Understanding the Prevalence of Compassion Fatigue, Compassion Satisfaction, and Resilience in Primary Care

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Understanding the Prevalence of Compassion Fatigue, Compassion Satisfaction, and Resilience in Primary Care

by

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A Scholarly Project Submitted to the College of Nursing is Partial Fulfillment of the Requirements for the Degree Doctorate of Nursing Practice

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Abstract

Compassion fatigue (CF), its components of burnout (BO) and secondary traumatic stress (STS), and compassion satisfaction (CS) affect healthcare providers and staff and can dramatically influence patient care and access to primary care services. Resilience is a tool which serves as a protective factor that can mitigate CF and enhance CS. There is a gap in research regarding the relationship between compassion fatigue, compassion satisfaction, and resilience among primary care providers and frontline staff. Additionally, the current COVID-19 pandemic has revealed healthcare’s deficits related to staff and provider burnout, a myriad of workforce safety issues, disparities in care, and a discouraged workforce. The aftermath of the COVID-19 pandemic will take years to heal but, adopting protective resilience efforts can heal the trauma and exhaustion that it has inflicted. This study evaluated responses from multiple primary care clinics within the same academic medical center in New Mexico and utilized the Professional Quality of Life 5 (ProQOL 5) tool, the Resilience Scale-14 (RS-14) tool, and a demographics survey. Significant findings of this study showed that the majority of individuals experienced moderate levels of CS (59%) and BO (53%) as well as high levels of resilience (48%). There was a positive correlation between the years an individual spent at their clinic and CS. Another significant finding was that females reported higher levels of CS than males. Of utmost importance, there was a significant positive correlation between CS and resilience and a significant negative correlation between BO, STS, and resilience.

Keywords: compassion fatigue, compassion satisfaction, burnout, secondary traumatic stress, resilience, professional quality of life, and primary care.
Dedication

I dedicate this work to my beautiful children Julia, Evan, and Hannah. Your love and encouragement have sustained me and your words of, “Mom, I am so proud of you. You’ve got this!” have meant the world to me. I hope I have instilled in you a love for never-ending learning, to reach for your goals, and to always serve others with a happy heart. You are my world.

To my loving and incredibly patient husband, Brian. You have walked this journey by my side and held me up when I was not sure how to continue. You always stepped right in when I was struggling, especially while I tried to balance home, work, and school all during a pandemic. Whether it was making a coffee run, celebrating my successes, or providing a hug when I needed it, you were my rock. Thank you for being my biggest fan and supporting me while I pursue this dream.

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Understanding the Prevalence of Compassion Fatigue, Compassion Satisfaction, and Resilience in Primary Care

CHAPTER 1: Introduction and Background

Compassion fatigue (CF), compassion satisfaction (CS), burnout (BO) and secondary traumatic stress (STS) affects healthcare providers and staff and can ultimately jeopardize patient care and access to primary care services. Primary care providers and teams serve as the coordinators of patient care and are often the first contact patients have with our complex healthcare system. Specifically, primary care has a unique opportunity to engage patients in their health care but concurrently, they carry an immense responsibility. Primary care is responsible for coordinating care in a challenging healthcare system which includes addressing acute care needs and chronic disease management across an individual’s lifespan, promoting and supporting healthy living, integrating behavioral health and attending to social determinants of health needs.

For the purposes of this scholarly project, primary care providers (PCPs) include physicians, nurse practitioners (NP) and physician assistants (PA). Additionally, the “primary care team” includes registered nurses (RN), medical assistants (MA), registration clerks, community support workers (CSW), social workers, and nurse case managers.

As health and social needs increase, the role of the primary care provider and team has become incredibly challenging. Papanicolas et al. (2018) describe some of these daunting challenges for primary care in the United States, as compared to the 10 highest income countries. They include the highest percentage of overweight or obese adults, reported at 70%, the lowest life expectancy at 78.8 years, the highest rate of infant mortality, and the highest rate of the population living in poverty. First in the world for health care spending, the United States life expectancy is now decreasing and social and health disparities are increasing (Haq et al., 2019). There is an inadequate number of primary care providers to meet population needs as the United
States has a lower percentage of PCPs than other high-income countries (Haq et al., 2019). Specifically, from 2010-2015 there was a 7% decline in PCPs in the United States yet, specialists increased by 7% (Haq et al., 2019).

Additionally, the Institute for Healthcare Improvement’s Triple Aim directs healthcare systems to simultaneously improve patient experience, reduce cost, and improve health outcomes (IHI, n.d.). The Triple Aim challenges health care organizations to address the demands of an aging population, the increase in chronic conditions, all while addressing the deficiencies of the United States health care system (IHI, n.d.). In a compelling article, Bodenheimer and Sinsky (2014) discussed that the Triple Aim was lacking a critical component and necessitated moving towards a Quadruple Aim: improving the work life for primary care providers and staff which in turn, could reduce burnout. A catalyst for this urgent call was that rates of primary care physician burnout increased from 51.3% in 2011 to 63% in 2014 (Shanafelt et al., 2015). In order to optimize and achieve Triple Aim goals, there must be an engaged and empowered workforce. This key component is essential to be able to address both patient outcomes and workforce concerns.

Spinelli et al. (2016) described that the health care system is inherently designed to produce burnout therefore, it is essential for organizations to understand the factors associated with burnout. The complexity of the health care system directly affects and takes a toll on those delivering care. There are several issues that can contribute to creating this detrimental environment for healthcare providers and teams and thus can lead to compassion fatigue and burnout. The changing landscape in the delivery of health care can lead to the depletion of reserves for health care providers and teams. Dyrbye et al. (2017) explain that some influences include system inefficiencies, excessive workloads, ever-changing organizational climates, lack
of social support, decrease in autonomy, pressures of incentive pay, and the increase in clinical burden. Additionally, new payment models, publicly reported quality metrics, and inefficient electronic health records add to this already complex picture (Dyrbye et al., 2017). For both providers and teams, the risk of burnout is significant and there can be suffering among the individuals who have dedicated their lives to helping others. This imbalance between practice constraints and the desire to help others is seen daily in primary care clinics.

Although the focus of research studies has primarily been related to physician burnout, many primary care practices have integrated care teams that include physicians, nurse practitioners, physician assistants, registered nurses, medical assistants and nonclinical staff. In a recent study, Richardson et al. (2016) found that among medical students and residents, 24% reported high burnout and 27% reported high levels of secondary traumatic stress. Bodenheimer and Sinsky (2014) reported that 68% of front-line receptionists experienced verbal abuse from patients and felt underappreciated. Edwards et al. (2018) reported that in smaller primary care practices, burnout was prevalent among all clinical and non-clinical staff although physicians, nurse practitioners, and physician assistants reported slightly higher rates. Kim et al. (2019) explained that collaboration, shared responsibility, and trust are attributes that registered nurses (RN) in Patient Centered Medical Home (PCMH) clinics identified as contributing factors in decreasing primary care RN burnout and improving patient care coordination. Yet, as Dyrbye et al. (2017) explained, there is a current lack of research related to the “work experience of other members of the health care team, including nurse practitioners, physician assistants, pharmacists, medical assistants, and nonclinical staff” (p. 4). In primary care, each team member plays a role in assisting the patient in achieving goals and contributes to the delivery of quality care.
Therefore, it is critical that there is consideration for all team members’ perspectives and the varying influences related to compassion fatigue.

**Problem Statement**

To further comprehend the immense impact that compassion fatigue, compassion satisfaction, secondary traumatic stress and burnout can have on healthcare access and provider and staff engagement, it is essential to understand current healthcare trends and the state of an already strained workforce. Primary care serves as the cornerstone for delivering healthcare to both rural and urban communities therefore, it is imperative to recognize the complexities related to providing this care. Complexities include trends related to the current and future status of provider and nursing shortages and the current environment of primary care in New Mexico (NM), which includes health and socioeconomic indicators.

**Primary care environment**

In 1996, the Institute of Medicine’s Committee on the Future of Primary Care defined primary care as:

> The provision of integrated, accessible health care services by clinicians who are accountable for addressing a large majority of personal health care needs, developing a sustained partnership with patients, and practicing in the context of family and community. (p. 1).

MacLean et al. (2014) summarize primary care as “the most basic and the most complicated form of health care service…” (p. 444). This simplicity describes the delivery of basic health care services to a patient. However, the complexity can arise when the responsibilities of primary care go far beyond the health care needs of the patient and addresses the intricate needs of individuals, families, and communities. With this definition in mind, it is
imperative to understand the myriad of patient needs that PCPs and primary care teams encounter on a daily basis.

In primary care, there is an immense disparity related to funding. The majority of office visits in the United States take place in primary care clinics however, only 4%-7% of healthcare dollars are designated to primary care services (www.primarycareprogress.org). This is a substantial misalignment of funding for essential primary care services and has contributed to a crisis in primary care. In addition to reimbursement and sustainability concerns, primary care providers and staff experience intense stress, pressure, and frustration that can lead to burnout and eventual turnover. The cost of burnout not only impacts the financial stability of an organization, but it can result in poor patient outcomes, a decrease in patient satisfaction and a loss of critical access to medical services. This increase in care provided by PCPs is realized every day in primary care practices across the country. PCPs are managing incredibly complex patients without adequate specialty support. This lack of support manifests itself when the newly diagnosed patient with Lupus has to wait months before seeing a rheumatologist or when there is a year wait for the patient experiencing chronic pain to see a neurosurgeon. Many patients who have specialty needs have a myriad of other chronic conditions that only add to the complex care that is provided by PCPs. Ultimately, the PCP is responsible for providing ongoing care for these patients but they are being asked to do so without critical specialist collaboration.

Provider shortage

One goal of primary care is to maintain ongoing relationships with patients and decrease the chances of fragmented care. However, this has become more difficult to achieve as the rate of provider turnover increases and the concern of provider shortages intensifies. Burnout and the aging workforce are two critical factors that can lead to provider turnover. In either case, patients
experience disruption in care and the burden placed on other providers and team members can be overwhelming. These transitions and disruptions in care can occur frequently for providers and staff and it has the potential to lead to increased concerns related to compassion fatigue.

There are several key factors to understand when discussing the enormity of projected provider shortages. An aging United States’ population puts an even greater burden on current unmet demand for primary care providers. By 2032, 48% of the population will be aged 65 and over in the United States and NM will rapidly move from their current ranking of 23rd to 4th (U.S. Census Bureau, 2018). Significant findings of the 2019 Association of American Medical Colleges (AAMC) report, demonstrating the gravity of the current provider situation, include a greater emphasis on population health outcomes. Eighteen million more people will be alive in 2032 (AAMC, 2019). This has a direct impact on the delivery of primary care services, and by 2032 there is a projected shortage of between 21,100 and 55,200 (United States) primary care physicians who are providing direct clinical care to patients (AAMC, 2019). Compounding this issue, specialty care will experience a shortage of 24,800 to 65,800 physicians in the United States (AAMC, 2019) as well. This relationship is important to note because as there are less specialists available, PCPs must assume the role of the specialist provider. This contributes to the increasing demands on PCPs in both patient volume and broader clinical knowledge acquisition needs. Concurrently, the aging United States physician workforce plays a significant role as 15% of the physician workforce is over the age of 65 and 27% are between the ages of 55 and 64 (AAMC, 2019). In New Mexico, nearly 21% of primary care physicians are over the age of 65 and about 24% are between the ages of 55 and 64 (New Mexico Health Care Workforce, 2019).

As reported in the 2019 AAMC report, physician assistants (PA) and nurse practitioners (NP) are vital in addressing the projected physician shortfall. As of 2017, there were 123,100
physician assistants and 248,000 nurse practitioners in the United States and approximately 75% of nurse practitioners were practicing in primary care (AAMC, 2019). Heath (2018) reported that 28% of physician assistants are in primary care roles. Projections for primary care suggests that nurse practitioners by will increase by 47% by 2025 and physician assistants by 38% (Heath, 2018). However, there are enormous barriers to still cross at the national and state levels in regards to expanding the scope of nurse practitioners and physician assistants. Although the assumption is that physician assistants and nurse practitioners will be integral in addressing access concerns, the enormity of the situation continues to develop. Underserved populations are still in desperate need of healthcare access and provider shortages will increase when considering issues such as addressing healthcare inequities across socioeconomic and rural populations.

**New Mexico PCP shortage.** According to the New Mexico Health Care Workforce Committee Report (2019), New Mexico’s 2025 PCP shortage projection is approximately a deficit of 7%. Using national population-based benchmarks, 30 out of 33 New Mexico counties have a PCP shortage as reported by the Health Resources & Services Administration (data.HRSA.gov, 2019). PCP shortages do not only exist in the state’s rural regions. In Bernalillo county, the largest metropolitan region of the state, there are 27 primary care clinics identified as Health Professional Shortage Areas (data.HRSA.gov, 2019).

Although New Mexico workforce trends for PAs and NPs parallel national trends, it is important to understand the geographical concerns in NM. Utilizing national benchmarks alone are not sufficient in understanding the complexities of providing primary care services in a rural and frontier state such as NM. The PCP shortage is a more problematic issue to address when factoring in the rurality of New Mexico residents. Due to the vast geographical and population variances, there is a large care burden placed on urban PCPs in NM. Special attention should be
placed on improving PCP resilience and preventing compassion fatigue in order to preserve the current workforce and the future of primary care services in NM.

*Nursing shortage*

There is a significant projected shortage for the nursing workforce over the next 10 to 15 years. For many regions of the country, this shortage is a present concern with troubling shortage forecasts. Many of the same contributing factors that influence the PCP shortage hold true for nursing. The increase in preventive care services, the aging United States population, and the increase in chronic condition management are all important factors to consider when discussing workforce demands. Due to these changing population needs, the expected result is an increase of 12% in the demand for nurses over the next ten years (Health Resources and Services Administration, 2019). It is important to note, that according to Health Resources and Services Administration (2019), about 1 million nurses will retire in the next decade and currently 50% of the nursing workforce is 50 years of age and older. These significant workforce issues can potentially contribute to a decrease in job satisfaction and increase in turnover rates due to insufficient staffing of nurses. According to a report by Nursing Solutions, Inc (2016), the registered nurse (RN) turnover rate in 2015 was 17.2%. Although overall hospital turnover rates had stabilized the RN rate continued to increase from previous years. As a result, this increasing turnover rate can impact patient care, an organization, and ultimately communities.

**New Mexico nursing shortage.** In New Mexico, there is additional urgency to not only meet the needs of the state but also maintain the current RN workforce. It is imperative to understand the influence of national benchmarks as they are not measures of the adequacy of the workforce nor do they account for variations in population disbursement or severity of health care needs (New Mexico Health Care Workforce, 2019). According to the New Mexico Health
Care Workforce Committee report (2019), 3,689 nurses are currently needed to meet the national RN benchmark. Thirty-one out of thirty-three counties are realizing a shortage of RNs. This gap in registered nurses represents the largest gap, relative to this benchmark, for all health professions noted in the New Mexico Health Care Workforce Committee report (2019). Another important factor to consider for New Mexico, is that more than half of the counties in the state have experienced a decrease in RNs since 2012 (New Mexico Health Care Workforce Committee, 2019). As focus moves towards providing more primary care services, the nursing shortage will have an enormous impact on care coordination and direct nursing services to all New Mexico communities.

*New Mexico demographics*

The state of New Mexico (NM) is 121,298 square miles and has a population of 2,095,428 (U.S. Census Bureau, 2018). In New Mexico, of the 2.1 million residents, 66% of the population resides in urban counties, 26% in rural counties and 8% in frontier counties (New Mexico Health Care Workforce Committee Report, 2019). Bernalillo county is the most populated urban county in NM where 678,701 NM residents live (U.S. Census Bureau, 2018). New Mexico is ethnically and racially diverse: 49.1% Hispanic, 37.1% White, 2.6% Black or African American, and 10.9% American Indian (U.S. Census Bureau, 2018). Similarly, Bernalillo is a minority-majority county: 50.3% Hispanic, 38.5% White, 3.4% Black or African American, and 6.2% American Indian (U.S. Census Bureau, 2018). The percentage of New Mexicans who live in a household where a language other than English is spoken is 33% and approximately 40% in Bernalillo county (NM Department of Health, 2019).

Impressively, New Mexico’s population without health insurance decreased from 23.9% to 9.3% from 2001 to current, due primarily to the expansion of Medicaid, as a result of the
Affordable Care Act (NM Department of Health, 2019). This positive outcome in health care coverage also had, and continues to have, a significant impact on primary care. There are more New Mexicans who now have health insurance and are in need of primary care services. This increased need for access, challenges already burdened primary care resources.

New Mexico health indicators. It is critical to understand the unique primary care needs of New Mexicans. America’s Health Ranking Annual Report (2019), reported that 44.5% of adult New Mexicans stated that their physical health was not good for 14 or more days in the past 30 days and New Mexico was ranked 47th in infectious diseases (chlamydia, pertussis, and salmonella). Some critical health concerns facing New Mexicans include the top causes of death: heart disease, cancer, unintentional injuries, chronic lower respiratory disease, stroke and diabetes as well as alcohol related deaths that account for 1 in 6 deaths (NM Department of Health, 2019). Notably, New Mexico’s aging population contributes to the demands placed on primary care and currently New Mexico is 14th in population over the age of 65 (NM Department of Health, 2019).

In order to further understand the breadth of primary care in New Mexico, there are several other health indicators that are important to mention. Since 1995, New Mexico’s suicide rate has been 1.5 times the national average and New Mexico has been ranked as one of the highest states for drug related deaths. From 2010 to 2014, 80%-85% of drug overdose deaths were unintentional and 48% involved methadone, oxycodone, or morphine, 34% involved heroin, and 17% involved methamphetamines (NM Department of Health, 2019). In 2016, 10% of NM adult residents were reported to have depression, and this did not vary significantly by region (NM Department of Health, 2019).
Collectively, these health indicators present a picture of the complicated needs and challenges that primary care providers and teams encounter in their practices on a daily basis. Those delivering primary care services are not only responsible for providing preventive, routine care for every age group but they must also be well-versed in behavioral health, substance use concerns, reproductive health, chronic disease management, and pain management all while adhering to organizational initiatives such as achieving the goals of the Triple Aim.

**New Mexico social determinant indicators.** Adverse social determinants of health (SDOH) such as poverty, unsafe neighborhoods, unemployment, lack of adequate access to healthy foods, and lack of access to health care services increase the risk for multiple chronic conditions and poor health outcomes. New Mexico has some noteworthy challenges that directly influence an individual’s health status. According to American Health Rankings (2019), New Mexico’s national rank of 50th in high school graduation, 49th in children living in households below the poverty level, 39th in drug deaths, and 49th in violent crimes all contribute to overall health outcomes. Poverty in NM has a profound impact on both medical and social services. In New Mexico, approximately 21% of residents live below the federal poverty level and 18% reside in Bernalillo county (U.S. Census Bureau, 2018). Statistics describing other social challenges in New Mexico are similarly discouraging. As of 2015, New Mexico was ranked 3rd in the country for children under the age of 18 who experience food insecurity and approximately 16% of New Mexicans experience a lack of adequate access to food as compared to 13% of the United States population (NM Department of Health, 2019).

**Workforce influences.** Social determinants of health directly impact primary care, as primary care is being asked to assess and address patients’ unmet health and social needs. Addressing social determinants of health in primary care calls for an urgent change in roles and
additional team members. The question is how to integrate these new roles into daily practice and how to support the PCP in achieving the goal of meeting a patient’s social needs in addition to health concerns.

The vast majority of primary care physicians agree that SDOH are an integral aspect of a patient’s care but they lack the support to be able to address this need (Kaufman, 2016; Rich, 2018). The 2018 Survey of America’s Physicians found that approximately 90% of physicians reported that poverty or other social needs were linked to their patients’ serious health problems (physiciansfoundation.org, 2018). A compelling article by Kung et al. (2019) described four themes that PCPs identified which were significant in their practice: 1) burnout influenced the ability of a PCP to utilize clinic resources; 2) PCPs recognized that addressing social needs affected clinic flow and influenced provider emotional wellness; 3) well integrated primary care teams that included addressing social needs decreased provider burnout; and 4) social need resources at the clinic level were helpful but there were other factors influencing burnout.

For primary care to effectively address social disparities, action must occur at both the clinic and community levels. Community level practices are well-connected to available community resources, neighborhood associations, and schools. A significant team member to include in primary care teams is a community support worker (CSW), as there is evidence that this critical role can help fill the void and they are able to address SDOH needs (Kaufman, 2016). CSWs focus on a patient’s unmet social needs and provide a critical perspective to the PCP. The CSW is an integral part of the primary care team and works alongside medical assistants, nurses, social workers and nurse case managers.

Although CSWs are an important addition to a primary care team, all staff including medical assistants, nurses, interpreters, and registration clerks must also be cognizant of the
influence SDOH have on a patient’s life and the impact they have on health outcomes. Primary care has an opportunity to expand their ability to meet a myriad of social needs by expanding current roles and integrating new roles into practices; by doing so, this change can help relieve potential burnout for providers and other team members.

**Study Purpose/PICOT**

The purpose of this study is to describe the prevalence and relationship among compassion fatigue (CF), compassion satisfaction (CS), secondary traumatic stress (STS), burnout (BO), and resilience among primary care providers and staff. This study will explore the characteristics of provider and staff demographic attribute differences. The study will also explore the impact that CF, CS, STS, BO and resilience have at the clinic level. The study setting is at a large, urban, academic medical center in the New Mexico. The medical center is comprised of ten primary care clinics that vary geographically and serve diverse patient populations.

**Objectives and Goals**

The goals of this project are:

1. To describe the prevalence of CF, STS, BO, CS, and resilience among primary care providers and team members from different clinics employed by the same institution.
2. To determine the association between specific participant demographic attributes and the levels of CF, STS, BO CS, and resilience.
3. To describe the demographic attributes of the study population.
4. To develop and disseminate recommendations to address CF and CS in primary care.
Scope of Study

The intent of this study is to fill several gaps in the existing literature by exploring the prevalence of CF, CS, STS, BO and resilience among primary care providers and team members. The study will utilize Professional Quality of Life 5 (ProQOL 5) survey and the Resilience Scale (RS-14) to assess CF, CS, STS, BO, and resilience. Participant demographic information will be collected. All primary care providers, nurses, medical assistants, registration clerks, community support workers, nurse case manages, and social workers will receive an invitation to participate in the survey.

Assumptions

One assumption of this study is that demographic attributes influence the reporting of compassion fatigue, burnout, secondary traumatic stress, and resilience. The second assumption is that as resilience increases, compassion satisfaction increases and compassion fatigue decreases for both providers and team members. A third assumption is that clinic demographics influence the reported CF, CS, STS, and BO symptoms. Lastly, is that the validated Professional Quality of Life 5 (ProQOL 5) and Resilience Scale-14 (RS-14) survey tools produce reliable results.

Significance of the Study

A discussion related to the prevalence of compassion fatigue, compassion satisfaction and resilience is important to be able to support and maintain an engaged primary care workforce, and provide adequate health care access. Willard-Grace et al.(2019) suggested that when addressing burnout, healthcare organizations “need to understand the multifactorial causes to develop effective retention strategies for clinicians and staff” (p. 41). Burnout is a complex issue and this project aims to unveil those complexities.
While it is known that compassion fatigue occurs in areas of healthcare such as oncology, trauma services and emergency care, there is little research related to primary care. In a systematic review, Robertson et al. (2016) concluded that there were few studies that focused on primary care and resilience and that the focus was mainly on doctors with little understanding of resilience in other healthcare professions. This scholarly project is an opportunity to evaluate results from multiple primary care clinics within the same organization and utilize the ProQOL 5 and RS -14 survey tool. The clinics differ geographically, although within the same urban area, and patient demographics vary. The primary care clinics in this project have received the National Committee for Quality Assurance Patient Centered Medical Home designation however, the integration of services differ. There is a gap in research regarding the relationship between compassion fatigue, compassion satisfaction, and resilience for primary care providers and staff. The intent of this study is to bring a voice to primary care and further appreciate its uniqueness.

CHAPTER 2: Review of the Literature

A review of the literature was completed utilizing the following databases: the Cumulative Index of Nursing and Allied Health Literature (CINAHL), PubMed, PsycINFO, Google Scholar, and gray literature. Keywords used for the literature search included compassion fatigue, compassion satisfaction, burnout, secondary traumatic stress, resilience, professional quality of life, and primary care. The articles chosen for this literature review consisted of research in peer reviewed journals, editorials, and expert opinion. An in-depth search associated with demographic and environmental indicators included workforce reports, professional organizations, and primary demographic sources. Key terms included New Mexico primary care,
Compassion Fatigue

In a review of the literature regarding compassion fatigue (CF), it is important to define both compassion and compassion fatigue. According to Stamm (2002), “compassion is feeling and acting with deep empathy and sorrow for those who suffer” (p. 107). In the early 1990s, Joinson (1992) was the first to describe the phenomena of compassion fatigue as a unique form of burnout that can especially target healthcare and caregiving professionals. Compassion fatigue, as defined by content expert Figley (1995), is when the caregiver has a reduced capacity to be empathetic or a lessened interest in “bearing the suffering of clients,” and therefore “the natural consequent behaviors and emotions resulting from knowing about a traumatizing event experienced or suffered by a person” (p. 7). Furthermore, CF is described as the “cost of caring” (Figley, 1995, p. 1). Stamm (2010) delineates compassion fatigue into two separate components: burnout and secondary traumatic stress. These components contribute to the overall description of compassion fatigue as it is considered to be a descriptive versus a diagnostic term (Stamm, 2010).

The physical and emotional exhaustion that providers and staff experience can be significant. Burridge et al. (2015) describes this exhaustion, as it relates specifically to primary care nursing, and explain that due to the unique patient relationships that develop in primary care, the effects of “long-term complex social and medical health problems of multiple patients can be draining” (p. 86). This exhaustion can lead to feelings of anxiety, anger, having intrusive thoughts, and depression. If these symptoms are ignored, CF can have deleterious effects and can
impact not only the health of the healthcare professional, but has the potential to effect patient safety (Wijdenes et al., 2019).

This fatigue can be a result of the compassionate care that healthcare professionals provide every day and a consequence when there is neglect in self-care (Sansó et al., 2015). Sansó et al. (2015) found that among palliative care professionals, self-care and self-awareness served as protective factors in lessening the development of symptoms of compassion fatigue and burnout. In a meta-analysis, Zhang et al. (2018) concluded that there was a relationship between implementing self-care strategies and reducing compassion fatigue and by doing so, can be a contributor to decreased turnover and improved quality of care. Additionally, stress and negative personal affect can lead to CF while a positive affect can serve as a protective factor (Zhang et al., 2018).

Contributing factors related to CF include demographic attributes such as age, gender, years of experience, and practice location. The majority of research has focused on inpatient nursing populations. In several studies, female nurses exhibited CF more often than their male colleagues (Mooney et al., 2017 and Hooper et al., 2010). A study by Hooper et al. (2010) reported that 28.4% of nurses employed in the emergency room, oncology, nephrology, and intensive care units were at risk for CF and 86% of emergency room nurses scored in the moderate and high-risk range. Forty-three percent of nurses (n=315) employed at a large, urban, acute care hospital were at risk for moderate to high levels of CF (Wijdenes et al., 2019).

In terms of years of RN experience and years in specialty area, Hooper et al. (2010) did not report any significant differences in CF among four inpatient specialties. Hunsaker et al. (2015) found that older nurses and those with more experience had lower levels of CF than newer, younger nurses. There was a significant increase in compassion fatigue from years 2 to 5
of employment (Wijdenes et al., 2019). Hooper et al. (2010) researched nurses in various inpatient settings which included those who cared for patients with acute needs, chronic needs, and trauma patients. The conclusion was that simply, all nurses are at risk for CF. Many times, the warning signs of CF go unnoticed by both the individual and their peers (Hooper et al., 2010). These findings explicitly call for action from organizational leadership to intervene early in order to improve retention, job satisfaction, engage a healthier workforce, and promote positive patient outcomes.

**Burnout**

Burnout contributes to CF and is often associated with feelings of hopelessness and can result in having difficulties with work or performing a job effectively (Stamm, 2010). The negative feelings of burnout can leave providers and staff feeling as though the care they provide does not make a difference. It is important to note that burnout develops gradually over time, where CF can have a sudden onset and without much warning (Figley, 1995). Burnout presents in a variety of ways but most often symptoms include intense emotional, physical, and psychological exhaustion as well as a decrease in feeling personal success (Cummings et al, 2018).

In a study of trauma nurses, Hinderer et al. (2014) reported that there was a strong correlation between burnout and compassion fatigue and approximately 36% were considered to have burnout or to be at high risk for developing BO. Important influences in preventing BO included positive coworker relationships however, factors that contributed to burnout among nurses were increased time spent in direct patient care, more years in current position, and longer shifts (Hinderer et al., 2014). Conversely, Mooney et al. (2017) did not find a relationship between BO and increased years of experience among intensive care unit and oncology nurses.
Similar to gender differences in CF, Mooney et al. (2017) found that male nurses exhibited significantly lower rates of BO than their female colleagues.

Burnout occurs across every healthcare profession and specialty. Some of the highest rates of burnout occur among family physicians and for those who work in academic settings this can be more prevalent since their responsibilities stretch far beyond patient care (Agana et al., 2017). In the Agana et al. (2017) qualitative study, lack of time was the dominant contributor to burnout. Physicians who report burnout are less efficient, are more likely to have patient safety incidents and provide poor patient care (Panagloti et al., 2018; Willard-Grace et al., 2019). Zubatsky et al. (2018) concluded that a strategy that might help curb burnout for PCPs is an integrated practice. This collaborative environment can assist in lowering provider burden and provide more comprehensive care to patients. De Marchis et al., 2019 found that among 1298 family physicians, those who reported a high clinic capacity to address patients’ social needs also had lower burnout. Other factors that contributed to decreased BO for family physicians included high workload control, high team efficiency and minimal time spent on clinical documentation (De Marchis et al., 2019). Edwards et al. (2018) contributed important findings in regards to burnout in primary care practices. They concluded that burnout was present among physicians, advance practice providers, and staff in smaller practices and solo practices realized less burnout than health system clinics or Federally Qualified Health Centers (Edwards et al., 2018).

Residents and medical students are susceptible to burnout as well. Approximately 24% of resident and medical students reported high levels of burnout according to a recent study by Richardson et al. (2016). Panagloti et al. (2018) reported that burnout with low professionalism go hand in hand and this relationship is most apparent in residents and new physicians. An important finding in the Richardson et al. (2016) study was that empathy and self-compassion
served as protective agents against burnout and secondary traumatic stress. In an academic setting, curriculum that fosters these positive attributes could have the potential to increase provider well-being.

The concern related to burnout extends beyond physicians and learners. In a longitudinal study of primary care providers (physicians, nurse practitioners, physician assistants) and staff (medical assistants, registered nurses, front office staff, behavioral health professionals), Willard-Grace et al. (2019) reported that 53% of all providers and staff reported burnout. Additionally, the rate of turnover two to three years later, was reported at 30% for PCPs and 41% for staff (Willard-Grace et al, 2019). The implications of unaddressed burnout can be severe, especially in areas that are experiencing primary care shortages. A thought-provoking theme specifically related to primary care, was that physicians who aligned their careers with a sense of a calling or with a social mission were less likely to experience burnout or leave their practice (Yoon et al., 2017). This sense of calling can serve as a critical layer of protection that could combat burnout for both providers and staff.

Secondary Traumatic Stress

Secondary traumatic stress contributes to CF and can occur with “work-related, secondary exposure to people who have experienced extremely or traumatically stressful events” (Stamm, 2010, p. 13). Miller et al (2018) explained that STS symptoms could potentially develop when there is exposure to traumatic events. Healthcare workers are exposed to patient suffering on an ongoing basis and can internalize and take on this suffering which can lead to STS (Ludick & Figley, 2017). Symptoms of secondary traumatic stress include experiencing emotional numbness, becoming easily disengaged or annoyed, finding it difficult to concentrate, and having unintentional thoughts about patients (Figley, 2017). The concept of STS is closely associated
with symptoms of Posttraumatic Stress Disorder (PTSD) and is recognized as a valid DSM-5 Criterion A contributor for PTSD (Roden-Foreman et al., 2017). It is this relationship that creates urgency in addressing and understanding STS.

Historically, STS research has focused on trauma care, palliative care, and oncology (Carey et al., 2019), but it is important that STS is recognized in a wide array of disciplines. In a study that examined STS in providers who cared for heart and lung transplant patients, Carey et al. (2019) found that 43% of those surveyed had significant levels of STS symptoms in three STS symptom clusters and 77% reported significant levels in at least one symptom cluster.

The relationship of gender and STS varied between studies. Carey et al. (2019) found that female providers had a higher association with STS than their male counterparts. Conversely, Roden-Foreman et al., 2017) did not find this association in their study of emergency room providers. Recent studies concluded that the amount of time spent caring for patients did not prove to be a determining factor of experiencing STS (Carey et al., 2019; Roden-Foreman et al., 2017). This finding was contrary to the research by Ludick & Figley (2017) as they predicted that with increased exposure, there is an increased risk of STS.

Interestingly, Butler et al. (2017) studied graduate social work students in a training program that consisted of trauma content and reported that all students reported experience with trauma exposure whether it was clinical based or via coursework. The students in this program experienced high STS and BO. Okoli et al. (2019) reported that of 764 healthcare workers in a large academic medical system, greater STS scores were realized for social workers and psychologists, staff who have witnessed or experienced workplace violence, and healthcare workers in the emergency room, intensive care and psychiatric units. These findings add to the
complexity of understanding STS among healthcare workers. The effect of the ongoing trauma they observe or directly experience every day can be monumental and devastating for many.

**Compassion Satisfaction**

A review of the literature on CF encompasses a broad range of concepts. The literature does not solely focus on the value of CF as a single concept but also on mitigating effects such as compassion satisfaction and the development of resilience. Compassion is “one’s empathetic attitude towards another’s suffering with a desire to alleviate it” (Zhang et al., 2018, p. 1). Compassion is a fundamental attribute for healthcare providers and staff. Integral to combatting CF is compassion satisfaction (CS). Stamm (2010) defined CS as “feeling satisfied by one’s job and from the helping itself” and when someone has “happy thoughts, feel successful, are happy with the work they do, want to continue to do it, and believe they can make a difference” (p. 21). Compassion satisfaction can be protective by lessening the effects of burnout and secondary traumatic stress; ultimately lowering the likelihood of compassion fatigue symptoms.

Many studies have found that higher CS scores lead to lower STS and lower BO scores. Okoli et al. (2019) reported that social workers and psychologists had the lowest CS scores and the highest STS and BO scores and that the presence of workplace violence exhibited the same relationship. A meta-analysis by Zhang et al. (2018) concluded that positive affect and sociality could promote compassion satisfaction and decrease burnout. In a large teaching facility study, Kelly et al. (2015) found that among nurses, meaningful recognition led to an increase in CS thus having the potential to decrease CF. Mooney et al. (2017) explored this relationship among intensive care unit (ICU) nurses and oncology nurses and concluded that ICU nurses had lower CS and higher BO scores than oncology nurses and male nurses exhibited higher CS and lower BO and CF. Among victim advocates, there was a strong inverse relationship between CS and
BO as well protection against STS (Cummings et al., 2018). Hinderer et al. (2014) explained that greater age in trauma nurses correlated with higher CS and interestingly, lower education correlated with higher CS. Hunsaker et al. (2015) also concluded that older nurses experienced higher CS scores and lower CF scores.

It is critical that organizations understand the profound influence that CS can have on preventing compassion fatigue as CF could lead to unexpected turnover and poor patient outcomes. An early study by Killian (2008), stressed that social support was a significant influence that could lead to higher CS scores. Richardson et al. (2016) reported that, for residents and medical students, greater empathy, reduced personal distress, and self-compassion led to increased CS. Hunsaker et al. (2015) described that among emergency department nurses, high level manager support resulted in higher levels of compassion satisfaction. Cummings et al. (2018) suggested that due to the predictive, positive influence of CS, increasing CS should be a goal in interventions to curb STS and BO. It is not enough to simply attempt to reduce CF and BO, it is crucial to also promote compassion satisfaction (Kase et al., 2019). It is imperative to not only understand, but to also implement processes that promote CS and which can lead to a healthier workforce.

Resilience

Resilience is also powerful in averting CF. C. Figley and K. Figley (2017) discussed that the initial step to prevent CF is to recognize the signs and symptoms and then to develop a plan to lower the symptoms, which involves increasing resilience. Resilience is a strategy that “enables the worker to overcome challenges, including the emotional upset from providing direct client services” (Figley & Figley, 2017, p. 389). Attributes of high compassion fatigue resilience
includes adaptation by utilizing tools such as self-care, sense of satisfaction, and social support (Figley & Figley, 2017).

The literature related to resilience is broad and represents varying healthcare disciplines. Among trauma responders, those who reported high resilience levels also reported less CF and higher CS (Gonzales et al., 2019). Burnett and Wahl (2015) had similar findings among behavioral health and emergency preparedness responders where resilience played a significant part in explaining the relationship between CF and BO. Simpkin et al. (2018) surveyed 86 pediatric residents among four urban children’s hospitals and found that there was a strong correlation with low levels of resilience and high burnout. Eley et al. (2018) found that resilience depended on several different factors and specifically, primary care providers working in areas of greater socioeconomic disparity had a much more complex view of resiliency. This complexity involved a sense of team resiliency in tandem with individual resilient attributes and required alignment between work and personal values as well as flexibility and adaptability (Eley et al., 2018).

A consistent theme in the literature is that integrating resilience-building strategies into any plan that aims to reduce the impact of CF is essential. Content expert Figley (2017) suggests that by elevating resilience, compassion stress can be lowered and therefore prevent the likelihood of CF. Buck et al. (2019) also recommended that among family medicine residents and faculty, promotion of resilience should be supported at an individual and organizational level as a means to prevent burnout. Integrating resilience training into curriculums, staff trainings, and organizational culture could prove to be extremely beneficial for providers, staff, and patients.
Gaps in Literature

Although there is a considerable volume of literature addressing the concepts of compassion fatigue, burnout, secondary traumatic stress, compassion satisfaction, and resilience, there is limited research both addressing these components collectively and their prevalence in primary care settings. There is also a significant gap in the literature of studies originating from voices of those who work in primary care settings. Most of the literature have focused on emergency care, trauma, or oncology services. In a review of literature by Sorenson et al. (2016), it was determined that there was limited literature addressing CF among advance practice providers and other healthcare workers. This scholarly project will provide prevalence data that can address this gap in the literature as it focuses on CF, BO, STS, CS, and resilience among primary care providers and staff. The prevalence data will assist organizations and leaders to design programs that will address the critical after-effects that can occur with CF, BO, and STS and promote and recognize CS and resiliency efforts.

CHAPTER 3: Theoretical Model and Methodology

In 2017, Charles Figley introduced the Compassion Fatigue Resilience Model (CFRM) to explain the relationship of defined variables that predict one’s vulnerability to developing CF, BO, and STS and who will be resilient to it. The multi-faceted model links risk factors with protective attributes, thereby further improving resilience to CF. The theoretical model (Figure 3.1), illustrates the eleven variables that contribute to compassion fatigue resilience and the interconnectedness of those variables.
Figure 3.1 Compassion Fatigue Resilience Model

Reading the model from left to right, the first step in generating an appropriate empathetic response is understanding the empathetic ability and empathetic concern that the healthcare worker has in working with those who are suffering. There are also four variables that directly contribute to an increase in compassion stress: the overall empathetic response, traumatic memories, prolonged exposure to suffering, and other stressful life demands. Additionally, there are four attributes that serve as protective factors in preventing CF and STS. In the model, these factors are indicated with dotted lines and include self-care, detachment, sense of satisfaction, and social support. In order to further understand the CFRM, it is important to understand the definitions of each variable and the role they play in promoting or preventing CF.

**Exposure to Suffering**

This exposure to suffering speaks to the direct experience that the healthcare worker has with those who are suffering. Conversely, those who can minimize this exposure or exposure to trauma can in fact decrease their risk of compassion fatigue and stress. The concern is that this exposure is inherent to many healthcare roles and it not realistic to avoid prolonged trauma.
Figley (2017) describes the symptoms of those who are exposed to suffering and trauma that they “experience impaired cognitions directly and through decrease in positive moods” (p. 8).

**Empathetic Ability**

Empathetic ability refers to one’s capacity to identify suffering in someone else and then to understand their pain, suffering, and needs (Figley, 2002). Healthcare workers are healers and their empathetic ability allows them to understand emotions, especially those who have been traumatized, and appropriately respond to the patients’ needs (Figley, 2017).

**Empathetic Concern**

In the model, empathetic concern is the appropriate response to suffering. It is “the high level of compassion and interest in helping clients meet their goals as needed” (Figley, 2017, p. 8). Although empathetic concern is necessary, the model illustrates its contribution to secondary traumatic stress. Figley (2017) explains that without empathy there would be no secondary stress due to the lack of human and emotional connectedness.

**Empathetic Response**

The empathetic response is the summation of the exposure to suffering, empathetic ability, and empathetic response. An appropriate empathetic response requires the establishment of a trusting relationship between a provider and patient which creates a safe environment for both individuals (Figley, 2017). However, this empathetic response and trusting relationship can directly lead to secondary traumatic stress and eventual compassion fatigue (Figley, 2017). Although the empathetic response is necessary, it can take a toll on the provider as they are exposed to a patient’s trauma time and time again therefore placing themselves at risk for secondary traumatic stress and compassion fatigue. The CFRM integrates protective factors that mitigate the potential negative outcomes of the empathetic response.
Traumatic Memories

Traumatic memories serve as a risk factor for developing compassion fatigue and are associated with negative images or unwanted emotions (Figley, 2017). These memories can interfere with a provider’s ability to offer appropriate care to a patient. An important aspect that traumatic memories have is a direct impact on how providers function and they can lead to further depression and anxiety (Figley, 2017).

Prolonged Exposure to Suffering

The concept of prolonged exposure to suffering translates into the intense responsibility the healthcare worker feels in caring for those who are suffering and is associated with the lack of relief from the demands (Figley, 2011). The effects are cumulative and eventually lead to self-doubt, emotional pain, and stress (Figley, 2017).

Other Life Demands

The inclusion of other life demands is a critical part of the model and recognizes the stressors that exist outside of the work environment. Stressors such as financial difficulties, relationship concerns, illness, and various life responsibilities can add an enormous amount of stress to one’s work life as well (Figley, 2017). Figley (2017) further explains that even a minor life event could seem catastrophic to someone who is already at risk for secondary traumatic stress and compassion fatigue.

Self-Care

The CFRM incorporates resilience tools that can counteract the risk factors that lead to compassion fatigue. Self-care includes actions that improve someone’s physical and emotional health and provides a sense of comfort (Figley, 2017). This resilience tool supports someone to be able adapt to new and changing situations. Specifically, for healthcare workers, Figley (2017)
describes five areas that are often neglected: 1) taking care of nutritional needs; 2) managing sleep; 3) maintaining social support; 4) regularly finding joy in life; and 5) engaging in regular exercise.

**Detachment**

Practicing detachment is a way to disengage from traumatic work events and instead focus on self-care areas such as social support and finding joy in life. It is the ability to take a break, both physically and mentally, from work and can serve a profound protective factor. It is noted that not everyone has the same ability or willingness to utilize detachment but it is an important aspect of a self-care plan (Figley, 2017).

**Social Support**

Social support can be the most powerful protective factor against compassion fatigue and one that can contribute to building resilience especially when exposed to trauma (Figley, 2017). Figley (2002) explains five functions of social support: 1) emotional support; 2) encouragement; 3) advice; 4) companionship; and 5) tangible aid or being relieved of a task. Building a social support network can protect someone from the harmful effects of stress and trauma and minimize the feelings of isolation or loneliness.

**Compassion Satisfaction**

Compassion satisfaction is defined as the contentment one gets from doing their work well and experiencing a sense of accomplishment (Stamm, 2010). Compassion satisfaction is viewed as a protective factor and is directly associated with lower rates of STS (Figley, 2017). This satisfaction can counteract the negative effects that can occur with the empathetic response in addition to the other stressors and risk factors. Feeling proud of work accomplished and the positive feelings associated with being a helper can be powerful.
It is the interplay between these eleven variables that contribute to both the potential risk of developing compassion fatigue and to the resilience of healthcare workers and their ability to continue to provide empathetic care to patients whilst protecting themselves from CF and STS. The CFRM illustrates that compassion fatigue can in fact be prevented and the risk lowered by enhancing protective factors and lowering known risk factors, in other words, increasing resilience (Figley, 2017).

Methodology

This quantitative study examines the prevalence and relationship between compassion satisfaction, compassion fatigue, burnout, secondary traumatic stress, and resilience among primary care staff and providers. The study design utilizes electronic survey distribution to participants and includes three surveys: Professional Quality of Life 5 (ProQOL 5), Resilience Scale-14 (RS-14), and a researcher designed demographic survey (see Appendices A, B, and C).

Setting and Study Population

The setting for this study is a large, urban, medical center in the Southwest United States. The medical center serves as the state’s only Level I trauma hospital, is a safety net hospital, and has a diverse payor mix (68% Medicaid and Medicare). Within the medical center, ten primary care clinics are included in the study sample. The sample of study participants include primary care physicians, nurse practitioners, physician assistants, registered nurses, medical assistants, registration clerks, community support workers, nurse case managers, and social workers. The aforementioned participants were asked to voluntarily complete the electronic surveys regardless of years of experience, time spent in primary care at the medical center, or hours worked per week. There are approximately 386 primary care providers (physicians, nurse practitioners, and physician assistants) and clinic staff (nurses, medical assistants, registration clerks, community
support workers, nurse case managers, and social workers) employed among the ten primary care clinic sites and invited to participate.

A convenience sampling approach is the chosen method for this study. Etikan et al. (2016) explain that convenience sampling is appropriate for a quantitative study design and when the objective “is to collect information from participants who are easily accessible to the researcher.” (p. 2). The noted disadvantage of this type of sampling is bias due to self-selection of the participants and the potential lack of generalizability (Etikan et al, 2016). Gerrish and Lathlean (2015) warn that convenience sampling has the potential to lead to bias if the sample population is not representative of the target study population. Representative bias is addressed in this study as the targeted study population are identified primary care providers and staff. The sampling method excludes other healthcare workers in other practice areas including other job roles within primary care.

Data Collection

A web-based application was selected to design and distribute the online surveys utilized in this project as well as collect data. Research Electronic Data Capture (REDCap) was selected as it is a widely used, highly secure data collection tool that is designed to collect and store data specifically for research and has been used in over 4,000 articles (Harris, 2019; Maymone, 2018). REDCap is a web-based software platform designed to support data capture for research studies, providing 1) an intuitive interface for validated data capture; 2) audit trails for tracking data manipulation and export procedures; 3) automated export procedures for seamless data downloads to common statistical packages; and 4) procedures for data integration and interoperability with external sources (Harris et al., 2009, Harris et al., 2019). Study data were collected and managed using REDCap electronic data capture tools hosted at the University of
New Mexico. The data collection modality implemented for this project was based on distributing surveys electronically. Web-based surveys serve as a cost-effective tool to gather data that can reach a large survey population (Maymone et al., 2018). However, despite the advantages of web-based survey there are limitations which can include a lower response rate as compared to paper surveys, potential biases, and ethical considerations (Maymone et al., 2018). In this project, the potential for a lower response rate will be addressed by sending out multiple reminders to participants who have not responded after the initial invitation. The surveys are built within REDCap to ensure respondent anonymity which includes survey reminder emails and responses.

Data will be de-identified and a participation number will be assigned to study participants to track responses and to have the ability to send follow-up survey reminders. Data will be downloaded to Excel and IBM Statistical Package of Social Sciences (SPSS) for analysis. Data will be kept on a password protected computer and locked in a cabinet when the researcher is not in possession of computer.

**Recruitment**

The recruitment for this study includes physicians, nurse practitioners, physician assistants, registered nurses, medical assistants, registrations clerks, community support workers, nurse case managers, and social workers whose principal work is in an identified primary care clinic within the study organization. Staff and provider emails will be collected via the assistance of clinic directors. Information regarding the study will then be sent to the identified study cohort via an email that includes information about the study, informed consent, and the three surveys. Based on findings by Lindgren et al. (2020), the timing of survey invitations can influence response rates and sending email invitations on a weekday between noon and 6:00 pm is ideal.
Additionally, two reminder emails will be sent if the participant does not complete the surveys after the initial invite. The REDCap study link will be available for 30 days after the initial email invitation. Email reminders to participate in the study were sent at day 14 and day 27. A total of three emails were sent during the duration of the study; the initial email and two follow-up emails. This email distribution schedule was selected based on the recommendation of Dillman et al. (2007) suggesting that three contacts with participants was shown to increase response rates.

Tools

This study incorporates three data tools: ProQOL 5, RS-14, and a researcher designed demographic survey. The ProQOL 5 tool measures compassion satisfaction and compassion fatigue as well as subscales for burnout and secondary traumatic stress. The RS-14 tool measures individual resilience levels. The demographic survey provides descriptors for the study population.

ProQOL 5 Tool

The ProQOL 5 (Appendix A) is a 30-item, 5-point Likert scale survey with a score of 1 indicating “Never” and a score of 5 indicating “Very Often.” The survey items are further delineated into a scale for compassion satisfaction (CS) and two compassion fatigue (CF) subscales: burnout (BO) and secondary traumatic stress (STS). Each scale is comprised of ten questions. High CS scores indicate a pleasure in the work one does and professional satisfaction, while high scores for BO indicate concerns such as exhaustion and frustration and high scores for STS indicate negative feelings fueled by work-related trauma (Stamm, 2010).

As of 2010, there were over 100 published research articles related to the topic of compassion fatigue, secondary traumatic stress, and vicarious trauma in which half utilized the
ProQOL 5 tool or an earlier version of the tool (Stamm, 2010). It is important to note that a recent review of literature indicated that there have been many more studies utilizing the ProQOL 5 tool since 2010. In regards to validity, the CS scale has a 2% shared variance ($r = -0.23; n = 1187$) with STS and a 5% shared variance ($r = -0.14; n = 1187$) with BO. Additionally, the shared variance between the STS and BO scales is high, reported at 34% ($r = 0.58, n = 1187$), and is explained by the fact that both measures reflect distress (Stamm, 2010). The tool is self-administered and participants are instructed to answer the questions based on experiences within the last 30 days. It is also important to acknowledge that it is not a diagnostic tool rather, the results can serve as a catalyst to further address concerns.

**Compassion satisfaction scale.** Higher scores on this component indicate an increase in professional satisfaction in helping others or positive feelings towards peers. A lower score can indicate a problem with how someone feels about their work (Stamm, 2010). The CS scale has a Cronbach’s Alpha reliability of .88 (Stamm, 2010). When using the standardized T-score for the CS scale ($M = 50, SD = 10$), 25% of all participants score a 57 or higher and an additional 25% of participants score 43 or lower (Stamm, 2010). The raw cut scores for the high range are 42 or higher, between 23 and 41 for the moderate range, and 22 or less for the low range (Stamm, 2010).

**Burnout scale.** The BO scale is a component of compassion fatigue. A higher score in this subscale can manifest in feelings of hopelessness, not being able to do one’s job effectively, or experiencing an overwhelming workload. If these feelings persist, there is a high risk for burnout. The BO scale has a Cronbach’s Alpha reliability of .75. The standardized T-scores ($M = 50, SD = 10$) indicate that 25% of all participants score 57 or higher and 25% score 43 or lower.
UNDERSTANDING THE PREVALENCE OF COMPASSION FATIGUE

(Stamm, 2010). The raw cut scores for the high range of BO are 42 or higher, between 23 and 41 for the moderate range, and 22 or less for the low range (Stamm, 2010).

**Secondary traumatic stress scale.** STS is the second component of compassion fatigue and is related to the secondary exposure to stressful events. Although a high score in this area can lead to compassion fatigue, it is not indicative of an immediate problem, rather a sign that one should reflect on their work and work environment (Stamm, 2010). The STS scale has a Cronbach’s Alpha reliability of .81. The standardized T-scores ($M = 50, SD = 10$) indicate that 25% of participants score 57 or higher and 25% score 43 or lower (Stamm, 2010). Similar to the BO scale, cut scores for the high range of STS are 42 or higher, between 23 and 41 for the moderate range, and 22 or less for the low range (Stamm, 2010).

**Resilience Scale-14**

Self-reliance, purpose, equanimity, perseverance, and authenticity are five resiliency characteristics that are represented in the RS-14 tool (Appendix B). The 14 items in the RS-14 are based on the original 25 question Resilience Scale which also integrated the five resiliency characteristics. The original Resilience Scale and the RS-14 are strongly correlated ($r = 0.97, p < .001$) and reliability is reported with a Cronbach’s Alpha reliability of .93 (Wagnild, 2016). The tool is designed to be self-administered and is written at a 4th grade literacy level. The RS-14 uses a seven-point Likert-scale where 1 represents strongly disagree and 7 strongly agree (Wagnild, 2016). A higher score on the tool represents greater resilience and the score range is from 14 to 98. The cut scores are as follows: scores greater than 90 indicate high levels of resilience, scores between 65 and 81 indicate moderate levels of resilience, and scores of 64 and lower indicate low resilience (Wagnild, 2016). Characteristics of individuals with a low resilience score are feelings of isolation or loneliness, feeling overwhelmed, and having a lack of
energy (Wagnild, 2016). Those in the moderate range might feel generally satisfied but express feelings of being tired or emotionally drained and dwell on the negative aspects of their day even though they can see some positives (Wagnild, 2016). In the high resilience range, individuals feel that their life is full of purpose, they are resourceful, dependable, self-confident, and can refocus after adversity (Wagnild, 2016).

**Demographic Survey**

The demographic survey is a researcher designed tool that describes the study population in further detail (Appendix C). The information is related to both personal and professional characteristics. The questions include: gender, age, current clinic site, current role, years in profession, and years at current clinic site.

**Statistical Analysis**

The statistical analysis for the ProQOL 5 and RS-14 tools will be scored as recommended per the tool manual and established cut scores. Data collected from the demographic survey, the ProQOL 5 tool, and the RS-14 tool will be analyzed utilizing IBM Statistical Package of Social Sciences (SPSS) Version 27 software. As appropriate, demographic data will be analyzed and reported via descriptive statistics which includes mean, standard deviations, frequencies, and percentages. To understand how age, years in profession, and years in current clinic influence ProQOL 5 and RS-14 scores, Pearson’s Correlation will be utilized. Independent samples $t$-tests will analyze the relationship between role and scale scores and gender and scale scores. Minimal sample size, using G* Power, a priori given $\alpha$ err probability (0.05), power $1 - \beta$ err probability (0.8) and medium effect size (0.3) is 82.
CHAPTER 4: Results and Discussion

Survey distribution started on September 15, 2020 and email invitations were sent to 386 primary care providers and staff via the REDCap platform. The second email invitation was sent on September 29, 2020 and a third email was sent on October 12, 2020. Access to the survey tool was open until October 15, 2020 at midnight. There were 155 participants who completed some part of the study, which resulted in a 40% participation rate. Participants had the opportunity to stop the survey or skip questions at any time, which resulted in varied missing data points.

Participant Demographics

Table 1 reports participant demographics. Of the 147 participants who completed the demographic question related to gender, 81% were female ($n = 119$) and 17% were male ($n = 25$). The most frequently reported current clinic site was the Southeast Heights Clinic (27%, $n = 39$), North Valley was the next highest current clinic (16%, $n = 23$), and the lowest number of responses were from the Senior Health clinic with approximately 4% of participants ($n = 5$). In terms of current role, nurses represented approximately a quarter of all participants (26%, $n = 37$). The next highest reported role were medical assistants (20%, $n = 28$), followed by attending physicians at 16% ($n = 23$), then nurse practitioners and physician assistants at approximately 12% ($n = 17$), closely followed by resident physicians (11%, $n = 16$). The average age of participants was 40.95 years ($SD = 12.81$) with 142 participants completing this question and a reported age range of between 21 and 75 years. The reported range of years in profession was zero to 43 ($M = 12.7$, $SD = 11.17$, $n = 143$). Years at current clinic ranged between zero and 26 years, ($M = 5.17$, $SD = 5.03$, $n = 141$).
**Table 1. Demographics (N = 155)**

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<td></td>
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<tr>
<td><strong>Current Clinic</strong></td>
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</tr>
<tr>
<td>1209 Clinic</td>
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<tr>
<td>Atrisco Heritage</td>
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</tr>
<tr>
<td>Family Medicine Tucker</td>
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<td>10</td>
</tr>
<tr>
<td>LoboCare</td>
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<td>6</td>
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<tr>
<td>Northeast Heights</td>
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<td>12</td>
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<tr>
<td>North Valley</td>
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<tr>
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<tr>
<td>Southeast Heights</td>
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<td>27</td>
</tr>
<tr>
<td>Southwest Mesa</td>
<td>11</td>
<td>8</td>
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<tr>
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<tr>
<td><strong>Current Role</strong></td>
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<td></td>
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<tr>
<td>Resident Physician</td>
<td>16</td>
<td>11</td>
</tr>
<tr>
<td>Nurse Practitioner/Physician Assistant</td>
<td>17</td>
<td>12</td>
</tr>
<tr>
<td>Nurse</td>
<td>37</td>
<td>26</td>
</tr>
<tr>
<td>Medical Assistant</td>
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<td>20</td>
</tr>
<tr>
<td>Clerk</td>
<td>10</td>
<td>7</td>
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<tr>
<td>Community Support Worker/ Nurse Case Manager/Social Worker</td>
<td>12</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>M</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Age (n = 147)</td>
<td>40.95</td>
<td>12.81</td>
</tr>
<tr>
<td>Years in Profession (n = 143)</td>
<td>12.7</td>
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</tr>
<tr>
<td>Years at Clinic (n = 141)</td>
<td>5.17</td>
<td>5.02</td>
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</table>
ProQOL 5 and RS-14 Survey Scores

Table 2 reports the raw score mean and standard deviations for ProQOL 5 and RS-14 scales and the reflects the cut scores for both survey tools per the respective recommended tool guidelines. The majority of participants, 59% (n = 89), reported moderate levels of compassion satisfaction and 39% (n = 59) reported high levels. Raw compassion satisfaction scores ranged from 20 to 50 (M = 39.58, SD = 6). Compassion fatigue consisted of two subscales, burnout and secondary traumatic stress. The majority of participants reported moderate burnout (n = 79, 53%) and raw scores ranged between 10 and 39 (n = 150, M = 23.93, SD = 6.47). No participants were in the high burnout category. Interestingly, the vast majority of participant scores 55% (n = 82) were in the low secondary traumatic stress category and 43% (n = 65) were in the moderate category. Scores for secondary traumatic stress ranged from 12 to 44 (n = 150, M = 23.65, SD = 7.23). The majority of participant resilience scores resulted in the moderate (n = 62, 42%) and high (n = 70, 48%) resilience categories. The range for resilience scores were 32 to 98 (n = 147, M = 78.8, SD = 12.08).
Table 2. Survey Scores  (N=155)

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Compassion Satisfaction</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Moderate</td>
<td>89</td>
<td>59</td>
</tr>
<tr>
<td>High</td>
<td>59</td>
<td>39</td>
</tr>
<tr>
<td><strong>Burnout</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>71</td>
<td>47</td>
</tr>
<tr>
<td>Moderate</td>
<td>79</td>
<td>53</td>
</tr>
<tr>
<td><strong>Secondary Traumatic Stress</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>82</td>
<td>55</td>
</tr>
<tr>
<td>Moderate</td>
<td>65</td>
<td>43</td>
</tr>
<tr>
<td>High</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td><strong>Resilience</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>Moderate</td>
<td>62</td>
<td>42</td>
</tr>
<tr>
<td>High</td>
<td>70</td>
<td>48</td>
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</table>

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compassion Satisfaction Scores (n = 150)</td>
<td>39.58</td>
<td>6.00</td>
</tr>
<tr>
<td>Burnout Scores (n = 150)</td>
<td>23.93</td>
<td>6.47</td>
</tr>
<tr>
<td>Secondary Traumatic Stress Scores (n = 150)</td>
<td>23.65</td>
<td>7.23</td>
</tr>
<tr>
<td>Resilience Scores (n = 147)</td>
<td>78.8</td>
<td>12.08</td>
</tr>
</tbody>
</table>

**Comparison of Means**

Independent samples t-tests compared compassion satisfaction, burnout, secondary traumatic stress, and resilience scores to professional role and gender (Tables 3 and 4). Table 3 specifically compares the scores and reported professional role. For purposes of this data analysis, the provider group includes attending physicians, resident physicians, nurse practitioners and physician assistants. The other professional roles, other than nurses, were omitted due to low participant responses and varied definition of roles.
Table 3 compares survey scores between providers and nurses. There was no significant difference in scores for compassion satisfaction for providers \( (M = 38.71, SD = 6.1) \) and nurses \( (M = 38.57, SD = 6.71; t(91) = .11, p = .91, \text{two-tailed}) \) and a very small difference in mean scores \( (d = .02) \). For burnout scores, there was no significant difference for providers \( (M = 24.68, SD = 6.63) \) and nurses \( (M = 24.05, SD = 7.21; t(91) = .43, p = .67, \text{two tailed}) \) and a very small difference in mean score \( (d = .09) \). There was no significant difference in mean scores for secondary traumatic stress or resilience scores.

Table 4 compares the mean scores between compassion satisfaction, burnout, secondary traumatic stress, resilience and gender. There was a significant difference in scores for compassion satisfaction between males \( (M = 37.36, SD = 7.43) \) and females \( (M = 40.28, SD = 5.42; t(142) = 2.28, p = .02, \text{two-tailed}) \) and a medium effect size \( (d = 0.5) \). There was no significant difference in burnout, secondary traumatic stress, or resilience between males and females. Additionally, there was a small effect size for burnout \( (d = .3) \) and resilience \( (d = .38) \) and a very small effect size for secondary traumatic stress \( (d = .05) \).
### Table 3. Professional Quality of Life and Resilience scores by Professional Role (N=155)

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>Cohen's d</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Compassion Satisfaction</td>
<td>91</td>
<td>0.11</td>
<td>.02</td>
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<td></td>
</tr>
<tr>
<td>Providers (n = 56)</td>
<td>38.71</td>
<td>6.1</td>
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<td></td>
</tr>
<tr>
<td>Nurse (n = 37)</td>
<td>38.57</td>
<td>6.71</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Burnout</td>
<td>91</td>
<td>0.43</td>
<td>.09</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Providers (n = 56)</td>
<td>24.68</td>
<td>6.63</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nurse (n = 37)</td>
<td>24.05</td>
<td>7.21</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Secondary Traumatic Stress</td>
<td>91</td>
<td>0.51</td>
<td>.11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Providers (n = 56)</td>
<td>24.54</td>
<td>7.31</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nurse (n = 37)</td>
<td>25.35</td>
<td>8.03</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resilience</td>
<td>91</td>
<td>0.37</td>
<td>.08</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Providers (n = 56)</td>
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<td>11.52</td>
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<tr>
<td>Nurse (n = 37)</td>
<td>76.76</td>
<td>14.66</td>
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</table>

### Table 4. Professional Quality of Life and Resilience scores by Gender (N=155)

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>Cohen's d</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Compassion Satisfaction</td>
<td>142</td>
<td>2.28*</td>
<td>.5</td>
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<td></td>
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<tr>
<td>Male (n = 25)</td>
<td>37.36</td>
<td>7.43</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Female (n = 119)</td>
<td>40.28</td>
<td>5.42</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Burnout</td>
<td>142</td>
<td>1.45</td>
<td>.3</td>
<td></td>
<td></td>
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<tr>
<td>Male (n = 25)</td>
<td>24.96</td>
<td>7.16</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female (n = 119)</td>
<td>22.89</td>
<td>6.35</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Secondary Traumatic Stress</td>
<td>142</td>
<td>0.25</td>
<td>.05</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male (n = 25)</td>
<td>23.24</td>
<td>7.21</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female (n = 119)</td>
<td>23.64</td>
<td>7.37</td>
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<tr>
<td>Resilience</td>
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<td>1.48</td>
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<td>Male (n = 25)</td>
<td>74.48</td>
<td>17.96</td>
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<tr>
<td>Female (n = 119)</td>
<td>79.96</td>
<td>10.31</td>
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</table>
Correlations

The relationships between age, years in profession, years at current clinic and reported CS, BO, STS, and resilience scores were analyzed utilizing Pearson’s correlation (Table 5). There was a very small, positive correlation between age and CS, ($r = .05, n = 142, p = .59$) as well as age and resilience ($r = .05, n = 142, p = .59$), neither of which were significant. In terms of age and STS, there was a very weak, not significant, negative correlation between the two variables, ($r = -.03, n = 142, p = .73$), increased level of STS was associated with younger participants. There was a similar negative correlation when comparing age and burnout, ($r = -.07, n = 142, p = .43$).

Interestingly, data from years in current clinic and compassion satisfaction resulted in a significant, small, positive correlation between the two variables, ($r = .18, n = 141, p = .04$). More years spent in the clinic resulted in an increase in compassion satisfaction. There was a small, negative, correlation between years in the clinic and secondary traumatic stress, ($r = -.11, n = 141, p = .2$) and a very small, negative correlation between years in current clinic and burnout, ($r = -.09, n = 141, p = .3$), neither were significant.

Reported years in profession resulted in a weak, positive correlation in relationship to compassion satisfaction ($r = .09, n = 143, p = .31$) and resilience ($r = .07, n = 147, p = .39$). There were very small, negative correlations associated with years in profession and burnout ($r = -.07, n = 143, p = .43$) and secondary traumatic stress ($r = -.05, n = 143, p = .56$).

Additionally, Pearson’s correlation was utilized to understand the relationship between CS, BO, STS, and resilience (Table 6). A strong, positive correlation between resilience and compassion satisfaction was reported, ($r = .63, n = 147, p < .001$). Conversely, there was a strong, negative correlation between the resilience and burnout variables, ($r = -.61, n = 147, p <
and a medium, negative correlation between resilience and secondary traumatic stress, 
\(r = -.44, n = 147, p < .001\). These findings indicate that resilience can serve to alleviate 
compassion fatigue and can positively contribute to fostering compassion satisfaction.

**Table 5.** Demographic correlates of Resilience and Professional Quality of Life 
(N=155)

<table>
<thead>
<tr>
<th></th>
<th>Pearson's (r) with age</th>
<th>Pearson's (r) with years in professional role</th>
<th>Pearson's (r) with years in clinic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resilience</td>
<td>.05</td>
<td>.07</td>
<td>.08</td>
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<tr>
<td>ProQOL5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Burnout</td>
<td>-.07</td>
<td>-.07</td>
<td>-.09</td>
</tr>
<tr>
<td>Secondary Traumatic Stress</td>
<td>-.03</td>
<td>-.05</td>
<td>-.11</td>
</tr>
<tr>
<td>Compassion Satisfaction</td>
<td>.05</td>
<td>.09</td>
<td>.18*</td>
</tr>
</tbody>
</table>

QOL = quality of life  
* \(p < .05\), ** \(p < .01\), *** \(p < .001\)

**Table 6.** Correlates of Resilience and Professional Quality of Life  
(N=155)

<table>
<thead>
<tr>
<th></th>
<th>Pearson's (r) with Resilience</th>
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</thead>
<tbody>
<tr>
<td>ProQOL5</td>
<td></td>
</tr>
<tr>
<td>Burnout</td>
<td>-.61***</td>
</tr>
<tr>
<td>Secondary Traumatic Stress</td>
<td>-.44***</td>
</tr>
<tr>
<td>Compassion Satisfaction</td>
<td>.63***</td>
</tr>
</tbody>
</table>

* \(p < .05\), ** \(p < .01\), *** \(p < .001\)

**Discussion**

The results of this research determined the prevalence of CS, CF, and resilience among a 
diverse population of primary care providers and staff. Overall, the findings of this study found 
that the majority (59%) of participants reported moderate levels of CS. In terms of defining the 
prevalence of CF, over half (53%) reported moderate levels of BO and low levels of STS (55%). 
Ruiz-Fernandez et al. (2020) explained that the healthcare setting plays an influential role in CF.
Working in primary care serves as a predictor of CF and perhaps this is due to the close relationship primary care providers and staff develop with patients (Ruiz-Fernandez et al., 2020). An interesting finding was that approximately 48% reported high levels of resilience and 42% reported moderate levels. These findings add to the complexity of primary care where the workforce is caring for patients in a compassionate manner and are sustain high levels of resilience. However, the majority could be on the cusp of experiencing high levels of burnout as 53% reported moderate scores. Edwards et al. (2018) found that less burnout was reported among physicians, advance practice providers, and staff in health system clinics than in smaller clinics. The expanded support of a larger health system clinic could play a role in the reported results of this study.

In addition, certain demographic attributes influence levels of CS and CF. There are conflicting findings related to the relationship between age and CS. Although not a significant finding, there was a positive correlation between age and CS. Hunsaker et al. (2015) reported a similar finding of a positive correlation between age and CS among emergency department nurses. It is noteworthy to consider the younger workforce and the need to address concerns related to early signs of CF or a decrease in CS.

There was a significant, positive correlation between reported years at current clinic and CS. Hunsaker et al. (2015) also reported that higher levels of CS were associated with more years that a nurse worked in the emergency department. Primary care provides continuity of care and the immense dedication that providers and staff invest in their patients can play a critical role in CF. These initial study findings could indicate that as an individual grows and matures in their professional role, their commitment to their patient is nurtured and this is manifested as an increase in CS.
There has been conflicting research related to the relationship between gender and CS. Mooney et al. (2017) concluded that males reported higher levels of CS while Roney and Acri (2017) reported that female gender was associated with higher CS. This study concluded females experienced higher levels of CS than their male counterparts. This finding could be attributed to the participant population due to the fact that it was comprised of mostly females (81%).

An essential finding to discuss is the correlation between CS, BO, STS, and resilience. The influence that resilience has as a mitigating factor to prevent BO and STS is significant in supporting CS. The role of resilience should not be ignored. These findings are aligned with other research in various healthcare fields that found a similar relationship (Gonzales et al., 2019; Wahl, 2015; Simpkin et al., 2018). Resilience scores did not vary significantly between providers and nurses nor between gender. The relationship that resilience plays could be the answer in preventing ongoing burnout among healthcare professionals regardless of role or gender.

**Limitations and Strengths of the Study**

This study has several limitations. First, it should be noted that there were other concurrent well-being surveys distributed to attending physicians and residents at the academic medical center. The influence of survey fatigue could have contributed to lower responses across the clinical sites. Second, there was no incentive to complete the survey other than contributing to the research study. Third, this was the first individual, electronic research study for many staff, such as medical assistants and clerks. These roles are not often included in research opportunities and their comfort level navigating the system could be limited. Fourth, participants had the opportunity to stop answering the survey at any time which contributed to inconsistent responses. Last, it is important to consider that the survey was distributed during the COVID-19 pandemic and there was limited capacity for primary care providers and staff to complete the research.
request. Not only has the pandemic created time constraints, it has affected one’s well-being to the point where it might be difficult to reflect on difficult patient care situations. A strength for this study is addressing the current literature gap by including multiple primary care team members while reporting on CS, CF, and resilience.

**Suggestions for Future Research**

Further research is needed among other academic, primary care clinic settings to compare results and to represent the voice of primary care in the literature. There is opportunity for researchers to further explore the integral relationship that resilience has in regards to compassion satisfaction and compassion fatigue, specifically in primary care. As the COVID-19 pandemic continues, replicating this research at various time intervals is imperative as it is difficult to predict how the pandemic will affect the healthcare workforce in the future.

**Implications for Practice**

It is critical to understand the healthcare environment during the distribution of the research surveys. The survey period occurred in the midst of the global COVID-19 pandemic. The COVID-19 pandemic has placed an immeasurable burden on the healthcare system and on the already overextended healthcare workforce. It would be remiss not to bring attention to the profound role the pandemic has on the mental and physical well-being of this workforce. In a study by Ortega-Galán et al. (2020) concluded that primary care doctors, during the current pandemic, reported the highest levels of CF and the lowest levels of CS. Interestingly, the current study concluded the vast majority of participants reported high levels CS, even in the midst of a pandemic. Hartzband and Groopman (2020) described the palpable sense of altruism, the spark of autonomy, the rallying call of sorts that could influence a renewed sense of compassion satisfaction. This could explain the results of this study during this most challenging time.
The results of this study should be considered when addressing concerns of CF and resilience among primary care providers and staff. It is imperative that all members of the team are represented in any organizational plan to address these pressing issues. As discussed earlier, healthcare workers must acknowledge that there is an inherent “cost of caring” (Figley, 1995, p. 1). There is hope and it means investing in people, finding new avenues to support the healthcare team, and addressing the cost of being in healthcare. Card (2018) describes unavoidable suffering as situations that “cannot be prevented” and “the goal of healthcare organizations should be to minimize the harm they cause” (p. 268). The integration of a resilience framework is a worthwhile solution for an organization to address this unavoidable suffering (Card, 2018).

Resilience can be defined as “the ability to bounce back emotionally and physically following an emotional or physical fall” (Gentry, 2018, p. 532). Building resilience reaches far beyond the walls of the clinic and individuals must be able to refill before they experience debilitating levels of CF. Gentry (2018) discusses critical reminders when developing self-resilience. There is a misconception that compassion fatigue is a part of being in healthcare and there is not a way to prevent it. This is simply not true. There is a connection between resilience and compassion satisfaction and compassion fatigue that should not be ignored but instead, healthcare organizations should invest in implementing resilience strategies. By doing so, organizations lessen workforce shortage concerns, expand patient access, and create work environments that cultivate a healthcare worker’s well-being as well as the patient’s well-being.

Conclusion

The purpose of this study is to understand the prevalence of compassion satisfaction, compassion fatigue (burnout and secondary traumatic stress), and resilience in primary care and address an identified gap in the literature. This research presents a description of the relationship
between different demographic variables and CS, CF, and resilience among the primary care team. Previous studies have not studied the relationship between CS, CF, and resilience among primary care teams. Overall, the majority of primary care participants report moderate levels of CS, BO, and STS and moderate to high levels of resilience.

Significant findings include the positive correlation between resilience and compassion satisfaction and the negative correlation between resilience and burnout and secondary traumatic stress. Additionally, females report higher levels of CS while more years at the current clinic result in higher reported levels of CS. It is important to report that there is not a significant difference in scores between nurses and providers in CS, BO, STS, or resilience scores.

The findings of this study support the implementation of resilience strategies to mitigate CF and bolster CS for every member of the team regardless of role. By increasing one’s resilience, it is expected that concerning levels of BO and STS will decrease and instead could be replaced with CS. Of course, organizations must address system issues that affect burnout and also acknowledge the inherent suffering that accompanies healthcare workers. Urgent adoption of resilience programs is needed at the organizational level in order to conserve the current workforce and continue their work to support communities and individuals in addressing healthcare needs.

As the COVID-19 pandemic continues to unfold, healthcare systems must be flexible and agile to quickly adapt to the changing needs of their workforce. The impact of the pandemic will not be realized for the months and years to come and it will be essential that organizations continually assess, listen, and support their teams.
Future Recommendations

The current historic COVID-19 pandemic has shone an unrelenting light on healthcare’s deficits related to staff and provider burnout, a myriad of workforce safety issues, disparities in care, and a discouraged workforce. The scars that COVID-19 has created will take years to heal but, adopting protective resilience efforts will heal the trauma and exhaustion that this pandemic has inflicted. Even before COVID-19, primary care providers and team members were caring for diverse patient populations who face complex medical and social needs. Patient demographics are shifting dramatically and at an increased pace. These teams are being asked to simultaneously provide more specialty care, increase clinical throughput, meet higher quality standards, address social determinants of health, and improve patient satisfaction. The post COVID-19 environment will demand new and brave leadership responses to the complexity of delivering primary care given workforce shortage concerns, burnout, secondary traumatic stress, and addressing the trauma that the COVID-19 crisis will leave behind.

This study finds that resilience is a protective factor to combat compassion fatigue and enhance compassion satisfaction. Other researchers have focused mainly on physician or nurse well-being, but in primary care all voices need to be heard and represented in any future resource development. This includes clerks, medical assistants, and community support workers. Although the responses for this group were not statistically analyzed in this study, their roles are integral in the functioning of the primary care team. Their voices are often overlooked and a concerted effort must be made to not exclude them in future efforts.

Building personal and collective resilience is critical in mitigating compassion fatigue and enhancing compassion satisfaction. Successful resilience programs must include authentic organizational support, ingenuity, and an environment that promotes awareness and acceptance
of a diverse and highly challenged workforce. Leadership must create intra-clinic dyad programs that pair staff and providers with varied experiences with each other. These programs must be multi-faceted and build support within the clinic while addressing and eliminating silos. Well-designed programs will generate comradery, foster relationships among staff with various years of experience and roles, and cultivate understanding of each team member’s experiences, strengths, and concerns.

In the post COVID-19 pandemic world, creating space within the workplace to promote genuine creativity will be a fundamental component in resilience programs. This creative space empowers healthcare teams to collaborate, rediscover joy in the workplace, and persevere in the face of challenges. Metzl and Morrell (2008) explain that creativity can in fact serve as a predictor and facilitator of resilience. Promoting a culture that supports creative opportunities for every role will contribute to the protective force that resilience creates and empowers each team member to have a voice. Encouraging staff and providers to be disruptors and agents of change is how healthcare will thrive.

The goal of fostering resilience is to not only withstand stress but to adapt and recover from stressful events (The Resiliency Solution, 2020). Organizations must have the courage and humility to take the next step. They must be ready and willing to remove sources of frustration and recognize frontline trauma while supporting their workforce in new and innovative ways. A resilient workforce will overcome difficulties because they are flexible, creative, and confident.
References


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Appendix A

Professional Quality of Life Survey

Professional Quality of Life Scale (ProQOL)

Compassion Satisfaction and Compassion Fatigue
(ProQOL) Version 5 (2009)

When you [help] people you have direct contact with their lives. As you may have found, your compassion for those you [help] can affect you in positive and negative ways. Below are some questions about your experiences, both positive and negative, as a [helper]. Consider each of the following questions about you and your current work situation. Select the number that honestly reflects how frequently you experienced these things in the last 30 days.

<table>
<thead>
<tr>
<th>1=Never</th>
<th>2=Rarely</th>
<th>3=Sometimes</th>
<th>4=Often</th>
<th>5=Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I am happy.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I am preoccupied with more than one person I [help].</td>
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<tr>
<td>3. I get satisfaction from being able to [help] people.</td>
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<tr>
<td>4. I feel connected to others.</td>
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<tr>
<td>5. I jump or am startled by unexpected sounds.</td>
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<td></td>
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</tr>
<tr>
<td>6. I feel invigorated after working with those I [help].</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>7. I find it difficult to separate my personal life from my life as a [helper].</td>
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<tr>
<td>8. I am not as productive at work because I am losing sleep over traumatic experiences of a person I [help].</td>
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<td></td>
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<tr>
<td>9. I think that I might have been affected by the traumatic stress of those I [help].</td>
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<tr>
<td>10. I feel trapped by my job as a [helper].</td>
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<tr>
<td>11. Because of my [helping], I have felt &quot;on edge&quot; about various things.</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>12. I like my work as a [helper].</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. I feel depressed because of the traumatic experiences of the people I [help].</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. I feel as though I am experiencing the trauma of someone I have [helped].</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>15. I have beliefs that sustain me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. I am pleased with how I am able to keep up with [helping] techniques and protocols.</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>17. I am the person I always wanted to be.</td>
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</tr>
<tr>
<td>18. My work makes me feel satisfied.</td>
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<tr>
<td>19. I feel worn out because of my work as a [helper].</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>20. I have happy thoughts and feelings about those I [help] and how I could help them.</td>
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<td></td>
<td></td>
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<tr>
<td>22. I believe I can make a difference through my work.</td>
<td></td>
<td></td>
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<tr>
<td>23. I avoid certain activities or situations because they remind me of frightening experiences of the people I [help].</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24. I am proud of what I can do to [help].</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25. As a result of my [helping], I have intrusive, frightening thoughts.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26. I feel &quot;bogged down&quot; by the system.</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>27. I have thoughts that I am a &quot;success&quot; as a [helper].</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>28. I can't recall important parts of my work with trauma victims.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29. I am a very caring person.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30. I am happy that I chose to do this work.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

© B. Hudnall Stamm, 2009. Professional Quality of Life: Compassion Satisfaction and Fatigue Version 5 (ProQOL). www.usu.edu/~bhstamm or www.proqol.org. This test may be freely copied as long as (a) author is credited, (b) no changes are made, and (c) it is not sold.
Appendix B

Resilience - 14 Survey

14-ITEM Resilience Scale (RS-14)

Date ____________________

Please read each statement and circle the number to the right of each statement that best indicates your feelings about the statement. Respond to all statements.

<table>
<thead>
<tr>
<th>Circle the number in the appropriate column</th>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I usually manage one way or another.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>2. I feel proud that I have accomplished things in my life.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>3. I usually take things in stride.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>4. I am friends with myself.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>5. I feel that I can handle many things at a time.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>6. I am determined.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>7. I can get through difficult times because I’ve experienced difficulty before.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>8. I have self-discipline.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>9. I keep interested in things.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>10. I can usually find something to laugh about.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>11. My belief in myself gets me through hard times.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>12. In an emergency, I’m someone people can generally rely on.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>13. My life has meaning.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>14. When I’m in a difficult situation, I can usually find my way out of it.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

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Appendix C

Demographics Survey

What is your gender? (Drop down list)

Male, Female, Transgender Female, Transgender Male, Gender non-conforming, not listed

Age at last birthday (Text Box)

What is your current clinic? (Drop down list)

1209, Atrisco Heritage, Family Medicine, Northeast Heights, North Valley, Senior Health, Southeast Heights, Southwest Mesa, Westside

What is your current role? (Drop down list)

Attending Physician, Resident Physician, Nurse Practitioner/Physician Assistant, Nurse, Medical Assistant, Clerk, Community Support Worker/Nurse Case Manager/Social Worker

How many years have you been in your profession? (Text Box)

How many years have you been at your current clinic? (Text Box)
Appendix D

IRB Approval

Human Research Protections Program

August 5, 2020
Jan (aka Janice) Martin 505-720-2523
Fax: 505-272-8901 jemartin@salud.unm.edu

Dear Jan (aka Janice) Martin:
On 8/5/2020, the HRRC reviewed the following submission:

Type of Review: Title of Study:

Investigator: Study ID: Submission ID: IND, IDE, or HDE:

Submission Summary: Documents Approved/Acknowledged:

Review Category: Determinations/Waivers:

Submission Approval Date: Approval End Date: Effective Date:

Initial Study
"Understanding the Prevalence of Compassion Fatigue, Compassion Satisfaction, and Resilience in Primary Care" Jan (aka Janice) Martin
20-438
20-438
None

Initial Study

• Consent for Participation v 8.3.20.pdf
• Demographic Questionnaire v8.3.20.pdf
• HRP-583 - TEMPLATE - Exempt Category 2 Protocol 8.3.20.pdf
• Permission to Use Professional Quality of Life 5 Survey • Permission to use RS-14.pdf
• Professional Quality of Life 5 Survey
• Resilience Survey.pdf

Exempt: Category (2)(i) Tests, surveys, interviews, or observation (non-identifiable)
Employees.
Provisions for Consent are adequate.
HIPAA Authorization Addendum Not Applicable.

8/5/2020 None 8/5/2020

The HRRC approved the study from 8/5/2020 to inclusive. If modifications were required to secure approval, the effective date will be later than the approval date. The "Effective Date" 8/5/2020 is the date the HRRC approved your modifications and, in all cases, represents the date study activities may begin.

Because it has been granted exemption, this research is not subject to continuing review.

Please use the consent documents that were approved by the HRRC. The approved consents are available for your retrieval in the "Documents" tab of the parent study.

If the study meets the definition of an NIH Clinical Trial, the study must be registered in the ClinicalTrials.gov database. Additionally, the approved consent document(s) must be uploaded to the ClinicalTrials.gov database.

This determination applies only to the activities described in this submission and does not apply should you make any changes to these documents. If changes are being considered these must be submitted for review in a study modification to the HRRC for a determination prior to implementation. If there are questions about whether HRRC review is needed, contact the HRPO before implementing changes without approval. A change in the research may disqualify this research from the current review category. You may submit a modification by navigating to the active study and clicking the "Create Modification/CR" button.

If your submission indicates you will translate materials post-approval of English materials, you may not recruit or enroll participants in another language, until all translated materials are reviewed and approved.

In conducting this study, you are required to follow the Investigator Manual (HRP-103), which can be found by navigating to the IRB Library.

Sincerely,

Thomas F. Byrd, MD HRRC Executive Chair

Abbreviated Investigator Responsibilities

NOTE: For a full unabbreviated version of the Investigator Manual, please visit the HRPO website at https://hsc.unm.edu/research/hrpo/.
Appendix E

Professional Quality of Life 5 Permission

Permission to Use the ProQOL

Thank you for your interest in using the Professional Quality of Life Measure (ProQOL). Please share the following information with us to obtain permission to use the measure:

Please provide your contact information: Email Address

cmoconnell@salud.unm.edu

Name

Christina O'Connell

Organization Name, if applicable

University of New Mexico

Country

United States

Please tell us briefly about your project:

The goal of my project is to understand the prevalence of compassion fatigue, compassion satisfaction and resilience among primary care staff in a large, urban academic center. The project is for my Doctorate of Nursing Practice scholarly project.

What is the population you will be using the ProQOL with?

The population will include attending physicians, resident physicians, nurse practitioners, physician assistants, nurses, medical assistants, front desk clerks, and care management (social work, nurse case managers, and community health workers) in primary care clinics.

In what language/s do you plan to use the ProQOL?

Listed here are the languages in which the ProQOL is currently available (see https://proqol.org/ProQol_Test.html). If you wish to use a language not listed here, please select "Other" and specify which language/s.

English

The ProQOL measure may be freely copied and used, without individualized permission from the ProQOL office, as long as:

You credit The Center for Victims of Torture and provide a link to www.ProQOL.org;
It is not sold; and
No changes are made, other than creating or using a translation, and/or replacing "[helper]" with a more specific term such as "nurse."
Note that the following situations are acceptable:
You can reformat the ProQOL, including putting it in a virtual format
You can use the ProQOL as part of work you are paid to do, such as at a training; you just cannot sell the measure itself

Does your use of the ProQOL abide by the three criteria listed above? (If yes, you are free to use the ProQOL immediately upon submitting this form. If not, the ProQOL office will be in contact in order to establish your permission to use the measure.)

Yes

Thank you for your interest in the ProQOL! We hope that you find it useful. You will receive an email from the ProQOL office that records your answers to these questions and provides your permission to use the ProQOL.

We invite any comments from you about the ProQOL and the experience of using it at proqol@cvt.org. Please also contact us if you have any questions about using the ProQOL, even if you noted them on this form. Note that unfortunately, our capacity is quite limited so we may not be able to respond to your note; however, we greatly appreciate your engagement.
INTELLECTUAL PROPERTY LICENSE AGREEMENT

This Intellectual Property License Agreement ("Agreement") is made and effective this 12 February 2020 ("Effective Date") by and between The Resilience Center, PLLP ("Licensor") and Christina O’Connell ("Licensee").

Licensor has developed and licenses to users its Intellectual Property, marketed under the names “the Resilience Scale,” “RS”, “14-item Resilience Scale” and “RS14,” and (the "Intellectual Property").

Licensee desires to use the Intellectual Property.
NOW, THEREFORE, in consideration of the mutual promises set forth herein, Licensor and Licensee agree as follows:

1. License.
Licensor hereby grants to Licensee a 1-year, non-exclusive, limited license to use the Intellectual Property as set forth in this Agreement.

2. Restrictions.
Licensee shall not modify, license or sublicense the Intellectual Property, or transfer or convey the Intellectual Property or any right in the Intellectual Property to anyone else without the prior written consent of Licensor. Licensee may make sufficient copies of the Intellectual Property and the related Scoring Sheets to measure the individual resilience of up to 300 subjects, for non-commercial purposes only.

3. Fee.
In consideration for the grant of the license and the use of the Intellectual Property, subject to the Restrictions above, Licensee agrees to pay Licensor the sum of US$75.

4. Term.
This license is valid for twelve months, starting at midnight on the Effective Date.

5. Termination.
This license will terminate at midnight on the date twelve months after the Effective Date.

6. Warranty of Title.
Licensor hereby represents and warrants to Licensee that Licensor is the owner of the Intellectual Property or otherwise has the right to grant to Licensee the rights set forth in this Agreement. In the event any breach or threatened breach of the foregoing representation and warranty, Licensee's sole remedy shall be to require Licensor to do one of the following: i) procure, at Licensor’s expense, the right to use the Intellectual Property, ii) replace the Intellectual Property or any part thereof that is in breach and replace it with Intellectual Property of comparable functionality that does not cause any breach, or iii) refund to Licensee the full amount of the license fee upon the return of the Intellectual Property and all copies thereof to Licensor.

7. Warranty of Functionality.
Licensor provides to Licensee the Intellectual Property “as is” with no direct or implied warranty.
8. Payment.
   Any payment shall be made in full prior to shipment. Any other amount owed by Licensee to Licensor pursuant to this Agreement shall be paid within thirty (30) days following invoice from Licensor. In the event any overdue amount owed by Licensee is not paid following ten (10) days written notice from Licensor, then in addition to any other amount due, Licensor may impose and Licensee shall pay a late payment charge at the rate of one percent (1%) per month on any overdue amount.

   In addition to all other amounts due hereunder, Licensee shall also pay to Licensor, or reimburse Licensor as appropriate, all amounts due for tax on the Intellectual Property that are measured directly by payments made by Licensee to Licensor. In no event shall Licensee be obligated to pay any tax paid on the income of Licensor or paid for Licensor's privilege of doing business.

10. Warranty Disclaimer.
    LICENSOR'S WARRANTIES SET FORTH IN THIS AGREEMENT ARE EXCLUSIVE AND ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

11. Limitation of Liability.
    Licensor shall not be responsible for, and shall not pay, any amount of incidental, consequential or other indirect damages, whether based on lost revenue or otherwise, regardless of whether Licensor was advised of the possibility of such losses in advance. In no event shall Licensor’s liability hereunder exceed the amount of license fees paid by Licensee, regardless of whether Licensee's claim is based on contract, tort, strict liability, product liability, or otherwise.

    Licensor agrees to provide limited, e-mail-only support for issues and questions raised by the Licensee that are not answered in the current version of the Resilience Scale User’s Guide, available on www.resiliencescale.com, limited to the Term of this Agreement. Licensor will determine which issues and questions are or are not answered in the current User’s Guide.

    Any notice required by this Agreement or given in connection with it, shall be in writing and shall be given to the appropriate party by personal delivery or by certified mail, postage prepaid, or recognized overnight delivery services.
    If to Licensor:
    The Resilience Center
    PO Box 313
    Worden, MT 59088-0313
If to Licensee:  
Name: Christina O'Connell 
University of New Mexico College of Nursing 
Albuquerque NM 
United States 

14. This Agreement shall be construed and enforced in accordance with the laws of the United States and the state of Montana. Licensee expressly consents to the exclusive forum, jurisdiction, and venue of the Courts of the State of Montana and the United States District Court for the District of Montana in any and all actions, disputes, or controversies relating to this Agreement. 

15. No Assignment. 
Neither this Agreement nor any interest in this Agreement may be assigned by Licensee without the prior express written approval of Licensor. 

16. Final Agreement. 
This Agreement terminates and supersedes all prior understandings or agreements on the subject matter hereof. This Agreement may be modified only by a further writing that is duly executed by both Parties. 

17. Severability. 
If any term of this Agreement is held by a court of competent jurisdiction to be invalid or unenforceable, then this Agreement, including all of the remaining terms, will remain in full force and effect as if such invalid or unenforceable term had never been included. 


Governing Law. 

Headings used in this Agreement are provided for convenience only and shall not be used to construe meaning or intent. 

IN WITNESS WHEREOF, the Parties hereto have duly caused this Agreement to be executed in its name on its behalf, all as of the day and year first above written. 

Licensee 

Signature: 
Printed Name: Christina O’Connell Title: Student 
Date: 12 February 2020 

The Resilience Center 

Gail M. Wagnild, PhD Owner and CEO 
12 February 2020