

**Compassion Fatigue and Associated Factors among Health Care
Providers in St. Paul's Hospital Millennium Medical College
Addis Ababa, Ethiopia**

ADDISU BERIHUN

**A Thesis Submitted to Addis Ababa University College of Education and
Behavioral Studies School of Psychology**

**Presented in partial fulfillment of the Requirements for the Degree of Master
of Art (MA) in Counseling Psychology**

**Addis Ababa University
Addis Ababa, Ethiopia
October 2019**

This is to certify that the thesis prepared by Addisu Berihun, entitled: Compassion Fatigue and Associated Factors among Health Care Providers in St. Paul's Hospital Millennium Medical College Addis Ababa, Ethiopia and submitted in partial fulfillment of the requirements for the Degree of Master of Arts (Counseling Psychology) complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

Signed by the Examining Committee:

Examiner (External) _____ Signature _____ Date _____

Examiner (Internal) _____ Signature _____ Date _____

Advisor _____ Signature _____ Date _____

Chair of Department or Graduate Program Coordinator

Acknowledgements

I would like to thank Almighty God for all his mercy and blessing in my life. I would like to express my special appreciation to my advisor Mulat Asnake (PhD) for his unlimited advice, constructive suggestions and motivation who helped me throughout the whole process of this research.

I would like to extend my deepest gratitude for all the health care providers who participated in the study and the staff at the St. Paul's Hospital Millennium Medical College who made this study possible.

I would like to express my thanks and appreciation to all my instructors and friends at the School of Psychology all kinds of support they have given me.

Lastly, I would like to express my thanks and appreciation to my family for the encouragement and moral support and to my friends specially Mr. HiguKefal for their guidance and valuable comment throughout this research.

Table of Contents

List of contents	Pages
Acknowledgements.....	i
Table of Contents.....	ii
List of tables	v
List of figures.....	vi
Abstract.....	vi
CHAPTER ONE	1
INTRODUCTION	1
1.1. Background of the study	1
1.2. Statement of the problem	4
1.3. Objectives of the study	7
1.3.1. General objective.....	7
1.3.2. Specific Objectives	8
1.3.3. Research Questions	8
1.4. Significance of the study	8
1.5. Scope and Delimitations.....	9
1.6. Operational definitions of variables.....	9
CHAPTER TWO	10
LITERATURE REVIEW	10
2.1. Compassion Fatigue: Overview	10
2.2. Natures and manifestations of compassion fatigue	11
2.3. Prevalence of Compassion Fatigue among Health care professionals	11
2.4. Theories of Compassion Fatigue (in health care professionals)	12
2.5. Factors Associated with Compassion Fatigue among Healthcare Providers	15
2.5.1. Demographic characteristics	15
2.5.2. Experience characteristics	17
2.5.3. Workplace characteristics	19

2.6. Conceptual Framework	19
CHAPTER THREE	21
METHODS.....	21
3.1. Design of the study.....	21
3.2. Study Setting	21
3.3. Study population	22
3.4. Sample and Sampling technique	22
3.5. Tools of data collation.....	23
3.6. Study variable.....	24
3.6.1. Dependent variable	24
3.6.2. Independent variables	24
3.7. Validity and reliability.....	24
3.8. Data collection process	24
3.9. Method of data analysis	25
3.10. Ethical consideration	25
CHAPTER FOUR	27
RESULTS AND DISCUSSION	27
4.1. Results	27
4.1.1. Socio demographic characteristics.....	27
4.1.2. Prevalence of Compassion fatigue risk	29
4.1.3. Compassion fatigue association with socio-demographic variables.....	31
4.1.4. Multiple comparison of CFST in Different work setting	33
4.1.5. Analysis Variables for predicting of compassion fatigue on a CFST score	34
4.2. Discussion	35
4.2.1. Prevalence of compassion fatigue.....	35
4.2.2. Socio demographic variables affecting compassion fatigue.....	35
CHAPTER FIVE	39
SUMMARY, CONCLUSION, LIMITATION AND RECOMMENDATION.....	39
5.1. Summary	39

5.2. Conclusion	40
5.3. Limitations of the Study	41
5.4. Recommendation	41
References	43
Annexes	
Annex 1: Compassion fatigue self-test (CFST) scale result for each item.....	
Annex 2: VERBAL CONSENT	
Annex 3: Questionnaires	
Annex 4: Research Ethical clearances Approval forms	

List of tablespages

Table 1: Figley’s Ten Components of the Compassion Fatigue Process Model (Udipi, Veatch & LeRoy, 2008).....	13
Table 2: Sample distribution of health care professionals by work setting	22
Table 3: Socio demographic profile of participants among healthcare providers in SPHMMC, 2019 (n=152)	27
Table 4: The descriptive statistics of CFST scale among health care providers working at St. Paul’s Hospital millennium medical college, 2019.	30
Table 5: The association between socio-demographic variables and compassion fatigue among health care providers in St. Paul’s hospital millennium medical college.....	31
Table 6: Multiple comparison of CFST value in to one way ANOVA	33
Table 7: Multiple linear Regression Analysis for Variables predicting of the Compassion fatigue	34

List of figures	page
Figure 1: Compassion fatigue self-test score category	29

Abstract

Compassion fatigue is a condition unique to the human service occupations, characterized by a state of tension and preoccupation with the traumatized clients by re-experiencing traumatic events. With increased incidences of traumatic events both nationally and globally, the greater burden of care and after-care is usually borne by health care professionals. The purpose of the study was to describe the prevalence of compassion fatigue risk and associated factors among health care providers in St. Paul's Hospital Millennium Medical College; the Design of the study was descriptive survey. A stratified random sampling technique was used to select 152 participants (52 doctors and 100 nurses). The results indicated that 61.8% of health care providers experienced extremely high level of compassion fatigue risk. The study also show that being in age group 25-34 years were slightly more mean score of compassion fatigue risk it indicated that more vulnerable to compassion fatigue than health care providers compared with the other age groups. Nurses had a higher compassion fatigue risk mean score compared with medical doctors. Accident and emergency department and Intensive care unit had a higher mean score of compassion fatigue risk than that of those who work the other three practical settings (Renal Unit, Labor and Delivery Ward, Psychiatric and substance rehabilitation unit). Most of the Health care providers are experiencing compassion fatigue risk. Therefore, it is suggested that the concerned body protect vulnerable health care providers at work to prevent compassion fatigue; methods to prevent the condition may take the form of increasing awareness, knowledge and coping strategies through education and intervention by supervisors and coworkers. Professionals in danger of developing compassion fatigue should be trained to pay attention to the signs and symptoms that may indicate its development.

CHAPTER ONE

INTRODUCTION

In this chapter background of the study, statement of the problem, objectives of the study, research questions, significance of the study and operational definitions are addressed.

Health care providers, patients, family member, professional bodies, and leading health care organizations identify compassion as a hallmark of quality care. Compassion is prominently featured in professional organizations including the first principle of the American Medical Association code of ethics which states, “A physician shall be dedicated to providing competent medical care, with compassion and respect for human dignity and rights(American Medical Association Code of Ethics, 2001). Creating compassionate respectful and caring (CRC) professionals is one among the four health transformation agenda to be implemented from 2016 to 2020 in Ethiopia Federal Ministry of Health. The Health Sector Transformation Plan document emphasizes compassion as the fundamental to the practice of medicine, ethically sound and humane health care service for ensuring equity, quality and patient-centered health service provision (Health Sector Transformation Plan, 2015)

1.1. Background of the study

As a concept, compassion involves noticing and tolerating distress or suffering and then acting to alleviate or prevent this (Tierney, 2018). Compassion originates as an empathic response to suffering, as a rational process that pursues patients' wellbeing, through specific, ethical actions directed at finding a solution to their suffering. Therefore, define the term compassion to mean the sensitivity shown in order to understand another person's suffering, combined with a willingness to help and to promote the wellbeing of that person, to find a solution to their situation. This should be a duty in healthcare professionals' daily work (Perez-Bret, Altisent&Rocafort, 2016). Compassion consists of five elements: recognizing suffering, understanding the universality of human suffering, feeling for the person suffering, tolerating

uncomfortable feelings, and motivation to act/acting to alleviate suffering (Taylor, JennyGu, Kuyken, Baer, Jones & Cavanagh, 2016).

Compassion fatigue defined as a condition characterized by a gradual lessening of compassion over time and the emotional, social, and spiritual exhaustion accompanied by acute emotional pain that causes a decline in the desire, ability, and energy to feed and care for others, lost ability to experience satisfaction and joy in profession and personal life (Perez-Bret et al., 2016, McHolm, 2006). Professionals who listen to the stories of fear, pain and suffering of others may feel similar fear, pain, and suffering because they care. Professionals especially vulnerable to Compassion Fatigue (CF) include emergency care workers, counselors, mental health professionals, medical professionals, clergy, advocate volunteers, and human service workers. If people ever feel as though they are losing their sense of self to the clients they serve, they may be suffering from Compassion Fatigue.

The concept of Compassion Fatigue emerged in the last few years in the professional literature, It represents the cost of caring about and for traumatized people. Compassion Fatigue is the emotional residue of exposure to working with the suffering, particularly those suffering from the consequences of traumatic events. Professionals who work with people, particularly people who are suffering, must contend with not only the normal stress or dissatisfaction of work but also with the emotional and personal feelings for the suffering (Gibbons, 2018)

The symptoms of compassion fatigue that a provider may exhibit are separated into three domains: (a) re-experiencing of primary survivor's traumatic event; (b) avoidance of reminders (about an event/a person or interactions of those places/persons/things involved in the event), or (c) numbing in response to triggers and persistent arousal (Figley, 2002). Clark & Gioro (1998) mentioned that nurses and other providers are not immune to feelings associated with trauma. Victims of compassion fatigue express symptoms like hopelessness, lack of pleasure, anxiety, stress, sleeplessness and a negative attitude towards life. This decreases self-efficacy and confidence leading to deterioration, work output, job performance goes down, mistakes go up. Morale drops and personal relationships are affected, people's home lives start to deteriorate, personality deteriorates and eventually, it can lead to an overall decline in general health (Sung, Seo & Kim: 2012). Collins & Long (2003) have found that professionals who do not recognize and/or cope with the symptoms of compassion fatigue sometimes are challenged in their ability

to provide effective services and maintain positive personal and professional relationships. Yet many medical professionals have stated that lack of time to recover from trauma or loss experiences (i.e., death or non-accidental traumas on a unit) has made it difficult to cope with compassion fatigue (Pfifferling & Gilley, 2000). In an attempt to compensate for this lack of time, physicians and other medical professionals multitask, thereby decreasing the perceived need for utilization of coping mechanisms that would allow them to overcome the symptoms of compassion fatigue.

Multiple factors are involved in the pathophysiology of compassion fatigue, these may relate to internal factors are personal gift and curse of empathy those are High empathy helps us understand and can challenge our equanimity Personal History/Personality (Our temperament, family, personal boundaries, unresolved personal trauma, Over-generalization thinking others' experiences are similar to ours, age, gender, ideology and personality type,) or sufferer to external world factors like Societal support (Public policy, Social acceptance) and Work Setting (Physical environment, employer values, culture, job tasks, personnel guideline, management, colleagues friends, ethnicity and training, etc). Both factors have been claimed to be equally important. Anyone having both the sets of predisposing factors can be considered to be at high risk of developing compassion fatigue (Lombardo & Eyre, 2011).

Compassion fatigue (CF) has been variously related concepts of burnout (BO), secondary traumatic stress (STS) and vicarious traumatization (VT) are often used interchangeably and incorrectly to describe the phenomenon. Burnout is defined as "a psychological syndrome that involves a prolonged response to chronic interpersonal stressors on the job" (Leiter & Maslach, 2008). Burnout consists of three components, emotional exhaustion, cynicism, and personal efficacy. Vicarious traumatization (Clemens, 1999; McCann & Pearlman, 1990) is a related term that also depicts the phenomena of trauma transmission resulting from secondary trauma exposure and/or "bearing witness" to the stories of traumatic events. Secondary traumatic stress occurs when one is exposed to extreme events directly experienced by another and is overwhelmed by this secondary exposure to trauma (Figley, 1995) hypothesized that the caregiver's empathy level with the traumatized individual plays a significant role in this transmission. The Baranowsky & Gentry model include the conceptualization of primary traumatic stress as a latent vulnerability to Compassion Fatigue or Secondary Traumatic Stress

(STS) (Baranowsky& Gentry, 2011). Subsequently, secondary traumatic stress and Burnout lead to Compassion Fatigue if the symptoms mentioned above are not mediated by a third, equally important concept of compassion satisfaction.

Compassion fatigue and compassion satisfaction can be seen as the positive and negative consequences of working with individuals who have experienced or are currently experiencing trauma or suffering (Stamm, 2010). As a result, a substantial amount of evidence suggests compassion satisfaction (CS) is an important part of the whole (Stamm, 2012) thus increasing the significance of building resiliency and the transformation from negative to positive aspects (Fairnie, 2008, Stamm, 2010).

1.2. Statement of the problem

Compassion fatigue (CF) is a critical issue requiring intervention and recognition not only from the nurse and doctors but also from the institutions in which they work. Compassion Fatigue affects everyone involved in the health care system: the nurse, the doctors, the patient, and the institution. In light of impending national doctors and nursing shortage, it is imperative for hospitals to address nurse work environments to attract nurses and retain nurses within the professional workforce (Shang, Freise, Wu &Aiken, 2013).

There is a limited amount of literature focusing on compassion fatigue. A study conducted in nurses showed that they felt as they have become pessimistic, anergic, and less sympathetic towards their patients (Potter, Deshields, Divanbeigi, Berger, Cipriano, Norris & Olsen, 2010). In a related study by Neff, Cimiotti, Heusinger& Aiken (2011) nurses in a southeastern state of united state of American were surveyed on their work environment and characteristics. Of those working within a hospital setting, 24.4% reported low job satisfaction and 18% reported intent to leave. They realized as they were distancing from patients and even from their colleagues. Many studies showed that specialty has a profound impact on developing compassion fatigue (Adams, Boscarino&Figley, 2006). Specialties in which health care providers encounter terminally ill patients are more likely to be affected by compassion fatigue.

Various factors have been identified which trigger compassion fatigue and burn out. These ‘triggers’ have been grouped into three categories like sympathy for patients, organizational issues and personal problems (Back, Deignan&Potter, 2014). Organizations and treating physicians should focus upon the triggering factors while dealing with compassion fatigue patients. High turnover and vacancy rates lead to poorer patient outcomes and are disruptive to patient care. “If health care organizations want their staff to take better care of their patients, it is incumbent upon leaders of those organizations to give them the tools to take better care of themselves” (Potter et al., 2013). High levels of stress, long shifts and rotating between day and night shifts are common within the nursing, doctors and other professions and attributed as increased risk factors in developing Compassion fatigue (Sawatsky&Enns, 2012).

The most insidious aspect of compassion fatigue is that it attacks the very core of what brought them into this field, their empathy and compassion for others. Being a doctor or other helping professional is the perfect compassion fatigue formula. Caring for others with difficult, often chronic illnesses can be a draining emotional experience leading to a substantial drop in emotional bank account (Fernando, 2014).

For the nurse, compassion fatigue can cause issues neurologically altering executive function and control of emotions (Potter et al., 2013). This can result in diminished performance and errors in the practice related to assessment, vigilance, attention to detail, burnout, problem-solving, memory and communication (Raftoupolus, Charalambous&Talias, 2012). For the patient, unaddressed Compassion Fatigue can result in adverse care events, reduced patient satisfaction and increased mortality rates (Mason, Leslie, Clark, Lyons, Walke, Butler & Griffin, 2014). For hospitals, compassion fatigue is expensive. Compassion fatigue has been associated with increased doctor and nurse tardiness and absences which ultimately affect the quality of care, cost of care and patient-centered Modalities (Raftoupolus et al. 2012).

Nurses have frequent and intense empathetic engagement with the patients and their families and are susceptible to incurring (acquiring) to compassion fatigue. Maiden, Georges &Connelly (2011) assert if early interventions for compassion fatigue are not made, Compassion Fatigue can irrevocably change the health care providers’ capacity for compassionate care. Other literature

shows that compassion fatigue in healthcare professionals reduces the quality of nursing care, heightens absenteeism and weakens retention of staff (Gillespie, 2013; Potter et al., 2012).

In the Ethiopian health system, many health professionals have dedicated their entire careers to public service and are respected by the public they serve. However, a significant proportion of health professionals see patients as just ‘cases’ and do not show compassion. Lack of respect to patients and their families is also a common complaint. Lack of role models in many health facilities and measuring the worth of a profession by how much it pays is leading the health system into a trap of low productivity and higher cost with lower patient satisfaction rates. In many of our hospitals, especially in St. Paul’s Hospital Millennium Medical College, senior physicians cancel their outpatient clinics without informing their patients; elective surgeries get canceled; admitted patients are by default getting the care they need from relatives as nurses, for various reasons, have limited their role to providing injections and securing IV lines. While there are many health system related challenges beyond the control of the frontline health providers that have to be addressed, lack of compassion, respect and care is the common source of grievances in health facilities. Being a health professional is a very stressful job as professionals may face life and death situations at any minute (HSTP, 2015). The related study in Ethiopia, the Tigray region on the Status of Caring, Respectful and Compassionate (CRC) Health Care show this. In this study, the perception of patients towards caring, respectful and compassionate health care practice was assessed and found to be good in 56% of respondents (higher among the less educated participants) and poor in 44% of the respondents (lower among the most educated group). More so, patient experience towards CRC was assessed and found to be good and poor in 55% and 45% of the respondents respectively (Hailemariam, Alemayehu&Gebremedhin, 2017).

Ethiopia in the recent past has been experiencing a myriad of traumatic incidence which is increasing by the day. Critical incidences such as traffic accidents, domestic violence, rape, collapsing of buildings and burn, that and the other incidences have been experienced by health care providers working in St. Paul’s Hospital Millennium Medical College and other health facilities that are a big contribution of developing compassion fatigue. The country is also facing an upsurge of both social and medical problems such as child delinquency, substance addiction, pornography and chronic illnesses such as cancer, renal failure, mental disorder, hypertension,

diabetes mellitus, and HIV/ AIDs. Effects of all these and many other health-related issues expose health care professionals to compassion fatigue.

St. Paul's Hospital Millennium Medical College is a referral facility, and due to its location the center of the country and handles of all the nature of critical cases from many health facilities of Addis Ababa city administration and all regions of the country. Health care professionals in the institution are therefore always on high alert because of the risks of exposure to highly infectious diseases such as Multi-Drug Resistance Tuberculosis (MDR) and other communicable diseases, among other dreadful conditions. The facility where the still-developing healthcare system, supply for multicultural clients with severe constraints in staff, equipment, and financial resources. The health care professionals not only attended to the hospitalized but also extended care to the survivors in the private health facilities which further exposed them to traumatic experiences.

Prevalence of Compassion Fatigue among health professionals in other parts of the world has been widely studied. These studies may or may not be relevant to us due to our socio-cultural peculiarities. However, limited related studies have been documented in Ethiopian hospitals. Specifically, no study has attempted to carry out an investigation of compassion fatigue among the health care professions in a hospital different work settings. Therefore this study envisages filling this gap and needs to be established which require basic data from our setup. The data were focused on in a unique occupational group such as doctors and nurses in selected departments and care units by concerning the associated factors and examine compassion fatigue amongst health care professionals in St. Paul's Hospital Millennium Medical College.

1.3. Objectives of the study

1.3.1. General objective

Assess the compassion fatigue and associated factors among health care providers in St. Paul's Hospital Millennium Medical College.

1.3.2. Specific Objectives

This research project has three specific aims.

1. To assess the prevalence of compassion fatigue risk experienced by healthcare providers in St. Paul's Hospital Millennium Medical College.
2. To examine the association between demographic characteristics with compassion fatigue risk.
3. To examine the relationship between work characteristics (work setting) and level of compassion fatigue risk among healthcare providers in St. Paul's Hospital Millennium Medical College.

1.3.3. Research Questions

Three research questions were addressed in this study.

1. What is the prevalence of compassion fatigue experienced by healthcare Providers in different work settings in a sample of the health care providers?
2. Do demographic characteristics associate with the levels of compassion fatigue experienced by healthcare providers?
3. Is there a relationship between work characteristics (work setting) and compassion fatigue among health care providers?

1.4. Significance of the study

The aim of this study was primarily planned to find out or assess the extent of compassion fatigue in health care providers and describe the demographic, unit/department and organizational associated factors that may contribute to compassion fatigue among health care providers. This study explored mechanisms and strategies to prevent compassion fatigue and its effects, to raise awareness on the compassion fatigue for health care providers and have also made to understand the correlates of compassion fatigue with other related concepts and explore the relationship between compassion fatigue and other related concepts. This study also tried to increase objective knowledge about the process of compassion fatigue for health care professionals may reduce negative effects on health care services. Furthermore, despite the identification of modifiable individual and organizational risk factors used to inform the

development of interventions and programs to prevent and treat Compassion Fatigue and also this study may be used as starting for other future studies.

1.5. Scope and Delimitations

This study focused on health care providers' compassion fatigue and associated factors in the clinical work setting at St. Paul's Hospital Millennium Medical College. The effect of compassion fatigue on health care providers' quality of life and interpersonal relationships outside the work environment was not investigated in this Study. Also, health care providers' experiences of primary traumatization were not addressed in this study. The study specifically focused on to assess the prevalence of compassion fatigue risk experienced by healthcare Providers, to examine the association between socio-demographic characteristics with Compassion Fatigue risk. And also to examine the relationship between work characteristics (work setting) and level compassion fatigue risk among healthcare providers. Information about Basic demographic factors was retrieve from the frequency distribution analysis for descriptive explanations.

The scope of the study was further limited without a list of doctors and nurses working in the five selected units, work at less than 8 hr per week in selected departments /units, interact directly with patients at less than 8 hr per week, have less than 1 year of experience as a health care provider and have known history of mental illnesses were not included in this study.

1.6. Operational definitions of variables

Compassion fatigue (CF)

Compassion fatigue is described as the diminished capacity of a health professional when experiencing the distress at knowing about or witnessing the suffering of their patients and clients, for this study Compassion fatigue was measured by using a standard Compassion Fatigue Self Test (CFST) as extremely low, low, moderate, high and extremely high risk according to Figley (1995) definition.

CHAPTER TWO

LITERATURE REVIEW

2.1. Compassion Fatigue: Overview

There are varying definitions of Compassion Fatigue that can be found today. This is in part due to the complexity of compassion fatigue, as well as the relative newness of the term. Researchers have found it challenging to settle on one definition that sums Compassion Fatigue up the best. So, each has decided to try to come up with what they perceive to be the best definition based on their studies and research. One of the earliest definitions is given by Aycock & Boyle (2009) in one of their studies stating that “compassion fatigue was referred to as deep physical, emotional, and spiritual consumption accompanied by significant emotional pain that ultimately leads to emotional exhaustion”.

Other experts see it as one of the many terms that can be used to describe the effects that caring for people experiencing trauma has on healthcare workers. Still, others have created symbolic definitions, like Lewin, whom Bush (2009) quotes in one of her studies as having described Compassion Fatigue as “holding patients’ despair in one hand and their hopefulness in the other” Perhaps one of the best and most widely used definitions of compassion fatigue comes from Coetzee & Klopper (2010) that developed a connotative definition of the term after studying all the various definitions of CF by comparing them and breaking down the concepts. Their connotative definition states that compassion fatigue. “Is the final result of a progressive and cumulative process that is caused by prolonged, continuous, and intense contact with patients, the use of self, and exposure to stress. It evolves from a state of compassion discomfort, which if not effaced through adequate rest, leads to compassion stress that exceeds nurses’ endurance levels and ultimately results in compassion fatigue. This is a state where the compassionate energy that is expended by nurses has surpassed their restorative processes with marked physical, social, emotional, spiritual, and intellectual changes that increase in intensity with each progressive state”.

2.2. Natures and manifestations of compassion fatigue

The symptoms of compassion fatigue parallel those of Post-Traumatic Stress Disorder (PTSD), except that the traumatic stressor is experienced indirectly through empathic engagement with individuals who have been traumatized (Figley, 1995, 2002). As in PTSD, symptoms of compassion fatigue are clustered into three overarching categories: re-experiencing the trauma, efforts to avoid reminders of the trauma, and a heightened level of arousal.

An individual suffering from compassion fatigue may have intrusive recollections or dreams of the Traumatized person or their traumatic event and may experience psychological distress when exposed to internal or external cues that are reminders of the trauma. In an effort to manage these painful emotions and cognitions, he or she may consciously avoid thoughts, feelings, activities, places, or people that are associated with the traumatized individual or their traumatic event, and may feel detached or estranged from others. Besides, a person who is experiencing symptoms of compassion fatigue may have difficulty falling or staying asleep, maybe more angry and irritable than usual, and may exhibit an increased startle response (Figley, 2002).

2.3. Prevalence of Compassion Fatigue among Health care professionals

Many direct care providers are secondary witnesses to trauma and serious illness experienced by others (Figley, 1995; Stamm, 2010). Few of these caring professionals anticipate the emotional implications and sequel that come from close interpersonal relationships with patients and families. Compassion, a feeling of empathy for the distress of another, commonly gives rise to an active desire to alleviate another's suffering and is considered a cornerstone of the healthcare professions. However, the continuing stress of meeting the often overwhelming needs of patients and families can result in what is termed "compassion fatigue." Research over the past two decades indicates compassion fatigue is an ongoing and common problem (Showalter, 2010).

The prevalence of compassion fatigue has been shown to vary widely. In Meadors, Lamson, Swanson, White & Sira's (2009) study of 167 pediatric healthcare providers, only 7.3% of the total sample was observed to be at high risk of developing compassion fatigue. However, when the authors examined differences between professions, the risk of compassion fatigue was far higher among chaplains (82%), physicians (62.5%), and child-life specialists (61.5%) who had

experienced the loss of patient within the last month. A similar finding was uncovered by Sprang, Clark & Whitt-Woosley (2007) in their study of traumatic stress responses among 1,121 rural mental health providers. In this research, 13% of the total sample was found to be at high risk of compassion fatigue. However, practitioners reported significantly higher rates of compassion fatigue with a greater caseload percentage of traumatized individuals, and specifically by psychiatrists who worked in public health settings with low-income patients (Sprang, Clark & Whitt-Woosely, 2007). High rates of compassion fatigue have also been detected among crisis counselors following the Oklahoma City Bombing (Wee and Myers, 2003), hospice nurses (Abendroth & Flannery, 2006), emergency nurses (Hooper, Craig, Janvrin, Wetsel, Reimels & Anderson, 2010), and oncology nurses (Dominguez-Gomez & Rutledge, 2009).

The other study in Kenya shows that compassion fatigue was considered pathological, giving a crude prevalence rate of 29.6% among the medical workers (study population). The prevalence rate of compassion fatigue for the medical practitioners was 12.9% while that for the nurses was 33.1% (Donald, John, Dammas, Ndeti, Desire, Adam, Louise, Phocas & David, 2015). Additional research is required to determine the risk of compassion fatigue among health care professionals.

2.4. Theories of Compassion Fatigue (in health care professionals)

Charles Figley published extensively on compassion fatigue and is recognized as one of the top experts in the field. His model of the compassion fatigue process is critical to understanding compassion fatigue and contemplating prevention strategies. The ten components of the Compassion Fatigue Process Model are summarized in Table 1 (Figley, 2002; Figley, 2003).

Having first presented it in 2001, Figley encourages continuing study/updating of the model, including examination of who is most vulnerable to compassion fatigue, what type of work setting is most conducive to development of compassion fatigue, what types of factors are antecedents to compassion fatigue, and how compassion fatigue can be identified and treated (Figley, 2003). This study is a response to his call for further research on compassion fatigue, thus keeping the status of the Compassion Fatigue Process Model as a living model. The ten-component model is set in motion by (1) a health-care professional's exposure to pain and suffering in the course of her/his work. This exposure leads to (2) expression of concern, which,

in combination with (3) individual empathic ability, elicits (4) an individual empathic response. The individual empathic response—even after the dissipation/removal of the stimulus (i.e., the individual instance of patient pain and suffering)—leaves (5) a residual accumulation of compassion stress, the volume of which may be mediated by (6) individual sense of achievement/satisfaction and/or (7) ability to disengage from empathic connection. The effect of (8) prolonged, constant triggering of the empathic response—like the prolonged, constant firing of a neuron—is a risk of desensitization (i.e., compassion fatigue). Intensifying the risk of compassion fatigue are personal traumatic memories (9) and/or peripheral life disruptions or demands (10).

The model proposed by Figley posits a compassion fatigue development process, but significant work remains in (a) testing the model, (b) identifying the characteristics of individuals/contexts that contribute to the development of compassion fatigue, and (c) evaluating prevention initiatives. This study will add to the body of knowledge concerning the potential compassion fatigue vulnerability of health care providers in different working settings.

Research is emerging that supports the Figley Compassion Fatigue Process Model, confirming compassion fatigue as a progressive and cumulative process that escalates from compassion discomfort to compassion stress to compassion fatigue (Knobloch-Coetzee & Klopper, 2010). Also, Perry, Toffner, Merrick & Dalton (2011) support the Figley model in their study of oncology nurses. The Stress Process Model these authors used in their work contains (a) primary and secondary stressors, (b) background and contextual factors, (c) mediators of stress, and (d) outcomes or manifestations of stress. Their findings suggest that exposure to pain and suffering is primary stressors; personal and work factors are a background and contextual factors; compassion fatigue is the manifestation of this stress.

Figley's Ten Components of the Compassion Fatigue Process Model (Udipi, Veach&LeRoy, 2008)

Component	Component Name	Component Description
1	Exposure to suffering of patients	Caregiver's experience of patients' emotional energy and suffering through face-to-face interactions
2	Empathic concern	Caregiver's desire to respond to patient needs with genuine empathy
3	Empathic ability	Caregiver's potential for recognizing patients' pain
4	Empathic response	The effort exerted to understand patients' thoughts, emotions, and actions to respond empathically may cause the caregiver to experience negative emotions (e.g., anger or fear)
5	Residual compassion stress	Lingering emotional energy from empathic responses and from emotional demands to relieve patient suffering; leaves intense emotional residue; can be debilitating if not dealt with
6	Sense of achievement	Realistic awareness of one's professional responsibilities: fosters greater satisfaction, which can reduce or prevent compassion stress
7	Disengagement/ detachment	Extent to which caregiver lets go of residual effects of empathic connection to patient suffering; conscious effort can reduce compassion stress
8	Prolonged exposure to suffering	Long periods of empathic caring for suffering patients without periodic breaks; increases compassion fatigue risk
9	Traumatic recollection/traumatic with patients and/or traumatic memories	Memories of past experiences events from own life; may trigger symptoms (e.g., depression and anxiety)
10	Degree of life disruption/other life demands	Crisis or unanticipated changes in caregiver's daily routine that demand attention combined with other components in model; can increase risk of compassion fatigue

2.5. Factors Associated with Compassion Fatigue among Healthcare Providers

There are a number of studies that have considered factors that contribute to Compassion fatigue within healthcare providers, A provider's personal demographic characteristics (e.g., age, sex identification), as well as work factors related to their level of experience and working setting (departments/units) to examine who may be at greater risk for developing compassion fatigue.

2.5.1. Demographic characteristics

The relationship between demographic factors and compassion fatigue has been empirically tested primarily within the nursing field but has more recently been considered with other healthcare providers. Age, gender and marital status working in the field remain important factors to research concerning Compassion Fatigue because studies have yielded mixed findings of the relationships between these variables.

Age of provider

Studies exploring the correlation between age and compassion fatigue have generally demonstrated that younger healthcare professionals are at risk of experiencing higher levels of burnout and compassion fatigue (Roy, Wong, White &Heaslip, 2013; Craig & Sprang, 2010; Moore & Cooper, 1996). Sacco, Ciurzynski, Harvey &Ingersoll (2015) conducted a study where they Explored the prevalence of compassion satisfaction and Compassion Fatigue among critical care nurses using the Professional Quality of Life (ProQOL) Scale, which incorporates two aspects, positive(Compassion satisfaction) and negative (compassion fatigue), with Compassion Fatigue broken into two subscales: Burnout and secondary traumatic stress. The results found that the nurse's age had a significant impact on one's level of compassion satisfaction, burnout, and secondary traumatic stress. Younger nurses were at greater risk for Compassion Fatigue, whereas nurses above 50 years of age scored higher on compassion satisfaction and lower on the ProQOL burnout and secondary traumatic stress Subscales (Sacco et al., 2015)

A study by Kelly, Runge&Spencer (2015) investigated Compassion Fatigue and compassion satisfaction in acute care nurses across several departments in a hospital setting located in the southwestern United States. Four hundred and ninety-one nurses completed the ProQOL Scale as well as an investigator-derived questionnaire which included demographic questions (Kelly et

al., 2015). Results indicated that nurses ages 21-33 were more likely than nurses 34 and above to experience high levels of burnout and Compassion Fatigue and lower levels of compassion satisfaction. In contrast, nurses aged 50-65 indicated higher levels of compassion satisfaction. There were no notable differences across nursing specialties, units, and/or departments (Kelly et al., 2015).

The other studies show that Compassion fatigue was low among young doctors (26.7-27.8%) and high among the older generation medical workers (34.4%) above the age of 45 years. About 58.0% of the medical workers were less than 36 years of age and had compassion fatigue levels below 28.0%. The compassion fatigue levels had a small range (26.7-34.4 or 7.7%), (Donald et al., 2015) However, these findings cannot necessarily be generalized across in the health disciplines, and it would be important to examine compassion fatigue affects healthcare providers of different age groups

Provider gender/sex

Many women are drawn to enter professions aligned with traditional gender roles which ensure qualities of helping and nurturance, thus resulting in the increased number of females represented within the healthcare professions. The U.S. Department of Labor (2017) reports having 69% female psychologists, 72% female counselors, and 83% female social workers. Although significant findings are relatively sparse and conflicting, the existing literature suggests gender as a possible predictor for Compassion Fatigue. Thomson, Amatea & Thompson (2014) conducted an online study assessing the relationship between gender, perceived working conditions, and Compassion Fatigue among mental health counselors. They found that female counselors were more likely to report Compassion Fatigue; however, gender did not remain a significant predictor when accounting for counselors' perception of working conditions. This finding suggests that there may be a complex relationship between gender and Compassion Fatigue to explore further. According to Sprang et al. (2007), being of the female gender enhanced the risk of compassion fatigue and burnout. The role of gender in the development of Compassion Fatigue, burnout, secondary traumatic stress, and compassion satisfaction has not been well understood and is somewhat restricted by the overrepresentation of women in the mental healthcare field and research study respondents (Sprang et al., 2007). According to Moore & Cooper (1996), the relationship between the gender of a provider and stress and burnout is less clear and may be

dependent on the environment and culture of the work setting. Negash&Sahin (2011) commented on perceived differences between men and women in work settings, suggesting female therapists have a greater risk of developing symptoms of Compassion Fatigue than men due to the perceived family responsibilities and differences in salaries (Nagesh&Sahin, 2011). In contrast, Moore & Cooper (1996) found that males have a higher attrition rate from family services agencies than females due to burnout. The other study also indicated that both males (27.2%) and female (72.8%) medical workers experienced compassion fatigues albeit low levels, though it was slightly higher among the females compared to males. The differences in the levels of compassion fatigue by gender did not have statistical significance (Donald et al., 2015) Due to the lack of consistency within the literature, which may be partially attributable to differences in the female to male ratio in the field, it is important to continue to further research this area in an attempt to obtain a clearer understanding of Compassion Fatigue rates among female and male healthcare providers.

Marital Status

According to Donald et al., (2015) The majority of the medical workers (79.4%) were married and their level of compassion fatigue was found to be 29.9% compared to the single (20.6%) whose level of compassion fatigue was 25.2%. so that the married (30.0%) medical workers experienced higher compassion fatigue compared to the singles (21.0%) (Donald et al., 2015)

2.5.2. Experience characteristics

Years of experience

It is important to distinguish research related to age and years of experience as they are related but separate factors; for example, mental health professionals may have entered the field at a later age due to a career change or may have had the educational background without working in the field until later in their lives. In general, the data examining the association between Compassion Fatigue and years of experience in one's field are generally consistent and suggest that experience is inversely related to compassion fatigue. Roy et al. (2013) found that a mental health provider's number of years in the field was a risk factor and illustrated that providers holding less tenure in their position are at greater risk of developing compassion fatigue. Similarly, Kelly et al. (2015) found nurses with fewer years of experience indicated higher levels of compassion satisfaction. Furthermore, research which examines years of experience and its

relationship to Compassion Fatigue among psychiatrists and master level clinicians has yielded similar trends to the nursing literature; professionals who are newer to their field tend to report higher levels of Compassion Fatigue than more experienced professionals (Craig & Sprang, 2010; Moore & Cooper, 1996). The other studies show that the majority of the medical workers (68.1%) had been in employment for up to 15 years and experienced compassion fatigue in the range of 24.2-30.3%. The practice duration of 6-10 years was only second to the over ten years in being high risk for compassion fatigue. A small proportion of the medical workers (2.9%) had been in practice for more than 30 years and experienced the highest level of compassion fatigue (50.0%). More research is needed to explore the relationship between years of experience and compassion fatigue. A particular issue that will be addressed in the current study is whether work experience is a significant independent or joint predictor of compassion fatigue among health care professionals working a variety of setting in St Paul's General Specialized Hospital

Profession type and compassion fatigue.

Nurses and doctors usually have the first encounter with the sick and injured. Consistent exposure to raw wounds, fatally injured, unconscious patients and more has the potential to cause psychological, physical and emotional traumas.

The studies show that nurses had a higher mean score of compassion fatigue than doctors in both less traumatizing and more traumatizing work settings. Counselors, on the other hand, had a higher mean score in less traumatizing work settings than doctors and nurses but fewer scores than doctors and nurses in a more traumatizing work setting (Kariuki, Kimani&Adeli, 2017). The other study also shows that the majority of the medical workers (82.0%) in this study were nurses compared to the doctors (18.0%). The nurses suffered compassion fatigue almost three times (32.5%) as much as the medical practitioners (12.9%) (Donald et al., 2015)

2.5.3. Workplace characteristics

Work setting

Studies on nurses, counselors and physicians by Kiwol, Youngsook, Hee JK (2012), Bowen (2010) and Kearney, Weininger, Vachon (2009), respectively registered high levels of compassion fatigue among emergency care and hospice nurses, counselors working with suicidal patients and children and among physicians working with end of life patient.

The other studies show that mental health professionals high-level compassion fatigue work in settings vulnerable to severe emotional exhaustion and psychological tension that are beyond the normative occupational stressors (Moore & Cooper, 1996). Providers working in institutional and organizational settings such as community mental health, public mental health agencies, and hospitals face a higher risk of Compassion Fatigue due to environmental factors characterized by work overload, restricted schedules, and compliance with organizational policies (Lent & Schwartz, 2012; Negash&Sahin, 2011).

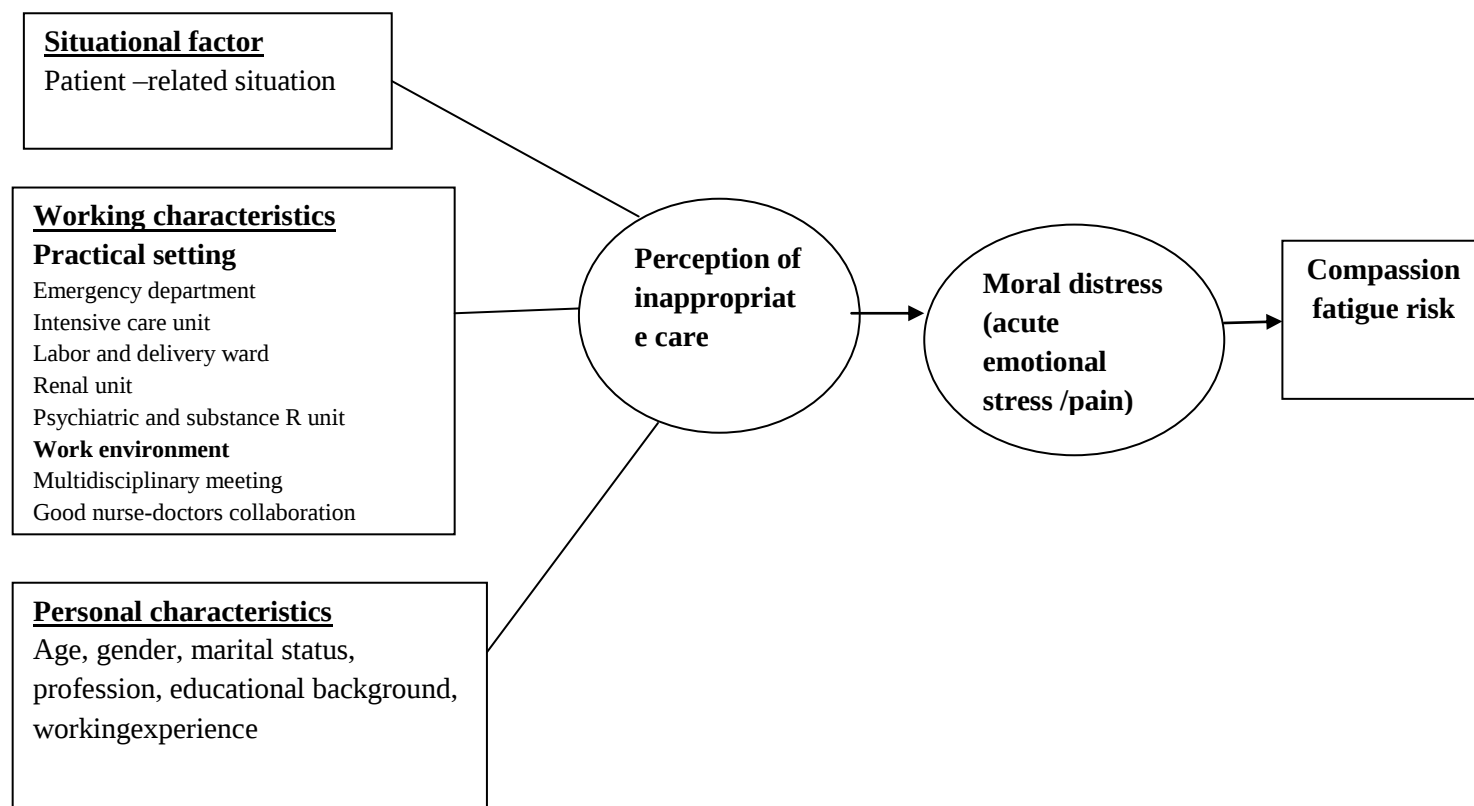
According to Kariuki, Kimani&Adeli (2017) for the purpose of analysis and comparison of findings these work settings were grouped into two categories based on the perceived severity of exposure to traumatic materials; less traumatizing and more traumatizing. So that Findings of this study revealed that health care professionals working in areas perceived to be more traumatizing registered higher scores of compassion fatigue with a mean of 27.3 and a standard deviation of 10.3 as compared to those working in areas perceived to be less traumatizing who had a compassion fatigue mean score of 14.1 and a standard deviation of 7.6.

These findings imply that there is a significant association between work setting and the development of compassion fatigue amongst health care professionals in Moi Teaching and Referral Hospital (Kariuki, Kimani&Adeli, 2017).

2.6. Conceptual Framework

A number of theoretical frameworks were applied to guide studies related to compassion fatigue such as Maslow's theory of the hierarchy of needs and Watson's theory of human caring (Burtson&Stichler, 2010). The most significant theoretical model developed by Figley (2002) was the stress-process framework. This model was developed based on factors that contribute to

Compassion Fatigue. Figley discovered that Compassion fatigue develops as a result of a caregiver's exposure to his/her patients' experiences joined with his/her natural empathy. Based on Stamm's (2010) theoretical path analysis diagram, a conceptual framework related To Compassion Fatigue among health care providers was developed to guide this study.



Summary

This chapter has illustrated that compassion fatigue is an important yet understudied phenomenon among health-care professionals generally and among doctors and nurses specifically. The literature highlights the need for a consistent definition and measure of compassion fatigue. The studies that show promise in their effort to identify prevalence and risk factors for compassion fatigue do not clearly discuss their definitions or measures of compassion fatigue, rendering the findings difficult to interpret. There is an emerging conceptual framework that shows great potential to assess the effects of exposure to the pain and suffering of others, but much work is needed.

CHAPTER THREE

METHODS

3.1. Design of the study

A cross-sectional descriptive study was conducted among health care providers working in a different practical setting at St. Paul's Hospital Millennium Medical College in Addis Ababa, Ethiopia

3.2. Study Setting

The study was conducted at St. Paul's Hospital Millennium Medical College from August 1 to 30, 2019. St. Paul's Hospital Millennium Medical College is a referral and specialized hospital in Addis Ababa under the Ethiopian Federal Ministry of Health (FMOH). It is the second largest public hospital in the nation, built by Emperor Haile Selassie in 1961 with the help of the German Evangelical Church. The hospital was established to serve the economically underprivileged population.

In 2007 it became a medical college and its core services include the provision of medical care, teaching, and research. Two hundred seventy five medical students attend the college, and its new and integrated curriculum stands out in comparison to the country's other medical schools. Although its transition to a medical college had its challenges, the staff members at St. Paul are striving to set high academic standards that produce competent and compassionate physicians. It currently has 700 beds, with an annual average of 500,000 patients and a catchment population of more than 5 million. Approximately 75% of the patients receive medical services free of charge. There is over 2800 clinical and non-clinical staff working at the hospital and see an average of 1200 emergency and outpatient clients daily. There are over 13 departments in the hospital with the most recently launching its new hemo-dialysis and kidney transplant unit (Ministerial Leadership Initiative for Global Health, 2011 & annual report of SPHMMC, 2018)

3.3. Study population

The study population for this study was comprised of 85 Doctors and 165 Nurses working in a total of five units offering specialized patient care at St. Paul's Hospital Millennium Medical College. This population was based on the staff population records maintained by the Human Resource Department of the Hospital. The departments/units were selected purposively. The reason for using purposive method to select practical settings is that it seems more traumatizing events occurring and experiencing areas such as Accident/ Emergency Department, Intensive Care Unit (ICU)/High Dependence Unit (HDU), Renal Unit and hemo-dialysis, Labor and Delivery Ward, Psychiatric and substance rehabilitation unit. A list of the health care professionals i.e. doctors and nurses working in the five units were obtained from the Chief Nurse Office and the office of the Deputy Director Clinical Services. The researcher ensured that the sampling frame to be used for the study i.e. list of Doctors and Nurses working in the five units to fulfill the inclusion criteria such as (a) doctors and nurses working in the five selected units (b) work at least 8 hr per week in selected departments /units (c) interact directly with patients at least 8 hr per week, (d) have at least 1 year of experience as a health care provider and (e) have no known history of mental illnesses. The rationale for including only doctors and nurses was to ensure health care professionals who have direct physical and emotional contact with patient and to exclude other related health personnel who have relatively less direct contact with patients care. A minimum of at least 1 year of experience as a health care provider and working at least 8 hr per week was considered to have experience and exposure frequently enough to traumatic events that contribute to the development of Compassion fatigue.

3.4. Sample and Sampling technique

Sample Size Determination by Using Krejcie and Morgan (1970) Table (with 5% margin of error, 95% confidence level, and 50% proportion) was used to calculate sample size, and the total participants were 152 including 10% non-response rate. The sampling procedure for this study was stratified sampling technique where the participants were proportionately distributed among the two categories of health care professionals (strata) and was taken a simple random sample from the strata to identify the participants, finally distribution of the sample from the various work settings shown in Table 2 below

Table 2

Sample distribution of health care professionals by work setting

Work Settings	Doctors(population=N)	Doctors (Sample=n)	Nurses (population=N)	Nurses (sample=n)
Accident and Emergency Department	25	15	49	30
Intensive Care Unit (ICU)/HDU	18	11	45	27
RenalUnit(hemodialysis and kidney transplant unit)	13	8	20	12
Labor and Delivery Ward	16	10	31	19
Psychiatric and Substance rehabilitation unit	13	8	20	12
Total	85	52	165	100

N= 250 n=152

3.5. Tools of data collation

The instrument for collecting data consisted of two sections; section A contains socio-demographic data of the participants. A series of socio-demographic information questions was administered to each study participant in order to collect the data. The items were designed to gather information on age, gender, marital status, educational background, profession type and, length of time as a provider (months/years experience), and practice setting (departments/ units). Then the data were entered into the computer.

The next section was Compassion Fatigue Self-Test (CFST)(Figley, 1995) with its different versions is perhaps the most commonly used instrument to measure compassion fatigue, in part because it was one of the first measures developed specifically for this purpose. The CFST was originally developed based on clinical experience and designed to assess both compassion fatigue and job burnout. The original CFST has 40 items divided into two subscales: compassion fatigue (23 items) and burnout (17 items) but for this study, it was used only 23 items of compassion fatigue self- test because the purpose of this study was to assess the risk level of

compassion fatigue only. The instructions ask respondents to indicate how frequently (1 = rarely/never, 2 = at times, 3 = not sure, 4 = often, 5 = very often) a particular characteristic is true about themselves or their situation. On the compassion fatigue subscale, scores of 26 or below indicate extremely low risk, scores between 27 and 30 indicate low risk, scores between 31 and 35 indicate moderate risk, scores between 36 and 40 indicate high risk, and scores of 41 or more indicate an extremely high risk of compassion fatigue (Figley, 1995).

Internal consistency alphas (alpha reliabilities) range from 0.86 to 0.94. Since all the participants were able to write, read and understand English, the research questionnaire was administered in English

3.6. Study variable

3.6.1. Dependent variable

- Compassion fatigue

3.6.2. Independent variables

- Sex, age, marital status, professions, practice setting and working experience

3.7. Validity and reliability

The study run a pilot test with 30 participants from the study target population and did not involve them in the main study those who participated in the pilot study, to avoid the chances of changing the responses because of memorization of the questions. The Compassion fatigue self-test (CFST) was determined through construct validity it was good with many published papers, there are also more articles on the internet and many published research papers on compassion fatigue have utilized, The reliability of the compassion fatigue self-test (CFST) was determined through Internal consistency and applied Cronbach's alpha test reliabilities for the scale was 0.88, indicating acceptable consistency of this psychometric scale for the study population.

3.8. Data collection process

Data were collected within a month of August 2019, and the researcher arranges a classroom at times that were easily accessible to the participants. Questionnaires were distributed by the researcher, which took approximately 20 min to fill. Introduction to the research was done by the researcher, not known to the providers, who then solicit for participation in the research. Willing participants a verbal consent and then were given a copy of the questionnaire to complete. All questionnaires that were filled were put into an envelope.

3.9. Method of data analysis

Data were entered using IBM SPSS version 23 and descriptive statistics were used to calculate mean and standard deviation for continuous variables whereas frequency and percentage for the categorical variables. Inferential statistics was used for comparisons and associations amongst different variables. The response rate was calculated in terms of percentage. The reliability of the questionnaires was determined through internal consistency by applying Cronbach's Alpha test. The alpha value was set at < 0.05 for significance at a confidence level of 95%. The data were presented as tables and graphs. The level of compassion fatigue risk was calculated after each compassion fatigue self test item questions add for the responses find the total score of compassion fatigue self test. Then the category of extremely low, low, moderate, high and extremely high was used according to Figel(1995) classification. One way ANOVA and multiple linear regression analysis conducted to see the association between socio demographic variables with compassion fatigue risk level. One way ANOVA with Post Hoc test was conducted to examine the presence of compassion fatigue risk difference between work settings.

3.10. Ethical consideration

The study proposal was initially approved by the Ethical Review Committee of the School of Psychology at Addis Ababa University. A formal letter of permission and ethical clearance approval was obtained from the St. Paul's Hospital Millennium Medical College and submitted to the respective Human Resource Management Department. The information about the study was given to the participants and asked to give their consent and Verbal informed consent was sought for each participants.

Participation was voluntary and participants were assured that they could withdraw from the study at any time without being penalized Confidentiality was assured by securing safely all data

obtained to which only the researcher had access. Anonymity was maintained by numbering the participants. The participants were assured of their privacy because the researcher would link the participant to data provided because of the anonymous nature of the data collection tool. For easy analysis of data, the researcher used codes that were not linked to the participants. Because the researcher had no identities of the participants, the participants were not worried about their personal information appearing in the results of the study.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1. Results

In this section Socio demographic characteristics, Compassion fatigue self-test (CFST) scale result, Compassion fatigue Univariate, Bivariate association with socio-demographic variables, Multiple comparison of CFST value analysis was addressed.

4.1.1. Socio demographic characteristics

Table 3

Socio demographic profile of participants among healthcare providers in SPHMMC, 2019 (n=152)

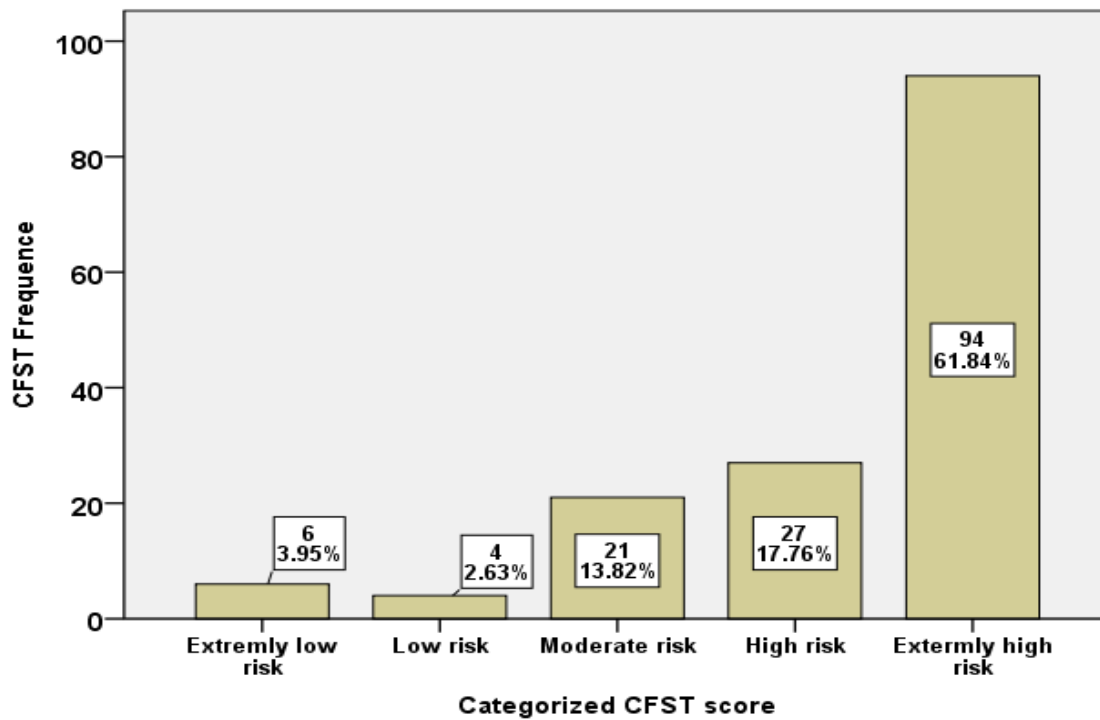
Socio-demographic value	Category	Frequency	Percent
Age Group	18-24	59	38.8
	25-34	77	50.7
	35-44	10	6.6
	45+	6	4.0
Gender	Male	73	48
	Female	79	52
Profession	Medical doctor	52	34.2
	Nurse	100	65.8
Marital Status	Single	113	74.3
	Married	38	25
	Divorced	1	0.7
Working experience	1-5 years	113	74.3
	6-10 years	25	16.4
	11-15 years	6	3.9
	16 or more years	8	5.3
Education Background	Nursing diploma	8	5.3
	Nursing Bachelor's Degree	88	57.9
	Nursing Master's Degree	4	2.6
	Medical Doctor(MD Degree)	52	34.2
Current Practical Setting	Accident and Emergency Department	45	29.6
	Intensive Care Unit (ICU)	38	25.0
	Renal Unit	20	13.2
	Labor and delivery Ward	29	19.1
	Psychiatric and substance rehabilitation unit	20	13.2

As indicated in table (3) there were 73(48%) male and 79(52%) female health care providers with Nurse 100(65.8%) and medical doctor 52(34.2%) by profession. When we see the age group of study participants from 25-34 years 77(50.7%), 18-24years 59(38.8%), 35-44 years 10(6.6%), 45+ years 6(4.0%) found. The marital status of study participants show single 113(74.3%), married 38(25%) and divorced was only 1(0.7%) found. The work experience of study participant show from 1-5 years 113(74.3%), 6-10 years 25(16.4%), 11-15 years 6(3.9%) above 15 year total 14(5.3%) participants found. The educational background of the study participant show Nursing bachelor degree 88(57.9%), Medical doctor (MD degree) 52(34.2%), Nursing diploma 8(5.3%) and Nursing masters degree 4(2.6%) found. When we see the working departments where study participants practice 45(29.6%) participants work at Accident and Emergency Department, 38(25.0%) at Intensive Care Unit (ICU)/High Dependence Unit (HDU), 29(19.1%) at Labor and delivery Ward, 20 (13.2%) at Psychiatric and substance rehabilitation unit and 20(13.2%) at Renal Unit.

4.1.2. Prevalence of Compassion fatigue risk

Figure 1

Compassion fatigue self-test score category



After the compassion fatigue self-test score computed and categorized in to scale ranging 26 and less as extremely low risk, from 27-30 low risk, 31-35 moderate risk, 36-40 high risk and above 41 as extremely high risk based on literatures found(Figley, 1995). The distribution of respondents presented in (Figure 2). Based on this extremely high risk 94(61.8%), high risk 27(17.8%), moderate risk 21(13.8%), low risk 4(2.6%) and extremely low risk 6(3.9%) accounted.

Table 4

The descriptive statistics of CFST scale among health care providers working at St. paul's Hospital millennium medical college, 2019.

N	Mean	Std. Deviation	Minimum	Maximum
152	49.1053	15.15053	25.00	96.00

As shown in the table above the mean score of Compassion Fatigue Self Test (CFST) was 49.1 with SD 15.15 and 25 and 96 minimum and maximum score respectively. This shows the mean value of CFST score at st.paul's hospital millennium medical college was in the extremely high risk based on the scale classification explained above.

4.1.3. Compassion fatigue association with socio-demographic variables

Table 5

The association between socio-demographic variables and compassion fatigue among health care providers in St. Paul's hospital millennium medical college

Variables	categories	Mean	Std. Deviation	95% Confidence Interval for Mean		F	Sig.
				Lower Bound	Upper Bound		
Age group	18-24	46.0508	12.60600	42.7657	49.3360	2.047	0.038
	25-34	52.1948	16.59426	48.4284	55.9612		
	35-44	48.2000	16.95615	36.0703	60.3297		
	45+	36.8333	13.04479	23.1437	50.5230		
Profession	Medical doctor	44.9231	15.67794	40.5583	49.2878	5.547	0.020
	Nurse	51.0300	14.89523	48.0745	53.9855		
Work setting	Accident and Emergency	51.7174	15.89362	46.9976	56.4372	5.670	0.000
	Intensive Care Unit (ICU)	51.7381	14.92103	47.0884	56.3878		
	Renal Unit	47.1176	16.49577	38.6363	55.5990		
	Labor and delivery Ward	51.0357	13.97745	45.6158	56.4556		
	Psychiatric and substance rehabilitation unit	34.5789	6.95474	31.2269	37.9310		
Sex	Male	49.8108	16.78770	45.9214	53.7002	0.459	0.499
	Female	48.1154	14.00091	44.9587	51.2721		
Marital status	single	48.1667	14.83652	45.4137	50.9197	1.388	0.253
	Married	51.7838	16.87229	46.1583	57.4093		
	Divorced	32.0000					
Work Experience	1-5 years	48.9730	14.87552	46.1749	51.7711	2.187	0.092
	6-10 years	52.9200	18.22754	45.3960	60.4440		
	11-15 years	48.5714	13.21435	36.3502	60.7927		
	16+ years	37.7778	10.58038	29.6450	45.9106		
Educational background	Nursing diploma	47.1111	17.03265	34.0187	60.2036	1.789	.152
	Nursing Bachelor's Degree	51.3523	15.23987	48.1233	54.5813		
	Nursing Master's	43.3333	8.96289	21.0683	65.5984		

Degree				
Medical Doctor (MD Degree)	45.5000	15.23476	41.2586	49.7414

The ANOVA done on compassion fatigue over different socio-demographic and work setting show age group $F=2.047$, $p=0.038$; profession $F=5.547$, $p=0.020$; work setting $F=5.670$, $p=0.000$ show significant association with compassion fatigue. The rest of the variables i.e. sex, marital status, work experience and educational background do not show association with compassion fatigue. The mean value of compassion fatigue self test score (CFSTS) among age group with 18-24 years was 46.05, with 25-34 years 52.19, with 35-44 years 48.20 and with above 45 years 36.83 scored. When we see the mean value of compassion fatigue self test score (CFSTS) in different profession among doctors were 44.92 and among nurses 51.03 was recorded. the mean value of compassion fatigue self test score (CFSTS) in different work setting show among Accident and emergency department 51.71, Intensive care unit 51.73, Labor and delivery Ward 51.03, Renal unit 47.11 and Psychiatric and substance rehabilitation unit 34.57 scored.

4.1.4. Multiple comparison of CFST in Different work setting

Table 6

Multiple comparison of CFST value in to one way ANOVA

(I) Current Practical Setting		Mean Difference (I-J)	Sig.	95% Confidence Interval	
				Lower Bound	Upper Bound
Accident and Emergency Department	Intensive Care Unit (ICU)/High Dependence Unit (HDU)	-0.43889	1.000	-8.9371	8.0594
	Renal Unit	5.42222	0.646	-5.4843	16.3287
	Labor and delivery Ward	2.00077	0.976	-7.3118	11.3133
	Psychiatric and substance rehabilitation unit	17.46111*	0.000	6.9514	27.9709
Intensive Care Unit (ICU)/High Dependence Unit (HDU)	Accident and Emergency Department	0.43889	1.000	-8.0594	8.9371
	Renal Unit	5.86111	0.591	-5.2384	16.9606
	Labor and delivery Ward	2.43966	0.955	-7.0982	11.9775
	Psychiatric and substance rehabilitation unit	17.90000*	0.000	7.1901	28.6099
Renal Unit	Accident and Emergency Department	-5.42222	0.646	-16.3287	5.4843
	Intensive Care Unit (ICU)/High Dependence Unit (HDU)	-5.86111	0.591	-16.9606	5.2384
	Labor and delivery Ward	-3.42146	0.929	-15.1561	8.3132
	Psychiatric and substance rehabilitation unit	12.03889	0.072	-0.6668	24.7445
Labor and delivery Ward	Accident and Emergency Department	-2.00077	0.976	-11.3133	7.3118
	Intensive Care Unit (ICU)/High Dependence Unit (HDU)	-2.43966	0.955	-11.9775	7.0982
	Renal Unit	3.42146	0.929	-8.3132	15.1561
	Psychiatric and substance rehabilitation unit	15.46034*	0.002	4.0935	26.8272
Psychiatric and substance rehabilitation unit	Accident and Emergency Department	-17.46111*	0.000	-27.9709	-6.9514
	Intensive Care Unit (ICU)	-17.90000*	0.000	-28.6099	-7.1901
	Renal Unit	-12.03889	0.072	-24.7445	0.6668
	Labor and delivery Ward	-15.46034*	0.002	-26.8272	-4.0935

*. The mean difference is significant at the 0.05 level.

One way ANOVA with post hoc analysis was done to see the difference between departments respect to compassion fatigue. The result show Psychiatric and substance rehabilitation unit show significant difference with Accident and Emergency Department with mean difference -17.46 and p-value 0.000, with Intensive Care Unit (ICU) mean difference -17.90 and p-value 0.000, with Labor and delivery Ward with mean difference -15.46 and p-value 0.000. This shows the level of compassion fatigue risk in accident and emergency, intensive care unit and labor and delivery ward is significantly high compared with psychiatry and substance rehabilitation unit. But there was no statistically significant difference in level of compassion fatigue risks between intensive care unit and accident and emergency department likewise there was no significant difference between renal unit and labor and delivery ward.

4.1.5. Analysis Variables for predicting of compassion fatigue on a CFST score

Table 7

Multiple linear Regression Analysis for Variables predicting of the Compassion fatigue

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.318 ^a	.101	.083	14.74257

a. Predictors: (Constant), Current Practical Setting, age, profession

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3609.651	3	1203.217	5.536	.001 ^b
	Residual	32166.816	148	217.343		
	Total	35776.467	151			

a. Dependent Variable: CFSTSUM2

b. Predictors: (Constant), Current Practical Setting, age, profession

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		

1	(Constant)	44.600	6.173		7.225	.000
	age	.934	1.635	.045	.571	.569
	profession	5.867	2.567	.181	2.285	.024
	Current Practical Setting	-2.753	.853	-.252	-3.226	.002

a. Dependent Variable: CFSTSUM2

A multiple linear regression was done to identify the variables level predictors of compassion fatigue risk level. Profession and current practical setting (working department) show significant association with p-value 0.024 and 0.002 respectively. The model summary shows 10.1% it's not good but not bad predictors i.e. profession and working department explain the compassion fatigue risk level.

4.2. Discussion

The purpose of this study was to determine the prevalence and factors associated with compassion fatigue among health care providers at the St. Paul's hospital millennium medical college (SPHMMC).

4.2.1. Prevalence of compassion fatigue

The prevalence of compassion fatigue were extremely high (61.8%), high (17.8%), moderate (13.8%), low (2.6%) and extremely low risk (3.9%) based on the scaling of 26 and less as extremely low risk, 27-30 low, 31-35 moderate, 36-40 high and above 41 as extremely high risk. If it uses the moderate risk level as reference extremely high and high risk prevalence account 79.6%. Generally the mean score of compassion fatigue self-test (CFST) score were 49 with SD of 15. This reveals that the average distribution of compassion fatigue self-test were in the extremely high risk range at St. Paul's hospital millennium medical college (SPHMMC). The prevalence of compassion fatigue risk in this study found high compared with a study done among Medical Workers at Kenyatta National Hospital (KNH), Nairobi, Kenya that show 29.6% of the study participants were in high and extremely high range where as in this study 79.6% of the participants found in high and extremely high range (Adam *et al.*, 2015).

4.2.2. Socio demographic variables affecting compassion fatigue

The analysis on socio demographic characteristics shows age, profession and practical setting (working department) show significant association by one way ANOVA test with compassion fatigue risk. But gender, marital status, working experience and educational background did not show association using one way ANOVA test.

A. Age

The association between age group and compassion fatigue were significant ($F=2.047$, $p=0.038$). This show that the mean value of compassion fatigue self test score (CFSTS) among age group with 18-24 years was 46.05, with 25-34 years 52.19, with 35-44 years 48.20 and with above 45 years 36.83 scored. This its indicated that being in all age groups less than 45 years to experience extremely high risk level of compassion fatigue but the age groups of 45 and above years to experience high risk level of compassion fatigue depend on(Figley, 1995) scoring classification used a mean score of compassion fatigue self-test. And it's indicated that heath care providers' age 25-34 years was slightly more mean score of compassion fatigue risk than health care providers compared with the other age groups. This finding was in line with A systematic review done also show that Compassion fatigue was high among young health care professionals and low among the older health care professionals (Cocker and Joss, 2016). Another study done among Israeli burn clinicians show a younger age ($P=0.019$) show significant association with compassion fatigue(Haik *et al.*, 2017). Another study also show age greater than 35 was found high score in compassion satisfaction that implies lower compassion fatigue compared with age less than 35 years(Borges *et al.*, 2019). The other study done on nurses the results indicated that nurses ages 21-33 were more likely than nurses 34 and above to experience high levels of burnout and Compassion Fatigue and lower levels of compassion satisfaction. In contrast, nurses aged 50-65 indicated higher levels of compassion satisfaction and low level of compassion fatigue (Kelly *et al.*, 2015). This finding was in different with a study done among doctors the result show that Compassion fatigue was low among young doctors (26.7) and high among the older generation medical workers (34.4%) above the age of 45 years. About 58.0% of the medical workers were less than 36 years of age and had compassion fatigue levels below 28.0%. (Donald *et al.*, 2015)

B. Profession

Profession show significant association in compassion fatigue ($F=5.547$, $p=0.020$) that compassion fatigue risk level were reveal difference between medical doctors and nurses. This show that the mean value of compassion fatigue self test score (CFSTS) in different profession among doctors were 44.92 and among nurses 51.03 was recorded. This indicated that both of health care providers to experience extremely high risk level of compassion fatigue depend on (Figley, 1995) scoring classification but nurses had a higher mean score of compassion fatigue risk than doctors. This finding was in line with a study done among medical doctors and nurses that show high prevalence of compassion fatigue among nurses compared with medical doctors (Perez-Bret *et al.*, 2016). The studies show that nurses had a higher mean score of compassion fatigue than doctors in both less traumatizing and more traumatizing work settings. (Kariukiet *al.*, 2017). The other study also shows that the majority of the medical workers (82.0%) in this study were nurses compared to the doctors (18.0%). The nurses suffered compassion fatigue almost three times (32.5%) as much as the medical doctors (12.9%) (Donald *et al.*, 2015)

C. Work setting

Current practical setting was show significant association with in compassion fatigue (work setting $F=5.670$, $p=0.000$). This show that the mean value of compassion fatigue self test score (CFSTS) in different work setting show among Accident and emergency department 51.71, Intensive care unit 51.73, Labor and delivery Ward 51.03, Renal unit 47.11 and Psychiatric and substance rehabilitation unit 34.57 scored. This indicated that Accident and emergency department, Intensive care unit, Labor and delivery Ward and Renal unit to experience extremely high risk level of compassion fatigue depend on (Figley, 1995) scoring classification but Psychiatric and substance rehabilitation unit's the only practical setting experienced moderate risk level of compassion fatigue, Accident and emergency department and Intensive care unit were a higher mean score of compassion fatigue risk than the other three practical setting. This was in line with a one study that 86% of emergency room nurses met the criteria for compassion fatigue (Hooper, 2010). The other study done among Health Care Professionals in

Moi Teaching and Referral Hospital, Kenya show that health care professional working in areas perceived to be more traumatizing registered higher scores of compassion fatigue compared to those working in areas perceived to be less traumatizing (Kariuki *et al.*, 2017).

Frequent interactions with care recipients, exposure to traumatize, stressful situations, chronically or terminally ill patients, and confrontation with death and dying have been found to be the root causes of compassion fatigue among health care professionals. In the course of working with victims of traumatic events, health care professional can themselves fall victim to secondary traumatic stress reactions. According to the finding of this study compassion fatigue risk were high, This is quite agreeable with findings of this study which showed that working in units that dealt with more critically ill, traumatized and stressed clients such as Accident and Emergency unit, intensive care unit (ICU), Labor and delivery Ward and renal unit compared with Psychiatric and substance rehabilitation unit.

One way ANOVA with post hoc analysis was done to see the difference between departments respect to compassion fatigue. The result show Psychiatric and substance rehabilitation unit show significant difference with Accident and Emergency Department, Intensive Care Unit (ICU), Labor and delivery Ward p-value 0.000. This shows the level of compassion fatigue risk in accident and emergency, intensive care unit and labor and delivery ward is significantly high compared with psychiatry and substance rehabilitation unit. But there was no statistically significant difference in level of compassion fatigue risks between intensive care unit and accident and emergency department likewise there was no significant difference between renal unit and labor and delivery ward.

A multiple linear regression was done to identify the variables level predictors of compassion fatigue risk level at St. Paul's hospital and millennium medical college (SPHMMC). Profession and current practical setting (working department) show significant association with p-value 0.024 and 0.002 respectively. The model summary shows 10.1% the predictors i.e. profession and working department explain the compassion fatigue risk level.

CHAPTER FIVE

SUMMARY, CONCLUSION, LIMITATION AND RECOMMENDATION

5.1. Summary

The purpose of this study was to assess compassion fatigues and associated factors among health care providers in St. Paul's Hospital Millennium Medical College, Addis Ababa, Ethiopia. To these end 152 health care providers from five departments/units (Accident and Emergency Department, Intensive Care Unit (ICU)/High Dependence Unit (HDU), Renal Unit, Labor and Delivery Ward, Psychiatric and substance rehabilitation unit) were drawn from a population of 250 using stratified simple random sampling technique. Questionnaires was not translated into Amharic because all the participants were able to write, read and understand English, so that research questionnaire was administered in English, the data collecting tool to gather quantitative data which would enable answer the questions raised at the beginning of the study. Responses from the 152 participants were gathered the data and coded into the SPSS software for further analysis.

The questionnaire had two sections; the first section contains demographic data of the participants. There were 48% male and 52% female health care providers with Nurse 65.8% and medical doctor 34.2% by profession. When we see the age group of study participants from 25-34 years 50.7%, 18-24years 38.8%, 35-44 years 6.6%, 45+ years 4.0% found. The marital status of study participants show single 74.3%, married 25% and divorced was only 0.7% found. The work experience of study participant show from 1-5 years 74.3%, 6-10 years 16.4%, 11-15 years 3.9% above 15 year total 5.3% participants found. The educational background of the study participant show Nursing bachelor degree 57.9%, Medical doctor (MD degree) 34.9%, Nursing

diploma 5.3% and Nursing masters' degree 2% found. When we see the working departments where study participants practice 29.6% participants work at Accident and Emergency Department, 25.0% at Intensive Care Unit (ICU), 19.1% at Labor and delivery Ward, 13.2% at Psychiatric and substance rehabilitation unit and 13.2% at Renal Unit.

The next section of the questionnaire was Compassion Fatigue Self-Test (CFST) this instrument used to measure compassion fatiguerisk, After the compassion fatigue self-test score computed and categorized in to scale ranging 26 and less as extremely low risk, from 27-30 low risk, 31-35 moderate risk, 36-40 high risk and above 41 as extremely high risk based on literatures found (Figley, 1995). The distribution of respondents presented in (graph 1). Based on this extremely high risk 61.8%, high risk 17.8%, moderate risk 13.8%, low risk 2.6% and extremely low risk 3.9% accounted. So that the mean score of CFST was 49.1 with SD 15.15 and 25 and 96 minimum and maximum score respectively. This shows the mean value of CFST score at st. Paul's Hospital Millennium Medical College was in the extremely high risk based on the scale classification explained above.

The association between socio-demographic variables and compassion fatigue among health care providers in St. Paul's Hospital Millennium Medical College were analyzed using one way ANOVA test, show that Age, profession and working setting/department affect compassion fatigue and significance association with compassion fatigue but sex, marital status, working experience and back ground of the study were not significance association with compassion fatigue at St. Paul's hospital and millennium medical college (SPHMMC)

5.2. Conclusion

In this study across-sectional descriptive study was conducted to determine the prevalence of compassion fatigue risk in St. Paul's Hospital Millennium Medical College (SPHMMC) and to identify socio demographic and work setting factors affecting compassion fatigue in the study institution. The prevalence of compassion fatigue risk in St. Paul's Hospital Millennium Medical College (SPHMMC) found extremely high risk. Age, profession and working setting/department affect and significance association with compassion fatigue risk at St. Paul's Hospital Millennium Medical College (SPHMMC) and show difference among different working setting/departments, there were more risk in Accident and Emergency, Intensive Care Unit (ICU) and Labor and delivery Ward compared with renal unit and Psychiatric and substance rehabilitation unit.

5.3. Limitations of the Study

The interpretation of the findings of this study should consider the following potential limitation; since the study was institutional based it might not be generalized to the total population of health care providers working with in the region.

5.4. Recommendations

Based on the findings of this study the following recommendation suggested for concerned body.

- Compassion fatigue risk is extremely high at St. Paul's Hospital Millennium Medical College so that the hospital administration should design interventions such as training to increase their (self-) awareness of compassion fatigue through education, debriefings and Supervisions, and equip helping professionals with adequate knowledge and skills that will enhance their coping and resiliency resources such as getting educated, practice self care, setting emotional boundaries, engage in outside hobbies, cultivate healthy friendship outside work, boost resilience, use positive coping strategies, identify work place strategies, seek personal therapy.
- This study found that older and more experienced health care providers had low levels of compassion fatigue risk it would be very beneficial for the health care profession. It may be possible that more experienced and older providers could be the key in assisting newer, younger providers to be arranged and encouraged, to find strategies that can improve their quality of life at work and perhaps prevent Compassion Fatigue.
- Among nursing profession the compassion fatigue risk level is high compared with doctors so that should have preventive interventions or psychosocial support for nurses who are constantly faced with situations that demand compassion and care for patients with life-threatening conditions and task sharing between professions has to be applied.
- Accident and emergency, intensive care unit and labor and delivery ward show significantly high compassion fatigue risk level compared with renal unit and psychiatry and substance abuse rehabilitation unit; therefore shift work has to be applied with frequent turnover in those departments.

- Profession and work setting predicts compassion fatigue risk level at St. Paul's Hospital Millennium Medical College (SPHMMC), so that special focus for Nurses has to be considered in compassion fatigue coping strategies and trainings and shift working frequently has to be implemented.
- The organization should have a counselor to help those that exhibit signs of compassion fatigue and manage them in their early stages, and also to implement strategies that will help to minimize emotional and physical exhaustion. Moreover, institution could emphasize encouraging psychotherapists in their work by exploring the positive aspects of providing psychological help, such as psychological growth and compassion satisfaction.

References

- 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, 103-108.
- ADAM, L. M. K., BIRABONEYE, P. S. & BUKUSI, D. E.(2015). Compassion Fatigue among Medical Workers at Kenyatta National Hospital (KNH), Nairobi, Kenya.*Journal of Medical Research*, 4, 24-30.
- American Psychiatric Association(2000).*Diagnostic and statistical manual of mental disorders* (4th ed., Text Rev.). Washington, DC: Author.
- American Medical Association (2015).*Code of medical ethics: principle 12001* .Retrieved from: <http://www.ama-assn.org/ama/pub/physician-resources/medical-ethics/code-medical-ethics/principles-medical-ethics>. Page, Last accessed: November 7, 2015
- Aycock, N, & Boyle, D. (2009). Interventions to manage compassion fatigue in oncology nursing. *Clinical Journal of Oncology Nursing*, 13(2), 183-191. Doi: 10.1188/09.CJON.183-191
- Back AL, Deignan PF& Potter PA.(2014). Compassion, compassion fatigue, and burnout: key insights for oncology professionals. *American Society of Clinical Oncology educational book / ASCO American Society of Clinical Oncology Meeting*: e454-9.
- Bower, P(2003).Efficacy in evidence-based practice.*Clinical Psychology and Psychotherapy*, 10, 328-336.
- Bush, N.J. (2009). Compassion fatigue: Are you at risk? *Oncology Nursing Forum*, 36(1), 24-28.
- Caringi, J & Pearlman, L(2009)*living and working self-reflectively to address vicarious trauma. In Treating Complex Traumatic Stress Disorders: An Evidence-Based Guide*; Guilford Press: New York City, NY, USA, 2009; pp. 202–222
- Clark & Gioro (1998) .compassion satisfaction, compassion fatigue, work life conditions and burnout among frontline mental health professionals, *SAGE journals*.

- Clemans, S. E. (2004). Recognizing vicarious traumatization ,A single session group model for trauma workers.*Social Work with Groups*, 27(2-3), 55-74.
- COCKER, F& JOSS, N. 2016. Compassion fatigue among healthcare, emergency and community service workers: A systematic review. *International journal of environmental research and public health*, 13, 618.
- Collins, S & Long, A (2003). Working with the psychological effects of trauma: consequences for mental heal-care workers-a literature review. *Journal of Psychiatric and MentalHealth Nursing*, 10 (4), 417-424.
- Dominguez-Gomez, E. & Rutledge, D. N (2009).Prevalence of secondary traumatic stress among emergency nurses.*Journal ofEmergency Nurses*,25 (3), 199-204.
- Donald A. Kokonya, John M. Mburu, Dammas M. Kathuku, Ndeti, D. M, Desire A. Nshimirimana, Adam H. Adam, Louise MaplehK, Phocas S. Biraboneye, David E. &Bukusi (2015).*Compassion Fatigue among Medical Workers at Kenyatta National Hospital (KNH)*, Nairobi, Kenya.
- Fernando AT, 3rd, Consedine NS (2014) beyond compassion fatigue: the transactional model of physician compassion. *Journal of pain and symptom management*; 48(2): 289-98.
- Figley, C (1995). *Compassion fatigue as secondary traumatic stress disorder: An overview in CR Figley*. In *Compassion Fatigue: Coping with Secondary Stress Disorder in Those Who Treat the Traumatized*; Brunner/Mazel: Bristol, UK, 1995.
- Figley, C. R. (2002a). Compassion fatigue: Psychotherapists' chronic lack of self-care. *Journal o/Clinical Psychology*, 58, 1433-1441.
- Figley, C. R. (2002b). *Treating compassion fatigue*. New York: Brunner-Routledge.
- Figley, C. R. (2003). *Compassion fatigue: An introduction*. Retrieved June 20, 2010, from <http://www.giftfromwithin.org/html/cmpfatig.html>
- Figley, C.R (Ed.) (2005). *Compassion/fatigue: Coping with secondary traumatic stress disorder in those who treat the traumatized*. New York: Brunner-Routledge.
- Figley (Ed.), *Treating Compassion Fatigue* (pp 107- 122). New York: Brunner-Routledge
- Gibbons, 2018.*Does Feeling Empathy Lead to Compassion Fatigue or Compassion Satisfaction? The Role of Time Perspective*
- HAIK, J., BROWN, S., LIRAN, A., VISENTIN, D., SOKOLOV, A., ZILINSKY, I. & KORNHABER, R. 2017. Burnout and compassion fatigue: prevalence and associations among Israeli burn clinicians. *Neuropsychiatric disease and treatment*, 13, 1533.

- Hooper, C., Craig, J., Janvrin, D. R., Wetsel, M. A., Reimels, E., & Anderson, O. (2010). Compassion satisfaction, burnout, and compassion fatigue among emergency nurses compared with nurses in other selected inpatient specialties. *Journal of Emergency Nursing*, 36, 420-427
- Health Sector Transformation Plan (2015). The Federal Democratic Republic of Ethiopia Ministry of Health, Ethiopia
- Hooper. (2010). "Compassion Satisfaction, Burnout, and Compassion Fatigue among Emergency Nurses Compared With Nurses in Other Selected Inpatient Specialties". *Journal of Emergency Nursing*. 36 (5): 420-427. doi:10.1016/j.jen.2009.11.027. PMID 20837210.
- Joinson, C. (1992). Coping with compassion fatigue *Nursing*, 22, 116-122.
- Jones-Fairnie H (2008) *Compassion fatigue in the animal care community*—by figley cr and roop rg. Aust. Vet. J. 2008, 86, 186. [CrossRef]
- Knobloch-Coetzee, S & Kloppe, H (2010). Compassion fatigue within nursing practice: A concept analysis. *Nursing and Health Sciences*, 12, 235-243
- Kyle Lee Thompson (2017). *Compassion Fatigue, Secondary Trauma Stress, and Burnout among Licensed Mental Health Professionals*, 2017
- Lombardo, B & Eyre, C. (2011). Compassion fatigue: A nurse's primer. *Online Journal of Issues in Nursing*, 16(1), 1-1.
- Lesly Kelly, Jody Runge & Christina Spencer (2015). Predictors of Compassion Fatigue and Compassion Satisfaction in Acute Care Nurses
- Maiden, J., Georges, J. M., & Connelly, C. D. (2011). Moral distress, compassion fatigue, and perceptions about medication errors in certified critical care nurses. *Dimensions of Critical Care Nursing*, 30(6), 339-345.
- Marianna Abendroth & Jeanne Flannery (2006) Predicting the Risk of Compassion Fatigue: A Study of Hospice Nurses
- Mason, V. M., Leslie, G., Clark, K., Lyons, P., Walke, E., Butler, C., & Griffin, M. (2014). Compassion fatigue, moral distress, and work engagement in surgical intensive care unit trauma nurses. *Dimensions of Critical Care Nursing*, 33(4), 215-225.
- Meadors, P., Lamson, A., Swanson, M., White, M., & Sira, N. (2009). Secondary traumatization in pediatric healthcare providers: Compassion fatigue, burnout, and secondary traumatic stress. *Omega: Journal of Death & Dying*, 60 (2), 103-128.
- McHolm, F (2006). Rx for compassion fatigue. *Journal of Christian Nursing*, 23(4), 12-19.

- Ministerial Leadership Initiative for Global Health (2011) implementing a balanced scorecard at st.paul's Hospital Addis Ababa, Ethiopia case study
- Morse, G., Salyers, M., Rollins, A., Monroe-DeVita, M., & Pfahler, C. (2012). Burnout in mental health services: A review of the problem and its remediation. *Administration and Policy in Mental Health*, 39(5), 341-352.
- Neff, D.F., Cimiotti, J., Heusinger, A., & Aiken, L.H. (2011). Nurse reports from the frontlines: Analysis of a statewide nurse survey. *Nursing Forum*, 46 (1), 19-24.
- PEREZ-BRET, E., ALTISENT, R. & ROCAFORT, J (2016). *Definition of compassion in healthcare: A systematic literature review*.
- Perry, B., Toffner, G., Merrick, T., & Dalton, J. (2011). An exploration of the experience of compassion fatigue in clinical oncology nurses. *Canadian Oncology Nursing Journal*, 21(2), 91-97.
- Phelps, A., Lloyd, D., Creamer, M., & Forbes, D. (2009). Caring for carers in the aftermath of trauma. *Journal of Aggression, Maltreatment & Trauma*, 18, 313-330.
- Potter, P, Deshields, T., Divanbeigi, J. Berger, J., Cipriano, D., Norris, L., & Olsen, S. (2010). Compassion fatigue and burnout: Prevalence among oncology nurses. *Clinical Journal of Oncology Nursing*, 14(5), E56-E62. doi:10.1188/10.CJON.E56-E62
- Puchalski, C.M. (2012). Caregiver stress: The Role of spirituality in the lives of family/friends and professional caregivers of cancer patients. In: Talley R., McCorkle R., Baile W. (eds) *Cancer caregiving in the United States: Research, practice, policy*, 201-227.
- Rossi, A., Cetrano, G., Pertile, R., Rabbi, L., Donisi, V., Grigoletti, L., Curolo, C., Tansella, M, Thornicroft, G. & Amaddeo, F. (2012). Burnout, compassion fatigue, and compassion satisfaction among staff in community-based mental health services. *Psychiatry Research*, 200, 933-938
- Roy, S. Wong, C., White, D., & Heaslip, K. (2013). Compassion satisfaction, compassion fatigue, work life conditions, and burnout among frontline mental healthcare professionals. *Traumatology*, 19(4), 255-267
- Sacco, T, Ciurzynski, S, Harvey, M & Ingersoll, G (2015). Compassion satisfaction and compassion fatigue among critical care nurses. *Critical-Care Nurse*, 35(4), 32-42.
- Sawatzky, J.-A.V & Enns, C. L. (2012). Exploring the key predictors of retention in emergency nurses. *Journal of Nursing Management*, 20(5), 696-707. doi:10.1111/j.1365-2834.2012.01355.

- Shang, J., Friese, C., Wu, E. & Aiken, L (2013). Nursing practice environment and outcomes for oncology nursing. *Cancer Nursing*, 36(3), 206-212.
- Showalter, S. (2010). Compassion fatigue: What is it? Why does it matter? Recognizing the symptoms, acknowledging the impact, developing the tools to prevent compassion fatigue, and strengthen the professional already suffering from the effects. *American Journal of Hospice and Palliative Medicine*, 27(4), 239-242
- Stamm, B. (2002). Measuring compassion satisfaction as well as fatigue: Developmental history of the Compassion Satisfaction and Fatigue Test. In C.R.
- Stamm, B. H. (2010). *The concise ProQOL Manual*. Retrieved June 22, 2010 from [http://www.proqol.org/uploads/ProQOLConcise 2ndEd 12-2010.pdf](http://www.proqol.org/uploads/ProQOLConcise%202nd%20Ed%2012-2010.pdf).
- Stamm, B.H.(2012). Measuring compassion satisfaction as well as fatigue: Developmental history of the compassion satisfaction and fatigue test. In *Treating Compassion Fatigue (Psychosocial Stress Series)* 2002; Brunner-Routledge: New York, NY, USA, 2012.
- Sprang, G., Clark, J. J., & Whitt-Woosely, A. (2007). Compassion fatigue, compassion satisfaction, and burnout: Factors impacting a professional's quality of life. *Journal of Loss and Trauma: International Perspectives on Stress & Coping*, 12 (3), 259-280.
- Sung K, Seo Y & Kim JH (2012). Relationships between compassion fatigue, burnout, and turnover intention in Korean hospital nurses. *Journal of Korean Academy of Nursing*. 2012; 42(7): 1087-94.
- Taylor, JennyGu, Kuyken, Baer, Jones & Cavanagh (2016). *What is compassion and how can we measure it?* A review of definitions and measures,
- Thomson, 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.
- Tierney, S. (2018). *What place does compassion hold in the conduct and production of health services research?*
- Udipi S, Veach PM, LeRoy BS(2008). The psychic costs of empathic engagement: personal and demographic predictors of genetic counselor compassion fatigue.
- Valent, P.(2002). Diagnosis and treatment of helper stresses, traumas, and illnesses. In *Treating Compassion Fatigue*; Brunner-Routledge: New York City, NY, USA; pp. 17–37.

Wee, D., & Myers, D. (2003). Compassion satisfaction, compassion fatigue, and critical incident stress management. *International Journal of Emergency Mental Health*, 5 (1),33 ~7

Annexes

Annex 1: Compassion fatigue self-test (CFST) scale result for each item.

Compassion fatigue self-scale items	Rarely/Never	At times	At times not sure	Often	Very often
I force myself to avoid certain thoughts or feelings that remind me of a frightening Experience.	28(18.4%)	49(32.2%)	29(19.1%)	34(22.4%)	12(7.9%)
I find myself avoiding certain activities or situations because they remind me of a	53(34.9%)	40(26,3%)	32(21.1%)	22(14.5%)	5(3.3%)
I have gaps in my memory about frightening events.	56(36.8%)	50(32.9%)	19(12.5%)	20(13.2%)	7(4.6%)
I feel estranged from others.	6(43.4%)6	34(22.4%)	29(19.1%)	14(9.2%)	9(5.9%)
I have difficulty falling or staying asleep.	70(46.1%)	40(26.3%)	17(11.2%)	18(11.8%)	7(4.6%)
I have outbursts of anger or irritability with little provocation.	43(28.3%)	59(38.8%)	22(14.5%)	20(13.2%)	8(5.3%)
I startle easily.	44(28.9%)	49(32.2%)	33(21.7%)	22(14.5%)	4(2.6%)
While working with a victim I thought about violence against the person or persons who	65(42.8%)	33(21.7%)	31(20.4%)	14(9.2%)	9(5.9%)
I remainedmyself to be less concerned about the well-being of my clients and their family	57(37.5%)	80(52.6%)	15(9.9%)	0(0%)	0(0%)
I have had flashbacks connected to my clients and families.	41(27%)	51(33.6%)	20(13.2%)	34(22.4%)	6(3.9%)
I have had first-hand experience with traumatic events in my adult life.	70(46.1%)	32(21.1%)	21(13.8%)	21(13.8%)	8(5.3%)
I have had first-hand experience with traumatic events in my childhood.	82(53.9%)	26(17.1%)	23(15.1%)	16(10.5%)	5(3.3%)
I have thought that I need to “work-through” a traumatic experience in my life.	50(32.9%)	39(25.7%)	30(19.7%)	23(15.1%)	10(6.6%)
I have felt trapped by my work as a helper	70(46.1%)	72(47.4%)	10(6.6%)	0(0%)	0(0%)
I have felt sense of hopelessness associated with working with clients and their families	78(51.3%)	74(48.7%)	0(0%)	0(0%)	0(0%)

I have been in danger working with some clients and their family	102(67.1%)	50(32.9%)	0(0%)	0(0%)	0(0%)
I am frightened of things traumatized people and their families have said or done to me.	49(32.2%)	50(32.9%)	25(16.4%)	19(12.5%)	1(0.6%)
I experience troubling dreams similar to a client of mine and their family.	70(46.1%)	28(18.4%)	21(13.8%)	24(15.8%)	9(5.9%)
I have experience intrusive thoughts of sessions with especially difficult clients and their families.	40(26.3%)	50(32.9%)	34(22.4%)	24(15.8%)	4(2.6%)
I have suddenly and involuntarily recalled a frightening experience while working with a client or their family.	54(35.5%)	47(30.9%)	27(17.8%)	13(8.6%)	11(7.2%)
I am preoccupied with more than one client and their family.	43(28.3%)	30(19.7%)	33(21.7%)	34(22.4%)	1(0.6%)
I am losing sleep over a client and their family's traumatic experiences.	70(46.1%)	24(15.8%)	18(11.8%)	29(19.1%)	1(0.6%)
I have thought that I might have been "infected" by the traumatic stress of my clients and their Families.	60(39.5%)	36(23.7%)	20(13.2%)	24(15.8%)	12(7.9%)

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

Annex 2: VERBAL CONSENT

I am AddisuBerihun a Master of Art (MA) student from Addis Ababa University School of Psychology. Currently, I am conducting a study on Compassion Fatigue and Associated Factors among Health Care Providers in St. Paul's Hospital Millennium Medical College for the partial fulfillment of MA degree in Counseling Psychology. As a health care professional working in the hospital, you have been selected to participate in this study. The questionnaire has items related to your personal and professional characteristics as well as compassion fatigue experiences. To complete the questionnaire, it will take around 20 minutes. The data that will be collected from you will be used only for the purpose of the study and it will not be disclosed to any other body. Participation in this study is voluntary. You are not required to write your name on any pages of this questionnaire. Thank you very much for your kind cooperation to fill the questionnaire.

If you have any questions about the study, please contact me (AddisuBerihun) using the address - (cell phone: - 0920252766 or Email: -adberihun@gmail.com)

Annex 3: Questionnaires

Instructions: Please complete **all** of the following items.

Part A: Sociodemographic characteristics of participants at St. Paul's Hospital Millennium Medical College, 2019

S/NO	Characteristics	Chooses	code
1	Age	18-24	1
		25-34	2
		35-44	3
		45-54	4
		55+	5
2	Gender/Sex	Male	1
		Female	2
3	Profession	Medical doctor	1
		Nurse	2
4	Marital Status	Single	1
		Married	2
		Divorced	3
		Never Married	4
		Separated	5

5	Working Experience	1-5 years 6-10 years 11-15 years 16-20 years 21-25 years 26 or more years	1 2 3 4 5 6
6	Education Background	Nursing Diploma Nursing Bachelor's degree Nursing Master's degree Medical Doctor(MD degree)	1 2 3 4
7	Current Practical Setting	Accident and Emergency Department Intensive Care Unit (ICU)/High Dependence Unit (HDU) Renal Unit Labor and delivery Ward Psychiatric and substance rehabilitation unit	1 2 3 4 5

Part B: compassion fatigue self-test response of participants to each item at St. Paul's Hospital Millennium Medical College, 2019

Consider each of the following characteristics about you and your current situation. Circle in the number for the best response.

S/ N O	Items about you:	Rarely/ Never (1)	At Times (2)	Not Sure (3)	Often (4)	Very Often (5)
1	I force myself to avoid certain thoughts or feelings that remind me of a frightening Experience.	1	2	3	4	5
2	I find myself avoiding certain activities or situations because they remind me of a Frightening experience.	1	2	3	4	5
3	I have gaps in my memory about frightening events.	1	2	3	4	5
4	I feel estranged from others.	1	2	3	4	5
5	I have difficulty falling or staying asleep.	1	2	3	4	5
6	I have outbursts of anger or irritability with little provocation.	1	2	3	4	5
7	I startle easily.	1	2	3	4	5
8	While working with a victim I thought about violence against the person or persons who Victimized.	1	2	3	4	5
9	I am a sensitive person.	1	2	3	4	5
10	I have had flashbacks connected to my clients and families.	1	2	3	4	5

11	I have had first-hand experience with traumatic events in my adult life.	1	2	3	4	5
12	I have had first-hand experience with traumatic events in my childhood.	1	2	3	4	5
13	I have thought that I need to “work-through” a traumatic experience in my life.	1	2	3	4	
14	I have thought that I need more close friends.	1	2	3	4	5
15	I have thought that there is not one to talk with about highly stressful experiences.	1	2	3	4	5
16	I have concluded that I work too hard for my own good.	1	2	3	4	5
Items about your clients and their families:						
17	I am frightened of things traumatized people and their families have said or done to me.	1	2	3	4	5
18	I experience troubling dreams similar to a client of mine and their family.	1	2	3	4	5
19	I have experience intrusive thoughts of sessions with especially difficult clients and their families.	1	2	3	4	5
20	I have suddenly and involuntarily recalled a frightening experience while working with a client or their family.	1	2	3	4	5
21	I am preoccupied with more than one client and their family.	1	2	3	4	5
22	I am losing sleep over a client and their family’s traumatic experiences.	1	2	3	4	5
23	I have though that I might have been “infected” by the traumatic stress of my clients and their Families.	1	2	3	4	5

Annex 4: Research Ethical clearances Approval forms



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

RESEARCH ETHICAL APPROVAL APPLICATION FORM

Tick one box: ☐ Staff project ☒ Graduate project ☐ Undergraduate Project

Title of Project: Compassion Fatigue and Associated Factors among Health Care Providers in St. Paul's General Specialized Hospital

Name of researcher(s): Addisu Berhannu

Name of supervisor (for student research): Mulatu Asnak Date: 6/5/2019

Please answer the following questions by selecting from these choices and ticking:		YES	NO	Not Applicable
1	Will you describe the main research procedures to participants in advance, so that they are informed about what to expect?	☒	☐	☐
2	Will you tell participants that their participation is voluntary?	☒	☐	☐
3	Will you obtain written consent for participation?	☒	☐	☐
4	If the research is observational, will you ask participants for their consent to being observed?	☐	☐	☒
5	Will you tell participants that they may withdraw from the research at any time and for any reason?	☒	☐	☐
6	With questionnaires, will you give participants the option of omitting questions they do not want to answer?	☒	☐	☐
7	Will you tell participants that their data will be treated with full confidentiality and that, if published, it will not be identifiable as theirs?	☒	☐	☐
8	Will you debrief participants at the end of their participation (i.e. give them a brief explanation of the study)?	☐	☐	☒

If you have ticked 'No' to any of questions 1 – 8, please give an explanation on a separate sheet of paper.

Please answer the following questions by selecting from these choices and ticking:		YES	NO	Not Applicable
9	Will your project involve deliberately misleading participants in any way?	☐	☒	☐
10	Is there any realistic risk of any participants experiencing either physical or psychological distress or discomfort? If Yes, give details on a separate sheet and state what you will tell them to do if they should experience any problems (e.g. who they can contact for help).	☐	☒	☐



If you have ticked 'Yes' to questions 9 or 10, please give your justifications on a separate sheet of paper

Please answer the following questions by selecting from these choices and ticking:		YES	NO	Not Applicable
11	Do participants fall into any of the following special groups? If they do, please give explanation on a separate sheet of paper how you plan to address relevant ethical considerations according to the APA Ethical Guidelines.	Schoolchildren (under 18 years of age)		✓
	People with learning or communication difficulties		✓	
	Patients		✓	
	People in custody		✓	
	People engaged in illegal activities (e.g. drug-taking, etc)		✓	

There is an obligation on the lead researcher to bring to the attention of the School Research Ethics Committee any issues with ethical implications not clearly covered by the above checklist.

I am familiar with the APA Guidelines for ethical practices in psychological research (and have discussed them with the other researchers involved in the project) and will abide by them.

Addisu Berihun [Signature] 6/5/2019

Researcher (capital letters) Signature Date
Mulatu Asnakel [Signature] 6/5/2019

Supervisor (capital letters: for students) Signature Date

FOR OFFICIAL USE ONLY

OUTCOME OF ETHICAL APPROVAL APPLICATION

This research project has been considered using agreed School's procedures and is now:

- ☒ Approved
- ☐ Approved with recommendation
- ☐ Approved with condition
- ☐ Deferred
- ☐ Rejected

[Signature] [Signature] July 25, 2019

(Chair, Research Ethics Committee)

Signature

Date



Ref. No.

Date:

PM23/34
8/8/2019

Institutional Review Board (IRB) of St. Paul's Hospital Millennium Medical College (SPHMMC)

Ethical Clearance

Research Title: - Compassion fatigue and associated factors among health care providers in St. Paul's hospital millennium medical college Addis Ababa, Ethiopia

Principal Investigator: - Addisu Berihun

The IRB of SPHMMC has reviewed the above mentioned research proposal and made the following decision:

- Approved:- _____
- Approved with recommendation:- _____
- Approved on condition :- _____
- Disapproved:- _____

The decision is valid for 12 months and the research should be conducted in compliance with the protocol/proposal approved by the IRB of SPHMMC. Any subsequent revision/amendment of the protocol/proposal needs approval before conduct of the research. The researcher should also submit written summaries of the research status to the IRB every 03 months. Upon the conclusion of the study, manuscripts and thesis work to the final/completed research project needs to be submitted to the IRB.

IRB Chair:

Signature: _____

Date: August 7, 2019

Mahteme Bekele

Mahteme Bekele (MD)
Associate Professor Research
Directorate Director



Cc:

- Vice Provost for Academic and Research
- IRB
- Addisu Berihun
- SPHMMC