugging among others and foreshortened future-one does not expect to live a long life or have a normal life span, for instance, get married or even have a career (APA, 2013). Psychotherapists who often experience strong reactions to hearing traumatic narratives protect themselves by dissociating to some degree, distancing themselves from others, becoming overwhelmed with helplessness, or becoming emotionally numb (Salston & Figley, 2003).

Hyper Arousal

Marked alteration in arousal and reactivity associated with the traumatic event such as irritable behavior and angry outbursts (with little or no provocation), typically expressed as verbal or physical aggression toward people or objects, reckless or self-destructive behavior, hyper vigilance, exaggerated startle response, problems with concentration, sleep disturbance (APA, 2013).

2.5. Prevalence of STS among Mental Health Professionals

Several studies regarding the prevalence of STS among mental health professionas working in different settings were conducted in the Western part of the world. For instance, a cross-sectional study in 2003 conducted on 40 psychotherapists working with survivors of

violence in Guatemala, Germany, and Switzerland revealed that psychotherapists in Guatemala have a greater risk for developing STS than their colleagues in Germany and Switzerland (Dietrich, 2003). Shelah Adams and Shelley Riggs (2008) investigated 129 trauma therapy trainees from Texas state universities in the United States (US) and established that 31% of them exceeded th clinical cut-off score in the Trauma Symptom Inventory (Adams & Riggs, 2008). A similar study in 2013 by Cieslak and his colleagues investigated the prevalence of STS among 224 mental health professionals working with military patients who returned after their deployment to Iraq and Afghanistan and reported that 19.2% of the providers met all three core criteria for PTSD (Cieslak et al., 2013). Another similar study reported that 8 % of the professionals showed moderate to high level of STS among a sample of 70 mental health professionals working with US traumatized soldiers deployed to Afghanistan and Iraq (Kintzle et al., 2013).

A cross-sectional study by Sodeke and his colleagues in 2013 in the United Kingdom reported that 70% of 253 psychotherapists employed by the UK's National Health Service (NHS) were vulnerable to experiencing chronic levels of STS (Sodeke-Gregson et al., 2013). This study has also shown that professionas with higher risk of STS are those who are engaged in more individual supervision, and self-care activities and have a personal history of trauma (Sodeke-Gregson et al., 2013). A relatively recent study carried out in the United Kingdom revealed that among 99 allied mental health professionals, 13.13% reported low-level STS, 32.35% reported a moderate level of STS and 51.51 % reported a high level of STS (Singh & Hassard, 2021).

A cross-sectional study in Canada by Buchanan and his colleagues (2006) conducted on 279 Canadian mental health professionals reported that 93 of the professionals had STS according to their self-report (Buchanan et al., 2006). A study in Australia by Ewer and his colleagues (2015) reported that prevalence of STS among 412 alcohol and other drug counselors in Australia was 9.9% (Ewer et al., 2015). The study reported a result consistent with the findings of Bride et al (2009) who reported 19 % of STS cases among a sample of 225 substance abuse counselors (Bride et al., 2009). Additionally, another study in Australia by Rayner and his colleagues (2020) assessed the prevalence of STS among 190 Australian mental health professionals including psychologists and social workers, and found that 30 % of the professionals met for the diagnosis of STS.

In a study conducted in Germany among 165 mental health professionals , 29 and 9 of the professionals reported moderate and severe STS respectively (Weitkamp et al., 2014). A study conducted in Greece by Magnolia and his colleagues (2015) assessed the prevalence of STS among 174 psychiatric nurses working in 12 public hospitals. The study revealed that 44.8 % of the professionals had a high risk of STS (Mangoulia et al., 2015). A recent study conducted in France by Barre and his collogues (2023) assessed STS and post traumatic growth among 163 mental health professionals who work in French victim support organization. The study indicated that 25% of the professionals had high STS level (Barre et al., 2024)

A recent Polish study conducted on 153 mental health professionals working during the pandemic of covid- 19 revealed that 9.8% of psychotherapists working during the pandemic experienced high or very high intensity of STS (Kulik et al., 2023). A cross-sectional study in Sweden showed that among a sample of 69 mental health professionas a moderate level of STS in 14 professionals and a high level of STS in 53 professionals were reported (Kjellenberg et al., 2014). Similarly, another cross-sectional study conducted in Norway by Johansen and his colleague (2019) on 383 Norwegian substance-abuse therapists reported that 22 % of the therapists had clinically significant STS (Johansen et al., 019).

There are also several studies conducted on the prevalence of STS in some Eastern countries. For instance, in 2017 a study conducted in North Korea among a sample of 100 mental health professionas reported 40 % and 15 % of the professionals have moderate and high levels of STS, respectively (Kim, 2017). Another cross-sectional study conducted in Japan assessed STS and post-traumatic growth among 230 mental health professionals working in disaster relief activities following the 2011 Tohoku earthquake and Tsunami in Japan (Tominaga et al., 2020). One-fifth of the professionas reported clinically significant trauma symptoms immediately following their work but few respondents reported clinically significant symptoms two months following their relief work (Tominaga et al., 2020).A systematic review of 14 pieces of literature published from January 2005 to January 2022 conducted in India on secondary traumatic stress and burnout among Indian mental health professionals including psychiatrists, psychiatric nurses, psychiatric social workers, clinical psychologists, psychotherapists, and counselors reported that 3 of the papers reviewed reported moderate to high level of STS

(Bhagwagar, 2022). A study conducted in Turkey in 2017 among a sample of 155 mental health professionals practicing in Turkey reported that 16.8% had STS(Yazıcı & Özdemir, 2023).

Another study by Denkinger and his colleague (2018) assessed the prevalence of STS among 84 caregivers including a psychotherapist, social worker, and interpreter working with traumatized women and children by the terror organization called Islamic state (IS) from Northern Iraq. The study revealed STS among 22.9 % of the professionas and 8.6 % of them showed severe symptom load (Denkinger et al., 2018). A study by Kizilhan (2020) in Iraq investigated STS by interviewing 54 local psychotherapists and 28 international psychotherapists working with ISIS terror survivors . The study reported that 18.5% of the local and 14.3% of the psychotherapists had severe STS and 44.4% of the participating local psychotherapists with 28.6% of the psychotherapists from abroad had moderate STS (Kizilhan, 2020).

In Africa, few studies have been conducted regarding the prevalence of STS mental health professionals . For instance, a study on trauma counselors in South Africa showed that almost half of the study participants had a profile that suggests a significant risk of adverse psychological outcomes due to elevated STS (Padmanabhanunni, 2020). Another study carried out in South Africa on HIV lay counselors found that more than 50 % of the counselors were potentially secondary traumatic stress cases (Peltzer et al., 2014). A study conducted in Uganda by Amir and his colleagues (2014) assessed the prevalence of 123 mental health professionals working in two referral hospitals in Uganda. The study found that 37 of the professionals had developed STS (Kabunga et al., 2014). A study in Sierra Leone that assessed secondary traumatic stress among psychiatric nurses practicing in psychiatric hospitals found that 33.5 % of the participants demonstrated moderate to high levels of STS (Chinaboo, 2022). A study conducted in the Darfur region of Western Sudan revealed that 25 % of aid workers in Darfur have experienced high levels of STS (Musa & Hamid, 2008)

In Ethiopia, Few studies have assessed job-related stress and burn out among medical professionals (Selamu et al., 2017; Anand & Mejid, 2018; Adem et al., 2023). To the knowledge of the researcher, there is no study done on secondary traumatic stress among mental health professionals in Ethiopia .

2.6. Factors associated with STS

Factors associated with the development of STS can be divided into two main categories: 1) individual factors and 2) work-related factors. Individual factors include age, gender, marital status, highest education level , years of counseling experience, personal history of trauma, personal life stressors, personal history of psychiatric disorder and family history of psychiatric disorder. Work-related factors includes exposure, empathy and types of traumatized clients.

2.6.1. Individual factors

Age

Age is recognized as a risk factor for STS. Older professionals tend to have better coping skills that would make it easier for them to deal with external stress symptoms than younger professionals (Creamer & Liddle, 2005; Bride et al., 2007; VanDeusen & Way, 2006; Hensel et al., 2015; Singh & Hassard, 2021; Cook & Fye, 2023). A study by Creamer and Liddle (2005) among disaster mental health workers showed that professionals who are youth and with fewer years of experience reported higher levels of STS. A cross-sectional study among a sample of 99 mental health professionals including psychologists, counselors, psychotherapists, and psychiatric social workers in the United Kingdom revealed that age significantly predicted STS (Singh & Hassard, 2021). A study by Cook and Heather (2022) assessed trauma informed supervision and related predictors of burn out and STS among 282 pre-licensed counselors who works under the supervision of experienced counselors during Covid-19 pandemic and reported that age was significantly associated with higher STS scores.

Marital Status

A study on 467 child welfare mental health professionas found that marital status has a strong inverse association with STS (Byrne, 2006). Household status of living with others is found to be a protective factor against STS (Byrne, 2006). Another study found that a stable marital status is associated with higher psychological resilience among mental health professionas (Yörük et al., 2022) and lower STS score (Wang et al., 2020) Therefore, marital status can be considered a protective factor against STS symptoms because trauma workers living with their partners get the opportunity to reduce their levels of STS by talking with their partners about their work.

Gender

Women mental health professionals are found to be at greater risk of developing STS than men (Brewin et al., 2000; Olff et al., 2007). A meta-analysis of gender difference on STS susceptibility asssessd 12 studies carried out from 1990 to 2012 (Baum et al., 2014). The meta-analysis reported that females have a higher susceptibility to secondary traumatization than males (Baum et al., 2014) . It is theorized that in regards to STS, women consistently score higher on measures of empathy and emotional contagion than men and hence they are more vulnerable to developing STS . Another study by Tang and Freyd (2012) reported that women have a higher risk of developing STS mainly due to women having a personal history of interpersonal trauma. A study by Robinson and his colleagues (2014) investigated STS among 320 mental health professionals reported that younger female professionals with low counseling experience and a higher number of trauma clients reported higher levels of STS (Robinson-Keilig, 2014).

Educational level

Studies indicated that education decreases STS symptoms (Chrestman 1999; Baird and Jenkins., 2003; Lerias and Byrne., 2003; Perrin et al., 2007 and Hensel et al., 2015). A study by Chrestman (1999) reported that professionals with more continuing education had decreased avoidance symptoms (Chrestman, 1999). Lower level of education was linked to higher STS in one study (Lerias and Byrne (2003). Another study indicated that training has benefited in decreasing STS symptoms among workers assisting victims of September 11,2001 attack (Perrin et al., 2007).

Years of counseling experience

Years of counseling experience are also found to be associated with STS (Chrestman,1999; Creamer & Liddle, 2005; Badger et al., 2008; Robinson-Keilig, 2014; Hensel et al., 2015). These studies indicate that lack of experience in working with traumatized clients can be a risk factor mainly due to professionals not having developed enough coping skills to deal with trauma (Key & Rider, 2018). However, some studies found the opposite to be true indicating that increased experience is associated with increased levels of STS symptoms. For instance, a study by Wee and Myers (2002) found that mental health professionas who provided

mental health disaster services after the Oklahoma City bombing confirmed that increased time of working with trauma survivors was associated with higher risk of developing STS symptoms. The discrepancies in findings may be a result of the different populations of professionals that received different types of training. However the discrepancies indicate the need of further investigation which is the reason to validate how years of experience contribute to the development of STS in this study.

Personal history of trauma

Personal history of trauma is yet another associated factor for STS. If helpers' trauma history remains unrecognized, unprocessed, or unresolved, they may be sensitized to their disrupted need areas and will be at greater risk of missing the clients' more pressing needs (Adams et al., 2001). Professionals may be more likely to experience the client's intrusive imagery or re-experience his/her imagery which is reawakened by the client's material, as unresolved trauma of the worker which is often activated by reports similar to that of clients (Adams et al., 2006; Cleary et al., 2023; Yazıcı & Özdemir, 2023). A systematic literature review on 39 cross-sectional studies conducted from 2000 - 2021 that assessed the association of personal history of trauma with STS, vicarious trauma, and burnout among mental health professionals reported a significant positive association between personal trauma history and STS (Leung et al., 2022). Research indicated that mental health professionals with personal history of trauma often report higher STS level because they experience the toll of their work differently by identifying and relating with their clients as they are also survivors (Leung et al., 2022; Wickman, 2023). The identification with the client may cause re-traumatization and may also often cause professionas to use more empathetic engagement in turn increases the risk of STS due to over-involvement with their client's progress and over-emphasizing with their clients (Leung et al 2022) which can cause or exacerbate STS.

Mihelicova and his colleagues explained that STS was not experienced by everyone with a personal trauma history, but STS severity is particularly elevated when the professional's personal trauma history is similar to their patient's traumatic experience (Mihelicova et al., 2021). The advice given by a mental health professionals who is a trauma survivor him/ herself is frequently hyper-focused on his/her personal experience, rather than the client's experience (Mihelicova et al., 2019). For instance, a study by Meyers and Corneille reported that among

child welfare workers those who had childhood traumatic experiences including physical assault had an increased prevalence of STS than workers who reported no childhood traumatic experience (Cornille & Meyers, 1999). A study by Adams and his colleague (2006) reported that among 236 mental health professionals who were serving September 11, 2011 attacks, individuals reporting trauma histories were more likely to show symptoms of secondary trauma and overall psychological distress than professionals with no history of personal trauma. A recent systematic literature review carried out on 39 cross-sectional studies conducted from 2000 - 2021 that assessed the association of personal history of trauma with STS among mental health professionals indicated a significant positive association between personal trauma history and STS (Leung et al., 2022). On the otherhand, some professionals reported that personal trauma history or early family experiences were often motivation for pursuing their occupation and help them to understand other people's experiences, and may motivate them to assist clients in similar situations they have experienced .

Personal life stressors

Schauben and Frazier (1995) indicated that the level of personal stress that is experienced by therapists increased their risk of STS symptoms greater than their personal experience of trauma or actual exposure tramatic experiences. A study by Boscarnio and his colleagues (2010) that assessed secondary traumatic stress and job burnout among psychiatrists who were engaged with psychotherapeutic intervention for traumatized patients reported that higher number of negative life event in the previous year is associated with higher level of secondary trauma and also job burn out (Boscarino et al., 2010). Another study conducted by Mangolia (2015) among a sample of psychiatric nurses reported that nurses with financial stress have higher level of STS.

History of psychiatric disorder

Few studies indicated that due to the nature of their work which involve empathic engagement with traumatic clients mental health professionals have high risk of developing psychiatric disorder (Laverdière et al., 2018; and Schavbffler et al., 2024) . These studies also indicated that professional's mental wellness play a significant role on enhancing effective therapeutic intervention (Schaffler et al., 2024). According to DSM -5 pre-existing untreated

depression can increase vulnerability of individuals to PTSD when exposed to traumatic event APA, 2013) . Boscarino and his colleagues also reported the association of worse mental health with higher level of secondary traumatization among psychotherapists (Boscarino et al., 2010). Similarly another study revealed that professional's history of stress and anxiety symptoms may contribute to higher level of STS among a sample of alcohol and other drug counselors in Australia (Ewer et al., 2015). A study among a sample of social workers working with traumatized clients that had history of anxiety scored higher level of STS (Quinn et al.,2019). No sufficient studies are found on the direct association of psychotherapist's history of psychiatric symptoms and their vulnerability to develop STS. Therefore this study will utilize the insight from these studies to validate the association between history of psychiatric disorder and STS.

2.6.2. Work related Factors

Exposure

The level of exposure to traumatized individuals on any given mental health professional's caseload is also related to the likelihood of developing STS (Buchanan et al., 2006). Additionally, the severity of the trauma clients have experienced is related to the likelihood of professionals developing symptoms of STS (Buchanan et al., 2006). Repeated exposure to the details of clients' trauma stories, particularly those involving interpersonal violence, increases the likelihood of mental health professionals developing STS (Bober & Regehr, 2006; Buchanan et al., 2006). A cross-sectional study by Bober and Regehr (2006) among 259 mental health professionals reported that the number of hours spent working with traumatized individuals was the primary predictor of trauma, with a greater number of hours associated with a higher degree of STS.

A Meta-analysis by Hensel and his colleagues (2015) found that case load or the proportion of time spent working with trauma survivors was a significant risk factor with the strongest effect size. A cross-sectional study by Ewer and his colleagues (2015) investigated the prevalence of STS and correlates among 418 alcohol and other drug professionas including counselors, psychologists, and social workers in Australia. The study reported that for every 10 percent increase in the proportion of traumatized clients, there is a 30 percent increased risk of

developing STS. A study done by Benuto and his collogues on work-related resources and secondary traumatic stress among 142 mental health professionals revealed that the number of direct hours of victim service is a significant factor associated with STS (Benuto et al., 2018).

Empathy

Empathic engagement with a trauma victim may result in unconscious sharing of emotions . If the unconscious sharing of traumatic experiences of a traumatized client is not mediated by self-awareness and cognitive processing, it will have impact on professionals (Train & Butler, 2013). As a helping professional having empathy for a client is generally thought to be a positive characteristic of mental health professionals but it may become a problem when professionals begin to place themselves in their traumatized client's shoes and begin to exhibit PTSD-like symptoms (Bell, 2003).

When mental health Professionals empathize with trauma victims they often experience strong emotions such as frustration, fear, and shame, and PTSD-like symptoms or secondary trauma (Ludick & Figley, 2017). Several studies showed that helping professionals such as psychotherapists with higher levels of empathy may be at risk of developing STS as the pain of the client is deeply felt by the helping professional (Train & Butler, 2013; Baum et al., 2014). This premise is supported by findings from the study by MacRitchie and Leibowitz (2010), which found a significant correlation between level of empathy and STS among trauma workers.

Type of traumatized client

The type of traumatized client is also another factor associated with STS. Studies found that mental health professionals who treat victims of human-induced violence and crime, such as sexual assault or domestic violence, experience more severe STS than those who treat victims of naturally occurring trauma, such as cancer or natural disasters (Kassam-Adams, 1995; Cunningham, 2003; Benuto et al., 2018). Human-induced trauma such as sexual abuse massively and mercilessly exposes professionals to the potential boundlessness of human evil and ugliness (Cavanagh et al., 2015). Studies indicated that working with traumatized children has a higher risk of developing STS symptoms than working with adult trauma survivors. For instance, a study by Creamer (2002) among mental health professionals who served in response to the attack

of September 11, 2001found a higher degree of STS in professionals who spent more time with child clients, who discussed more morbid or graphic material, and who deal with sensory-related material. Working with children who are victims of trauma would make professionals helpless and vulnerable since children have less power and less control over abuse than adults (Craig & Sprang, 2010).

2.7. Coping with Secondary Traumatic Stress

Coping is an ongoing cognitive and behavioral effort to manage specific external and/or internal demands that are appraised as taxing or exceeding the person's resources (Skinner et al., 2003). Coping is defined as a process (i.e., efforts to manage stress that can change over time (Skinner et al., 2003). Any coping strategy can be either adaptive or maladaptive depending on the circumstance (Vukčević Marković & Živanović, 2022).

Self -care

Self care is engagement of activities that help to maintain wellbeingness (Manning-Jones et al., 2016). Harrison and Westwood (2009) reported self care strategies such as healthy eating ,exercise ,continued education, mindfulness , personal therapy , mindfulness, trusting relationships, work life balance among a sample of mental health therapists (Harrison & Westwood, 2009). This activities were also reported by samples of mental health professionals working with domestic violence victims (Iliffe & Steed, 2000) and samples of child therapists working with tramutized children (Lonergan et al., 2004).

Humor

Moran and Hughes (2006) reported use of humor as a coping strategies is associated with lower level of stress and STS. A meta-analysis study of positive humor in the workplace has found that humor is associated with enhanced work performance, satisfaction, workgroup cohesion, health, and coping effectiveness, as well as decreased burnout, stress, and work withdrawal (Mesmer-Magnus et al., 2012). Professionals must, however, exercise caution in using humor to cope because the overuse of humor may be a form of denial or a cover-up of what is going on with the trauma worker. It is also a red flag if a person loses his or her sense of humor and if it becomes excessive it may be an avoidance technique (Moran, 2002).

Spiritual coping strategies

Mental health professionals who lack a clear philosophy of life and causality, or who have struggled with issues regarding meaning, purpose, and spirituality may be at risk for STS (Pearlman & Saakvitne, 1995)). A study conducted by Dane (2000) found that spirituality was an important coping tool used by child welfare trauma workers that helped them find meaning in their work. Dane (2000) concluded that spirituality is a protective buffer for cumulative traumatic experiences. Some of the Spiritual coping mechanisms include engaging in meditation, time spent in nature, creating meaning and purpose, self-reflection, and volunteering (Dane, 2000). Maintaining a spiritual life helps practitioners keep their worldview balanced and their belief system intact in a world of good and evil and helps them remember that there are happy, stable, healthy people(Harrison & Westwood, 2009).

Social support

Use of social support incuding supervision, peer support and emotional support is the most frequently studied adaptive coping mechanism among mental health professionals (Iliffe & Steed, 2000 ;Townsend & Campbell, 2009 ; Manning-Jones et al., 2016 and Key & Rider, 2018) Social support is reported to have a significant negative correlation with STS among mental health professionals working in different settings (Townsend & Campbell, 2009; ; Ortlepp & Friedman, 2002; Galek et al., 2011 & Manning-Jones et al., 2016 ;). Without social support, professionals working with traumatized clients may quickly become overwhelmed, dehumanized or less caring (Salston and figley,2003 & Key & Rider, 2018). Discussing about a traumatic experience with others helps to process the traumatic experience and to adopt new perspective (Joseph, 2013).A workplace environment that discourages open communication about the professional's emotions, distress, increases their risk of STS (Schauben & Frazier, 1995). A study among a sample of 148 mental health professionals working with domestic violence victims reported t support from coworkers and quality supervision are key protective factors that provide better protection than individual factors (Slattery & Goodman, 2009). Manning-Jones and his colleagues (2016) also found that getting emotional support from family and friends has a significant negative correlation with susuptibilty to STS among a sample of mental health professionals including psychologists.

Maladaptive coping strategies

All coping strategies reduce distress in the short term but some of them are maladaptive (i.e., in the long term, neither addressing or resolving the source of distress nor reducing negative psychological outcomes, they may even result in additional difficulties) (Littleton et al., 2007). Maladaptive coping strategies include increased use of alcohol and drugs, the compulsion to make hasty major life decisions, the tendency to completely avoid any feelings or thoughts about the event, increased television watching or web surfing, or becoming fatalistic or helpless (Littleton et al., 2007). Substance use is the most common non-productive coping mechanism that was shown to be positively associated with STS scores (Bourke & Craun, 2014; Thompson et al., 2014). A study conducted by Akinsulure-Smith and associates (2018) showed that coping strategies grouped into denial and avoidance include the use of alcohol or other substances, the use of humor, expressing negative feelings, the use of distraction, denial, giving up, and self-blame. These coping strategies are positively and significantly associated with STS (Akinsulure-Smith & Keatley, 2014).

2.8. Theories of Secondary Traumatic Stress

2.8.1. Figley's Model of Compassion Stress and Fatigue

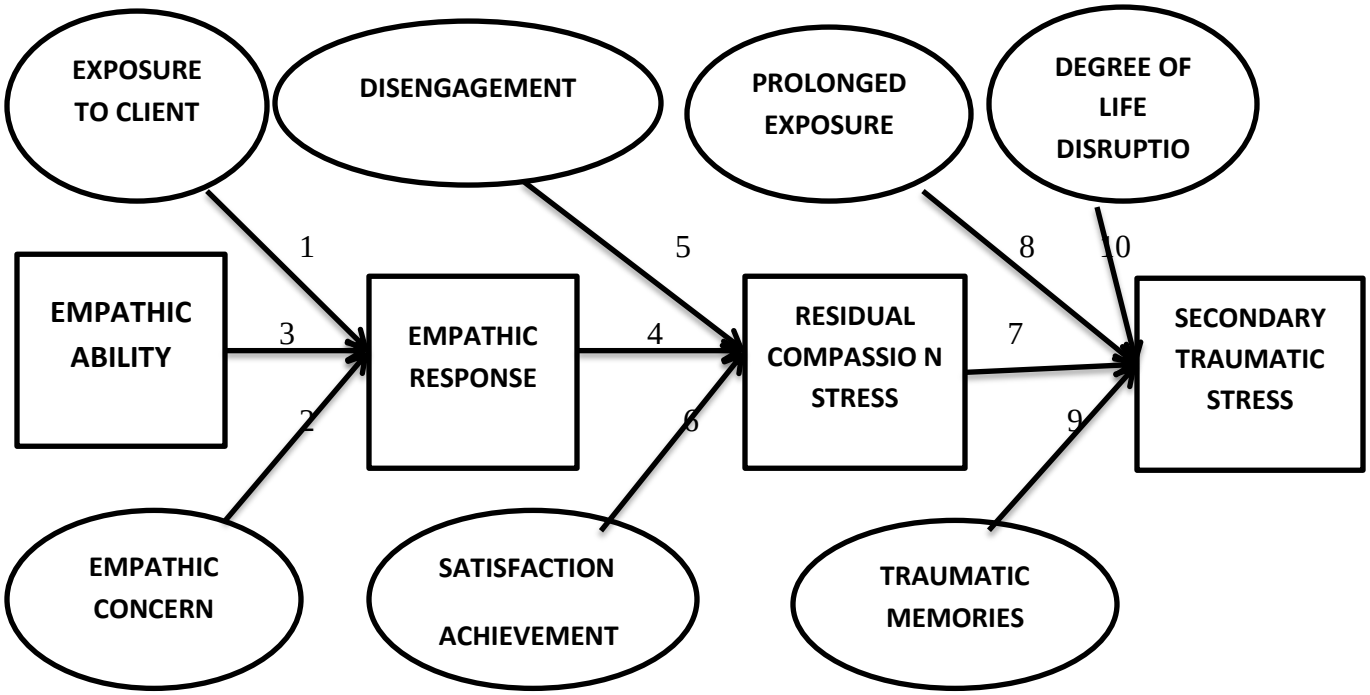
This is the first model introduced in 1995; it describes the way for the development of compassion stress and fatigue (Figley, 1995). Figley (1995) used compassion fatigue and secondary traumatic stress interchangeably describing compassion fatigue as a "friendlier term" for professionals who suffered from STS. The basic premise behind this theory is that stress symptoms are communicable and those who are close to trauma survivors can be infected with these trauma symptom (Figley, 1995). This may result through an internalization process where by psychotherapists identify with the experience of their client that they begin to internalize the trauma symptoms of the victim and experience stress reaction (Figley, 2002).

This model identified empathy and exposure as a central element to the development of STS (Figley, 1995). Other elements include the counselors' behavior towards the victim, exposure to trauma, sense of satisfaction derived from helping, and the ability of the counselor (Figley, 1995). This model is comprised of eleven components namely empathic ability, empathic concern, emotional contagion, emphatic response, disengagement, sense of

achievement, residual compassion stress, prolonged exposure, traumatic memories, and life disruption. Figley's (1995) model on the transmission of STS indicates that STS symptoms are prevalent in counselors and psychotherapists who identify closely with the traumatic experience of their client and internalize the symptoms. Therefore as psychotherapists try to cope with the symptoms factors such as prolonged exposure and life disruption may lead them to emotional mobility by successfully integrating the STS symptoms but if unsuccessful it may lead to emotional immobility that may result in STS (Figley, 2002). However, this model does not include the coping strategies used to cope up with STS.

Figure 1

Compassion Stress and Fatigue Model



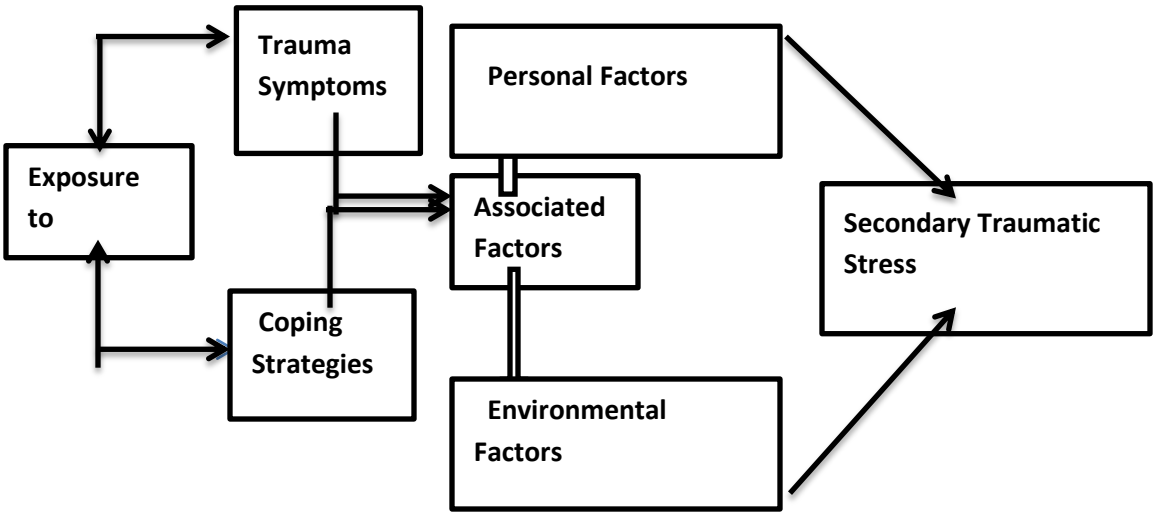
2.8.2. Ecological Framework of Trauma Model

Dutton and Rubinstein (1995) developed ecological framework of trauma which incorporate aspects of Figleys model and also features relating to STS such as predictive factors and coping strategies which are lacking in Figleys model. Dutton and Rubinstein (1995)

ecological theory of trauma has four components: (1) the traumatic event to which the trauma worker is exposed; (2) trauma workers coping strategies; (3) the trauma workers PTS reactions; and (4) personal and environmental factors (M. Dutton & Rubinstein, 1995) . Additionally, the trauma worker may also have to deal with previous trauma that their client endured, which may resurface (M. Dutton & Rubinstein, 1995).

Figure 2

Ecological Framework of Trauma Model (Dutton & Rubinstein, 1995)



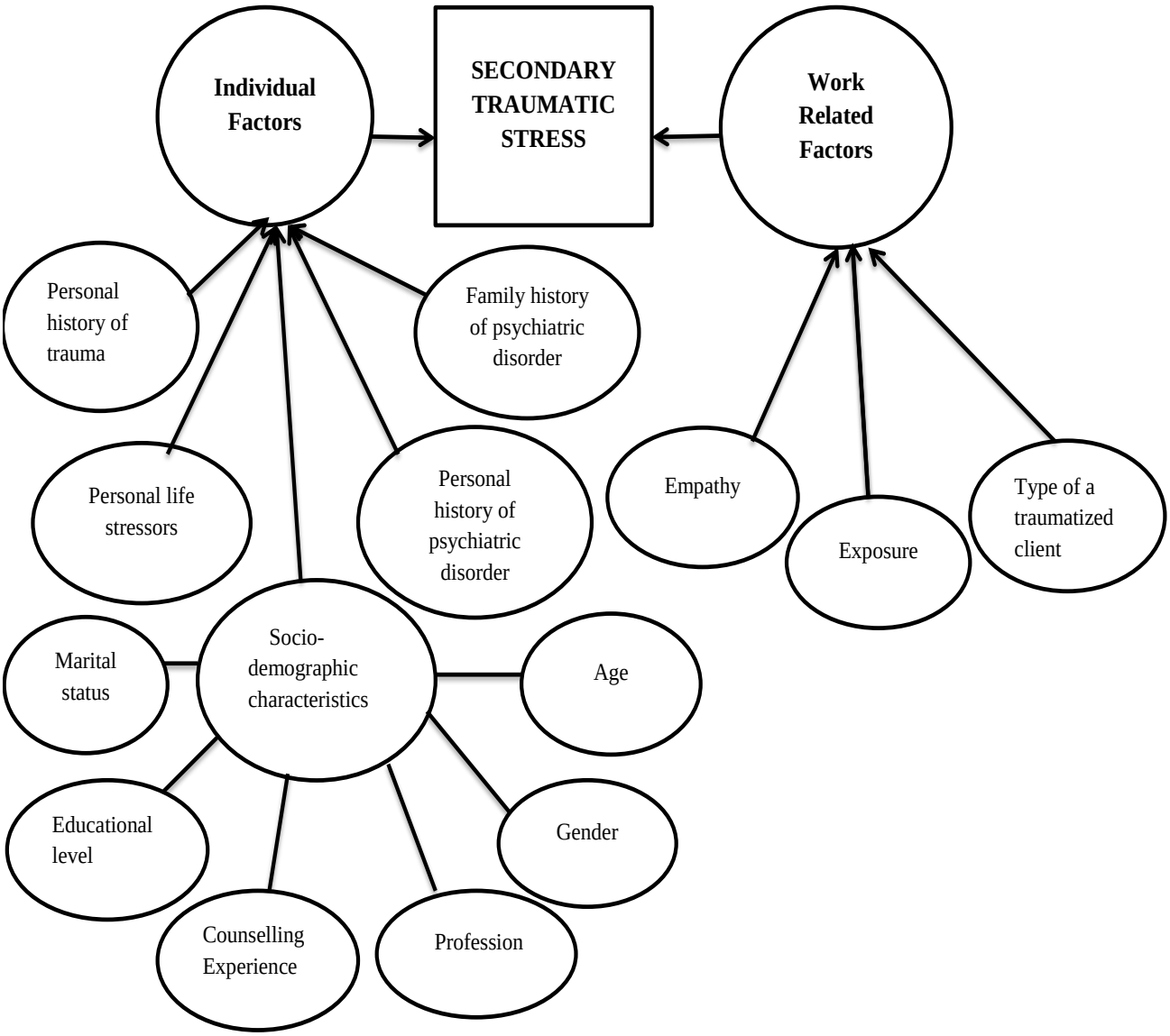
The second component is coping strategies. According to Dutton and Rubinstein coping strategies play significant role for the development and course of STS symptoms. There are two types of coping strategies: personal such as attending to personal needs, developing supportive relationships and professional including peer supervision and consultation (M. Dutton & Rubinstein, 1995). The third component of this theory is predictive factors divided in to personal and environmental factors. Personal factors include professional inner strengths, their resources and vulnerabilities, and level of experience and environmental factors includes social support, organizations response to trauma workers; the context with in which trauma workers live and work; and social and cultural factors such as gender (M. Dutton & Rubinstein, 1995). This theory provides further explanation for the development of STS.

2.9. Conceptual Framework

Based on the concepts derived from Figley's (1995) model of compassion stress and fatigue and Dutton and Rubistein (1995) ecological theory of Trauma the current study came up with the conceptual framework depicted in Figure 3 below. This framework provides the foundation for the current research. The framework presents an understanding of the components involved in the development of STS and their interrelationships. This framework stresses that STS is a result of exposure to traumatic material. However, the variability in the levels of STS can in part be attributed to several variables**.**

Figure 3

Conceptual Framework of the Study



CHAPTER THREE

METHODOLOGY

This chapter presents the research methods employed in conducting this study. It begins by detailing the research design, which is followed by research site and population of the study. The sampling procedure used in the study is then discussed, including the techniques used to select participants. Next, the chapter elaborated on the data collection procedures, specifying the tools, instruments, and processes utilized to gather the necessary information. Finally, the method of data analysis is explained, highlighting the techniques used to analyze the data.

3.1 Study Design

This study adopted a cross-sectional survey design with a quantitative approach where data were collected at a single point in time using structured questionnaires. These questionnaires were carefully designed to gather information regarding secondary traumatic stress (STS) among mental health professionals. Survey design was preferred to collect a large amount of data from a representative sample of respondents with a short period of time. Doing so, allowed the researcher to investigate the specific characteristics of the participants, their opinions, and the nature of their interactions, which are essential elements in understanding the factors contributing to STS. According to Fraenkel & Wallen (1990), a survey design is particularly useful when the goal is to describe the prevalence of a health condition and identify factors associated with it within a population based on the data collected from a sample.

3.2 Study Site

The three study settings in this study were governmental hospital, psychiatry speciality clinics and psychtherapy centers. Govermental hospitals is the first setting of the study. Govermental hospitals are institutions owned and predominantly funded by the government. There are 13 govermental hospitals in addis ababa city . Psychiatry speciality clinics is the second setting of the study. Psychiatry speciality clinics are health care facility providing specialized in treating various mental disorders both in inpatient and out patient settings. There are six psychiatry speciality clinics in addis ababa registed under Food, Medicine and Healthcare Administration and Control Authority Addis Ababa branch (FMHACA). Psychotherapy centers

are the third setting of the study. Psychotherapy centers are centers where mental health professionals such as psychlogists , psychiatrists, counslors and other professionals provide psychological treaments for individuals dealing with various psychological problems in out patient settings.

3.3 Study Population, Sampling Procedure and Sample Size

The study populations include all professionals who provide counseling and psychotherapy services to patients and clients at three selected practice settings, namely governmental hospitals, psychiatric clinics and psychiatry specialty centers,and psychotherapy centers. Although it is better to include all the professionals in the study for better generalization, due to certain constraints such as time and finance, the researcher utilized stratified random sampling technique. First, the researcher collected data on the total number of professionals practicing in each selected settings. Based on the obtained data from the FMOH, AAHB, FMHACA and Ethiopian Psychologists Association (EPA) the total target population is 340. Although it was manageable due to certain constraints such as time, and finance the researcher calculated the sample size using Yamane's sample size formula. The formula is as follows:-

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

Where n- required sample size

N- The given population size

e - Margin of error

Thus N = 340 and e = 0.05

$$n = \frac{340}{(1 + 340(0.05)^2)}$$

n = 184 + 10% (non- response rate)

n = 203

The researcher then classifed the study population based on the setting of practice in to three stratam. Stratum (1) was a sub group of mental health professionals practicing in

governmental hospitals. Stratum (2) was a sub group of mental health professionals practicing in psychiatry speciality clinics and, stratum (3) was a sub group of mental health professionals practicing in psychotherapy centers . The sample size for each stratum was calculated by using proportionate stratified random sampling formula. Finally the researcher selected study sites from each of the three stratum using a lottery method.

$$(SRS)n_h = \left(\frac{N_h}{N}\right) * n$$

n_h= sample size for h^{th} stratum.

N_h = population size for h^{th} stratum.

N= size of entire population.

n= size of entire sample.

Table 1

Sample Size Distribution

	Population	Sample size
Stratum 1: Governmental Hospitals	130	78
Stratum 2: Psychiatry Speciality Clinics	110	65
Stratum 3: Private Psychotherapy Centers	100	60
Total	N= 340	n = 203

3.4. Data Collection Instruments

The data for this study was collected using a self-report questionnaire. The first part of the questionnaire was a self-developed questions used to to collect data on socio-demographic variables: age, gender, marital status, education level, profession, level of counseling experience, and setting of practice. The second part of the questionnaire focused on the weekly hours of trauma work and identifying the frequent types of trauma handled by psychotherapists in the past three months .The third part of the questionnaire was Empathy Assessment Scale (EAS) which was designed to to measure level of empathy among mental health professionals . EAS is a 13 item brief and recent measure of empathy developed by Malakcioglu in 2022 in Turkey.

EAS has a concurrent validity with Toronto Empathy Questionnaire ($r=0.467$, $p<0.001$) and its internal consistency was reported to be 0.845 (Malakcioglu, 2022). Scoring is done by adding up ratings of all the items in the scaler (Malakcioglu, 2022).

The fourth section contained a self-developed questionnaire aimed at assessing the personal trauma history of the participants, identifying the nine most common traumatic events derived from previous literature. Sexual violence/ assult (Kassa & Abajobir, 2020; Worke et al., 2020 and Mekonnen & Wubneh, 2022) ; physical assult , witnessing sudden violent death and witnessing sudden accidental death (Girma et al., 2022), transportation accident (Abegaz & Gebremedhin, 2019), serious illness or injury (Ametaj et al., 2021) ; divorce (Damota, 2019) ; childhood trauma (Berhanu et al., 2023) and learning of a traumatic event suffered by close friend or relative (APA, 2013). The scoring method used is dichotomous scoring assigning ‘‘0’’ for those who did not experienced any of the nine trauma types listed and ‘‘1’’ for those who experienced one or more of the nine traumatic experience. The fifth section included questions that ask about the personal history of psychiatric disorder and family history of psychiatric disorders, both answered with a dichotomous (Yes/No) format. Scoring was done by assigning ‘‘0’’ for those with out personal history of psychiatric symptoms / family history of psychiatric disorder and ‘‘1’’ for those with personal history of psychiatric disorder/ family history of psychiatric disorder.

For measuring personal life stressors, List of Threatening Experiences questionnaire (LTE-Q) was used. LTE is a 12-item scale designed by Brugha and colleagues (1985). This tool has good reliability and validity across various studies (Brugha & Cragg, 1990; Ng et al., 2009; Motrico et al., 2013; Abreu et al., 2017). Scoring can be done by summing the total number of the stressful events experienced and categorizing into none or one or more events (0, ≥1) and ordinal scoring by summing the total number of stressful events and categorizing them into Score 0 for those who experienced none of the event, Score 2 for those experienced only one of the events and Score 2 for those who experienced two or more of the events (Motrico ,2013). The ordinal scoring method is used in this study.

The seventh section used the Brief Coping Orientation to Problem Experienced (Brief COPE) inventory, a widely used instrument with 28 items that measure different coping strategies (Carver, 1997; Thompson et al., 2014). Brief COPE asks respondents to select the

response that " how frequently s/he have been doing each item to cope when s/he have been stressed about something that happerned. Each item is rated on a 4-point Likert-type scale, with 0 = "I haven't been doing this at all" and 3 = "I've been doing this a lot (Carver, 1997). Brief cope has 14 subscales with 2 items each: acceptance (item 20 & 24); emotional support (item 5 & 15); humor (item 18 & 28) ; positive reframing (item 12 & 17); relgion (item 22 &27); active coping (item 2 & 7); instrumental support (item 10 & 23); planning (item 14& 25); behavioral disengagment (item 6 & 16); denial (item 3 &8); self distraction (item 1 & 9) ;self –blaming (item 13&26) ; substance use (item 4 & 11) and venting (item 9 and 21) (Carver, 1997). It is also categorized into three sub scales namely problem focused coping (Items 2, 7, 10, 12, 14, 17, 23, 25) ; Emotion-Focused Coping (Items 5, 9, 13, 15, 18, 20, 21, 22, 24, 26, 27, 28) and Avoidant Coping (Items 1, 3, 4, 6, 8, 11, 16, 19) (Thompson et al., 2014)

Brief cope is widely used measure of coping among a sample of different population (Kato, 2015). Few studies in sub-Saharan Africa including Ethiopia utilized Brief Cope to measure coping among various samples. For instance in South Africa studies reported internal reliability of $\alpha = 0.63$ in a sample of HIV positive women and $\alpha = 0.77$ in a sample of university students (Nel & Roomaney, 2015). In Uganda a study reported $\alpha = 0.79$ in a sample of healthcare professionals (Kigongo et al., 2023) and $\alpha = 0.84$ in a sample of cancer patient care giver (Nuwamanya et al., 2023) . In Ethiopia study on a sample of women with postpartum depression reported $\alpha = 0.72$ and 0.74 for the 14 subscales (Azale et al., 2018). Another study on sample glaucoma patients reported internal reliability of $\alpha = 0.78$ for the full brief cope inventory (Birhan et al., 2023). Similarly among a sample of patients living with HIV/AIDS, a study reported $\alpha = 0.761$ for the full Brief cope and each subscales 0.739 – 0.769 (Ataro et al., 2020).

Lastly, the Secondary Traumatic Stress Scale (STSS) was used to measure the level of secondary traumatic stress among the participants. This 17-item scale assesses intrusion, avoidance, and arousal symptoms related to secondary traumatic stress (Bride, 2004). Each of the seventeen items of STSS corresponds to one of the 17 PTSD symptoms listed in the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (APA, 2000). STSS requires that respondents indicate how frequently on a five point Likert-type scale ranging from 1(never) to 5 (very often) each item is/was true for them. The STSS includes a total score and

three subscale score representing intrusion symptoms (items, 2, 3, 6, 10 & 13), avoidance symptoms (items, 1, 5, 7, 9, 12, 14 & 17) and arousal symptoms (items, 4, 8, 11, 15 & 16). Scores will be obtained by summing the items assigned to each subscale (Bride et al., 2004). Bride has proposed a cut off score, where those who obtain a score at or above 38 are considered to have STS . The scale has also cut off scores for severity level of STS (17-28 little or no STS, 29-37 mild STS, 38-43 moderate STS, 44-48 high STS and greater than 49 severe STS (Bride, 2007) .

Some of the studies that used STSS to measure STS among mental health professionals working at various setting includes Bride, (2007) ; Robinson-Keilig (2014); Armes et al., (2020);Singh & Hassard(2021); Cook & Fye(2023). Although STSS has not been previously used in Ethiopia, its validity and reliability have been established in few sub Saharan African countries including South Africa ,Kenya, and Namibia (Muchemi & Kiumi, 2017; Cronje & Vilakazi, 2020; Masson, 2016; Ramatsipele, 2014).

3.4.1. Piloting

Pilot study was conducted in Eka Kotebe General Hospital .The pilot study was used to check the clarity of the questions in the questionnaire. It also also used to eliminate ambiguities in wording, checked time taken to complete the questionnaire and helped identify commonly misunderstood items. Six Professionals in Eka Kotebe General Hospital took part in the pilot study.

In this study, to determine internal consistency of items, Cronbach`s alpha coefficient is used (Crombach, 1951). According to Saunders et al. (2009), scales exhibiting a coefficient alpha greater than 0.80 are considered to have excellent reliability, between 0.70 and 0.80 are considered to have good reliability, and alpha value between 0.60 and 0.70 indicates acceptable reliability, a coefficient alpha between 0.50 and 0.60 shows questionable reliability, and when the alpha value is less than 0.50, the scale has poor reliability.

It was found that Cronbach's alpha range value of 0.810 , 0.826 and 0.805 for Empathy Assessment Scale , Brief Cope and STSS respectively . This demonstrates that the scales have excellent reliability, indicating the acceptability of all the variables for further analysis.

3.5. Data Collection Procedure

First the researcher contacted FMOH, FMHACA and AAHB to calculate the total study population. The researcher then contacted with the respective institutional review board of the selected study sites and discussed on the purpose of the study and submitted a copy of the study proposal for a review. Then ethical clearance letters was obtained from institutional review board of each study site after correcting the comments given by the review boards .After obtaining the ethical clearance letter the researcher intiated the data collection by providing brief descriptionon the purpose of the study to each study participants . Then the study participants were asked to complete the self- administered questionnaire . Any questions or confusion raised by the study participant in each study site were made clear through out the process by the data collector. The questionnaires were administered in person by the researcher, and data were collected immediately upon completion.

3.6. Methods of Data Analysis

The data were checked after data collection for completeness and consistency. The data were entered ,cleaned , coded, and analyzed using IBM SPSS version 25 . Both descriptive and inferential statistics were employed. Percentage and frequency tables were used to determine the prevalence of STS. A binary logistic regression model was also used to assess how various factors contribute to STS. Percentage, frequency ,mean, and standard deviation were used to determine the coping mechanisms used by mental health professionals.

3.7 Ethical Considerations

Given that this study involved human subjects, ethical principles were upheld throughout all stages of the research. A letter of cooperation was obtained from the School of Psychology at Addis Ababa University, and Ethical clearance letters were obtained from the study sites by their respective institutional review board. Informed consent was secured from all study participants before the study commenced. Participants were assured of the confidentiality and anonymity of their responses. They were informed of their right to skip any questions they did not wish to answer.

CHAPTER FOUR

RESULTS

In this section, the results of the study are presented.

For this study, data were gathered from a total of 203 participants; 187 respondents completed the questionnaire, resulting in a 92.1% response rate.

4.1. Socio-demographic characteristics of Study Participants

Table 2

Socio –demographic Characteristics of Study Participants

Variables	Categories	Frequency	Percent
Age	≤ 20 years	0	0
	21-30 years	56	30.8
	31-40 years	112	61.5
	41-50 years	14	7.7
	51-60 years	0	0
Gender	Male	108	57.8
	Female	79	42.2
Marital Status	Single	90	48.6
	Married	85	45.9
	Widowed	5	2.7
	Divorced	5	2.7
Education	Certificate	0	0
	College diploma	0	0
	Bachelor's degree	51	27.3
	Master's degree and above	136	72.7
Profession	Psychology	100	53.5
	Psychiatry	87	46.5
	Psychiatry nursing	0	0
Counseling Experience	≤ 2 years	44	23.6
	3-5 years or less	110	58.8
	6-10 years or less	33	17.6
	10-15 years or less	0	0
	>15 years	0	0
Practice Setting	Governmental hospital	69	36.9
	Psychiatry specialty clinics	64	34.2
	Private psychotherapy centers	54	28.9
Total		187	100

As shown in Table 2 above the majority of respondents,(61.5%), were from 31-40 years, 30.2%, between 21-30 years and 7.7%, between 41-50 years. Regarding gender, 57.8 % of the respondents were male, and 42.2 % were female. Regarding their marital status about 48.6% of the respondents were single, while 45.9% were married. Regarding their educational level a significant percentage (72.7%) had a master's degree or higher, while 27.3% had a bachelor's degree. Psychology professionals accounted 53.5% of the sample, while 46.5% were in psychiatry professionals. The majority of respondents (58.8%) had 3-5 years of experience, 23.5% had 2 years or less of experience, while 17.6% had 6-10 years of experience. Regarding practice setting of the respondents showed a fairly even distribution among the three categories: 36.9% practice in government hospitals, 34.2% in psychiatry speciality clinics and 28.9% in private psychotherapy centers.

4.2. Prevalence of Secondary Traumatic Stress

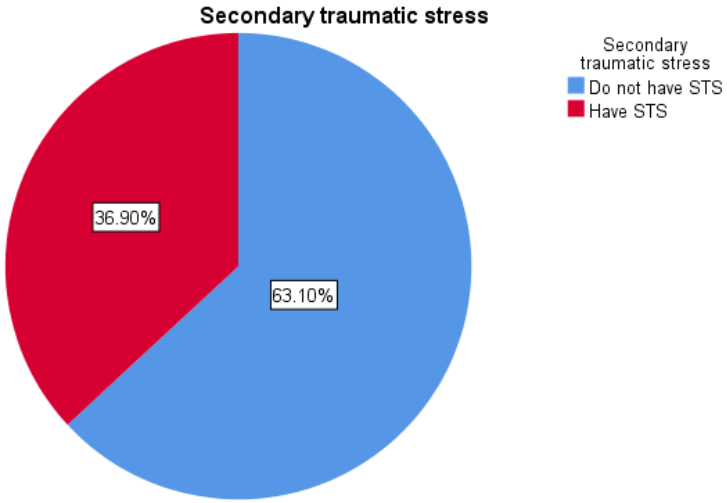
Table 3: *Secondary Traumatic Stress Scale Score of Study Participants*

STSS score	Frequency	Percent
17	2	1.1
20	1	0.5
22	3	1.6
23	2	1.1
24	4	2.1
25	3	1.6
26	9	4.8
27	16	8.6
28	8	4.3
29	25	13.4
30	6	3.2
31	14	7.5
32	3	1.6
33	4	2.1
34	3	1.6
35	5	2.7
36	1	0.5
37	8	4.3
38	14	7.5
39	6	3.2
40	16	8.6
41	3	1.6
42	3	1.6
43	3	1.6
44	4	2.1
45	16	8.6
46	3	1.6
48	1	0.5
49	1	0.5
Total	187	100

As shown in Table 3 above 69 (36.9%) of the study participants had STSS score of 38 or higher and 118 (63.1%) participant had STSS score below 38 . Therefore the prevalence rate of STS among mental health professional working in different settings in addis ababa is 36.9%.

Figure 4

Prevalence of Secondary Traumatic Stress



4.3. Factors Associated with Secondary Traumatic Stress

Table 4

Logistic Regression Showing Factors Associated with STS

							95% C.I.for EXP(B)	
Variables	B	S.E.	Wald	df	Sig	Exp(B)	Lower	Upper
Age			1.095	2	.578			
21- 30 years	-1.393	1.887	.545	1	.460	.248	.006	10.026
31-40 years	-1.558	1.524	1.045	1	.307	.210	.011	4.176
41- 50 years*								
Male	-1.547	.721	4.598	1	**.032**	**.213**	.052	.876
Marital Status			5.460	3	.141			
Single	-2.982	4.561	.428	1	.513	.051	.000	386.56
Married	-4.915	4.638	1.123	1	.289	.007	.000	65.011
Widowed	-3.640	5.150	.500	1	.480	.026	.000	634.549
Divorced *								
Bachlor Degee	-.040	.865	.002	1	.963	.961	.176	5.233
Psychology	1.064	.765	1.936	1	.164	2.897	.647	12.966
Experience			2.718	2	.257			
2 yrs or less	2.645	1.706	2.405	1	.121	14.083	.497	398.671
3 -5 yrs or less	1.133	1.329	.727	1	.394	3.106	.230	42.031
5 -10 years*								
Exposure			2.943	2	.230			
0- 10 hrs	24.160	5544.30	.000	1	.997	.000	.000	.
10 -20 hrs	-1.598	.931	2.943	1	.086	.202	.033	1.255
Empathy	3.630	1.199	9.173	1	**.002**	**37.713**	3.600	395.072
Personal history of psychiatric disorder (No)	-2.262	1.087	4.329	1	**.037**	**.104**	.012	.877
Family history of psychiatric disorder (No)	.676	.815	.689	1	.407	1.966	.398	9.710
Personal history of Trauma(No)	-3.834	.972	15.568	1	**.000**	**.022**	.003	.145
Life Stressors			1.749	2	.417			
LTE Score 0	1.083	1.139	.903	1	.342	2.953	.317	27.543
LTE score 1	-.406	.811	.250	1	.617	.666	.136	3.268
LTE score 2*								
Constant	-2.559	5.545	.213	1	.644	.077		

Note. (*) indicate the reference category for variables with more than two catagories.

Binary logistic regression analysis was conducted to investigate the effect of associated factors on the likelihood of having STS. As shown in table 4 above the logistic regression showed that age did not have a statically significant relationship with STS over all (P = 0.578). Sex is found to have significant relationship with STS (B= -1.547 P = 0. 032 Exp (B) = 0.213). Male professionals have 21.3 % lower chance of having STS than female professionals . Marital status did not have a statically significant relationship with STS over all (P= 0.141) . This shows that there is no a stastically significant difference in the susciptibilty to STS between single , married , widowed and divorced professionals. Education level did not have a statistically significant relationship with STS (P = 0.963) . This shows that professional who are Bachlor degree holders do not have stastically significant difference in their cance of having STS with professionals with Msc or higher educational level. Profession did not have statisically significant associaiton with STS (P = 0.164) . This shows that Professionals in the psychology department have stastically insignificant difference in their chance of having STS with professionals in psychology department. Years of counselling experience did not have significant effect on STS overall (P = 0.257). This shows that professionals with fewer years of counselling /psychotherapy experience does not a stastically significant difference in their susptiblity of STS than professionals with higher year of counselling experience .Weekly hour of trauma work do not have a statically significant effect on STS overall (P = 0.230). Professionals who spent fewer hour doing trauma work does not have a significant difference in their susptiblity of STS than professionals who spend many hour doing trauma work .

Empathy has shown significant relationship with STS (B= 3.630 P = 0.002 Exp (B) = 37.713). Psychotherapists with higher empathy level are 37.713 times more likely to have STS or 3771.3 % increased chance of having STS than those with lower empathy level. Personal history of psychiatric disorder has significant relationship with STS (B = -2.262 P = 0.037, Exp (B) = 0.104) . Psychotherapists with out personal history of psychiatric disorder are 0.104 times less likely to have STS or have 10.4 % decreased chance of developing STS than those with personal history of psychiatric disorder. Family history of psychiatric disorder did not show stastically significant relationship with STS (P = 0.407).Professionals with out family history of psychiatric disorder do not have a stastically significant difference in their chance of having STS than professionals with family history of psychiatric disorder. Personal history of trauma showed significant relationship with STS (B = -3.834 P = .000 , Exp (B) = 0.022) . Professionals who

have personal trauma history are 0.022 times more likely to have STS or 2.2 % increased chance of having STS than those who do not have personal trauma history. Personal life stressor does not have a statically significant relationship with STS (P = 0.417). The result showed that personal life stressors in professionals life do not have a stastically significant influence in their chance of having STS.

The result showed that the model was stastically significant x^2 (3) = 167.930 ,p < 0.001 explaining between 60.7 % (Cox and Snell R square) and 82.8 % (Naglekerke R square) of variance in STS status correctly classifying 93.3 % of cases. The Hosmer and Lemshow also suggest that the model has good fit with p = 0.975.

4.4. Coping Mechanisms of Secondary Traumatic Stress

As shown in Table 5 below that getting emotional support , getting comfort and understanding from some one and praying or meditating are the most commonly used coping mechanisms among the mental health professionals . Getting emotional support from others had the highest mean (3.03) with 33.2% reporting they used it "a lot". Getting comfort and understanding from someone (Mean = 3.02) is also frequently used, with 28.3% reporting it as a frequent coping mechanism. Praying or meditating (Mean = 3.06) shows a moderate to high use, with 26.2% of individuals using it frequently. This indicate that majority of the professionals relay on getting emotional support , getting comfort and understanding from others and praying or meditating in times of stressful situations such as STS.

Concentrating on doing something about the situation (Mean = 2.70) was moderately used, with 40.6% reporting a medium amount of use and 16% doing it a lot. Trying to see it in a different light, to make it more positive (Mean = 2.78), Looking for something good in what is happening (Mean = 2.67), and Learning to live with it (Mean = 2.79) all had moderate scores, indicating that professionals frequently employ strategies aimed at reframing the situation. Making jokes about it (Mean = 2.90) and Expressing negative feelings (Mean = 2.93) are coping strategies used with a moderate frequency, though still not as much as seeking emotional support.

Using addictive behaviors or substances to make myself feel better had the lowest mean (1.10), with 90.9% of respondents indicating they did not use this strategy at all. Saying to myself this isn't real (Mean = 1.11) and Refusing to believe that it has happened (Mean = 1.13) also show that these forms of denial were rarely employed by professionals. Turning to work or other activities to take my mind off things (Mean = 1.43) is another low-use strategy, with a large percentage (61%) indicating they didn't engage in it.

Table 5

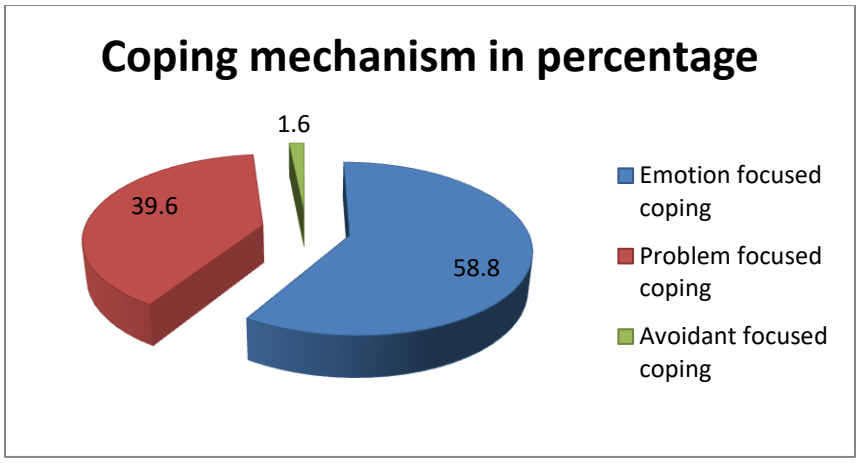
Coping mechanisms Used by Mental Health Professionals

Brief cope items		Not at all	Little bit	Medium amount	Doing a lot	Total	Mean	SD
I have been turnining to work or other activities to take my mind off things	**N**	114	66	7	0	187	1.43	0.567
	%	61	35.3	3.7	0	100		
I have been concentrating my efforts on doing something about the situation I am in	**N**	6	75	76	30	187	2.70	0.775
	%	3.2	40.1	40.6	16	100		
I have been saying to myself this isn't real	**N**	167	19	1	0	187	**1.11**	0.333
	%	89.3	10.2	0.5	0	100		
I have been using addictive behaviors or substances to make myself feel better	**N**	170	15	2	0	187	**1.10**	0.337
	%	90.9	8	1.1	0	100		
I have been getting emotional support from others	**N**	2	54	69	62	187	**3.03**	0.835
	%	1.1	28.9	36.9	33.2	100		
I have been giving up trying to deal with it	**N**	163	22	2	0	187	1.14	0.377
	%	87.2	11.8	1.1	0	100		
I have been taking action to try to make the situation better	**N**	6	76	62	43	187	2.76	0.843
	%	3.2	40.6	33.2	23	100		
I have been refusing to belive that it has happened	**N**	169	13	3	2	187	1.13	0.462
	%	90.4	7	1.6	1.1	100		
I have been saying things to let my unpleasant feelings escape	**N**	4	40	107	36	187	2.94	0.700
	%	2.1	21.4	57.2	19.3	100		
I have been getting help and advice from other people	**N**	0	85	78	24	187	2.67	0.692
	%	0	45.5	41.7	12.8	100		
I have been using alchol or other drugs to help me get through it	**N**	165	20	2	0	187	1.13	0.366
	%	88.2	10.7	1.1	0	100		
I have been trying to see it in different light, to make it more positive	**N**	0	84	60	43	187	2.78	0.797
	%	0	44.9	32.1	23	100		
I have been critcisng myself	**N**	2	54	89	42	187	2.91	0.743
	%	1.1	28.9	47.6	22.5	100		
I have been trying to come up with astrategy about what to do	**N**	5	79	78	25	187	2.66	0.741
	%	2.7	42.2	41.7	13.4	100		
I have been getting comfort and understanding from someone	**N**	7	35	92	53	187	**3.02**	0.789
	%	3.7	18.7	49.2	28.3	100		
I have been giving up the attempt to cope	**N**	162	17	7	1	187	1.18	0.507
	%	86.6	9.1	3.7	0.5	100		
I have been looking for something good in what is happening.	**N**	11	81	53	42	187	2.67	0.889
	%	5.9	43.3	28.3	22.5	100		
I have been making jokes about it.	**N**	6	56	76	49	187	2.90	0.827
	%	3.2	29.9	40.6	26.2	100		
I have been doing something to think about it less suchas going to movies watching tv, reading, day dreaming, sleeping or shopping	**N**	127	51	9	0	187	1.37	0.575
	%	67.9	27.3	4.8	0	100		
I have been accepting the reality of the fact that it has happened	**N**	5	39	107	36	187	2.93	0.711
	%	2.7	20.9	57.2	19.3	100		
I have been expressing my negative feelings	**N**	6	56	70	55	187	2.93	0.849
	%	3.2	29.9	37.4	29.4	100		
I have been trying to find comfort in my	**N**	1	31	101	54	187	**3.11**	0.683

religion or spiritual beliefs	**%**	0.5	16.6	54	28.9	100		
I have been trying to get advice orhelp from	**N**	4	75	84	24	187	2.68	0.720
other people about what to do	**%**	2.1	40.1	44.9	12.8	100		
I have been learning to live with it	**N**	5	57	98	27	187	2.79	0.716
	%	2.7	30.5	52.4	14.4	100		
I have been thinking hard about what steps	**N**	8	79	57	43	187	2.72	0.866
to take	**%**	4.3	42.2	30.5	23	100		
I have been blaming myself for things that	**N**	3	42	102	40	187	2.96	0.710
happened	**%**	1.6	22.5	54.5	21.4	100		
I have been praying or meditating	**N**	0	37	101	49	187	**3.06**	0.677
	%	0	19.8	54	26.2	100		
I have been making fun of the situation	**N**	3	63	91	30	187	2.79	0.722
	%	1.6	33.7	48.7	16	100		

Figure 5

Coping by the Type of Coping Strategies



As shown in Figure 5 significant percentage (58.8%) employed emotion-focused coping dominantly suggesting that majority of the respondent in the sample tend to employ emotion focused coping strategies in responses to stressful situations such as STS. Problem focused coping is used dominantly among 39.6% (74) of respondents. Avoidant focused coping is predominantly used by only 1.6 % of the professionals.

CHAPTER FIVE

DISCUSSION

5.1 Prevalence of Secondary Traumatic Stress

The Prevalence of STS among mental health professionals in the present study was 36.6%, with 69 participants having developed STS .This result confirms the findings from previous studies on the prevalence of STS among mental health professionals. For instance, Kabunga et al.,(2014) reported that among mental health professionals working in two psychiatric hospitals in Uganda, the prevalence of STS was 32.3 % and 27.9 %, respectively. Similarly, a study by Chinaboo (2022) indicated a prevalence rate of 33.5% among psychiatric nurses in psychiatric hospitals in South Africa. On the other hand, some studies indicate a lower prevalence rate; for instance, Cieslak et al (2013) noted that out of 224 mental health professionals involved with military patients returning from Iraq and Afgahanistan , 19.2 % had developed STS which is approximately half the prevalence rate of reported in the current study. Ewer et al (2015) also documented an even lower prevalence of 9.9% among mental health professionals who worked with substance abuse in Australia, which is roughly three times lower than the finding of the current study. Another study by Yazıcı and Özdemir (2023) targeted Turkish mental health professionals reported the prevalence of STS 16.8% which is also notably low compared with the present findings.

In contrast, the prevalence of STS in the present study is lower than some reports in the literature. For example, in Kim's (2017), it was found that North Korean mental health professionals working in a refugee center showed 55 % prevalence of STS , a percentage significantly higher than the finding from the current study.Similarly, Sodeke et al. (2013) used the Professional Quality of Life Scale (ProQOL) to report a prevalence of 70% of STS among psychotherapists in the UK working with trauma clients, which is more than double the rate found in this current study. These discripancies in the result can be attributed to many factors, including difference in populations and work settings being assessed. Studies that reported higher prevalence rates refers to mental health professionals working with highly traumatized populations such as refugees or clients with severe trauma histories. For instances, working with refugees or exclusively with trauma survivors may expose mental health

professionals to more intense and continuous trauma narratives, thus increasing the risk of developing STS. Respondents in the current studies may, therefore , have encountered fewer of these extreme cases, or worked accouting for the lower reported prevalence. Another explanation for the inconsistency of the result can be the difference in the tools used in studies.

5.2. Factors Associated with Secondary Traumatic Stress

The findings of this study showed that female mental health professionals are more susceptible to Secondary Traumatic Stress (STS) than their male counterparts, which may be attributed to factors such as a higher personal history of interpersonal trauma(Tang & Freyd, 2012). and greater empathy (Baum et al., 2014) , making women more emotionally impacted by their clients' traumatic experiences. Supporting this, a meta-analysis by Baum (2014) and studies by Robinson et al. (2014) among a sample of and Baree et al. (2024) among a sample of found higher STS levels in female professionals. However, a study by Johanesen et al. (2019) contradicts these findings, showing that male therapists had a higher risk of STS. These inconsistencies may be due to differences in therapeutic settings or the nature of the work, suggesting that gender differences in STS susceptibility may vary across contexts.

Regarding empathy mental health professionals with higher empathy level have higher STS than those with lower empathy level. In support of this Decety & Meyer (2008) indicated that empathic engagement with a trauma victims may result in unconscious sharing of emotions occurs as emotional resonance. Empathic engagement requires moderating cognitive process and an awareness of self in relation to the traumatized client (Decety & Meyer, 2008). When mental health professionals empathize with trauma victims they often experience strong emotions such as frustration, fear, and shame, and PTSD-like symptoms or secondary trauma (Ludick & Figley, 2017). Mental health professionals with higher levels of empathy may be at risk of developing STS as the pain of the client is deeply felt by the helping professionals (Train & Butler, 2013). The is also consistent with the finding of MacRitchie and Leibowitz (2010) that reported a significant correlation between higher level of empathy and STS among a sample of 64 mental health professionals in South Africa. In contrast Wagman and his collgues (2015) reported the association of higher level of empathy with lower STS level among a sample of social workers that contradict with the finding of the current study .

Regarding personal history of psychiatric disorder the current finding is consistent with previous studies showing that due to the nature of their work which involve empathic engagement with traumatic clients mental health professionals have increased risk of developing psychiatric disorder (Laverdière et al., 2018 and Schavbffler et al., 2024). Boscarino and his colleagues (2010) reported significant association of worse mental health with higher level of secondary traumatization among psychiarists. Similarly another study revealed that psychtherapist's history of stress and anxiety symptoms may contribute to higher level of STS (Ewer et al., 2015). Additionally a study among a sample of social worker working with traumatized clients reported that that having a history of of anxiety is associated with higher level of STS (Quinn et al., 2019). This finding suggests that mental health professionals who have previously experienced mental health challenges, particularly anxiety and depression, may be more likely to develop STS when exposed to traumatized client. These findings underscore the importance of considering mental health history when assessing the risk of STS among mental health professionals due to the reason that may face additional challenges in coping with the emotional demands of their work, which can increase their susceptibility to STS. As such, mental health professionals may benefit from regular self-care, supervision, and mental health support to address these vulnerabilities and to prevent the onset or exacerbation of STS.

Regarding personal history of trauma the current finding is consistent with the finding of several previous studies . A study by Adams and his colleague (2006) reported that counslors with personal trauma history were more likely to have higher STS level and over all psychological distress among a sample of 236 counselors who were serving in the September 11, 2001 attacks. Buchanan and his colleagues (2006) also reported personal history of trauma as a significant associated factor of STS among a sample of 279 Canadian mental health professionals. Cieslak and his collegues (2013) also reported that personal history of trauma is associated higher Frequency of STS among a sample 224 mental health professionals working with US military patients returned from Iraq and Afghanistan. Another study in by Sodeke-Gregson and his collogues (2013) reported that personal history of trauma significantly associate with higher frequency of STS among a sample of 253 UK mental health professionals.

A relatively recent systematic literature review on 39 cross-sectional studies conducted from 2000 - 2021 among mental health professionals and reported a significant positive

association between personal trauma history and STS in all the studies (Leung et al., 2022). Additionally Yazıcı & Özdemir (2023) reported significant relationship belween personal history of trauma and STS among a sample of Turkish mental health professionals.The consistent association between personal trauma history and STS underscores the importance of addressing professionals' past experiences of trauma in the context of their professional practice. Personal trauma history may act as a vulnerability factor, increasing emotional sensitivity and making professionals more susceptible to the emotional and psychological toll of their clients' traumatic experiences. This could be due to the emotional resonance of clients' trauma triggering unresolved emotions from the therapist's own past experiences.

Age is found to have stastically insignificant inverse relationship with STS in this study. This finding contradicts with the finding of creamer and Liddle (2005) among disaster mental health workers that reported significant association with being young and higher STS level. Another cross-sectional study among a sample of 99 mental health professionals in United Kingdom revealed that age significantly predicted STS (Singh & Hassard, 2021). Additionally a recent study by Cook and Heather (2022) found that age was significantly associated with higher STS scores among 282 counselors working during the Covid -19 Pandemic. The inconsistency in the result can be attributed to various factors such as population difference , different work context , measurement tools and methodological difference.

Regarding marital status the finding of the current study contradict with a study by Yoruk and his colleauges (2022) among a sample of health careworker during Covid -19 pandemic reported that being married increase psychological resilence that result in lesser chance of STS. Additionally a study by Bayrne (2006) among a sample of childwelfare social workers reported that significant relationship between being married with lower STS. The inconsistency in the result can be attributed to the difference in profession ,work environment , quality of marital relationships and difference in methodological approachs.

Regarding education level the finding of the current study is consistent with a study by Cieslak and his colleagues (2013) found no significant association between education level and STS among mental health professionals working with military personnels returned from their Iraq and Afghanistan. Another relatively recent study by Yazıcı & Özdemir (2023) also reported

education level was not a significant predictor of STS among turkish mental health professionals. On the other hand the finding contradict with a study by This suggests that while education can enhance clinical skills, it may not be sufficient to buffer professionals from the emotional toll of working with trauma survivors. In contrast a study by Creamer & Liddle (2005) among disaster mental health workers found that those with higher education levels reported lower levels of STS**.** Similarly a study by Ewer and his colleagues (2015) substance abuse mental health professionals found that higher education levels were associated with lower STS scores. The inconsistency in the result may be from variation in the nature of education, the work place environment and the personal characterstics such as coping and experience of mental health professionals .

Regarding profession the finding showed consistent result with a study by Cieslak and colleagues (2013) reported no significant difference in STS level among psychologiests ,social workers and counselors. Similarly another study by Yazıcı & Özdemir (2023) found no significant difference in STS levels was found between the different professional groups such as psychologists, counselors and psychiatrists. In contrast the finding contradict with a study by Boscarnio and his colleagues (2010) that found professionals in the psychological care roles had significant higher level of STS than professionals in the psychiatric roles.Additionally Singh & Hassard (2021) found that psychiatrists had significantly lower levels of STS compared to psychologists and social workers in UK**.** The inconsistency in the result can be due to differences in trauma exposure**,** training**,** workplace support**,** and individual coping strategies among the study participant**s.**

Regarding years of counseling experience the finding is consistent with a systematic literature review of 39 studies assessing STS among mental health professionals by Leung and colleagues (2022) that concluded years of experience did not significantly correlate with STS. Similarly Yazıcı & Özdemir (2023) found no significant relationship between years of professional experience and STS Among Turkish mental health professionals. In contrast the finding of the current study contradicts with study by Creamer and Liddle (2005) among a sample of mental health professionals who responded to the September 11 terrorist attack reported that less professional experience associated with higher STS. Similarly a study by Sodeke-Gregson and colleagues (2013) among UK psychotherapists, found that more years of

clinical experience were associated with lower levels of STS. the inconsistency in the result can be attributed to difference in the coping strategies used ,work place support ,trauma intensity and individual resilence other than the years of experience alone.

Regarding exposure the current finding is consistent with Baird and Jenkins (2003) that found no significant association of weekly hours of trauma work with STS. On the other hand this finding contradict with Bober and Regehr (2006) that reported number of hours spent working with traumatized client as the primary predictor of STS among 259 therapists. A Meta-analysis by Hensel and his colleagues (2015) also reported the proportion of time spent working with trauma survivors was a significant risk factor with the strongest effect size. Additionally Ewer and his colleagues (2015) reported for every 10 percent increase in the proportion of traumatized clients, there is a 30 percent increased risk of developing STS among a sample of alcohol and other drug workers .

Regarding family history of psychiatric disorder the finding is consistent with Cieslak and his colleagues (2013) in their study among 224 mental health professionals working with military patients returning from Iraq and Afghanistan, found that family history of psychiatric disorders was not significantly associated with higher levels of STS. Similarly a study by Robinson-Keilig et al. (2014) showed no significant association between family history and the prevalence of STS. A more recent study by Baree and colleagues (2024) examined mental health professionals working in victim support organizations in France**.** The study showed no significant link between family history of psychiatric disorders and STS. The lack of significant association between family history of psychiatric disorders and STS in several studies suggests that work-related stressors**,** coping mechanisms**,** and professional support may be more influential factors in the development of STS than family history. Mental health professionals, regardless of their familial background, may be able to manage and mitigate secondary trauma through effective coping strategies**,** emotional regulation skills**,** and professional supervision**.**

Regarding personal life stressor the finding is consistent with a study by Cieslak and his colleague (2013) that found no significant relationship beltween personal life stressors and STS. Another study among substance abuse counselors in Australia by Ewer and his colleagues (2015) found that personal life stressors, such as financial strain or relationship issues, did not significantly predict STS. A relatively recent study by Yazıcı & Özdemir (2023) among Turkish

mental health professionals found no significant association between personal life stressors and STS. On the other hand the finding of the current study contradicts wih previous studies. For instance Adams and colleagues (2006) conducted a study on counselors working in the aftermath of the September 11th terrorist attacks. They found that personal life stressors, including relationship difficulties and financial pressures, were strongly associated with higher levels of secondary traumatic stress. Boscarnio J.A and his colleagues (2010) that reported higher number of negative life event in the previous year to be significantly associate with higher level of STS among a sample of psychiatrists working with traumatized patients.Additionally a study conducted by Mangolia (2015) among a sample of psychiatric nurses reported that nurses with financial stress have higher level of STS. The insignificance relationship between personal life stressor can be attributed to factors such as difference in study populations , difference in the study design , work place environment and oragaizational support, coping mechanisms and personal resilence , intensity and type of personal stressors.

5.3 Coping Mechanisms

Emotional support**,** comfort and understanding from others**,** and praying or meditating were the most commonly used strategies, reflecting a reliance on social support and spirituality in coping with the emotional demands of working with trauma survivors. This finding is consistent with several studies that emphasize the importance of social support as a protective factor against the emotional toll of working with traumatized clients. For instance Collins & Long (2003) in their study on psychotherapists found that those who had regular emotional support from peers, supervisors, or family members experienced less distress related to STS. Similarly Cieslak and his colleagues (2013) reported that social support from colleagues and supervisors was one of the most effective buffers against STS among mental health professionals working with military personnel. Additionally Manning-Jones and his colleagues (2016) found that getting support from family and friends has a significant negative correlation with the development of STS. Regarding praying or meditating studies indicate that mental health professionals relay on religious or spiritual beliefs as a source of comfort, reflecting the broader literature on the role of spirituality in coping with STS (Dane, 2000 ; Harrison & Westwood, 2009). In support of this Figley (2002) suggested that spirituality can serve as an important

coping resource for mental health professionals, offering a source of strength, meaning, and comfort in the face of the emotional challenges posed by trauma work.

Problem focused copings such as concentrating on doing something about the situation , trying to see it in a different light**,** and looking for something good in what is happening were also moderately used by the mental health professionals. These strategies reflect an attempt to reinterpret or reframe the traumatic experience in a more positive or manageable light. This coping approach is consistent with cognitive-behavioral frameworks, which emphasize the importance of reframing distressing thoughts to promote psychological resilience (Dozois & Beck, 2011). Similarly a study by Littleton and his colleagues (2007) found a significant relationship between the use of problem focused strategies and experiencing less psychological distress (Littleton et al., 2007).

Making jokes and expressing negative feelings were also moderately used coping strategies. This suggest that some mental health professionals rely on humor or emotional expression to release tension or process negative emotions. Humor particularly has been identified as an adaptive coping strategy in high-stress environments (Martin & Ford, 2018). Similarly a meta-analysis study of positive humor in the workplace has found that humor is associated with enhanced work performance, satisfaction, workgroup cohesion, health, and coping effectiveness, as well as decreased burnout, stress, and work withdrawal (Mesmer-Magnus et al., 2012). Coping by expressing negative feelings helps mental health professionals process their emotions**,** reduce emotional tension, and prevent the buildup of stress, which is crucial in mitigating STS (Lloyd et al., 2002).

Avoidant coping such as denial and substance use were used very infrequently, with the majority of respondents reporting they did not use these strategies at all. This suggests that mental health professionals in this sample generally do not rely on avoidance **or** substance use as a way of coping with trauma exposure. The limited use of avoidant coping mechanisms among mental health professionals is encouraged as several studies reported the association of avoidant or maladptive coping strategies with depression ,general distress and STS (Littleton et al., 2007). Cieslak and his colleagues (2013) reported that mental health professionals who relied on avoidant coping such as denial and disengagement were more vulnerable to experiencing higher levels of STS. Similarly another study also reported avoidant coping such as self-distraction,

venting, substance use, behavioral disengagement, and self-blame have a significant positive relationship with STS among mental health professionals working with refugees (Akinsulure-Smith et al., 2018 .

CHAPTER SIX

SUMMARY, CONCLUSION and RECOMMENDATIONS

6.1. Summary

The main objective of the study was to examine secondary traumatic stress and coping strategies among psychotherapists practicing in different settings in Addis Ababa. The specific objectives of the study were i) determine the prevalence of STS ii) Find out the associated factors of secondary traumatic stress iii) Find out the coping strategies used by psychotherapist. A total of 203 questionnaires were distributed and the response rate was 92.4%. Data were analyzed using percentages frequency table , mean, standard devitation and binary logistic regression.

Having the scores of secondary traumatic stress scale the prevalence of STS among psychtherapists is found to be 36.9 % . Binary logistic regression revealed that female gender (Sig = 0.032), empathy (Sig = 0.002), personal history of trauma (Sig =0.00) and personal history of psychiatric disorder (0.007) have positive significant association with secondary traumatic stress. Factors such as age , marital status , level of education, profession , counseling/ psychotherapy experience, exposure , family history of psychiatric disorder and personal life stressor did not show significant association with secondary traumatic stress.

Regarding coping mechanism, the most reported coping mechansim is getting emotional and praying or meditating while substance use was the least reported coping strategies among the respondents. Looking at the predominant coping mechanism employed by mental health professionals emotion focused coping which was taken by 110 (58.8%) of the respondents followed by problem focused coping employed by (39.6 %) of respondents. Avoidant copings were the least used coping strategies among the respondents.

6.2. Conclusion

Based on the preceding major findings and discussion of the results made above, the researcher draws the following conclusions. The prevalence of STS among mental health professionals working in governmental hospital , psychiatry speciality clinic and private psychotherapy centers in addis ababa is 36.9 % . The result of binary logistic regression showed

that female gender , higher empathy level, personal trauma history and personal psychiatric disorder have significant association with STS. This indicates that female professionals, professionals with personal history of trauma , professionals higher level of empathy and have personal history of psychiatric disorder have higher risk of STS. Factor such as age , marital status , education level, years of counseling experience, level of exposure , family history of psychiatric disorder and personal life stressor did not show significant relationship with STS.

Majority of mental health professionals cope up with STS by getting emotional support and finding comfort in their religion or spiritual life. In contrast, use of alchol or other substance is the least reported coping strategies .This indicate that majority of mental health professionals do not use maladaptive coping strategies to deal with STS.

6.3. Recommendations

To effectively manage STS among mental health professionals and enhance their overall well-being, the following recommendations are proposed:

- **STS Awareness and Monitoring:** Mental health institutions should regularly assess mental health professionals' STS levels. Implementing routine screening and providing targeted resources to address STS may help to mitigate its impact on mental health professionals .
- **Training and Support:** Ongoing training and workshops may enhance mental health professionals' coping abilities. Emphasizing problem-focused coping strategies may be especially useful for those who predominantly use emotion-focused coping. Additionally, offering professional supervision can help reduce the emotional burden on therapists.
- **Promoting Resilience:** Mental health professionals with personal trauma histories are particularly vulnerable to STS, making resilience-building crucial. Institutions should promote mindfulness, self-care practices, and therapeutic interventions. Positive reframing and emotional support should also be encouraged, as they are effective coping strategies.
- **Further Research:** The strong link between empathy and personal history of trauma with STS underscores the need for further research .Such research will help in developing more effective, targeted interventions for those at higher risk of secondary trauma.

- **Policy Maker:** Policy makers can improve the well- being of mental health professionals by promoting and instititutionaling supportive work enviroments , targeted intervention for female mental health professionals, implementing mental health screening to address psychiatric disorder and personal hisotry of trauma among mental health professionals, enhancing professional development and coping mechanism training , advocating work place policies such as flexible working hour and job rotation and supporting on going researchs in to the prevalence and associated factors of STS among mental health professionals in Ethiopia.

References

Abegaz, T., & Gebremedhin, S. (2019). Magnitude of road traffic accident related injuries and fatalities in Ethiopia. *PloS One*, *14*(1), e0202240.

Adams, K. B., Matto, H. C., & Harrington, D. (2001). The Traumatic Stress Institute Belief Scale as a measure of vicarious trauma in a national sample of clinical social workers. *Families in Society*, *82*(4), 363–371.

Adams, R. E., Boscarino, J. A., & Figley, C. R. (2006). Compassion fatigue and psychological distress among social workers: A validation study. *American Journal of Orthopsychiatry*, *76*(1), 103–108. https://doi.org/10.1037/0002-9432.76.1.103

Adams, S. A., & Riggs, S. A. (2008). An exploratory study of vicarious trauma among therapist trainees. *Training and Education in Professional Psychology*, *2*(1), 26.

Adem, M. M., Birhanu, Y., Tigabu, M., Bahiru, J. M., & Endris, A. H. (2023). *Level of compassion fatigue and associated factors among nurses working at comprehensive specialized hospitals in northwest Amhara region, Ethiopia 2022*.

Akinsulure-Smith, A. M., Espinosa, A., Chu, T., & Hallock, R. (2018). Secondary traumatic stress and burnout among refugee resettlement workers: The role of coping and emotional intelligence. *Journal of Traumatic Stress*, *31*(2), 202–212.

Akinsulure-Smith, A. M., & Keatley, E. (2014). Secondary trauma and local mental health professionals in post conflict Sierra Leone. *International Journal for the Advancement of Counselling*, *36*, 125–135.

Ali, D., Azale, T., Wondie, M., & Tadesse, J. (2022). About six in ten survivors of the november 2020 Maikadra massacre suffer from posttraumatic stress disorder, northwest Ethiopia. *Psychology Research and Behavior Management*, 251–260.

American Psychiatric Association, D. & American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders: DSM-5* (Vol. 5, Issue 5). American psychiatric association Washington, DC.

Ametaj, A. A., Hook, K., Cheng, Y., Serba, E. G., Koenen, K. C., Fekadu, A., & Ng, L. C. (2021). Traumatic events and posttraumatic stress disorder in individuals with severe mental illness in a non-western setting: Data from rural Ethiopia. *Psychological Trauma: Theory, Research, Practice, and Policy*, *13*(6), 684.

Anand, S., & Mejid, A. (2018). Prevalence and associated factors of work related stress among nurses working in worabe comprehensive and specialized hospital, south west Ethiopia. *Prevalence*, *3*(3), 260–266.

Armes, S. E., Lee, J. J., Bride, B. E., & Seponski, D. M. (2020). Secondary trauma and impairment in clinical social workers. *Child Abuse & Neglect*, *110*, 104540.

Azale, T., Fekadu, A., Medhin, G., & Hanlon, C. (2018). Coping strategies of women with postpartum depression symptoms in rural Ethiopia: A cross-sectional community study. *Bmc Psychiatry*, *18*, 1–13.

Badger, K., Royse, D., & Craig, C. (2008). Hospital social workers and indirect trauma exposure: An exploratory study of contributing factors. *Health & Social Work*, *33*(1), 63–71.

Barre, K., De Boer, S., & Guarnaccia, C. (2024). Vicarious trauma and posttraumatic growth among victim support professionals. *Current Psychology*, *43*(4), 3056–3069.

Baum, N., Rahav, G., & Sharon, M. (2014). Heightened susceptibility to secondary traumatization: A meta-analysis of gender differences. *American Journal of Orthopsychiatry*, *84*(2), 111.

Bell, H., Kulkarni, S., & Dalton, L. (2003). Organizational prevention of vicarious trauma. *Families in Society*, *84*(4), 463–470.

Benjet, C., Bromet, E., Karam, E. G., Kessler, R. C., McLaughlin, K. A., Ruscio, A. M., Shahly, V., Stein, D. J., Petukhova, M., & Hill, E. (2016). The epidemiology of traumatic event exposure worldwide: Results from the World Mental Health Survey Consortium. *Psychological Medicine*, *46*(2), 327–343.

Benuto, L. T., Newlands, R., Ruork, A., Hooft, S., & Ahrendt, A. (2018). Secondary traumatic stress among victim advocates: Prevalence and correlates. *Journal of Evidence-Informed Social Work*, *15*(5), 494–509.

Bercier, M. L., & Maynard, B. R. (2015). Interventions for secondary traumatic stress with mental health workers: A systematic review. *Research on Social Work Practice*, *25*(1), 81–89.

Berhanu, T., Tesfaye, Y., Girma, S., & Abera, M. (2023). *One in Six Children and Adolescents in South Ethiopia Had Childhood trauma*.

Bhagwagar, H. (2022). Secondary trauma, burnout and resilience among mental health professionals from India: A review of research. *Asian Journal of Psychiatry*, *76*, 103227.

Birhan, Z., Deressa, Y., Shegaw, M., Asnakew, S., & Mekonen, T. (2023). Posttraumatic stress disorder in a war-affected area of Northeast Ethiopia: A cross-sectional study. *BMC Psychiatry*, *23*(1), 627.

Bober, T., & Regehr, C. (2006). Strategies for reducing secondary or vicarious trauma: Do they work? *Brief Treatment and Crisis Intervention*, *6*(1), 1.

Boscarino, J. A., Adams, R. E., & Figley, C. R. (2010). Secondary trauma issues for psychiatrists. *The Psychiatric Times*, *27*(11), 24.

Bourke, M. L., & Craun, S. W. (2014). Coping with secondary traumatic stress: Differences between UK and US child exploitation personnel. *Traumatology: An International Journal*, *20*(1), 57.

Brewin, C. R., Andrews, B., & Valentine, J. D. (2000). Meta-analysis of risk factors for posttraumatic stress disorder in trauma-exposed adults. *Journal of Consulting and Clinical Psychology*, *68*(5), 748.

Bride, B. E. (2004). The impact of providing psychosocial services to traumatized populations. *Stress, Trauma, and Crisis*, *7*(1), 29–46.

Bride, B. E. (2007). Prevalence of secondary traumatic stress among social workers. *Social Work*, *52*(1), 63–70.

Bride, B. E., Radey, M., & Figley, C. R. (2007). Measuring compassion fatigue. *Clinical Social Work Journal*, *35*, 155–163.

Bride, B. E., Robinson, M. M., Yegidis, B., & Figley, C. R. (2004). Development and validation of the secondary traumatic stress scale. *Research on Social Work Practice*, *14*(1), 27–35.

Bride, B. E., Smith Hatcher, S., & Humble, M. N. (2009). Trauma training, trauma practices, and secondary traumatic stress among substance abuse counselors. *Traumatology*, *15*(2), 96–105.

Buchanan, M., Anderson, J. O., Uhlemann, M. R., & Horwitz, E. (2006). Secondary traumatic stress: An investigation of Canadian mental health workers. *Traumatology*, *12*(4), 272–281.

Byrne, M. P. (2006). Strengths-based service planning as a resilience factor in child protective social workers. *Boston College Dissertations and Theses*, AAI3255942.

Carver, C. S. (1997). You want to measure coping but your protocol'too long: Consider the brief cope. *International Journal of Behavioral Medicine*, *4*(1), 92–100.

Cavanagh, A., Wiese-Batista, E., Lachal, C., Baubet, T., & Moro, M. (2015). Countertransference in trauma therapy. *J Trauma Stress Disor Treat 4*, *2*(2).

Chinaboo, A. (2022). *Effects of secondary traumatic stress amongst nurses in an acute tertiary psychiatric hospital in KwaZulu-Natal*.

Chrestman, K. R. (1995). Secondary exposure to trauma and self reported distress among therapists. *Secondary Traumatic Stress: Self-Care Issues for Clinicians, Researchers, and Educators*, 29–36.

Cieslak, R., Anderson, V., Bock, J., Moore, B. A., Peterson, A. L., & Benight, C. C. (2013). Secondary traumatic stress among mental health providers working with the military: Prevalence and its work-and exposure-related correlates. *The Journal of Nervous and Mental Disease*, *201*(11), 917.

Cieslak, R., Shoji, K., Douglas, A., Melville, E., Luszczynska, A., & Benight, C. C. (2014). A meta-analysis of the relationship between job burnout and secondary traumatic stress among workers with indirect exposure to trauma. *Psychological Services*, *11*(1), 75.

Cleary, E., Curran, D., Dyer, K., Simms, J., & Hanna, D. (2023). Contributing factors to secondary traumatic stress and vicarious posttraumatic growth in therapists. *Journal of Traumatic Stress*.

Collins, S., & Long, A. (2003). Working with the psychological effects of trauma: Consequences for mental health-care workers–a literature review. *Journal of Psychiatric and Mental Health Nursing*, *10*(4), 417–424.

Cook, R. M., & Fye, H. J. (2023). Trauma-informed supervision and related predictors of burnout and secondary traumatic stress among prelicensed counsellors during the COVID-19 pandemic. *International Journal for the Advancement of Counselling*, *45*(2), 310–329.

Cornille, T. A., & Meyers, T. W. (1999). Secondary traumatic stress among child protective service workers: Prevalence, severity and predictive factors. *Traumatology*, *5*(1), 15–31.

Craig, C. D., & Sprang, G. (2010). Compassion satisfaction, compassion fatigue, and burnout in a national sample of trauma treatment therapists. *Anxiety, Stress, & Coping*, *23*(3), 319–339.

Creamer, T. L., & Liddle, B. J. (2005). Secondary traumatic stress among disaster mental health workers responding to the September 11 attacks. *Journal of Traumatic Stress: Official Publication of the International Society for Traumatic Stress Studies*, *18*(1), 89–96.

Crombach, L. (1951). Coeficient Alpha and the Internal Structure of Test, Psychometrika. *Antesmases Miguel (2005)*.

Cronje, J. H., & Vilakazi, M. J. (2020). Secondary traumatic stress in police detective officers dealing with complainants of sexual crimes. *South African Journal of Psychology*, *50*(4), 520–529.

Cunningham, M. (2003). Impact of trauma work on social work clinicians: Empirical findings. *Social Work*, *48*(4), 451–459.

Damota, M. D. (2019). The effect of divorce on families' life. *Journal of Culture, Society and Development*, *48*, 25–31.

Dane, B. (2000). Child Welfare Workers: An Innovative Approach for Interacting with Secondary Trauma. *Journal of Social Work Education*, *36*(1), 27–38. https://doi.org/10.1080/10437797.2000.10778987

Decety, J., & Meyer, M. (2008). From emotion resonance to empathic understanding: A social developmental neuroscience account. *Development and Psychopathology*, *20*(4), 1053–1080.

Denkinger, J. K., Windthorst, P., Rometsch-Ogioun El Sount, C., Blume, M., Hillebrecht, J., Nikendei, C., Zipfel, S., & Junne, F. (2018). Secondary traumatization in caregivers working with women and children who suffered extreme violence by the "islamic state." *Frontiers in Psychiatry*, *9*, 374544.

Dietrich, J. (2003). *Secondary traumatic stress in psychotherapists working with survivors of violence*.

Dozois, D. J., & Beck, A. T. (2011). Cognitive therapy. *Acceptance and Mindfulness in Cognitive Behavior Therapy: Understanding and Applying the New Therapies*, 26–56.

Dückers, M. L. (2017). A multilayered psychosocial resilience framework and its implications for community-focused crisis management. *Journal of Contingencies and Crisis Management*, *25*(3), 182–187.

Dutton, M. A., & Rubinstein, F. L. (2013). Working with people with PTSD: Research implications. In *Compassion fatigue* (pp. 82–100). Routledge.

Dutton, M., & Rubinstein, F. (1995). *Working with people with PTSD: Research implications,[in:] Figley CR (Ed.), Compassion fatigue: Coping with secondary traumatic stress disorder in those who treat the traumatized. New York: Brunner*.

Ewer, P. L., Teesson, M., Sannibale, C., Roche, A., & Mills, K. L. (2015). The prevalence and correlates of secondary traumatic stress among alcohol and other drug workers in A ustralia. *Drug and Alcohol Review*, *34*(3), 252–258.

Figley, C. R. (1995). *Compassion fatigue: Coping with secondary traumatic stress in those who treat the traumatized*. Brunner/Mazel, Publishers.

Figley, C. R. (2002). Compassion fatigue: Psychotherapists' chronic lack of self care. *Journal of Clinical Psychology*, *58*(11), 1433–1441.

Fraenkel, J. R., & Wallen, N. E. (1990). *How to design and evaluate research in education.* ERIC.

Franklin, P., & Gkiouleka, A. (2021). A scoping review of psychosocial risks to health workers during the Covid-19 pandemic. *International Journal of Environmental Research and Public Health*, *18*(5), 2453.

Frijda, N. H. (1986). *The emotions*. Cambridge University Press.

Galek, K., Flannelly, K. J., Greene, P. B., & Kudler, T. (2011). Burnout, secondary traumatic stress, and social support. *Pastoral Psychology*, *60*, 633–649.

Girma, E., Ametaj, A., Alemayehu, M., Milkias, B., Yared, M., Misra, S., Stevenson, A., Koenen, K. C., Gelaye, B., & Teferra, S. (2022). Measuring traumatic experiences in a sample of ethiopian adults: Psychometric properties of the life events checklist-5. *European Journal of Trauma & Dissociation*, *6*(4), 100298.

Golja, E. A., Labata, B. G., Mekonen, G. F., & Dedefo, M. G. (2020). Post-traumatic stress disorder and associated factors among traumatic patients attended in four government hospitals, West Ethiopia. *The Open Public Health Journal*, *13*(1).

Gradl, S., Burghardt, J., Oppenauer, C., & Sprung, M. (2023). The Role of Negative Posttraumatic Cognitions in the Treatment of Patients with Post-traumatic Stress Disorder. *Cognitive Therapy and Research*, 1–14.

Harrison, R. L., & Westwood, M. J. (2009). Preventing vicarious traumatization of mental health therapists: Identifying protective practices. *Psychotherapy: Theory, Research, Practice, Training*, *46*(2), 203.

Hensel, J. M., Ruiz, C., Finney, C., & Dewa, C. S. (2015). Meta-analysis of risk factors for secondary traumatic stress in therapeutic work with trauma victims. *Journal of Traumatic Stress*, *28*(2), 83–91.

Hesse, A. R. (2002). Secondary trauma: How working with trauma survivors affects therapists. *Clinical Social Work Journal*, *30*(3), 293–309.

Iliffe, G., & Steed, L. G. (2000). Exploring the counselor's experience of working with perpetrators and survivors of domestic violence. *Journal of Interpersonal Violence*, *15*(4), 393–412.

Janoff-Bulman, R. (1992). *Shattered assumptions: Towards a new psychology of trauma (4. Print. Ed.)*.

Johansen, A. B., Kristiansen, E., Bjelland, I., & Tavakoli, S. (2019). Secondary traumatic stress in Norwegian SUD-therapists: Symptoms and related factors. *Nordic Studies on Alcohol and Drugs*, *36*(6), 522–531.

Joseph, S. (2013). *What doesn't kill us: The new psychology of posttraumatic growth*. Basic Books (AZ).

Kabunga, A., Muya, F. K., Gitau, E. W., & Njuguna, J. M. (2014). *Secondary Traumatic Stress Among Mental Health Practitioners in Butabika and Mulago Referral Hospitals in Uganda*.

Kassa, G. M., & Abajobir, A. A. (2020). Prevalence of violence against women in Ethiopia: A meta-analysis. *Trauma, Violence, & Abuse*, *21*(3), 624–637.

Kassam-Adams, N. (1995). *The risks of treating sexual trauma: Stress and secondary trauma in psychotherapists*. University of Virginia.

Kato, T. (2015). Frequently used coping scales: A meta-analysis. *Stress and Health*, *31*(4), 315–323.

Key, A., & Rider, K. (2018). Secondary Traumatic Stress Among Mental Health Professionals: Implications for Graduate Training Programs. *Graduate Student Journal of Psychology*, *17*, 68–77.

Kigongo, E., Okalo, P., Udho, S., Grace, A. A., Tumwesigye, R., Akello, A. R., Musinguzi, M., Acup, W., Nabaziwa, J., & Shikanga, E. M. (2023). Burnout and coping mechanisms among healthcare professionals in central Uganda. *Frontiers in Psychiatry*, *15*, 1373743.

Kim, Y. J. (2017). Secondary traumatic stress and burnout of North Korean refugees service providers. *Psychiatry Investigation*, *14*(2), 118.

Kintzle, S., Yarvis, J. S., & Bride, B. E. (2013). Secondary traumatic stress in military primary and mental health care providers. *Military Medicine*, *178*(12), 1310–1315.

Kizilhan, J. I. (2020). Stress on local and international psychotherapists in the crisis region of Iraq. *BMC Psychiatry*, *20*, 1–8.

Kjellenberg, E., Nilsson, F., Daukantaité, D., & Cardeña, E. (2014). Transformative narratives: The impact of working with war and torture survivors. *Psychological Trauma: Theory, Research, Practice, and Policy*, *6*(2), 120.

Kleber, R. J. (2019). Trauma and public mental health: A focused review. *Frontiers in Psychiatry*, *10*, 451.

Kleber, R. J., Brom, D., & Defares, P. B. (1992). *Coping with trauma: Theory, prevention and treatment.* Swets & Zeitlinger Publishers.

Kleber, R. J., Figley, C. R., & Gersons, B. P. (2013). *Beyond trauma: Cultural and societal dynamics*. Springer Science & Business Media.

Kulik, A., Kajka, N., Banakiewicz, A., & Frańczyk, E. (2023). Risk factors of Secondary Traumatic Stress in psychotherapists studied during the COVID-19. *Current Problems of Psychiatry*, *24*.

Leung, T., Schmidt, F., & Mushquash, C. (2022). A personal history of trauma and experience of secondary traumatic stress, vicarious trauma, and burnout in mental health workers: A systematic literature review. *Psychological Trauma: Theory, Research, Practice, and Policy*.

Levin, A. P., Putney, H., Crimmins, D., & McGrath, J. G. (2021). Secondary traumatic stress, burnout, compassion satisfaction, and perceived organizational trauma readiness in forensic science professionals. *Journal of Forensic Sciences*, *66*(5), 1758–1769.

Littleton, H., Horsley, S., John, S., & Nelson, D. V. (2007). Trauma coping strategies and psychological distress: A meta-analysis. *Journal of Traumatic Stress: Official Publication of the International Society for Traumatic Stress Studies*, *20*(6), 977–988.

Lloyd, C., King, R., & Chenoweth, L. (2002). Social work, stress and burnout: A review. *Journal of Mental Health*, *11*(3), 255–265.

Lonergan, B. A., O'Halloran, M. S., & Crane, S. (2004). The Development of the Trauma Therapist: A Qualitative Study of the Child Therapist's Perspectives and Experiences. *Brief Treatment & Crisis Intervention, 4*(4).

Lonne, R. L. (2003). Social workers and human service practitioners. In *Occupational stress in the service professions* (pp. 281–310). CRC Press.

Ludick, M., & Figley, C. R. (2017). Toward a mechanism for secondary trauma induction and reduction: Reimagining a theory of secondary traumatic stress. *Traumatology, 23*(1), 112.

Malakcioglu, C. (2022). Empathy Assessment Scale. *Northern Clinics of Istanbul, 9*(4).

Mangoulia, P., Koukia, E., Alevizopoulos, G., Fildissis, G., & Katostaras, T. (2015). Prevalence of secondary traumatic stress among psychiatric nurses in Greece. *Archives of Psychiatric Nursing, 29*(5), 333–338.

Manning-Jones, S., de Terte, I., & Stephens, C. (2016). Secondary traumatic stress, vicarious posttraumatic growth, and coping among health professionals; A comparison study. *New Zealand Journal of Psychology (Online), 45*(1), 20.

Martin, R. A., & Ford, T. (2018). *The psychology of humor: An integrative approach*. Academic press.

Masson, F. J. (2016). *Secondary traumatic stress and coping: A case study of the social workers employed at the South African Police Service*.

McCann, I. L., & Pearlman, L. A. (1990). Vicarious traumatization: A framework for understanding the psychological effects of working with victims. *Journal of Traumatic Stress, 3*, 131–149.

Mihelicova, M., Wegrzyn, A., Brown, M., & Greeson, M. R. (2021). Stressors of rape crisis work from the perspectives of advocates with and without sexual assault victimization history. *Journal of Interpersonal Violence, 36*(19–20), NP10766–NP10789.

Muchemi, P., & Kiumi, J. K. (2017). Age differences in secondary traumatic stress levels among judges and magistrates in Rift Valley Region, Kenya. *Age, 7*(14).

Musa, S. A., & Hamid, A. A. (2008). Psychological problems among aid workers operating in Darfur. *Social Behavior and Personality: An International Journal, 36*(3), 407–416.

Nel, S., & Roomaney, R. (2015). A comparative study into the coping strategies employed by undergraduate psychology and non-psychology students. *New Voices in Psychology, 11*(1), 45–62.

Neugebauer, R., Fisher, P. W., Turner, J. B., Yamabe, S., Sarsfield, J. A., & Stehling-Ariza, T. (2009). Post-traumatic stress reactions among Rwandan children and adolescents in the early aftermath of genocide. *International Journal of Epidemiology*, *38*(4), 1033–1045.

Norris, F. H., Friedman, M. J., Watson, P. J., Byrne, C. M., Diaz, E., & Kaniasty, K. (2002). 60,000 disaster victims speak: Part I. An empirical review of the empirical literature, 1981—2001. *Psychiatry*, *65*(3), 207–239.

Norris, F. H., Stevens, S. P., Pfefferbaum, B., Wyche, K. F., & Pfefferbaum, R. L. (2008). Community resilience as a metaphor, theory, set of capacities, and strategy for disaster readiness. *American Journal of Community Psychology*, *41*, 127–150.

Nuwamanya, S., Nkola, R., Najjuka, S. M., Nabulo, H., Al-Mamun, F., Mamun, M. A., & Kaggwa, M. M. (2023). Depression in Ugandan caregivers of cancer patients: The role of coping strategies and social support. *Psycho-Oncology*, *32*(1), 113–124.

Olff, M., Langeland, W., Draijer, N., & Gersons, B. P. (2007). Gender differences in posttraumatic stress disorder. *Psychological Bulletin*, *133*(2), 183.

Ortlepp, K., & Friedman, M. (2002). Prevalence and correlates of secondary traumatic stress in workplace lay trauma counselors. *Journal of Traumatic Stress*, *15*, 213–222.

Ozer, E. J., Best, S. R., Lipsey, T. L., & Weiss, D. S. (2003). Predictors of posttraumatic stress disorder and symptoms in adults: A meta-analysis. *Psychological Bulletin*, *129*(1), 52.

Padmanabhanunni, A. (2020). The cost of caring: Secondary traumatic stress and burnout among lay trauma counsellors in the Western Cape Province. *South African Journal of Psychology*, *50*(3), 385–394.

Park, C. L. (2010). Making sense of the meaning literature: An integrative review of meaning making and its effects on adjustment to stressful life events. *Psychological Bulletin*, *136*(2), 257.

Pearlman, L. A., & Saakvitne, K. W. (1995). *Trauma and the therapist: Countertransference and vicarious traumatization in psychotherapy with incest survivors.* WW Norton & Co.

Peltzer, K., Matseke, G., & Louw, J. (2014). Secondary trauma and job burnout and associated factors among HIV lay counsellors in Nkangala district, South Africa. *British Journal of Guidance & Counselling*, *42*(4), 410–422.

Perrin, M. A., DiGrande, L., Wheeler, K., Thorpe, L., Farfel, M., & Brackbill, R. (2007). Differences in PTSD prevalence and associated risk factors among World Trade Center

disaster rescue and recovery workers. *American Journal of Psychiatry*, *164*(9), 1385–1394.

Quinn, A., Ji, P., & Nackerud, L. (2019). Predictors of secondary traumatic stress among social workers: Supervision, income, and caseload size. *Journal of Social Work*, *19*(4), 504–528.

Ramatsipele, N. K. (2014). *Prevalence of secondary traumatic stress disorder among student nurses of Kenya medical training college at the Nairobi campus*.

Robinson-Keilig, R. A. (2014). Secondary traumatic stress and disruptions to interpersonal functioning among mental health therapists. *Journal of Interpersonal Violence*, *29*(8), 1477–1496.

Salston, M., & Figley, C. R. (2003). Secondary traumatic stress effects of working with survivors of criminal victimization. *Journal of Traumatic Stress*, *16*, 167–174.

Samson, T., Bachner, Y. G., & Freud, T. (2022). Thought patterns mediate the development of secondary traumatic stress in social workers. *Australian Social Work, 75*(4), 483–494.

Schaffler, Y., Probst, T., Pieh, C., Haid, B., & Humer, E. (2024). Prevalence of mental health symptoms and potential risk factors among Austrian psychotherapists. *Scientific Reports*, *14*(1), 3888.

Selamu, M., Thornicroft, G., Fekadu, A., & Hanlon, C. (2017). Conceptualisation of job-related wellbeing, stress and burnout among healthcare workers in rural Ethiopia: A qualitative study. *BMC Health Services Research*, *17*, 1–11.

Shoji, K., Bock, J., Cieslak, R., Zukowska, K., Luszczynska, A., & Benight, C. C. (2014). Cultivating secondary traumatic growth among healthcare workers: The role of social support and self-efficacy. *Journal of Clinical Psychology*, *70*(9), 831–846.

Singh, J., & Hassard, J. (2021). Emotional Labour, Emotional Regulation Strategies, and Secondary Traumatic Stress: A Cross-Sectional Study of Allied Mental Health Professionals in the Uk. *The Social Science Journal*, 1–15.

Skinner, E. A., Edge, K., Altman, J., & Sherwood, H. (2003). Searching for the structure of coping: A review and critique of category systems for classifying ways of coping. *Psychological Bulletin, 129*(2), 216.

Slattery, S. M., & Goodman, L. A. (2009). Secondary traumatic stress among domestic violence advocates: Workplace risk and protective factors. *Violence against Women*, *15*(11), 1358–1379.

Sodeke-Gregson, E. A., Holttum, S., & Billings, J. (2013). Compassion satisfaction, burnout, and secondary traumatic stress in UK therapists who work with adult trauma clients. *European Journal of Psychotraumatology*, *4*(1), 21869.

Stamm, B. H., Varra, E., Pearlman, L., & Giller, E. (2002). The helper's power to heal and to be hurt-or helped-by trying. *Washington, DC: National Register of Health Service Providers in Psychology*.

Thompson, I., Amatea, E., & Thompson, E. (2014). Personal and contextual predictors of mental health counselors' compassion fatigue and burnout. *Journal of Mental Health Counseling*, *36*(1), 58–77.

Tominaga, Y., Goto, T., Shelby, J., Oshio, A., Nishi, D., & Takahashi, S. (2020). Secondary trauma and posttraumatic growth among mental health clinicians involved in disaster relief activities following the 2011 Tohoku earthquake and tsunami in Japan. *Counselling Psychology Quarterly*, *33*(4), 427–447.

Townsend, S. M., & Campbell, R. (2009). Organizational correlates of secondary traumatic stress and burnout among sexual assault nurse examiners. *Journal of Forensic Nursing*, *5*(2), 97–106.

Train, K. J., & Butler, N. (2013). A pilot study to test psychophonetics methodology for self-care and empathy in compassion fatigue, burnout and secondary traumatic stress. *African Journal of Primary Health Care and Family Medicine*, *5*(1), 1–6.

VanDeusen, K. M., & Way, I. (2006). Vicarious trauma: An exploratory study of the impact of providing sexual abuse treatment on clinicians' trust and intimacy. *Journal of Child Sexual Abuse*, *15*(1), 69–85.

Velden, P. G. V. der, Grievink, L., Kleber, R. J., Drogendijk, A. N., Roskam, A.-J. R., Marcelissen, F. G., Olff, M., Meewisse, M. L., & Gersons, B. P. (2006). Post-disaster mental health problems and the utilization of mental health services: A four-year longitudinal comparative study. *Administration and Policy in Mental Health and Mental Health Services Research*, *33*, 279–288.

Vukčević Marković, M., & Živanović, M. (2022). Coping with secondary traumatic stress. *International Journal of Environmental Research and Public Health*, *19*(19), 12881.

Wagaman, M. A., Geiger, J. M., Shockley, C., & Segal, E. A. (2015). The role of empathy in burnout, compassion satisfaction, and secondary traumatic stress among social workers. *Social Work*, *60*(3), 201–209.

Wang, J., Okoli, C. T., He, H., Feng, F., Li, J., Zhuang, L., & Lin, M. (2020). Factors associated with compassion satisfaction, burnout, and secondary traumatic stress among Chinese nurses in tertiary hospitals: A cross-sectional study. *International Journal of Nursing Studies*, *102*, 103472.

Weitkamp, K., Daniels, J. K., & Klasen, F. (2014). Psychometric properties of the Questionnaire for Secondary Traumatization. *European Journal of Psychotraumatology*, *5*(1), 21875.

White, D. (2006). The hidden costs of caring: What managers need to know. *The Health Care Manager*, *25*(4), 341–347.

Yazıcı, H., & Özdemir, M. (2023). Predictors of Secondary Traumatic Stress in Mental Health Professionals: Trauma History, Self-Compassion, Emotional Intelligence. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*, *41*(1), 162–175.

Yörük, S., Acikgoz, A., & Güler, D. (2022). The predictors of secondary traumatic stress and psychological resilience in healthcare workers during the COVID-19 pandemic: A cross-sectional study in Turkey. *Stress and Health*, *38*(4), 746–754.

Appendix A
Questionnaire

ADDIS ABABA UNIVERSITY
COLLEGE OF EDUCATION AND BEHAVIORAL STUDIES
SCHOOL OF PSYCHOLOGY

Information Sheet

Good morning/good afternoon and well come. My name is Mihret Luleseged. I am a student in the MA in Counseling Psychology program at Addis Ababa University. Currently, I am collecting data for my thesis research entitled, "**Secondary Traumatic Stress and Coping Strategies among Mental Health Professionals Practicing in Different Settings in Addis Ababa**".

The study aimed to determine the prevalence and associated factors of secondary traumatic stress and coping strategies employed by mental health professionals . You are randomly selected to participate in this study and I believe that you will respond to the questions in the questionnaire honestly. The questionnaire consists of questions related to socio-demographic characteristics, empathy, threatening experiences, coping mechanisms, and secondary traumatic stress. The questionnaire will take 15 to 20 minutes to complete.

You have the full right not to proceed and to quit in between. However, the information you will provide will be very important for achieving the objective of the study. The information you will provide will be confidential. The questionnaire will be coded to exclude showing your name and no reference will be made that links to the research.

If you have any questions or unclear ideas you can contact the principal investigator at the following address at any time. Mobile: - (**+251) 921384029;** Email: - Mihretlule@gmail.com

Declaration of Informed Consent

I understood the purpose, procedures, and benefits, issues of confidentiality, the rights of participating, and the contact address for any queries. Therefore, I declare my consent to participate in the study and assure it with my Signature of the study participant

Signature of the study participant _____ Date_____

Part 1: Socio – demographic Questionnaires		
SN	Questions	Response Categories
1	Age in years	1. ≤ 20 year 2. 21- 30 years 3. 31- 40 Years 4. 41- 50 years 5. ≥ 50 years
2	Gender	1. Male 2. Female
3	What is your marital status	1. Single 3. Widowed 2. Married 4. Divorced
4	What is the highest Educational Level you completed	1. Certificate 3. Bachelor's Degree 2. Diploma 4. Master's Degree or higher
5	What is your profession	1. Psychology 2. Psychiatry 3. Psychiatry Nursing
6	How many years of counseling / psychotherapy experience do you have	1. 2 years or less 4. 10-15 years 2. 3-5 years or less 5. >15 years 3. 6-10 years
7	What is the setting for your practice?	1. Government Hospital 2. Psychiatry Specialty Clinic 3. Private Psychotherapy Center

Part II: Exposure to Trauma

The following are questions, which ask about your weakly workload with trauma work and the type of trauma you commonly dealt with counselor/psychotherapists. Please fill in the gaps or tick (√**)** where appropriate.

1. How many hours per week you spend doing therapy with trauma clients?
   1) 0 -10 hrs
   2) 11-20 hrs
   3) 21-30hrs
   4). 31-40 hrs
   5). ≥ 41 hrs
2. What is the most frequent type of trauma you have been dealing with as a psychotherapist/counselor with in the past 3 months? _____

Part III: Empathy Assessment Scale: There are 13 items in this scale. Please rate each with the single most suitable grade for you from 1 to 5

1= Never 2 = Rarely 3 = Sometimes 4 = Often 5 = Always

SN	Items	1	2	3	4	5
1	Being together with a sad person, I feel sad too					
2	I sincerely congratulate my successful opponent					
3	I get angry at the wrongdoer character in a story					
4	Somebody else's happiness makes me feel happy too					
5	I do not hesitate to help a harmless animal in hardship.					
6	I try to calm someone who is afraid.					
7	Watching dramatic movie scenes, I cry tears of sadness.					
8	I understand people's feelings from their behavior					
9	A funny cartoon entertains me					
10	Among worried people, I become anxious					
11	I don't go after someone who is angry					
12	Seeing a person is made surprised, I feel excited too					
13	I get scared of the characters in horror movies					

Part IV: Personal History of Trauma

Please put a Tick **(√) mark at "1",** if you have experienced any of these traumas in your life time

Yes = 1 No = 0

S.N	Item	1	0
1	Sexual assault (violence)		
2	Physical assault		
3	Witnessed sudden violent death		
4	Witnessed sudden accidental death		
5	Transportation accidents		
6	Serious illness/ injury		
7	Divorced/ separated		
8	Childhood trauma		
9	Learning of a traumatic event suffered by close friend/relative		
10	Other trauma (indicate)		

S.N	**Part V: History of psychiatric symptoms**. Put a Tick **(√) mark at "1" if the statement is true of you.** **Yes = 1 No= 0**	1	0
1	I have a history of psychiatric disorder		
2	A member of my family is/ has suffered a psychiatric disorder		

Part VI: List of Threatening Experience Questionnaire (LTE-Q)

LTE-Q is a dichotomous scale measuring personal life stressors with in the past six months. Put a Tick **(√) a mark at "1" if you have experienced the stressor in the past six months.**

Yes =1 **No = 0**

S.N	item	1	0
1	You yourself suffered serious illness, injury or an assault		
2	A serious illness, injury or assault happened to your close relative		
3	Your parent, child or spouse died		
4	A close friend or other relative died (aunt, cousin or grandparent)		
5	You had separation due to marital problems		
6	You broke off a steady relationship		
7	You had a serious problem in close friend, neighbor or relative		
8	You became unemployed or seeking work unsuccessfully for one month		
9	Sacked from job		
10	You had a major financial crisis		
11	You had problems with police and court appearance		
12	Something you valued was lost or stolen		

Part VII: Brief COPE

This questionnaire asks you to indicate what you generally do and feel when you experience stressful events. Obviously, different events bring out somewhat different responses, but think about what you usually do when you are under a lot of stress. Each of us deals with things in different ways; Each item says something about a particular way of coping. I want to know to what extent you've been doing what the item says. How much or how frequently.

1= Not at all 2= Little bit 3= Medium amount 4 =Doing a lot

S. N	Brief Cope Items	1	2	3	4
1	I have been turning to work or other activities to take my mind off things.				
2	I have been concentrating my efforts on doing something about the situation I am in				
3	I have been saying to my-self "this isn't real."				
4	I have been using addictive behaviors or substances to make myself feel better				
5	I have been getting emotional support from others.				
6	I have been giving up trying to deal with it				
7	I have been taking action to try to make the situation better				
8	I have been refusing to believe that it has happened				
9	I have been saying things to let my unpleasant feelings escape.				
10	I have been getting help and advice from other people.				
11	I have been using alcohol or other drugs to help me get through it.				
12	I have been trying to see it in a different light, to make it seem more positive				
13	I have been criticizing myself				
14	I have been trying to come up with a strategy about what to do				
15	I have been getting comfort and understanding from someone				
16	I have been giving up the attempt to cope				
17	I have been looking for something good in what is happening.				
18	I have been making jokes about it.				
19	I have been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.				
20	I have been accepting the reality of the fact that it has happened				
21	I have been expressing my negative feelings				
22	I have been trying to find comfort in my religion or spiritual beliefs				
23	I have been trying to get advice or help from other people about what to do				
24	I have been learning to live with it.				
25	I have been thinking hard about what steps to take				
26	I have been blaming myself for things that happened.				
27	I have been praying or meditating.				
28	I have been making fun of the situation				

Part VIII: Secondary Traumatic Stress Scale (STSS) Questionnaire

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; **No= 0** **Yes =**

Code	STSS Items	0	1
1	My heart starts pounding when I think/thought about my work with clients		
2	It seemed as if I relive the trauma(s) experienced by my client(s) everyday		
3	Reminders of my work with trauma clients upset me		
4	I thought / think about my work with trauma clients when I did not intend to.		
5	I had / have disturbing dreams about my work with trauma clients		
6	I felt / feel emotionally numb after dealing with trauma clients		
7	I felt/ feel discouraged about the future when exposed to internal and external cues or reminders of the traumatic event		
8	I had/have little interest in being around others after therapy with traumatic clients		
9	I became/become less active than usual after therapy with traumatic clients		
10	I avoided/avoid people, places, or things that reminded me of my work with trauma clients		
11	I avoided/avoid working with some clients after dealing with trauma cases		
12	I noticed/noticed gaps in my memory about client sessions after dealing with trauma cases		
13	I had/have trouble sleeping after dealing with trauma victims		
14	I felt/feel jumpy after dealing with trauma clients		
15	I had/have trouble concentrating on any work after dealing with trauma victims/clients		
16	I got/get easily annoyed after dealing with trauma victims		
17	I expected/expect something bad to happen when exposed to internal and external cues or reminders of the traumatic event		

Appendix B

Reliablity Data

Reliablity of Empathy Assessment Scale

Case Processing Summary

		N	%
Cases	Valid	187	100.0
	Excluded[a]	0	.0
	Total	187	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.810	.805	13

Reliablity of Brief Cope

Case Processing Summary

		N	%
Cases	Valid	187	100.0
	Excluded[a]	0	.0
	Total	187	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.826	28

Reliablity of Secondary Traumatic Stress Scale

Case Processing Summary

		N	%
Cases	Valid	187	100.0
	Excluded[a]	0	.0
	Total	187	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.805	17

Appendix C

Descriptive Analysis of STS and Associated Factors

Weakly hour of trauma work

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-10 hrs	28	15.0	15.0	15.0
	11-20 hrs	127	67.9	67.9	82.9
	21-30 hrs	32	17.1	17.1	100.0
	Total	187	100.0	100.0	

Most frequent type of trauma you have been dealing with as a psychotherapist with in the past 3 months

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		160	85.6	85.6	85.6
	Divorce	1	.5	.5	86.1
	Accident	1	.5	.5	86.6
	Childhood trauma	9	4.8	4.8	91.4
	Gender based violence	11	5.9	5.9	97.3
	Physical assult	1	.5	.5	97.9
	War related trauma	4	2.1	2.1	100.0
	Total	187	100.0	100.0	

Personal history of psychiatric disorder

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	156	83.4	83.4	83.4
	Yes	31	16.6	16.6	100.0
	Total	187	100.0	100.0	

Family history of psychiatric disorder

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	136	72.7	72.7	72.7
	Yes	51	27.3	27.3	100.0
	Total	187	100.0	100.0	

Personal history of trauma

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	do not have personal history of trauma	88	47.1	47.1	47.1
	have a personal history of trauma	99	52.9	52.9	100.0
	Total	187	100.0	100.0	

Personal life stressors

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Score 0	48	25.7	25.7	25.7
	Score 1	72	38.5	38.5	64.2
	Score 2	67	35.8	35.8	100.0
	Total	187	100.0	100.0	

Empathy

	N	Minimum	Maximum	Mean	Std. Deviation
Being together with a sad person, I feel sad too	187	1	4	2.78	.664
I sincerely congratulate my successful opponent	187	2	4	3.10	.606
I get angry at the wrongdoer character in a story	187	1	4	2.49	.864
Somebody else's happiness makes me feel happy too	187	1	5	3.29	.772

I do not hesitate to help a harmless animal in hardship.	187	1	5	2.52	.757
I try to calm someone who is afraid	187	1	4	3.30	.723
Watching dramatic movie scenes, I cry tears of sadness	187	1	5	2.27	.985
I understand people's feelings from their behavior	187	1	5	3.21	.699
A funny cartoon entertains me	187	1	4	2.29	1.029
Among worried people, I become anxious	187	1	4	2.67	.808
I don't go after someone who is angry	187	2	4	2.91	.628
Seeing a person is made surprised, I feel excited too	187	1	4	3.17	.561
I get scared of the characters in horror movies	187	1	4	1.81	.936
Valid N (listwise)	187				

Secondary traumatic stress

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Do not have STS	118	63.1	63.1	63.1
	Have STS	69	36.9	36.9	100.0
	Total	187	100.0	100.0	

Descriptive Statistics of STS

	N	Minimum	Maximum	Mean	Std. Deviation
Being together with a sad person, I feel sad too	187	1	4	2.78	.664
I sincerely congratulate my successful opponent	187	2	4	3.10	.606
I get angry at the wrongdoer character in a story	187	1	4	2.49	.864
Somebody else's happiness makes me feel happy too	187	1	5	3.29	.772
I do not hesitate to help a harmless animal in hardship.	187	1	5	2.52	.757
I try to calm someone who is afraid	187	1	4	3.30	.723
Watching dramatic movie scenes, I cry tears of sadness	187	1	5	2.27	.985
I understand people's feelings from their behavior	187	1	5	3.21	.699
A funny cartoon entertains me	187	1	4	2.29	1.029
Among worried people, I become anxious	187	1	4	2.67	.808
I don't go after someone who is angry	187	2	4	2.91	.628
Seeing a person is made surprised, I feel excited too	187	1	4	3.17	.561
I get scared of the characters in horror movies	187	1	4	1.81	.936
Valid N (listwise)	187				

Appendix D

Assumptions of Binary Logistic Regression

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	167.930	18	.000
	Block	167.930	18	.000
	Model	167.930	18	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	69.716[a]	.607	.828

a. Estimation terminated at iteration number 20 because maximum iterations has been reached. Final solution cannot be found.

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	2.183	8	.975

Classification Table[a]

Observed		Predicted: Secondary traumatic stress: Do not have STS	Predicted: Secondary traumatic stress: Have STS	Percentage Correct
Step 1	Secondary traumatic stress	Do not have STS	107	6	94.7
		Have STS	6	61	91.0
	Overall Percentage				93.3

a. The cut value is .500

Multicollinearity Test

Coefficients[a]

Model		Collinearity Statistics	
		Tolerance	VIF
1	Age in years	.505	1.980
	Sex	.837	1.194
	Relationship/marital status	.851	1.176
	Highest education level	.793	1.262
	Profession	.884	1.131
	Years of counseling experience	.538	1.860
	Exposure to trauma	.848	1.179
	Personal history of psychiatric symptoms	.733	1.363
	Family history of psychiatric symptoms	.816	1.226
	Threatning experience	.740	1.352
	Empathy	.661	1.512
	scored PHT	.713	1.403

a. Dependent Variable: Secondary traumatic stress

Significant Outliers

Casewise List[a]

a. The casewise plot is not produced because no outliers were found.