The Effect of a Compassion Fatigue Awareness and Self-Care Skills Educational Program on Retention Among Certified Nursing Assistants Working in a Veterans Nursing Home

Michele M. Dreher
University of South Carolina

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The Effect of a Compassion Fatigue Awareness and Self-Care Skills Educational Program on Retention Among Certified Nursing Assistants Working in a Veterans Nursing Home

by

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Submitted in Partial Fulfillment of the Requirements
For the Degree of Doctor of Nursing Practice in
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College of Nursing
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Cheryl L. Addy, Vice Provost and Dean of the Graduate School
DEDICATION

This work is lovingly dedicated to my husband and best friend, Jay. He has provided endless support during this journey to make this dream possible. To my amazing children Claire, Hannah, and Jason, you have been so patient, kind, and understanding over the years. Through the many hours of school work, you have been a source of joy and inspiration in my life. I love you so much. I want you to recognize the richness of education, and that success becomes possible with hard work and passionate dedication. I would not be here without my mother’s work ethic which was instilled in me at a young age. Thank you to my father, a World War II veteran, who inspired the quality improvement project involving our nation’s veterans. Also, to my wonderful family and friends, thank you for your endless words of encouragement during this process. This achievement is evidence that God has provided many blessings in my life.
ACKNOWLEDGEMENTS

I would like to acknowledge and express my gratitude to my committee chair, Dr. Ronda Hughes, for support and wisdom throughout this project. Thank you to committee member Dr. Abbas Tavakoli who assisted me with the knowledge of statistical data analysis. Dr. Crystal Graham, thank you for your editing and guidance. A special thank you to committee member and clinical mentor, Dr. Patricia Handley. Your clinical expertise and leadership throughout this project have positively influenced my professional life for which I am truly grateful.

A special thank you to all the certified nursing assistants in the E. Roy Stone, Jr. Veterans Nursing Home who participated in the educational program. Also, a sincere thank you to Mr. Robert Morgan, NHA, and Ms. Carol Ann Coker, RN, DON for their support and encouragement throughout this quality improvement project.
ABSTRACT

Background: Compassion fatigue is defined as the emotional and physical exhaustion that can affect helping professionals and caregivers over time. Certified nursing assistants (CNAs) are at high-risk for compassion fatigue due to their daily exposure to those who are suffering from a myriad of chronic medical and behavioral illnesses along with repeated workplace stressors. If not addressed early, compassion fatigue can adversely impact a CNA’s wellbeing and quality of resident care. Compassion fatigue is associated with high absenteeism, high turnover, and low retention rates. Despite these challenges, there is no published research on the effects of a workplace compassion fatigue awareness and self-care skills educational program for CNAs caring for veterans in nursing homes.

Purpose: The purpose of this evidence-based quality improvement project was to explore the outcomes of a 90-minute workplace educational program addressing compassion fatigue awareness and the use of self-care skills among CNAs working in a nursing home.

Method: A quasi-experimental design was utilized in a state-run 90-bed veteran’s nursing home. A seven-question demographic survey and Professional Quality of Life Scale (Pro QOL-Version 5) tool was used to measure CNAs’ level of compassion satisfaction, burnout and secondary traumatic stress at three intervals: pre-intervention, one-month post-intervention, and three-months post-intervention.
**Results:** Forty-five CNAs participated in the intervention. One-month post-intervention scores indicated the 90-minute intervention was successful in increasing compassion satisfaction, decreasing burnout, and secondary traumatic stress known as compassion fatigue. Three-month post-intervention scores revealed the intervention was successful in sustaining low burnout and compassion fatigue scores. Retention increased among CNAs and the use of supplemental agency staff decreased within the facility.

**Conclusions:** By bringing awareness to effects of compassion fatigue and self-care skill strategies in the workplace, CNAs can develop physical and mental resilience to workplace stressors that can ultimately lead to an increase in CNA retention and improved quality of care and resident outcomes.

**Implications:** CNAs need to be aware of compassion fatigue and self-care skill strategies. If not addressed in the early phases, compassion fatigue can have severe consequences on the quality of care provided to residents and on the financial health of long-term care organizations.
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<table>
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<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANOVA</td>
<td>Analysis of Variance</td>
</tr>
<tr>
<td>CF</td>
<td>Compassion Fatigue</td>
</tr>
<tr>
<td>CMS</td>
<td>Centers for Medicare and Medicaid Services</td>
</tr>
<tr>
<td>CNA</td>
<td>Certified Nursing Assistant</td>
</tr>
<tr>
<td>CS</td>
<td>Compassion Satisfaction</td>
</tr>
<tr>
<td>DIS</td>
<td>Department of Inpatient Services</td>
</tr>
<tr>
<td>DNP</td>
<td>Doctor of Nursing Practice</td>
</tr>
<tr>
<td>IRB</td>
<td>Institutional Review Board</td>
</tr>
<tr>
<td>LPN</td>
<td>Licensed Practical Nurse</td>
</tr>
<tr>
<td>PDSA</td>
<td>Plan-Do-Study-Act</td>
</tr>
<tr>
<td>ProQOL</td>
<td>Professional Quality of Life</td>
</tr>
<tr>
<td>RN</td>
<td>Registered Nurse</td>
</tr>
<tr>
<td>SCDMH</td>
<td>South Carolina Department of Mental Health</td>
</tr>
<tr>
<td>STS</td>
<td>Secondary Traumatic Stress</td>
</tr>
<tr>
<td>U.S.</td>
<td>United States</td>
</tr>
<tr>
<td>UofSC</td>
<td>University of South Carolina</td>
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</table>
CHAPTER 1
INTRODUCTION

Description of the Clinical Problem

Compassion fatigue is a relatively new concept that refers to the emotional and physical exhaustion that afflicts helping professionals and caregivers over time (Mathieu, 2012). Slatten, Carson, and Carson (2011) described compassion fatigue as “an occupational hazard for those in the helping professions” (p. 327). Compassion fatigue is prevalent among health-care workers such as licensed nurses, physicians, social workers, and counselors in various healthcare settings (Sinclair, Raffin-Bouchal, Venturato, Mijovic-Kondejewski, & Smith-MacDonald, 2017; Sorenson, Bolick, Wright, & Hamilton, 2016.) Mathieu (2012) estimated that between 40% and 85% of helping professionals develop compassion fatigue and may experience high rates of traumatic stress symptoms. Compassion fatigue is “the final result of a progressive and cumulative process that evolves from compassion stress after a period of unrelieved compassion discomfort, which is caused by prolonged, continuous, and intense contact with patients, the use of self, and exposure to stress” (Coetzee & Klopper, 2010, p. 239). If not addressed in the earliest phases, compassion fatigue affects the ability of a healthcare provider to deliver compassionate care (Boyle, 2011).

First described by Joinson (1992), compassion fatigue was identified as classic stress patterns in nurses working in an emergency room who lost their ‘ability to nurture’
The nurses felt fatigued, ineffective, and detached along with experiencing somatic complaints such as headaches, gastrointestinal disturbances and insomnia (Joinson, 1992). Ultimately, the profound exhaustion of compassion fatigue can lead to a caregiver’s inability to practice self-care or maintain a work-life balance (Joinson, 1992). Several years later, compassion fatigue was formally defined by Figley (1995) as both secondary traumatic stress and burnout experienced by caregivers and helping professionals.

A healthcare provider’s personal life and quality of work can be affected by compassion fatigue (Sabo, 2011). Compassion fatigue affects the healthcare provider’s ability to show empathy and connect with loved ones and friends which contributes to household stress, marital problems, divorce, and social isolation (Mathieu, 2012). Described by Mathieu (2012), compassion fatigue is "a gradual erosion of all the things that keep us connected to others in our caregiver role: our empathy, our hope, and of course our compassion, not only for others but also for ourselves" (p. 8). As a consequence of compassion erosion, compassion fatigue is considered a critical contributing factor to the loss of compassion among healthcare providers (Sinclair et al., 2017). Compassion is a feeling of empathy for the distress of another which commonly gives rise to an active desire to alleviate another’s distress or suffering and considered a foundation of healthcare professions (Branch & Klinkenberg, 2015). Aspects of compassion are elements of professional quality of life (Stamm, 2010).

The positive and negative aspects of compassion are elements of professional quality of life (Stamm, 2010). A professional quality of life is the quality an individual will experience through helping others (Stamm, 2010). A professional quality of life for
the caregiver incorporates two compassion aspects: Compassion satisfaction (CS) as the positive aspect and compassion fatigue as the negative aspect (Stamm, 2010). Greater patient care satisfaction occurs when workers have a positive quality of life (McHugh, Kutney-Lee, Cimiotti, Sloane, & Aiken, 2011). Compassion satisfaction is the positive aspect of compassion and the sum of all the positive feelings a person derives from helping others (Sacco, Ciurzynski, Harvey, & Ingersoll, 2015). Compassion satisfaction is gratification from being able to do one’s work well (Alkema, Linton, & Davies, 2008). According to Stamm (2010), helpers who recognize the contribution they serve to individuals will experience compassion satisfaction.

Conversely, compassion fatigue is the negative aspect of professional quality of life. Compassion fatigue (CF) is also known as a combination of secondary trauma (STS) and burnout (Figley, 1995). It is described as “a state of exhaustion and dysfunction, biologically, physiologically, and emotionally, as a result of prolonged exposure to compassion stress” (Figley, 1995, p. 34). Recognized as a negative feeling propelled by fear and workplace-related trauma, the symptoms of compassion fatigue are varied and include sadness, depression, anxiety, and poor self-esteem (Stamm, 2010). The effects of compassion fatigue on an individual are believed to occur on a continuum from acute to chronic, and affect the seven domains: cognitive, emotional, behavioral, personal relations, somatic, work performance, and spirituality (Figley, 2002). Also, the effect of compassion exhaustion causes an inability of the healthcare provider to care for patients and prevents developing patient or family member relationships (Coetzee & Klopper, 2010) (See Figure 1.1).
Compassion fatigue can produce undesirable outcomes for an organization. In a review of 90 nursing and healthcare literature articles by Sinclair et al. (2017), factors such as physical, emotional, spiritual and social health of caregivers were affected by work-related stresses which can ultimately affect the provision of quality care. Compassion fatigue is connected with a gradual lack of response to patient needs, a decrease in quality patient care, an increase in errors, higher rates of depression and anxiety, and increased rates of stress levels leading to an unhealthy workplace (Mathieu, 2012). Of concern, compassion fatigue can result in increased absenteeism and turnover rates among health care providers (Sheppard, 2015). As a result, the cost of absenteeism and repeated turnover can affect the overall financial health of an organization.

![Figure 1.1 Professional Quality of Life Model (B. H. Stamm, 2010)](image)

Bush (2009) notes to maintain a professional quality of life, caregivers need to emphasize work-life balance, boundary setting, spiritual well-being, and self-care strategies. Frequently, healthcare providers who work to provide health-promoting care to others often do not take the time to adopt wellness activities in their own lives (Zadeh, Gamba, Hudson, & Wiener, 2012). According to Figley (2002), helping professionals should participate in specific compassion fatigue preventative and coping measures. In the American Nurses Association (ANA) (2017) *Code of Ethics for Nurses with*
Interpretative Statements, the Provision Interpretative Statement 5.2 mentions specifically the nurse’s responsibility to lessen fatigue and compassion fatigue. The ANA (2017) refers to specific self-care skill interventions such as: ‘eat a healthy diet, exercise, get sufficient rest, maintain family and personal relationships, engage in adequate leisure and recreational activities, and attend to spiritual or religious needs’ (p. 19).

Organizational compassion fatigue prevention programs may help boost the caregiver’s level of compassion satisfaction and reduce the risks of developing compassion fatigue (Flarity, Gentry, & Mesnikoff, 2013). Educational programs that instruct on compassion fatigue awareness, recognition, and prevention were helpful in developing effective coping mechanisms and resilience in healthcare providers (Coetzee & Klopper, 2010; Sorenson et al., 2016). Most importantly, workplace prevention programs may help maximize caregivers’ level of compassion satisfaction and reduce the risks of developing compassion fatigue (Flarity et al., 2013).

This document summarizes the Doctor of Nursing Practice (DNP) quality improvement project titled, “The Effect of a Compassion Fatigue Awareness and Self-Care Skills Educational Program on Retention Among Certified Nursing Assistants Working in a Veterans Nursing Home.” The purpose of this quality improvement project was twofold: (1) to determine the prevalence of compassion satisfaction, burnout, and compassion fatigue in CNAs working in a 90-bed state-run veterans nursing home and (2) increase CNA awareness on compassion fatigue and the use of self-care skills through the use of an evidence-based educational program. The project aims to increase retention rate within the facility. Retention rate improvement will be accomplished by bringing CNA awareness to compassion fatigue and self-care skill strategies in the workplace. By
implementation of the educational program, CNAs will develop physical and mental resilience to workplace stressors that can ultimately lead to compassion fatigue and low retention.

**Scope of the Clinical Problem**

There is an organizational-level problem involving a low retention rate and a high vacancy rate for CNAs working in the E. Roy Stone, Jr. Veterans Nursing Home. The facility is a 90-bed veterans nursing home run by the South Carolina Department of Mental Health (SCDMH). CNAs are exposed to a host of risk factors that can contribute to compassion fatigue and ultimately result in low retention, high absenteeism, and compromised quality of care. In the facility, various work-related and organizational characteristics place CNAs at high-risk for developing compassion fatigue.

**Resident Factors**

In the E. Roy Stone, Jr. Veterans Nursing Home, there are 47 CNAs employed full-time (SCDMH, 2017). CNAs make up 70% of the total nursing department workforce that provides the majority of direct resident care to veterans with a myriad of chronic medical and behavioral conditions. Several resident care factors place significant physical and emotional strain on CNAs during their daily course of work. The primary factor is that veterans have poorer health and health-related behaviors across multiple health domains than non-veterans (Hoerster et al., 2012). Also, dementia places a higher amount of emotional strain on caretakers thus putting them at higher risk for compassion fatigue (Garfield, Musumeci, Reaves, & Damico, 2015). In the facility, approximately 70% of residents have behavioral issues related to dementia, and a 30-bed secure dementia unit exists (SCDMH, 2017). With the new Affordable Care Act regulations on
caring for dementia residents, CNAs were found to have only the minimal training to deliver care to elders with dementia (Garfield et al., 2015). Resident factors along with staffing issues place CNAs at high-risk for compassion fatigue.

**Retention Rate**

A microsystem analysis of 12 months of CNA staffing boards from June 2016 to June 2017 revealed an alarmingly low CNA retention rate of 42%. Also, CNA retention rate was 44% for CNAs who remained employed full-time during the 12-month period. The facility’s retention rate is lower than the national CNA retention rate of 68.3% in America’s skilled nursing centers and 68.1% in South Carolina skilled nursing centers (American Healthcare Association, 2014). Furthermore, the five year CNA retention rate was 12% as evidenced by only five out of 43 full-time CNAs have remained employed in the facility greater than five years. The low CNA retention rate reflects the high CNA vacancy rate.

**Vacancy Rate**

In addressing vacancy rates within the facility, a 24-month analysis of CNA staffing boards dated August 2015 to July 2017 revealed an overall CNA vacancy rate of 54.7% (SCDMH, 2017). The findings revealed the lowest CNA monthly vacancy rate was 35.9% in 2015 and the highest monthly CNA vacancy rate was 73.7% in 2016 when a new 30-bed unit was added to the facility (SCDMH, 2017). The vacancy rate led to the use of an average of ten agency CNAs per month, working multiple shifts, which placed high-cost demands on the organization and a fragmented delivery of resident care. Of concern, national vacant CNA positions in skilled nursing centers totaled 43,300 in 2012, a 17% increase from the period of 2010 to 2012 (American Healthcare Association,
CNA vacancy in the E. Roy Stone, Jr. Veterans Nursing Home is a concern for the future of long-term care due to the growing aging veteran population and the demands this places on the healthcare industry.

**Absenteeism and Turnover**

Along with the use of agency staff, the multitude of call-outs and absenteeism has forced CNAs to do mandatory overtime to cover shifts which have led to low morale and reduced participation in organizational events. Andrews and Wan (2009), identified that understaffed environments create high levels of stress and frustration and low levels of satisfaction in workers which ultimately decreases resident care quality and contributes to a high turnover rate. Both voluntary and involuntary turnover contribute to low CNA retention rates and high staff replacement costs. Researchers examining long-term care issues have indicated levels of stress, and job dissatisfaction among direct care workers are significant and add to the high rates of absenteeism and turnover (Kash, Castle, Naufal, & Hawes, 2006). Also, heavy workloads, staff shortages, inefficient management, poor working conditions, and unstable work environments all affect a healthcare provider’s ability to provide quality care (Buchan, 2006).

**Cost to the Organization**

The cost of low retention to the organization is staggering. The national average cost is $4,000 to replace one CNA due to turnover (American Healthcare Association, 2014). Therefore, the cost to the organization is approximately $168,000 per year in CNA turnover replacement costs (SCDMH, 2017). Furthermore, the cost to place one student through the state certified 6-week CNA training is approximately $20,000 per student. The CNA training is performed quarterly with 20 students per class. The yearly cost for
80 students amounts to $1.6 million with only 33% of the students remaining employed with SCDMH more than one year after training (SCDMH, 2017).

**Quality of Care**

Compassion fatigue can contribute to an increase in accidents and poor quality of care (Slatten et al., 2011). Quality measures on the Certification and Survey Provider Enhanced Reports (CASPER), generated by the Centers for Medicare and Medicaid Services (CMS) (2017), indicate the facility is higher in both state and national averages for residents that need help with activities of daily living, falls, and experience pain. These elements place more significant physical and emotional demands on the CNA. Along with the other factors, resident deaths place psychological stress on the CNA. In just the first 100 days of 2017, eight veteran deaths occurred within the facility. In a dissertation by Little (2013), long-term care workers, due to the long-standing relationship with the resident, mentioned feelings of sadness, helplessness, and mourning due to resident deaths. Most concerning is the impact all of these factors have on the residents’ quality of care. However, this is changing nationwide in our nation’s long-term care facilities.

The status quo in resident quality care is changing due to external factors driving change in a recently proposed national rule. The rule revises the requirements in which long-term care facilities must complete to participate in Medicare and Medicaid programs (CMS, 2017). The proposed changes were necessary to reflect significant advances made recently in the theory and practice of resident service delivery and safety. One factor is that CMS has long identified CNA staffing as one of the vital components of a nursing home’s ability to provide quality resident care (CMS, 2017). Direct care provided by
CNAs is a critical component of resident care quality. Over time, CMS has used CNA staffing data for numerous purposes to more accurately and efficiently measure its effect on nursing home quality of care. Today, Section 6106 of the Affordable Care Act requires facilities to electronically submit direct care staffing information, including agency and contract staff, based on payroll and other data (CMS, 2017). The data, when combined with census information, reports on the level of staff in each nursing home and reports CNA turnover and tenure, which can ultimately impact the quality of care provided (CMS, 2017).

**Future of Long-Term Care**

Nationally, CNAs leaving the profession are of concern to the future of long-term care. In the United States, CNAs make up approximately 65% of the full-time workforce in long-term care settings (Harris-Kojetin, Sengupta, Park-Lee, & Valverde, 2013). CNAs are direct care workers who provide the majority of care to long-term care residents. The growing elderly population places an increased demand on the healthcare industry. Between 2010 and 2025, the United States population is projected to increase by 15.2%, while the category of those 65 years of age and older will increase by 60% (United States Census Bureau, 2012). The number of individuals requiring nursing home facilities, residential care homes, or home care services is expected to rise from 15 million in 2000 to 27 million in 2050 (Harris-Kojetin et al., 2013).

**Project Purpose**

The purpose of this DNP quality improvement project was twofold: (1) to determine the prevalence of compassion satisfaction, compassion fatigue, and burnout among CNAs working in a 90-bed state-run veterans nursing home, and (2) increase
CNA awareness on compassion fatigue and the use of self-care skills through the use of an evidence-based educational program titled, “What is in Your Self-Care Skills Toolbox?” This quality improvement project assessed whether the implementation of the educational program affected the CNAs’ level of compassion satisfaction, burnout, and secondary traumatic stress at one-month and three-months post-implementation. By understanding compassion fatigue and self-care skill strategies, CNAs can develop physical and mental resilience to workplace stressors that can ultimately lead to compassion fatigue. The aim was to increase the CNA retention rate through increased compassion satisfaction.

In the workplace, compassion fatigue is associated with a gradual lack of response to patient needs, a decrease in quality patient care, an increase in errors, higher rates of depression and anxiety, and increased rates of stress levels leading to an unhealthy workplace (Mathieu, 2012). Compassion fatigue increases absenteeism and turnover rates among health-care providers thus affecting resident care and safety (Sheppard, 2015). If not addressed in the earliest phases, compassion fatigue can lead to an increase in absenteeism, decrease in staff retention, increase in vacancy rates and produce an overall adverse effect on resident care and the entire organization (Sheppard, 2015).

CNAs caring for veterans in the E. Roy Stone, Jr. Veterans Nursing Home are at high-risk of developing compassion fatigue. Over the course of time, repeated exposure to a myriad of resident medical conditions, severe chronic illnesses, suffering, and death may produce a state of exhaustion which negatively affects the caregiver’s ability to care for themselves and their residents (Austin, Goble, Leier, & Bryne, 2009). Also, workplace factors such as heavy workloads, staff shortages, inefficient management, poor
working conditions, and unstable work environments affect emotional well-being, personal health, and the ability to provide quality care (Buchan, 2006). However, there is no published nursing literature on compassion fatigue among CNAs working in a state-run veterans nursing home.

A vast amount of research indicates compassion fatigue exists among licensed nurses and other licensed healthcare workers. However, there is little-published compassion fatigue research on CNAs working in long-term care settings. Valid clinical questions arise during day-to-day patient care activities (Belcher & Khouri-Stevens, 2012). Therefore, it is essential to determine if the present findings can be generalized to other healthcare workers and environments; notably, CNAs who work in long-term care settings caring for our nation’s veterans. In this segment of healthcare workers, there is a need for higher levels of evidence. Quality improvement initiatives will gain a better insight into the effect of compassion fatigue awareness and self-care skills educational interventions on the CNA. In the following, the PICOT question components provided a clear path to the literature search process (Fineout-Overholt & Stillwell, 2015).

**PICOT Question Components**

The principal clinical inquiry was developed using the PICOT question approach to identify critical elements of this evidence-based project. Newhouse and Poe (2012) recognized that the development of a well-structured evidence-based practice question is significant because the question drives the strategies used to search for the evidence. Fineout-Overholt and Stillwell (2015) define the critical components of an answerable and searchable PICOT question: (P) the population of interest, (I) intervention of interest,
(C) comparison intervention, (O) outcome of interest and, (T) the time involved to establish an outcome.

The components are identified in the following PICOT question. In CNAs working in a 90-bed state-operated veterans nursing home (P), how does the implementation of a compassion fatigue awareness and self-care skills educational training (I), compared to no educational training on compassion fatigue awareness and self-care skills (C), effect compassion satisfaction and retention (O), at the completion of the intervention, both at 1-month and at 3-months post-intervention (T)? The PICOT components are listed in Table 1.1.

Table 1.1
PICOT Question Components

<table>
<thead>
<tr>
<th>PICOT</th>
<th>PICOT Components</th>
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<tr>
<td>Population</td>
<td>CNAs working in a 90-bed state operated veterans nursing home</td>
</tr>
<tr>
<td>Intervention</td>
<td>Educational training on compassion fatigue awareness and self-care skills</td>
</tr>
<tr>
<td>Comparison</td>
<td>Compared to no educational training on compassion fatigue awareness and self-care skills</td>
</tr>
<tr>
<td>Outcome</td>
<td>Effect compassion satisfaction and retention</td>
</tr>
<tr>
<td>Time</td>
<td>At the completion of the intervention, both at one-month and three-months post-intervention</td>
</tr>
</tbody>
</table>

PICOT components (Melnyk and Fineout-Overholt, 2015)

Definition of PICOT Terms

- Certified Nursing Assistant (CNA). A person trained and certified to assist residents of long-term care facilities with activities of daily living and clinical tasks such as range-of-motion exercises and blood pressure readings under the supervision of a licensed nurse (United States Bureau of Labor Statistics, 2017).
Compassion. A feeling of empathy for the distress of another which commonly gives rise to an active desire to alleviate another’s suffering and considered a foundation of healthcare professions (Branch & Klinkenberg, 2015).

Compassion fatigue. The combination of secondary traumatic stress and burnout experienced by helping professionals and other care providers (Figley, 1995).

Compassion satisfaction. The positive feelings an individual has from being able to perform a job well and contributing to others through work (Stamm, 2010).

Retention. The number of staff members that remain in employment (Medical Dictionary, 2012).

Self-care. A concept in Dorothea Orem’s Self-Care Framework and her Theory of Self-Care referring to actions that people initiate and perform on their behalf to maintain life, health, and well-being (Medical Dictionary, 2012).

State veterans nursing home. Nursing homes that are owned, operated and managed by state governments and surveyed by the Veteran’s Administration each year to make sure they continue to meet standards (United States Department of Veterans Affairs, 2018).

Summary

CNAs caring for veterans in a long-term care setting are at risk for developing compassion fatigue. CNAs are unlicensed direct care workers who provide the majority of physical, mental, and spiritual care to long-term care residents. In the 153 state-run veteran nursing homes in the United States, CNAs endure exposure to human suffering as a result of a multitude of chronic veteran health and behavioral conditions in addition to a plethora of workplace stressors. Veterans suffer from a myriad of chronic medical
illnesses and behavioral conditions across multiple health spectrums along with poorer health and health-related behaviors than non-veterans (Hoerster et al., 2012). Over time, compassion fatigue takes over and produces emotional and physical exhaustion that can significantly affect helping professionals and caregivers (Mathieu, 2012). Compassion fatigue not only affects the health and well-being of the CNA; it can place a significant financial burden on the organization through high absenteeism, high turnover and low retention rates (Sheppard, 2015).

This Doctor of Practice (DNP) quality improvement project focuses on CNAs working in the E. Roy Stone, Jr. Veterans Nursing Home. Healthcare providers, especially CNAs, caring for veterans in a long-term care setting, are at high-risk for developing compassion fatigue. Due to the consequences of compassion fatigue, a distinct need exists to implement educational programs to better prepare healthcare staff to recognize, prevent, and manage compassion fatigue (Potter et al., 2013). By understanding the elements of professional quality of life, a positive effect on work environment can occur (Sacco et al., 2015). If not dealt with in the early phases, compassion fatigue can have serious consequences on the quality of care provided to our nation’s veterans and on the financial health of long-term care organizations.

**Literature Review**

The literature was searched to determine workplace interventions addressing compassion fatigue in CNAs working in a state-run veterans nursing home. The research sought to answer the PICOT question: In CNAs working in a 90-bed state operated veteran nursing home (P), how does the implementation of a compassion fatigue awareness and self-care skills educational training (I), compared to no educational
training on compassion awareness and self-care skills (C), effect compassion satisfaction and retention (O), at the completion of the intervention, both at one-month and three-months post-intervention (T)?

Limited research was available addressing compassion fatigue in long-term care workers, and no literature existed on compassion fatigue among CNAs working in a state-run veterans nursing home. Due to the lack of compassion fatigue research among CNAs working in long-term care, the literature search turned to compassion fatigue educational interventions for healthcare workers in various workplace settings. Therefore, the literature review focused on workplace educational interventions that were proven successful in increasing compassion satisfaction and reducing compassion fatigue and burnout in healthcare providers.

**Literature Search Strategy**

With the PICOT question in mind, a thorough literature search began by review of literature search tutorials posted on the University of South Carolina (UofSC). Useful Resources site. For purposes of this inquiry, six databases were utilized to identify research articles in journals and relevant sources of external evidence from 1992 to present date. The timeframe was selected because Joinson (1992) first described the phenomenon of compassion fatigue as a unique form of burnout that affected people in caregiving professions. Later, compassion fatigue was studied by Figley (1995), who defined the concept as a secondary stress reaction that results from caregivers helping or desiring to help a person suffering from traumatic events. Since then, compassion fatigue has been studied throughout many different professions and environments. The search process ended up using six databases. All six databases contained relevant articles for the
keywords entered. The CIHAHL, MEDLINE, Cochrane Library, PsycINFO, Joanna Briggs Institute, and Google Scholar databases were utilized in the search process. A researcher should be aware of databases and resources before determining the value of searching for solutions to clinical questions (Hartzell, Fineout-Overholt, Hofstetter, & Ponder, 2015).

To obtain supporting information for best practice intervention on addressing the effect of compassion fatigue awareness and self-care skills education on retention, a computer-based search of the six databases was performed. According to Munchel, Seal and Wissinger (2012), the first step in locating evidence is selecting searchable keywords from the evidence-based problem question. To begin, a search of the keyword “compassion fatigue” yielded 687 results in PsycINFO, 427 results in CIHAHL, 443 in MEDLINE, 13 in the Cochrane Library, 7 in the Joanna Briggs Institute Library, and 36,100 in Google Scholar. The search was narrowed performing a Boolean search with the use of the word “AND” in the following combinations (see Table 1.2). The search was narrowed with the use of keywords, specific vocabulary, and Boolean operators. All searches played an essential part in finding the most relevant literature for the evidence-based practice problem (Munchel et al., 2012)

**Databases**

The following is a description of each of the six identified databases used in this search. The first database used was the Cumulative Index to Nursing and Allied Health Literature (CINAHL) which covers nursing and 17 allied health disciplines. CINAHL contains more than 3,000 journals (Munchel et al., 2012). Also, CINAHL includes books, book chapters, nursing dissertations, and standards of practice. The two databases that
Table 1.2

*Keywords and Combination of Keywords*

<table>
<thead>
<tr>
<th>Combination of Keywords</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compassion Fatigue</td>
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<tr>
<td>Compassion Fatigue and Certified Nursing Assistant</td>
</tr>
<tr>
<td>Compassion Fatigue and Certified Nursing Assistant and Retention</td>
</tr>
<tr>
<td>Compassion Fatigue and Healthcare Worker</td>
</tr>
<tr>
<td>Compassion Fatigue and Long-Term Care</td>
</tr>
<tr>
<td>Compassion Fatigue and Certified Nursing Assistant and Veterans Nursing Home</td>
</tr>
<tr>
<td>Compassion Fatigue and Self Care</td>
</tr>
<tr>
<td>Compassion Fatigue and Self-Care Skills</td>
</tr>
<tr>
<td>Compassion Fatigue and Self-Care Skills and Education</td>
</tr>
<tr>
<td>Compassion Fatigue and Education</td>
</tr>
<tr>
<td>Compassion Fatigue and Programs</td>
</tr>
<tr>
<td>Compassion Fatigue Symptoms</td>
</tr>
<tr>
<td>Compassion Fatigue Prevention</td>
</tr>
<tr>
<td>Compassion Fatigue Symptoms and Education</td>
</tr>
<tr>
<td>Compassion Fatigue and Interventions</td>
</tr>
<tr>
<td>Compassion Fatigue and Coping Mechanisms</td>
</tr>
<tr>
<td>Compassion Fatigue and Retention and Turnover</td>
</tr>
<tr>
<td>Compassion Satisfaction and Certified Nursing Assistant</td>
</tr>
</tbody>
</table>

comprise the majority of the scientific knowledge base in healthcare are CINAHL and MEDLINE (Hartzell et al., 2015). The second database used was MEDLINE. It is the U.S. National Library of Medicine bibliographic database that contains more than 23 million references going back to 1946 with citations from 5,600 worldwide journals in about 40 languages (United States National Library of Medicine, 2017). The third database used was the Cochrane Database of Systematic Reviews Library. It is a collection of six databases that contain different types of high-quality, independent evidence to inform healthcare decision-making and a seventh database that provides information about Cochrane groups (Cochrane, 2017). The Cochrane Database of Systemic Reviews Library, according to the Cochrane Library includes systematic reviews and protocols along with editorials. The fourth database used was PsycINFO, sponsored by the American Psychological Association. It is a resource for abstracts and
citations of behavioral and social science research. PsycINFO contains more than four
million bibliographic records centered on psychology and the behavioral and social
sciences (American Psychological Association, 2017). The next identified academic
database search engine used was the Joanna Briggs Institute evidence-based practice
database, published by the Joanna Briggs Institute (2017). The database is regarded as the
world’s leading provider of evidence-based information from across the globe on nursing,
medicine, pharmaceutical sciences, and public health. The database includes resources
including over 3,000 records across seven publication types from 1998 to present date
and includes: literature reviews, recommended practice and procedures, information
guideline sheets, comprehensive systematic reviews and protocols, consumer information
and technical reports (Joanna Briggs Institute, 2017). The last database, Google Scholar,
was utilized to search the key-words from the PICOT question. Google Scholar focuses
on the scholarly literature available on the internet. The research includes articles, theses,
books, abstracts, and United States court opinions found on multiple websites. The
database findings for keywords and combinations using the five identified databases are
listed in Table 1.3.

**Summary of the Evidence**

Next, appraisal of the evidence was conducted using The Johns Hopkins Hospital
Evidence Level and Quality Guide in Dearholt and Dang (2012). This rating system is for
the hierarchy of evidence used to determine the level of evidence of each of the articles
providing the necessary proof for this evidenced-based project. In Level I, the evidence is
from an experimental study, randomized controlled trial, or systematic review of
<table>
<thead>
<tr>
<th>Key Words &amp; Combinations</th>
<th>CIHAHL</th>
<th>Medline</th>
<th>Cochrane Library</th>
<th>PsycINFO</th>
<th>Google Scholar</th>
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<tr>
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</tr>
<tr>
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<td>3</td>
<td>20,000</td>
</tr>
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<td>0</td>
<td>6,570</td>
</tr>
<tr>
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<td>3</td>
<td>136</td>
<td>21,700</td>
</tr>
<tr>
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<td>30</td>
<td>18,200</td>
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<tr>
<td>Compassion Fatigue and Self-Care Skills and Education</td>
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<td>1</td>
<td>0</td>
<td>10</td>
<td>16,700</td>
</tr>
<tr>
<td>Compassion Fatigue and Education</td>
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<td>90</td>
<td>0</td>
<td>131</td>
<td>28,300</td>
</tr>
<tr>
<td>Compassion Fatigue and Programs</td>
<td>188</td>
<td>20</td>
<td>7</td>
<td>132</td>
<td>39,300</td>
</tr>
<tr>
<td>Compassion Fatigue Symptoms</td>
<td>27</td>
<td>32</td>
<td>5</td>
<td>148</td>
<td>16,900</td>
</tr>
<tr>
<td>Compassion Fatigue Prevention</td>
<td>114</td>
<td>7</td>
<td>1</td>
<td>157</td>
<td>17,800</td>
</tr>
<tr>
<td>Compassion Fatigue Symptoms and Education</td>
<td>7</td>
<td>8</td>
<td>3</td>
<td>27</td>
<td>16,700</td>
</tr>
<tr>
<td>Compassion Fatigue and Interventions</td>
<td>66</td>
<td>65</td>
<td>9</td>
<td>140</td>
<td>17,700</td>
</tr>
<tr>
<td>Compassion Fatigue and Coping Mechanisms</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>8</td>
<td>17,100</td>
</tr>
<tr>
<td>Compassion Satisfaction and Certified Nursing Assistant</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>19,800</td>
</tr>
<tr>
<td>Compassion Fatigue and Retention</td>
<td>18</td>
<td>0</td>
<td>0</td>
<td>19</td>
<td>13,300</td>
</tr>
</tbody>
</table>
randomized control trial, with or without meta-analysis. Level II evidence is from quasi-experimental studies, systematic analysis of a combination of randomized controlled trials and quasi-experimental, or quasi-experimental studies only, with or without meta-analysis. Level III evidence included non-experimental studies, a systematic review of a combination of randomized controlled trials, quasi-experimental and non-experimental studies, or non-experimental studies only with or without meta-analysis. Also, qualitative research or systematic review with or without a meta-synthesis. Level IV evidence was comprised of opinion of respected authorities and nationally recognized expert committee’s consensus panels based on scientific evidence. The last level is Level V, which is based on experimental and non-research evidence. Examples are literature reviews, quality improvement, case reports and opinion of nationally recognized experts based on empirical evidence (Dearholt and Dang, 2012).

Overall, there were 16 Level II articles, 2 Level III articles, 1 Level IV article, and 3 Level V articles. Also, a quality rating was given to each article. The rating of “A” is high quality, “B” is good quality, and “C” is low quality or major flaws. The level “C” articles were excluded from the evidence-based table due to the low quality of these studies. Overall, there were 5 level “A” articles and 17 level “B” articles. The overall goal was to identify the highest quality evidence-based practice literature to address the PICOT question.

The plethora of articles found in the literature search on compassion fatigue required narrowing to obtain evidence-based articles on educational interventions for compassion fatigue. Therefore, inclusion and exclusion criteria were developed. The inclusion criteria were determined to be articles that were: (a) written in the English
language, (b) peer-reviewed, (c) published from 1992 to the present date, (d) high quality “A” and “B” level articles, (e) interventions for compassion fatigue in healthcare workers since little data existed for compassion fatigue in CNAs and (f) healthcare setting studies. Research on health-care workers included various disciplines such as licensed nurses, social workers, respiratory therapists, physical therapists, occupational therapists, and psychologists. Studies among all healthcare workers were included because little is written specifically addressing CNAs. Research articles were the primary focus; however, literature reviews and expert opinions were also eligible for inclusion. Articles were excluded based on the following criteria: (a) non-research based findings (b) published prior to 1992 (c) “C” rated articles that were low quality or had significant flaws (d) studies that included healthcare workers who were working during natural disasters or war and terror were also excluded because these situations are not typical within the setting of the target facility (see Table 1.4).

Table 1.4
Criteria for Inclusion/Exclusion

<table>
<thead>
<tr>
<th>Inclusion Criteria</th>
<th>Exclusion Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>English language</td>
<td>Not in English language</td>
</tr>
<tr>
<td>Peer Reviewed</td>
<td>Not peer reviewed</td>
</tr>
<tr>
<td>Published from 1992 to present date</td>
<td>Published prior to 1992</td>
</tr>
<tr>
<td>Compassion fatigue interventions related to healthcare workers</td>
<td>Non-healthcare worker compassion fatigue interventions</td>
</tr>
<tr>
<td>Research-based findings</td>
<td>Non-research based findings</td>
</tr>
<tr>
<td>High quality “A” and “B” level articles</td>
<td>“C” rated articles that were low quality</td>
</tr>
<tr>
<td>Studies in healthcare settings in non-war or disaster</td>
<td>Studies during natural disasters or war</td>
</tr>
</tbody>
</table>

After each database was reviewed and after duplicates eliminated, each article was screened. Of the 31 articles found in the literature, nine articles were eliminated due
to the exclusion criteria of “C” rated articles that are deemed low quality or have significant flaws. Overall, 22 articles were determined to be relevant to this evidence-based project. There are many articles written on compassion fatigue, but the majority did not include evidence-based interventions to combat compassion fatigue. The journals and sources used for this evidence-based intervention are presented (see Table 1.5).

Table 1.5
*Journal Sources*

<table>
<thead>
<tr>
<th>Journal Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Emergency Nursing Journal</td>
</tr>
<tr>
<td>American Journal of Maternal/Child Nursing</td>
</tr>
<tr>
<td>Applied Nursing Research</td>
</tr>
<tr>
<td>Burnout Research</td>
</tr>
<tr>
<td>Cincinnati Children’s Hospital Best Evidence Statement</td>
</tr>
<tr>
<td>Evidence-Based Practice Project Reports</td>
</tr>
<tr>
<td>International Journal of Nursing Studies</td>
</tr>
<tr>
<td>JBI Database of Systematic Review and Implementation Reports</td>
</tr>
<tr>
<td>Journal of Holistic Nursing</td>
</tr>
<tr>
<td>Journal of Nursing Administration</td>
</tr>
<tr>
<td>Journal of Nursing Scholarship</td>
</tr>
<tr>
<td>Journal of Pediatric Healthcare</td>
</tr>
<tr>
<td>Journal of Social Work in End of Life and Palliative Care</td>
</tr>
<tr>
<td>Journal of Trauma Nursing</td>
</tr>
<tr>
<td>Mindfulness</td>
</tr>
<tr>
<td>Nursing and Health Sciences</td>
</tr>
<tr>
<td>Nursing Theses and Capstone Projects</td>
</tr>
<tr>
<td>Oncology Nursing</td>
</tr>
<tr>
<td>ProQuest Dissertation</td>
</tr>
<tr>
<td>The Journal of Continuing Education in Nursing</td>
</tr>
</tbody>
</table>

**Literature Analysis and Synthesis**

According to the review of the evidence, limited research has been conducted on compassion fatigue among CNAs working in long-term care settings, especially a state-run nursing home. A dissertation by Little (2013) involved a qualitative study that
addressed compassion fatigue among healthcare workers, including CNAs, in a long-term care setting. However, the majority of the literature discusses compassion fatigue among licensed nurses and other healthcare workers in various healthcare settings (Sinclair et al., 2017; Sorenson et al., 2016). More specifically, there were no studies located in the literature search using multiple databases that address compassion fatigue awareness and self-care skills education explicitly for CNA retention in a state-run veterans nursing home. The findings in the literature indicated organizational prevention programs might help maximize a caregiver’s level of compassion satisfaction and reduce the risks of developing compassion fatigue (Flarity et al., 2013). The following literature analysis will spotlight education interventions for compassion fatigue among healthcare workers. The literature table is in Appendix A.

**Compassion Fatigue**

Compassion fatigue (CF) is a widely identified problem among healthcare providers. Compassion fatigue refers to the emotional and physical exhaustion that can affect healthcare providers and caregivers over time (Mathieu, 2012). It is described as a progressive and collective product of prolonged, continuous, intense contact with patients, and stress exposure (Hooper, Craig, Janvrin, Wetzel, & Reimels, 2010). While occupational stress is not unique to any one specific professional group, it is common among the helping occupations (Santos, Barros, & Carolino, 2010). Compassion fatigue was identified by Stamm (2010) as being more common among healthcare workers than those in other professions. Caring for others can be hugely gratifying; however, two decades of literature indicates caring for others can also take a toll on the psychosocial and physical health of the caregiver (Branch & Klinkenberg, 2015).
Secondary Traumatic Stress

The first element of compassion fatigue is secondary stress (STS) which is defined as ‘the stress resulting from helping or wanting to help a traumatized or suffering person’ (Figley, 1999, p.10). Secondary traumatic stress, known as compassion stress, can appear suddenly with little warning (Figley, 1995). As an acute condition, it can take place in caregivers and healthcare workers frequently exposed to the stress and trauma of others and may include symptoms similar to those of the person that has been traumatized (Craigie et al., 2016).

Burnout

The second element of a secondary stress response is burnout. This stress response emerges gradually and has been defined as a psychological state that is characterized as ‘a collection of symptoms associated with emotional exhaustion’ (Figley, 1995, p. 11). Burnout or cumulative stress is the state of physical, emotional, and mental exhaustion caused by the inability to deal with the environment displaying signs of emotional exhaustion and depersonalization (Maslach & Leiter, 2008). Overall, burnout occurs as a result of physical and mental stress and is a contributor to workplace turnover and absenteeism.

Professional Quality of Life

CNAs provide compassion daily. Positive and negative aspects of compassion are elements of professional quality of life. Stamm (2010) notes professional quality of life as the quality a person feels as their work as a helper. A professional quality of life incorporates two compassion elements: the positive element is compassion satisfaction, and the negative element is compassion fatigue (Stamm, 2010). Compassion satisfaction
is the positive aspect of compassion and the sum of all the positive feelings a person derives from helping others (Sacco et al., 2015). Compassion satisfaction is a pleasure derived from performing one’s work well (Alkema et al., 2008). According to Stamm (2010), helpers who recognize the contribution to the individual served will experience compassion satisfaction.

Conversely, compassion fatigue is the negative aspect of professional quality of life. The symptoms of compassion fatigue are varied and may include sadness, depression, anxiety, flashbacks, numbness, avoidance behaviors, cynicism and reduced self-esteem (Stamm, 2010). The effects of compassion fatigue can occur from acute to chronic, and affect the seven areas: cognitive, emotional, behavioral, personal relations, somatic, work performance, and spirituality (Figley, 2002). Compassion fatigue is associated with a decrease in quality care for patients, an increase in errors, higher rates of depression and anxiety among caregivers, and leaves a decline in the workplace environment (Mathieu, 2012). Compassion fatigue is also known to cause increased absenteeism and turnover among health care providers (Sheppard, 2015).

Coping

Healthcare providers cope with the negative aspect of professional quality of life. Aged care workers are under intense long-term demands, primarily caring for individuals suffering chronic mental and medical conditions (Elstad & Vabo, 2008). Coping is a process which attempts to promote survival and adaptation for circumstances perceived as threatening (Kravits, McAllister-Black, Grant, & Kirk, 2010). Strategies to cope are learned patterns of behavior affected by perceived stressors, personality qualities, and relationship patterns (Folkman & Greer, 2000). Successful coping and adaptation skills
can be achieved by the belief of personal power to control circumstances in life, creating realistic goals, and producing a positive mood (Folkman & Greer, 2000). In a study by Yoder (2010), nurses identified coping strategies such as extra days off or a change in patient assignments was enough relief to prevent some nurses progressing from feeling stressed to having real compassion fatigue or burnout.

Compassion

CNAs show compassion to their residents (Little, 2013). As the foundation of healthcare professionals, compassion is a feeling of empathy for the distress of another person along with an active desire to alleviate another’s suffering (Branch & Klinkenberg, 2015). When healthcare providers show compassion while caring for patients who are dying or suffering on a daily basis, a state of exhaustion may result (Austin et al., 2009). Therefore, over the course of time, repeated exposure to a multitude of medical conditions, severe chronic illnesses, suffering, and death negatively affect the caregiver’s professional quality of life. A comprehensive description of the CNA is warranted to gain a better understanding of the unique characteristics which place these direct caregivers at risk for compassion fatigue.

CNAs

The United States Department of Labor (2017) indicates that CNAs are a part of the direct-care workforce in which three million direct care workers provide an estimated 70 percent paid hands-on, long-term care and personal assistance received by Americans. CNAs help residents with activities of daily living such as eating, dressing, bathing, toileting, and perform clinical tasks such as range-of-motion exercises and blood pressure readings (United States Bureau of Labor Statistics, 2017). The work of CNAs can be
strenuous. Long-term care facilities provide care around the clock, requiring shift work, and work on weekends and holidays. The physical demands include extensive lengths of time spent standing and walking, repositioning residents, and many other physically demanding tasks. According to the United States Bureau of Labor Statistics (2017), nursing assistants have a higher rate of injuries and illnesses than the national average of caregivers.

In 2014, there were 1.5 million nursing assistants in the United States with 41% employed in skilled nursing facilities and constitutes one of the largest and fastest-growing workforces in the country, playing a vital role in job creation and economic growth, especially in low-income communities (United States Bureau of Labor Statistics, 2017). Employment for nursing assistants is projected to grow 17% from 2014 to 2024, much faster than the average for all occupations with the median annual wage. In 2015 the wage was $25,710 with a median hourly wage of $12.36 per hour, significantly less than the $15.95 median wage for all U.S. workers (United States Bureau of Labor Statistics, 2017). About 45% of direct-care workers live in households earning below 200% of the federal poverty level income, making them eligible for most state and federal public assistance programs (United States Bureau of Labor Statistics, 2017). Nearly half of all direct-care workers (46%) live in households that receive one or more public benefits such as food stamps, Medicaid, housing, and child care or energy assistance (United States Bureau of Labor Statistics, 2017).

**CNA Training**

The education requirement is limited for CNAs. The federal government requires training for nursing assistants who work in Medicare and Medicaid-certified nursing
homes. In South Carolina, individuals must complete a six week, 100-hour training program and pass skills and knowledge assessments (NursingLicensure.org, 2017). After the training program, the individual must pass a competency exam to become certified. A CNA can work in nursing homes, although many work in assisted living facilities, community-based settings, or hospitals.

**Limited Research**

Limited research is available addressing compassion fatigue in long-term care workers. Only one study was identified. In a qualitative study by Little (2013), compassion fatigue in nurses and CNAs in a long-term care setting was discussed. The single qualitative exploratory case study explored the complexities of compassion fatigue that are unique to long-term care workers (Little, 2013). The study also examined how compassion fatigue may influence the overall work performance of nurses and CNAs and the ability to connect emotionally and compassionately with long-term care residents (Little, 2013). The feedback from the study indicated that many participants might have compassion fatigue based on a detailed analysis of the participants’ answers to 19 interview questions and face-to-face observations of how participants reacted emotionally during the interviews (Little, 2013). The researcher found the lack of recognition of caregiver stress could lead to compassion fatigue and affect the ability to provide compassionate care which may ultimately influence the residents’ quality of life (Little, 2013). Future recommendations from this study suggested unique support services and educational resources on compassion fatigue to help long-term care workers manage compassion fatigue and to continue to find caregiving rewarding (Little, 2013).
A systematic review of the literature was located on burnout in the nursing home health aide by Cooper and colleagues (2016). This analysis indicated that factors associated with burnout in healthcare aides are similar to those reported among nurses (Cooper et al., 2016). However, the level of evidence and low methodological rigor suggested more research is needed (Cooper et al., 2016). Without reducing the effects of burnout on CNAs in nursing homes, vulnerable adults are at risk in long-term care facilities (Cooper et al., 2016).

**Education Interventions**

Several education interventions were found successful in the management of compassion fatigue. Organizational prevention programs help maximize caregivers level of compassion satisfaction and reduce the risks of developing compassion fatigue (Flarity et al., 2013). Yoder (2010), expressed that more studies are needed to determine ways in which compassion fatigue can be predicted and avoided. Potter and colleagues (2013) was the first reported study to indicate benefits gained from a compassion fatigue intervention program. The program was a descriptive pilot study that evaluated a compassion fatigue resiliency program to educate 113 oncology nurses about compassion fatigue in a five-week training program within five 90-minute sessions (Potter et al., 2013). Secondary traumatic stress scores declined immediately after the program and remained down at three-months (Potter et al., 2013). Scores dropped more at six-months post-intervention with the participants finding the education useful for stress management both at work and at home (Potter et al., 2013).

Many articles in the literature explore educational interventions for compassion fatigue in multiple healthcare settings. Flarity and colleagues (2013) examined the
treatment effectiveness of a multifaceted educational program on emergency room nurses in two emergency rooms which aimed to decrease compassion fatigue and burnout symptoms and increase compassion satisfaction. The first level of intervention was a 4-hour interactive group seminar titled, “Compassion Fatigue Resiliency,” conducted by researchers adapted from Eric Gentry’s Compassion Fatigue Prevention and Resiliency Fitness for the Frontline course (Flarity et al., 2013). The second level of intervention were multimedia resources given or made available to the participants such as printed seminar handouts, “Tools of Hope” DVD, guided imaging/music CD, and access to a website that addressed compassion satisfaction, resiliency education and resources (Flarity et al., 2013). The multi-faceted education program resulted in a statistically significant increase in compassion satisfaction \( (p=0.004) \) and a decrease in burnout \( (p=0.001 \text{ or less}) \) and secondary traumatic stress \( (p=0.001) \) symptoms (Flarity et al., 2013).

The best evidence statement (BESt) published by the Cincinnati Children’s Hospital Medical Center (2013) indicated that decreasing compassion fatigue among pediatric intensive care nurses was through the use of self-care skills and compassion fatigue training. Recommendations consisted of training that encompassed compassion fatigue awareness, relaxation techniques, coping strategies, self-care interventions, stress management, and to decrease the level of compassion fatigue (Cincinnati Children’s Hospital Medical Center, 2013). However, higher levels of evidence are needed to gain insight into educational measures and the length of teaching intervention (Zehr, 2015).

Kravits et al. (2010) implemented a resiliency training program using psycho-educational techniques to help nurses who work in high-stress areas to create a
personalized stress management plan that relied on the use of adaptive coping strategies. The six-hour psycho-educational intervention showed promise as methods to promote positive self-care strategies (Kravits et al., 2010). Interventions were used to encourage self-care behaviors which included discussion of specific risk factors, relaxation techniques, and exploration of coping patterns via art. Analysis showed a drop in compassion fatigue scores after the course was significant (p >.0005) and indicated the effectiveness of the intervention (Kravits et al., 2010). In another intervention, Hevezi (2016) provided breathing and meditation techniques five days a week for a four-week period which revealed a statistically significant increase in compassion satisfaction, and a decrease in burnout and secondary trauma.

Potter, Pion, and Gentry (2015) explored the long-term effects of a resiliency training program for compassion fatigue, nine months after completion of the course. The two central themes that came out of the study were self-improvement and application of resiliency with all participants describing one or more self-improvements as a result of the program, especially regarding emotional health (Potter et al., 2015). All the participants explained how they regularly applied one or more of the resiliency skills taught in the class to improve their ability to manage stress and prevent compassion fatigue (Potter et al., 2015). This study showed promise in decreasing compassion fatigue and burnout in healthcare providers.

Organizational support through workplace intervention has proven to be of merit. A systematic review identified personal and organizational strategies in oncology and palliative care nurses tending to adults with malignancy that promoted coping and resilience (Gillman et al., 2015). No firm conclusions were drawn to the most effective
interventions. However, strategies with merit included interventions to foster connections within a team, provide education and training to develop behaviors in stress control, and assist in processing emotion and learning from experiences (Gillman et al., 2015). The study indicated organizational support is integral in providing tools to deal with work-related challenges (Gillman et al., 2015).

Branch and Klinkenberg (2015) determined the prevalence of risk for compassion fatigue in the work environment which supported the development of a program for direct care providers. A 4-hour resiliency program developed and focused on the recognition of signs of compassion fatigue and the harmful effects of chronic stress. The resiliency strategies which proved of merit were self-regulation, intentionality, perceptual maturation and self-validation, social connection and self-care (Branch & Klinkenberg, 2015). Another study indicated the effectiveness of an on-site, 6-week mindfulness-based intervention for 94 nurses in which each week participants were taught mindfulness of the breath, body, emotions, and thoughts (Duarte & Pinto-Gouveia, 2016). Results indicated that nurses in the intervention group reported significant decreases in compassion fatigue, stress, burnout, experiential avoidance, and increases in satisfaction with life, mindfulness, and self-compassion (Duarte & Pinto-Gouveia, 2016).

Grief is a contributor to compassion fatigue. Meadors, Lamson, Swanson, White, & Sira (2010) explored unexpressed grief in 185 health care providers who cared for chronically ill children which lead to the development of symptoms of compassion fatigue. This intervention evaluated the effectiveness of providing educational seminars on compassion fatigue for health care providers. The investigators found that the educational workshop was successful in increasing awareness of compassion fatigue and
reducing clinical stress (Meadors et al., 2010). The results suggested that caregivers who experience higher levels of personal stressors also experienced higher levels of clinical stress and compassion fatigue (Meadors et al., 2010). By taking care of the caregivers on both a personal and professional level, there was a substantial impact on the amount of stress and compassion fatigue shown by healthcare providers.

The relationships among health promotion behaviors, compassion fatigue, burnout, and compassion satisfaction, among 214 nurses practicing in a community medical center were explored by Neville and Cole (2013). Health promotion behaviors were shown to be positively associated with compassion satisfaction and inversely related to both burnout and compassion fatigue (Neville & Cole, 2013). Findings indicate that while engagement in health promotion is essential and contributes to well-being in offsetting compassion fatigue, nurses may benefit from additional measures, such as workshops and educational opportunities (Neville & Cole, 2013).

A lack of workplace resources for prevention of compassion fatigue was identified in the literature. Work-related stress from interpersonal contact with patients with cancer and their family may result in physical, emotional, social, and spiritual difficulties for oncology nurses (Aycok & Boyle, 2011). A national survey indicated that there were limited amounts of education, retreats, or resources available in the workplace, especially education on dying and death (Aycok & Boyle, 2011). Employers must recognize the existence of compassion fatigue and provide healthcare workers management solutions (Aycok & Boyle, 2011). The prevalence of compassion fatigue reported presents the need for workplaces to examine the vulnerability of their staff and develop relevant and appropriate interventional programs (Potter et al., 2013). Overall,
the literature is in broad agreement on educational interventions for compassion fatigue prevention, assessment, and recognition.

**Gaps in the Literature**

There is little research on compassion fatigue among CNAs working in long-term care settings. No study has been identified to address the effect of a compassion fatigue awareness and self-care skills educational program for CNAs working in our nation’s state-run veteran nursing homes. The lack of compassion fatigue research on CNAs is in contrast to the quantity of research indicating compassion fatigue exists among licensed nurses and other licensed healthcare workers. Valid clinical questions arise during day-to-day patient care activities (Belcher & Khouri-Stevens, 2012). It is essential to determine if the present findings can be generalized to other healthcare workers and environments; notably, CNAs who work in state-run nursing homes caring for our nation’s veterans. A better understanding of compassion fatigue in this segment of healthcare workers is needed to gain higher levels of evidence. Quality improvement initiatives will gain a better insight into the effect of compassion fatigue awareness and self-care skills educational interventions on the CNA population.

**Recommendations for Practice Innovation**

After a review of the evidence-based literature, it is apparent that there is supporting evidence for compassion fatigue awareness and self-care skills education. The frequency of compassion fatigue reported among nurses and other healthcare professionals presents the need for organizations to examine their staff vulnerability and develop suitable interventional programs (Potter et al., 2013). The literature is in broad agreement on educational interventions for compassion fatigue prevention, assessment, and recognition. There are differences in the type and level of educational interventions,
but no significant contradictions exist. Given the rising rates of burnout and compassion fatigue among healthcare workers, it is essential that efforts are made to develop and test interventions that can counteract such adverse outcomes (Craigie et al., 2016). Recognition of the use and effectiveness of interventions for compassion fatigue among nurses is growing (Potter et al., 2013). The following recommendations for practice innovation are specific to the E. Roy Stone, Jr. Veterans Nursing Home.

**Self-Care Skills**

The first recommendation is a workplace education intervention, specifically on compassion fatigue awareness and self-care skills education, to combat compassion fatigue. Practicing self-care skills has been shown to reduce burnout and compassion fatigue (Alkema et al., 2008). Currently, the E. Roy Stone, Jr. Veterans Nursing Home has no systemic workplace efforts in place to support positive self-care behaviors in CNAs. Figley (2002) indicated that the management of compassion fatigue must be multifaceted and include prevention, assessment, and consequence minimization. Also, Figley (2002) suggested that helping professionals should participate in specific preventive and coping measures that involve reading articles about compassion fatigue and self-care.

Specific interventions to prevent compassion fatigue and burnout in caregivers include education on the recognition of physical, mental, and emotional symptoms, and through proper nutrition, adequate sleep, and preventive health measures (United States Department of Veteran’s Affairs, 2018). Participants in a project by Petleski (2013) indicated after a one-hour education session that encompassed ten activities to improve self-care and work-life balance reported the importance of taking time for self-care
activities. Exercise, meditation, deep breathing exercises, and sleep importance were interventions (Petleski, 2013). Compassion fatigue is common among healthcare providers, and the development of resiliency to compassion fatigue may improve decisions, communication, and patient and nurse satisfaction (Potter et al., 2013).

**Stress Management**

The second recommendation is to combat burnout through interventions on stress management. Being aware of triggers and coping strategies may help nurses deal with expected stressors faced on a daily basis (Yoder, 2010). Burnout presents a problem to a worker’s health and resident quality of care (Cooper et al., 2016). In a study measuring compassion fatigue and burnout in a trauma team, Berg, Harshbarger, Ahlers-Schmidt, and Lippoldt (2016) discovered more than one-half of the participants scored high for being at risk and recommended strategies for education. Strategies were identified on how to recognize symptoms, team discussions, and emphasis on the positive aspects of patient care (Berg et al., 2016). Mimura (2003) indicated that the self-care program components that appear to be effective include relaxation training, social support, cognitive techniques, exercise, and music. Primary stress management interventions included the use of coping skills and support groups (Gunusen & Ustun, 2010) and psychoeducation programs (Kravits et al., 2010) have been shown to reduce self-reported stress and burnout. Other useful personal coping strategies were identified to include living a well-rounded life which included physical, emotional, and spiritual aspects of life (Yoder, 2010). Kravits et al. (2010) suggested regular, systematic efforts to support positive self-care behaviors.
Summary

Despite the adverse effects of compassion fatigue in the workplace, very little nursing research exists on the impact of compassion fatigue among CNAs working in a long-term care setting. Moreover, to date, there is no published research on the effects of a workplace compassion fatigue awareness and self-care skills education program for CNAs caring for our nation’s veterans in a state-run veterans nursing home. In the majority of the healthcare literature, compassion fatigue is described among licensed nurses working in various healthcare settings (Branch & Klinkenberg, 2015; Sinclair et al., 2017; Sorenson et al., 2016).

CNAs work under the supervision of licensed nurses in long-term care settings to provide physical, emotional, and spiritual care to residents. Despite similar exposure as licensed nurses to human suffering and environmental conditions, the CNA population working with our nation’s veterans in a state-run nursing home has been understudied. Compassion fatigue presents a risk to the quality of care provided to our nation’s veterans. Therefore, by building healthy coping mechanisms towards workplace stressors through the use of self-care skills, the effects of compassion fatigue can be minimized. If left unnoticed, the impact of compassion fatigue can take a toll on the CNA, the resident, and the entire organization.

Project Design

The purpose of this Doctor of Nursing Practice (DNP) quality improvement project titled, “The Effect of a Compassion Fatigue Awareness and Self-Care Skills Educational Program on Retention Among Certified Nursing Assistants Working in a Veterans Nursing Home,” is to increase the awareness of compassion fatigue and self-
care skills among CNAs. This project will improve compassion satisfaction and CNA retention within the E. Roy Stone, Jr. Veterans Nursing Home. Retention rate improvement will be accomplished by the implementation of an evidence-based self-care skills education intervention addressing compassion fatigue awareness and self-care skills for CNAs. The intervention will promote effective coping mechanisms and build compassion fatigue resilience among CNAs through the use of multiple self-care skills.

**PICOT Question**

CNAs working in a 90-bed state-operated veterans nursing home who are at risk for compassion fatigue (P), how does the implementation of a compassion fatigue awareness and self-care skills educational training (I), no educational training on compassion fatigue awareness and self-care skills (C), affect compassion satisfaction and retention (O), upon completion of the intervention and at one-month and at three-months post-intervention (T)?

**Project Aim**

The aim of the project was to increase the awareness of compassion fatigue and self-care skills among CNAs to improve compassion satisfaction and retention rate within the facility. Improvement in retention will be accomplished by the implementation of an evidence-based compassion fatigue awareness and self-care skills educational intervention addressing compassion fatigue awareness and self-care skill strategies.

**Conceptual Framework and Nursing Model**

The positive and negative aspects of compassion are elements of professional quality of life (Stamm, 2010). Stamm (2010) notes professional quality of life as the quality an individual will feel when helping others. A professional quality of life for the
caregiver incorporates two compassion aspects; compassion satisfaction as the positive aspect and compassion fatigue as the negative aspect (Stamm, 2010). Compassion satisfaction is the positive aspect of compassion and the sum of all the positive feelings a person derives from helping others (Sacco et al., 2015). Compassion satisfaction is the pleasure derived from being able to do one’s work well (Alkema et al., 2008). According to Stamm (2010), helpers who recognize the contribution to the individuals that they serve will experience compassion satisfaction.

Conversely, compassion fatigue is the negative aspect of professional quality of life. The symptoms of compassion fatigue are varied and include sadness, depression, anxiety, and poor self-esteem (Stamm, 2010). The effects of compassion fatigue are believed to occur on a continuum from acute to chronic, and affect the seven domains: cognitive, emotional, behavioral, personal relations, somatic, work performance, and spirituality (Figley, 2002). Compassion fatigue is associated with a gradual lack of response to patient needs, a decrease in quality patient care, an increase in errors, higher rates of depression and anxiety, and increased rates of stress levels leading to an unhealthy workplace (Mathieu, 2012). Also, increased absenteeism and turnover rate occurs among health care providers (Sheppard, 2015)

**Theoretical Model of Compassion Satisfaction and Compassion Fatigue.** The Theoretical Model of Compassion Satisfaction and Compassion Fatigue© by Stamm (2009) (see Figure 1.2) shows three key environments (work situation, environment of the person caring for, and the personal environment brought to the workplace) and how they feed into the positive and negative aspects of helping others (Stamm, 2009). The model supports the role environment has on compassion satisfaction and compassion
fatigue in the workplace.

![Figure 1.2: Theoretical Model of Compassion Satisfaction and Compassion Fatigue © (Stamm, 2009).](image)

**Application of Orem’s Self-Care Model.** The nursing framework for this evidence-based project is Dorothea Orem’s Self-Care Model. Orem’s nursing framework is made up of three related theories of self-care: theory of self-care, theory of self-care deficit, and theory of nursing systems (Orem, 2001). The Self-Care Deficit Theory refers to actions people initiate and perform on their behalf to maintain life, health, and well-being (Orem, 2001). Self-care consists of “the action systems performed by individuals in time and conformity with healthcare requirements associated with their growth and development, their state of health and health-related conditions, the environment, and other influencing factors” (Allison, 2007, pp. 68). Specific interventions to prevent compassion fatigue and burnout in caregivers include education on the recognition of physical, mental, and emotional symptoms, and through healthy nutrition, adequate sleep, and preventive health measures (United States Department of Veteran’s Affairs, 2018).
This selected theoretic framework helped guide the project’s interventions. The rationale for this framework is evident. If self-care skills are not implemented by the CNA, then physical, mental, and emotional peril will follow. CNAs who have a deficit in self-care skills may be at a higher risk for compassion fatigue. The self-care deficit theory (Figure 1.3) is based on the assumption that individuals should be self-reliant, however guiding others, supporting another, and providing an environment promoting personal development to meet future demands is a critical component (Orem, 2001).

![Orem’s Self-Care Model](image)

Figure 1.3: Dorothea Orem’s Self-Care Model (Orem, 2001)

**Project Design**

Evidence-based projects have various designs and methods. A quasi-experimental design was utilized. The methodology used involved CNAs recruited from a 90-bed state-operated veterans nursing home. A seven-question demographics survey was completed by the participants before the start of the educational intervention, “What is in Your Self-
Care Skills Toolbox?” The participants of the quality improvement intervention were given the Professional Quality of Life Scale (Pro QOL-version 5) tool by Stamm (2009). The Pro QOL tool is the most commonly used measure of negative and positive effects of helping others (Stamm, 2010). Following the intervention, at both 1-month and 3-months post-intervention, the Pro QOL tool was completed by the participants. Also, at three-months post-intervention, a post-intervention survey was administered. The data results were de-identified and analyzed by placement on an Excel spreadsheet. All data results were kept confidential.

**Justification for Need**

The justification of need was apparent for this DNP quality improvement project. The project's aim was to increase the awareness of compassion fatigue and self-care skill strategies among CNAs to improve the CNA retention rate within the facility. Retention rate improvement was accomplished by the implementation of an evidence-based self-care skills educational program addressing compassion fatigue awareness and multiple self-care skills.

**Identified Issues**

The identified organizational-level problem is a low CNA retention rate. Several factors increase the risk of compassion fatigue and high turnover within the facility. First, veterans have poorer health and health-related behaviors across multiple health domains than non-veterans (Hoerster et al., 2012). Approximately 70% of residents have behavioral issues related to dementia (SCDMH, 2017). Dementia among residents places a higher amount of emotional strain on their caretakers (Garfield et al., 2015). Also, quality measures on the April 2017 CASPER report generated by the Centers for
Medicare and Medicaid Services (CMS) (2017) indicated the facility was higher in both state and national averages for residents that need help with activities of daily living, falls, and pain. Furthermore, resident deaths place emotional stress on the CNA. In just the first 100 days of 2017, eight veteran deaths occurred within the facility. Buchan (2006) indicates workplace factors such as heavy workloads, staff shortages, and unstable work environments all affect emotional well-being, personal health, and the potential ability to provide appropriate care (Buchan, 2006).

**Root Cause**

Compassion fatigue is the cause of the identified organizational-level problem. Compassion fatigue refers to the emotional and physical exhaustion that can affect helping professionals and caregivers over time (Mathieu, 2012). It is a progressive collective product of prolonged, continuous, and intense contact with patients and environmental stress (Hooper et al., 2010). Over time, repeated exposure to a myriad of resident medical conditions, chronic and severe illnesses, suffering, and death may produce a state of exhaustion which negatively affect the caregiver’s ability to care for themselves and their residents (Austin et al., 2009). In the workplace, compassion fatigue increases absenteeism and turnover rates among health-care providers thus affecting care and safety (Sheppard, 2015).

**Aggregate Data**

A microsystem analysis of 12 months of CNA staffing boards from June 2016 to June 2017 revealed an alarming CNA retention rate of 42% (SCDMH, 2017). Also, the one year CNA retention rate was 44% among CNAs who remained employed full time during the 12-month period (SCDMH, 2017). This retention rate is lower than the
national CNA retention rate of 68.3% in America’s skilled nursing centers and South Carolina CNA retention rate of 68.1% (American Healthcare Association, 2014).

Furthermore, the five-year CNA retention rate is 12% as evidenced by only five out of 43 full-time CNAs have remained at the E. Roy Stone, Jr. Nursing Home greater than five years (SCDMH, 2017).

High CNA vacancy rate and the costs CNA turnover imposes on the organization is staggering. A 24-month analysis of CNA staffing boards dated August 2015 to July 2017 revealed an overall CNA vacancy rate of 54% (SCDMH, 2017). The national average cost is $4,000 to replace one CNA due to turnover (American Healthcare Association, 2014). Therefore, the CNA turnover replacement cost during the 12-month period of June 2016 to July 2017 was approximately $168,000.00 (SCDMH, 2017).

Furthermore, the price to place one CNA trainee through the state certified 6-week CNA training is approximately $20,000 per student. The training is performed quarterly with 20 students per class. The yearly cost for 80 students amounts to $1.6 million with only 33% of the students remaining employed with SCDMH more than one year after training and certification (SCDMH, 2017).

**Organizational Requirements**

The SCDMH is a state agency that gives priority to adults, children, and their families affected by severe mental illnesses and significant emotional disorders. The mission of the organization is to support the recovery of people with mental illnesses (SCDMH, 2018). The organization operates four nursing home facilities, three of which are veteran nursing homes within the state.
The E. Roy Stone, Jr. Veterans Nursing Home is one of the three veteran nursing homes operated by SCDMH and dedicated to serving South Carolina residents who are U.S. military veterans. The end user of the organization is the resident population which consists of 90 veterans of the U.S. military services who have received a general or honorable discharge, been a South Carolina resident for at least one year, and need long-term nursing care, regardless of their mental health status (SCDMH, 2017). The customer requirement for this project is for caretakers to gain awareness of compassion fatigue and self-care skills, so the best quality care is delivered.

The SCDMH has long-range goals to reduce CNA turnover rates, vacancy rates, and increase retention. Currently, the organization has a strategic plan named, “A Journey to Long-Term Care Excellence” started on July 1, 2016. The plan has entered the second year utilizing the American Nurses Credentialing Center (ANCC) Magnet Model pillars of transformational leadership, structural empowerment, exemplary professional practice, knowledge innovations and improvements, and empirical quality outcomes (ANCC, 2017). The strategic plan is ongoing and has made positive strides in areas of CNA empowerment, retention, and quality resident care within the organization.

**Recommendations**

There were three recommendations for this quality improvement project. The first recommendation was to create a workplace educational training on compassion fatigue awareness and the use of self-care skills by September 18, 2017. The second recommendation was to develop a self-care skills journal for CNAs to bring awareness to journaling as a self-care skill by September 18, 2017. The last recommendation was to monitor CNA staffing boards monthly for 12-months post-intervention for CNA
retention using 42% retention rate as pre-intervention baseline. A goal was set for a 10% increase in CNA retention rate, one-year post-project intervention (see Table 1.6). A Plan-Do-Study-Act (PDSA) cycle will be performed with monthly reports submitted to key leadership members.

Table 1.6

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>Goal Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop a workplace educational training on compassion fatigue awareness and the use of self-care skills</td>
<td>September 18, 2017</td>
</tr>
<tr>
<td>Develop a self-care skills journal</td>
<td>September 18, 2017</td>
</tr>
<tr>
<td>Monitor CNA staffing boards monthly</td>
<td>12-months post-intervention</td>
</tr>
<tr>
<td></td>
<td>September 23, 2017 to September 23, 2018</td>
</tr>
</tbody>
</table>

**Feasibility**

Feasibility cannot be overlooked as a significant factor to consider when designing a study (Melnyk, Morrison-Beedy, & Cole, 2015). Four issues promoted the feasibility of this quality improvement project. The factors were stakeholder support, evidence-based outcomes, sample size, and resources. According to Newhouse and White (2012), defining the feasibility of evidence-based practice recommendations is essential to improving a specific problem in question. Securing support and resources is essential for an evidence-based project.

**Stakeholder Support**

The first issue that promotes the feasibility of this evidence-based project is securing support from executive leadership within the SCDMH Division of Inpatient
Services (DIS). When leaders express support for innovation, the change is more likely to occur (Melynk & Fineout-Overholt, 2015). According to White & Dang (2015), in order to move the evidence-based practice project to completion, the appropriate infrastructure needs to be made available and supported by leadership. Key stakeholders are listed in Table 1.7.

Table 1.7
*Key Stakeholders*

<table>
<thead>
<tr>
<th>Veteran Residents</th>
<th>Facility Leadership: Facility Director, Medical Director, Director of Nursing, Assistant Chief Nursing Officer, and Performance Improvement Program Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>Families of Veteran Residents</td>
<td>SCDMH Central: State Director/Senior Management</td>
</tr>
<tr>
<td>SCDMH Nursing Staff (CNA, LPN, RN)</td>
<td>SCDMH DIS Executive Leadership: Deputy Director, Controller, Facility Directors, Directors of Nursing, Medical Staff</td>
</tr>
<tr>
<td>Agency Nursing Staff</td>
<td>Directors of Legal Department, Human Resources Director, Staffing Director, and Chief Nursing Officer</td>
</tr>
<tr>
<td>Multidisciplinary Staff who Assisted with the Project</td>
<td>Administrative Staff, IT Staff, Nursing Supervisors</td>
</tr>
</tbody>
</table>

**Evidence-Based Outcomes**

The second issue that promoted feasibility for this project was the vast amount of evidence-based outcomes for self-care educational interventions that identify positive benefits to health care providers. In Flarity et al. (2013), the study suggested that organizational prevention programs may help reduce the risks of developing compassion fatigue. Educational programs on self-care skills have been shown to reduce compassion fatigue symptoms immediately after educational programs, at the 3-month and 6-month interval (Potter et al., 2010). According to Melynk, Morrison-Beedy, and Cole (2015), a
systematic review uses a process for identifying, assessing, and synthesizing research to answer a specific clinical question and gather conclusions about the evidence. A DNP project involves scholarly inquiry with a focus on progressing nursing knowledge by recognizing issues related to clinical practice (Moran, 2017).

**Sample Size**

The determination of a sufficient sample size is an essential step in the early process of planning a study (Melnyk et al., 2015). The subjects for this project involved CNAs, both SCDMH employees, and agency staff, working in the E. Roy Stone, Jr. Veterans Nursing Home. The goal of this study was to enroll 47 state employed CNAs and agency staff working the week of September 18 to 22, 2017 despite the difficulty of the CNAs to take time away from resident care units. Access to an adequate sample size enhanced feasibility (Melnyk & Fineout-Overholt, 2015). An adequate sample size was required to ensure reasonable confidence in the project results.

**Resources**

A resource assessment is performed in order to assess the level of readiness of the evidence-based project (Melnyk & Fineout-Overholt, 2015). The American Nurses Association Standards of Professional Practice list defines resource utilization of necessary resources to plan and provide services that are not only safe and effective but financially sound (Dearholt & Dang, 2012). The SCDMH Leadership and Governing Body supported this project because it recognized the readiness for change within the organization from current practices to evidence-based practices. Overall, there was a sense of urgency to propel this project forward. The organization provided the needed resources to complete the project such as administrative assistance, technical equipment,
conference rooms, and supplies. Executive leadership desired this project to succeed and made every effort to see it to completion.

**Feasibility Limitations**

There were identified factors that may impede the inquiry process. According to White and Dang (2015), implementing procedures with a low likelihood of success wastes valuable time and means that produce little benefits. The first factor that could limit project feasibility was the lack of evidence in the literature of success of compassion fatigue awareness and self-care skills interventions explicitly targeting the CNA population. In a study by Cooper and colleagues (2016), it was concluded the factors associated with burnout in health care aides were similar to nurses. Literature in the systematic review indicated the majority of compassion fatigue research focused on registered nurses in the intensive care unit, emergency room, and oncology departments. However, a dissertation by Little (2013) identified the complexities of compassion fatigue unique to long-term care nursing workers which included CNAs. In Cooper and colleagues (2016), the literature suggested that multiple strategies, such as debriefing and the promotion of self-care can lessen the risk and impact of compassion fatigue on the individual caregiver and the organization as a whole.

Furthermore, a CNA’s educational level could produce a lack of understanding on the importance of such a project. Misconceptions among CNAs may not yield a high participation rate. Also, the inability of CNAs to leave the minimally staffed resident units may impede participation in the evidence-based intervention. Fineholt-Overholt, Stillwell, Williamson, Cox, and Robbins (2015) indicated that teaching evidence-based
practice in a clinical setting requires commitment, diligence, enthusiasm, creativity, and teamwork.

**Project Intervention Plan**

The use of a project management plan process helps to carry out and manage project activities by utilizing a traditional management approach. There are five key phases of a project management process: initiation, planning and design, execution and construction, monitoring and controlling systems and completion (Kerzner, 2009). The first phase is the initiation phase. An analysis was performed to determine the organization’s project need. The organization’s project need addressed compassion fatigue and CNA retention. The project need involved an educational intervention addressing compassion fatigue awareness and self-care skills to increase CNA retention. A financial analysis did not apply to this quality improvement project. However, a study can be performed on improving operational cost with lower turnover and better resident outcomes.

**Objectives**

The second phase of the project management process was planning and design. During the project planning stage, the project’s five objectives were set to describe the project’s intended outcomes. Project objectives keep the project implementation focused, clarify assumptions, and avoid events that were unintended (Burson & Moran, 2017). The five project objectives are listed as follows:

1) Align with the E. Roy Stone, Jr. Veterans Nursing Home mission statement immediately in order to provide stakeholder clarity of the project’s purpose within the organization. Throughout the project timeframe, the project
purpose will align with the mission statement, “to create a home where residents will receive excellent care and live in peace and dignity” (SCDMH, 2018). Alignment of the mission was to provide stakeholder clarity of the project’s purpose within the organization.

2) Develop a workplace educational training on compassion fatigue awareness and the use of self-care skills. By the start of project implementation on 9-18-2017, a workplace educational training titled, “What is in Your Self-Care Skills Toolbox?” will be developed for CNAs working in the E. Roy Stone, Jr. Veterans Nursing Home addressing both compassion fatigue awareness and the use of self-care skills. The educational program training will bring awareness to compassion fatigue and how self-care promotes positive coping mechanisms and resilience to workplace stressors, thus increasing CNA retention (Appendix G).

3) Develop a self-care skills journal for CNAs in order to bring awareness to journaling as a useful self-care skill. Before the project intervention start date of 9-18-2017, a self-care skills journal for CNAs was developed in order to bring awareness to journaling as a self-care skill that will reduce stress and promote CNA well-being (Appendix H).

4) Increase CNA knowledge on the recognition of compassion fatigue and the use of self-care skills. At the end of the 90-minute self-care skills educational training session, “What is in Your Self-Care Skills Toolbox?” CNA participants will increase their knowledge on the recognition of compassion fatigue and use of self-care skills. The objective is to increase compassion
satisfaction scores on the Pro QOL tool at one-month and three-months post-intervention.

5) Increase the retention rate of state-employed CNAs caring for veterans in the E. Roy Stone, Jr. Veterans Nursing Home by 10% one-year post-intervention. This will be accomplished by the use of self-care skills to promote resilience to stressors that may lead to the development of compassion fatigue and the negative effects on the workforce.

**Timeline**

In the planning stage, the project’s timeline was constructed using a Gantt chart. A Gantt chart is a visual chart of the project task’s start and finishes dates. The Gantt chart kept track of major project milestone completions. A Gantt chart is located in Table 1.8.

**Table 1.8**

Gantt Chart

<table>
<thead>
<tr>
<th>Task Name</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work with chair, co-chairs, and outside member on project proposal</td>
<td>5/1/17</td>
<td>8/15/17</td>
</tr>
<tr>
<td>Develop compassion fatigue workplace intervention project Power Point presentation</td>
<td>5/1/17</td>
<td>8/15/17</td>
</tr>
<tr>
<td>Develop self-care skills journal, print, and bind</td>
<td>5/1/17</td>
<td>8/15/17</td>
</tr>
<tr>
<td>Obtain supplies for project deliverables and Giveaways</td>
<td>5/1/17</td>
<td>8/15/17</td>
</tr>
<tr>
<td>Draft IRB proposals to SCDMH and UofSC</td>
<td>7/1/17</td>
<td>9/5/17</td>
</tr>
<tr>
<td>Send all proposal materials to committee (committee reviews and prepares feedback)</td>
<td>8/01/17</td>
<td>8/15/17</td>
</tr>
<tr>
<td>Defend proposal to committee</td>
<td>9/05/17</td>
<td>9/05/17</td>
</tr>
<tr>
<td>Revisions to proposal</td>
<td>9/05/17</td>
<td>9/12/17</td>
</tr>
<tr>
<td>Submit IRB to SCDMH and UofSC-gain approval</td>
<td>9/05/17</td>
<td>9/15/17</td>
</tr>
<tr>
<td>Research journals for publishable article</td>
<td>9/5/17</td>
<td>9/15/17</td>
</tr>
<tr>
<td>Collect pre-intervention baseline data</td>
<td>9/18/17</td>
<td>9/22/17</td>
</tr>
<tr>
<td>Start intervention</td>
<td>9/18/17</td>
<td>9/22/17</td>
</tr>
<tr>
<td>Collect data 1-month post-intervention</td>
<td>10/23/17</td>
<td>10/30/17</td>
</tr>
<tr>
<td>Collect data 3-months post-intervention</td>
<td>12/23/17</td>
<td>12/30/17</td>
</tr>
<tr>
<td>Draft manuscript</td>
<td>9/15/17</td>
<td>2/8/18</td>
</tr>
<tr>
<td>Poster presentation site identified and abstract sent to sponsor</td>
<td>1/30/18</td>
<td>1/30/18</td>
</tr>
<tr>
<td>Finalize data collection</td>
<td>12/31/17</td>
<td>12/31/17</td>
</tr>
<tr>
<td>Evaluate intervention/practice change &amp; analyze data</td>
<td>12/31/18</td>
<td>1/10/18</td>
</tr>
<tr>
<td>Finalize dissertation presentation</td>
<td>2/01/18</td>
<td>2/09/18</td>
</tr>
</tbody>
</table>
Risk identification

During the planning stage, manager risk was taken into consideration. A program manager must accept the chance that something may happen during the project and address it when it occurs. A backup plan was created for equipment failure during the intervention. Copies of the power-point slide intervention were made so that the intervention could continue avoiding delays in project implementation. Projected risks were identified before project start. The identified risks are rated by risk identification numbers (see Table 1.9).

Table 1.9
Risk Identification

<table>
<thead>
<tr>
<th>Risk Description</th>
<th>Number</th>
<th>Project Impact</th>
<th>Probability of Occurrence</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNAs refuse to participate</td>
<td>(5)</td>
<td>(1)</td>
<td></td>
</tr>
<tr>
<td>Lack of continued support from key leaders</td>
<td>(5)</td>
<td>(1)</td>
<td></td>
</tr>
<tr>
<td>Organization-wide computer outage</td>
<td>(5)</td>
<td>(2)</td>
<td></td>
</tr>
<tr>
<td>Malfunction of laptop and projector</td>
<td>(5)</td>
<td>(3)</td>
<td></td>
</tr>
<tr>
<td>Glitch on PowerPoint slides-embedded videos do not work</td>
<td>(3)</td>
<td>(4)</td>
<td></td>
</tr>
<tr>
<td>DHEC unexpected regulatory survey</td>
<td>(5)</td>
<td>(2)</td>
<td></td>
</tr>
<tr>
<td>State budget limits needed supplies</td>
<td>(5)</td>
<td>(1)</td>
<td></td>
</tr>
<tr>
<td>Flu season outbreak requires building quarantine</td>
<td>(5)</td>
<td>(1)</td>
<td></td>
</tr>
<tr>
<td>Unpredictable weather and outcomes during hurricane season</td>
<td>(5)</td>
<td>(1)</td>
<td></td>
</tr>
</tbody>
</table>
Execution and Construction

The third phase was execution and construction. This phase identified the essential elements of people, resources, tools, funding, integration of costs and schedule, and performing of activities. The project’s execution and construction were identified in Table 1.10.

Table 1.10
Project Execution and Construction

<table>
<thead>
<tr>
<th>Execution and Construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>People</td>
</tr>
<tr>
<td>CNA's participation in the intervention during “Compassion Fatigue Week,” the week of September 18, 2017. Healthy snacks and drinks were provided.</td>
</tr>
<tr>
<td>Resources</td>
</tr>
<tr>
<td>People: CNA's, project manager, preceptor at the clinical site, project committee, key stakeholders and other players.</td>
</tr>
<tr>
<td>Equipment: Projector, laptop computer, screen, conference room table and chairs.</td>
</tr>
<tr>
<td>Tools</td>
</tr>
<tr>
<td>Pro QOL tool -30 questions</td>
</tr>
<tr>
<td>Demographics survey -7 questions</td>
</tr>
<tr>
<td>Three-month post-intervention project survey</td>
</tr>
<tr>
<td>Funding</td>
</tr>
<tr>
<td>Direct costs: Deliverables and snacks/drinks</td>
</tr>
<tr>
<td>Integrating</td>
</tr>
<tr>
<td>N/A due to type of project</td>
</tr>
<tr>
<td>Performing Intervention</td>
</tr>
<tr>
<td>Keeping key stakeholders up to date on project status, helping to manage quality control and monitoring project risk.</td>
</tr>
</tbody>
</table>

Budget and Resources

A budget of $1,200.00 was set at the beginning of the project which included both direct (equipment and supplies) and indirect costs (day to day operations). The total direct
costs for the project were over budget by $194.04 which is attributed to the copying and binding charges of the fifty self-care skills journals. Because the project was conducted during regular work hours, there were no additional expenses to cover participant’s wages for 90-minutes to attend the education intervention or for staff assistance during regular work hours, along with the use of lights and electricity for running the technological equipment. Project costs are outlined in Table 1.11.

Table 1.11
Project Costs

<table>
<thead>
<tr>
<th>Items</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 copies of self-care skills journals</td>
<td>$768.00</td>
</tr>
<tr>
<td>images for journal and intervention</td>
<td>$75.00</td>
</tr>
<tr>
<td>Toolbox Take Away Materials</td>
<td></td>
</tr>
<tr>
<td>drawstring bags</td>
<td>$49.95</td>
</tr>
<tr>
<td>Pedometers</td>
<td>$47.00</td>
</tr>
<tr>
<td>Candles</td>
<td>$14.99</td>
</tr>
<tr>
<td>hand lotion</td>
<td>$27.51</td>
</tr>
<tr>
<td>stress balls</td>
<td>$22.40</td>
</tr>
<tr>
<td>granola bars</td>
<td>$22.00</td>
</tr>
<tr>
<td>apples</td>
<td>$30.00</td>
</tr>
<tr>
<td>herbal tea</td>
<td>$12.00</td>
</tr>
<tr>
<td>water bottles</td>
<td>$8.00</td>
</tr>
<tr>
<td>bookmarks with tassels</td>
<td>$27.67</td>
</tr>
<tr>
<td>Pens</td>
<td>$5.00</td>
</tr>
<tr>
<td>candy</td>
<td>$22.00</td>
</tr>
<tr>
<td>clear bags and curling ribbon</td>
<td>$14.00</td>
</tr>
<tr>
<td>gold sheer bags</td>
<td>$8.58</td>
</tr>
<tr>
<td>healthy snacks and drinks</td>
<td>$200.00</td>
</tr>
<tr>
<td>candy for assistance appreciation</td>
<td>$40.00</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$1,394.04</strong></td>
</tr>
</tbody>
</table>

Resources and Resource Items

Along with the budget, there were several key resources required to carry out the project tasks. Resources identified for this project were people, equipment, items for the
takeaway self-care skills toolbox, facility, and funding. The resources and resource items are listed in Table 1.12.

Table 1.12
*Resources and Resource Items*

<table>
<thead>
<tr>
<th>Resources</th>
<th>Resource Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>People</td>
<td>Estimate Percent Effort: 100%</td>
</tr>
<tr>
<td></td>
<td>project manager: 75%</td>
</tr>
<tr>
<td></td>
<td>project preceptor: 15%</td>
</tr>
<tr>
<td></td>
<td>key stakeholders: 5%</td>
</tr>
<tr>
<td></td>
<td>other players: 5%</td>
</tr>
<tr>
<td>Equipment</td>
<td>computers, printers, projector screen,</td>
</tr>
<tr>
<td></td>
<td>office equipment: paper, folders, pens, stapler, paper-clips, tape</td>
</tr>
<tr>
<td>Self-Care Skills Toolbox</td>
<td>bottled water, granola bars, apples, stress balls, tasseled bookmarks,</td>
</tr>
<tr>
<td></td>
<td>journals, pens, pedometers, candles, hand lotion, herbal tea sample, folder</td>
</tr>
<tr>
<td></td>
<td>with preventative health information and resources</td>
</tr>
<tr>
<td>Facility</td>
<td>E. Roy Stone, Jr. Veterans Nursing Home conference room</td>
</tr>
<tr>
<td>Funding</td>
<td>The SCDMH budget for the E. Roy Stone, Jr. Veterans Nursing Home and the project manager</td>
</tr>
</tbody>
</table>

**Project Deliverables**

Resources were utilized to develop project deliverables. A deliverable is a project management term that describes the product of a project that will be delivered to the customer or stakeholder (Cutting, 2008). The five deliverables for this project are:

1) **Self-Care Skills Education Program.** A 90-minute Microsoft PowerPoint presentation titled “What is in Your Self-Care Skills Toolbox?” with short video clips embedded was created for the project’s educational intervention. The presentation addressed compassion fatigue awareness and the following
15 self-care skills: Journaling, work-life balance, coping with stress, hand massage, grieving, breathing exercises, meditation, muscle relaxation, physical activity, back protection, sleep tips, healthy nutrition by reading labels, benefits of drinking water, and health prevention.

(Appendix J).

2) Self-Care Skills Journal. A 260-page journal titled, “Self-Care Skills Journal,” contains positive affirmations, compassion fatigue awareness, and self-care skills. The 260 pages represent the number of days a full-time CNA works in a year, so there is a page every workday to read a positive affirmation, journal or read about a self-care skill (see Appendix H).

3) Take Away “Self-Care Skills Toolbox.” A drawstring bag filled with items such as a pedometer, bottle of water, apple, granola bar, stress ball, self-care skills journal, pen, tassel bookmark, hand lotion, candle, herbal tea sample, and educational materials on healthy eating, exercise, reading food labels, preventative testing such as mammogram and colonoscopy, smoking, stress, adult immunizations and favorite fitness and nutrition apps. This served as a jumpstart to exercising self-care skills. (Appendix I)

4) My Learning Point Program. The development of an educational program for My Learning Point staff professional development software addressing compassion fatigue awareness and self-care skills for all nursing staff upon hire into the facility and reviewed annually.
5) Poster Presentation. A poster presentation at the University of South Carolina Research Conference on April 18, 2018, as required by DNP program.

Evaluation Plan

Monitoring

The fourth phase of project management is monitoring and controlling systems. Correction of errors will be performed by the evaluation of the overall project performance on a regular basis to provide confidence that the project is being implemented as planned. The actual project schedule was reviewed daily and compared to baseline schedules to make sure the project was performed according to plans. Resubmissions would have been made if the project was not performing according to baseline, to provide steps to get the project back on track using the PDSA cycle. Communication among all people in multi-disciplinary departments was necessary for this phase. Monitoring was performed according to Project Measures (see Table 1.13).

Plan-Do-Study-Act

The organization will know when a change is an improvement by several factors. First, the organization will identify noticeable positive changes in CNA morale and participation in organizational events. Also, the organization will know when the retention rate of state-employed CNAs increases 10% over a period of 12-months post-intervention. Retention rate will be measured using the current baseline CNA retention rate of 42%. The retention rate will be measured each month for 12-months post-intervention. The goal is for CNAs to stay employed longer by becoming more resilient to workplace stressors through compassion fatigue awareness and the utilization of self-
care skills. A quantifiable measure is expected to be developed to assess an intervention improvement (Polancich & Koch, 2016). The PDSA model was chosen. The cycle will develop, implement, and study an improvement based on an understanding of the microsystem of care (Polancich & Koch, 2016). An organization's goal is to apply changes that result in improvement to close the gap by using the PDSA model. The following is the use of the PDSA model for this quality improvement intervention, based on the microsystem analysis.

**Plan**

Develop an evidence-based workplace compassion fatigue awareness and self-care skills education program for CNAs. CNAs will increase compassion fatigue awareness and use of self-care skill strategies to promote both physical and emotional resilience to workplace stressors that may be contributing to a low CNA retention rate.

**Do**

Key organizational members were assembled (DIS deputy director, DIS chief nursing officer, director of nursing, facility administrator, and front-line CNA staff) to develop a plan and finalize the aims and outcomes. Performance of an evidence-based literature search on compassion fatigue interventions was performed to locate evidence-based interventions for CNAs. An educational program was selected on compassion fatigue awareness and self-care skills. The evidence-based educational program for CNAs in the E. Roy Stone, Jr. Veterans Nursing Home was conducted. An appropriate measurement tool (Pro QOL-version 5) by Stamm (2009) was utilized, pre-intervention, one-month, and three-months post-intervention. A demographics survey
<table>
<thead>
<tr>
<th>Measure</th>
<th>Type of Measure</th>
<th>Purpose of Measure</th>
<th>Data Needed for Measure</th>
<th>Source of Data for Measure</th>
<th>Frequency of Data Collection</th>
<th>How will Data Be Tracked and Assessed Over Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retention of Certified Nursing Assistants (CNAs)</td>
<td>Outcome Measure</td>
<td>To measure CNA retention pre and post project intervention. Prevention and management of compassion fatigue with the use of the self-care skills intervention may increase CNA retention. An increase in CNA retention may also improve resident care quality and lower costs associated with agency staffing.</td>
<td>24 months of CNA staffing boards prior intervention and 24 months of CNA staffing boards post-intervention</td>
<td>C.M. Tucker, Jr. Nursing Care Center Staffing Boards for CNAs employed in the E. Roy Stone, Jr. Veterans Nursing Home</td>
<td>24 months of staffing boards pre-intervention Monthly monitoring x 24 months of staffing boards post-intervention</td>
<td>Excel spreadsheet to track CNA retention data from monthly facility staffing boards. Data will be shared with facility leadership on a monthly basis.</td>
</tr>
<tr>
<td>Burnout in Certified Nursing Assistants (CNAs)</td>
<td>Outcome Measure</td>
<td>To measure burnout in CNAs pre and post project intervention. Burnout is an element of compassion fatigue; it is associated with feelings of hopelessness, difficulties in dealing with work or in doing a job effectively. Recognizing burnout in CNAs may increase retention and decrease turnover increasing resident quality.</td>
<td>Completed Pro QOL- 5 Professional Quality of Life Scale Tool by CNAs participating in the project</td>
<td>Pre-intervention 1-month post-intervention 3-months post-intervention</td>
<td>Excel spreadsheet to track Pro QOL data received pre-intervention, 1-month post-intervention, and 3-months post-intervention. Data will be shared with project chair and co-chairs.</td>
<td></td>
</tr>
<tr>
<td>Secondary Traumatic Stress in Certified Nursing Assistants (CNAs)</td>
<td>Outcome Measure</td>
<td>To measure Secondary Traumatic Stress (STS) pre and post project intervention. STS is an element of Compassion fatigue. STS is about work-related, secondary exposure to people who have experienced extremely or traumatically stressful events.</td>
<td>Completed Pro QOL 5 Professional Quality of Life Scale Tool by CNAs participating in the project</td>
<td>Pro QOL 5-Professional Quality of Life Scale Tool completed by CNAs participating in the intervention</td>
<td>Pre-intervention 1-month post-intervention 3-months post-intervention</td>
<td>Excel spreadsheet to track Pro QOL data received pre-intervention, 1-month post-intervention, and 3-months post-intervention. Data will be shared with project chair and co-chairs.</td>
</tr>
<tr>
<td>---</td>
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<td>---</td>
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<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Number of CNAs who Received Self-Care Skills Training</td>
<td>Process Measure</td>
<td>To measure the effectiveness of self-care skills training among CNAs who attended intervention.</td>
<td>Signatures of all CNAs who attended project training and signed training sign-in sheets</td>
<td>“What is in Your Self-Care Skills Toolbox?” Training Sign-In Sheets from all intervention sessions.</td>
<td>Post-intervention</td>
<td>Training sign sheet signatures will be counted and the number of participants recorded.</td>
</tr>
<tr>
<td>Demographics of CNAs</td>
<td>Process Measure</td>
<td>To explain unique characteristics of CNAs as a population.</td>
<td>Demographics survey tool data from all</td>
<td>Demographics survey</td>
<td>Pre-intervention</td>
<td>Excel spreadsheet, data will be shared with project chair and co-chairs.</td>
</tr>
<tr>
<td>CNAs who participated in the quality improvement project</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------------------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction of (CNA) with Self-Care Skills Training</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balancing Measure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To measure satisfaction of training to ensure education on compassion fatigue and self-care skills has not caused new problems within the organization such as more call outs blaming compassion fatigue as the cause.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Responses to questions about quality improvement project satisfaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff Assessment Tool given quarterly - will have added questions about training satisfaction.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post-intervention</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excel spreadsheet to track satisfaction surveys responses.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Centers for Medicare and Medicaid (CMS) Quality Star Rating for the E. Roy Stone, Jr. Veterans |
| Process Measure |
| To measure CMS quality rating within the facility by comparing the quality rating data from quarter before project intervention with post-intervention data to determine |
| CASPER 5 Star (1-5 star) Quarterly rating reports for the facility from CMS for the E. Roy Stone, Jr. Nursing Home |
| CASPER 5 Star (1-5 star) Quarterly rating reports from CMS for the E. Roy Stone, Jr. Nursing Home |
| 24 months pre-intervention 24 months post-intervention reports |
| Excel spreadsheet to track CASPER quarterly report data on facility quality measures pre and post-intervention. |
| Nursing Home | if intervention increases overall quality star rating within the facility. Each nursing home is given a rating star level between 1 and 5 stars based on quality measures. Five-star facilities are considered to have much above average quality, and a one-star facility is considered to have quality measures much below state and national levels. | Jr. Nursing Home |  |  |  |  |
post-intervention. The data outcomes were gathered at all three intervals over a three-month period.

Study

Analyze the data collected from the Pro QOL tool at pre-intervention and post-intervention intervals. Discuss what was learned with key organizational members (DIS deputy director, DIS chief nursing officer, director of nursing, facility administrator, and front-line CNA staff).

Act

Permanent implementation of this program for all new CNAs upon hire completed as an annual mandatory training. Implementation in the 6-week state organized CNA training certification program, as well as two additional state-run veteran nursing homes within the state. With support from key individuals and the organization, this quality improvement project can produce a change by increasing the retention rate of state-employed CNAs and decreasing supplemental agency use in the facility. This will reduce the costs associated with agency CNAs. Also, the educational program, self-care skills toolkit, and a Self-Care Skills Journal will be utilized for multiple training opportunities. Overall, the training will occur for all new CNAs upon hire into the facility, mandatory annual training on the My Learning Point education program, six-week state CNA certification program, and in two other state-run veteran homes in South Carolina.

Sustainability of the Project

Evaluation of CNA retention will be performed by measuring CNA retention 24-months pre-intervention and monthly for 24-months post project intervention. Results of
CNA retention will be communicated monthly to key leadership members. If the project is not performing according to baseline, steps will be taken to get the project back on track by using the PDSA cycle. The following are the PDSA steps:

1. **Correct the Errors**: Evaluation of the overall project performance on a regular basis to provide confidence that the project is being performed as planned. Actual project schedule reviewed daily and compared to baseline schedules to make sure the project is performing according to plan.

2. **Resubmit**: If the project is not performing according to baseline, steps will be taken to get the project back on track utilizing the PDSA cycle. Communication among all people in multi-disciplinary departments is essential in this phase.

3. **Completion**: The close-out phase includes an evaluation of the process and the outcomes. The use of an evaluation method appropriate for the project and purpose is necessary to evaluate and define the outcomes of the project. The findings of the project will be communicated to key stakeholders within the organization by using a PowerPoint presentation method during scheduled meeting times. Acknowledgement of team members and other supporters for doing a great job by personally thanking them for assisting, thank-you cards with a token of thanks, such as candy, and mentioning names in the facility newsletter and facility and DIS leadership meetings.

**Barriers and Facilitators**

Several barriers and facilitators were identified for the success of this project. The obstacles for this project were projected to be: lack of CNA interest in the quality
improvement project; inability of CNAs to leave unit for 90-minutes, technology gap; and unexpected circumstances such as a hurricane or other natural disaster. The key facilitators are support from key leadership members; participation of CNAs; effective communication; effectively managing changes, technology use is successful and supportive organizational culture.

**Project Constraints**

Two constraints were identified from the classic triple constraint triangle of time, cost, and scope. The two obstacles identified were time and cost. CNA time away from the unit is 90-minutes. Due to staffing numbers, CNAs who are interested will be pre-scheduled to attend. Due to call-offs, many of the CNAs may need to reschedule another day and time. This could prolong the projected intervention time and data tool collection schedule. Second, due to the facility being a state-run facility, there were financial limitations of resources. The budget limited what could be provided during the project intervention.

**Success Factors**

There are critical factors that contribute to the project’s success: 1) securing support and agreement on the purpose and goals from key leadership members within the organization; 2) participation of CNAs in the project intervention; 3) cultivation of clarity by effective communication to stakeholders; 4) managing the scope of the project to effectively manage changes; 5) no biases on promise delivery; 6) technology use is successful; 8) realistic timeline; 9) clinical mentor is a champion for the project; and 10) planning to minimize political barriers such as organizational culture and strategic priorities.
Assumptions

It was assumed that key leadership within the organization would approve the project and continue project support until completion. It was also assumed that all state and agency CNAs who worked during the week of the intervention would participate in the pre-intervention data collection and intervention. Also, assumed was that all the participants would continue to participate in the one-month post-intervention and three-month post-intervention data collection. Another assumption was that there would be no technological glitches with the computer and projector during the intervention week. Last, it was assumed that the project’s data collection would be completed by December 31, 2017.

Project Implementation

Design

This is a quasi-experimental quality improvement project using independent samples. Data were collected pre-intervention, one-month post-intervention, and three-months post-intervention. Before implementation, the IRB from both the participating university (UOFUSC) and organization (SCDMH) reviewed and approved the evidence-based intervention. This quality improvement project did not meet criteria for human subject research as defined by the Code of Federal Regulations.

Method

Recruitment of Participants

Following both university and organization IRB approval, the project manager scheduled the evidence-based educational program within the facility. The conference room, laptop computer and projector were available during the week of September 18,
2017 to September 22, 2017. A recruitment flyer was created and displayed in visible areas throughout the facility. Due to the lack of computer access for CNAs within the facility, flyers were posted in the nurses’ station on each unit. Interested CNAs were then scheduled by the project manager or nurse manager for the 90-minute intervention on the supervisor’s master schedule during a shift throughout the week. The times of the educational program were 1 pm to 2:30 pm, 7 pm to 8:30 pm and 4 am to 5:30 am in order to accommodate the residents’ care and meal times.

**Participants**

Participants for this evidence-based intervention were solely CNAs. There was a total of 47 CNAs, both state and agency employed, on the staffing board during the intervention week. Inclusion criteria included: (a) CNA provision of direct resident care; (b) state or agency employees; (c) held full-time, part-time or temporary work status; (d) over age 18; (d) male or female; (e) English speaking; (f) able to stay for the entire 90-minute intervention; and (g) willing to fill out the Pro QOL instrument pre-intervention and one-month and three-months post-intervention. Exclusion criteria included CNAs who did not work in direct resident care; other direct care healthcare providers; participants less than 18 years of age; and CNAs who do not speak or read the English language. All CNAs were informed of the project dates and times through project flyers posted in common areas. There were 45 interested participants that met all inclusion criteria.

**Setting**

The setting was the E. Roy Stone, Jr. Veterans Nursing Home, a 90-bed long-term care not-for-profit state-operated veterans nursing home located on the C.M. Tucker, Jr.
Nursing Care Center campus in Columbia, South Carolina. It is one of three veteran nursing care homes operated by the SCDMH and dedicated to serving S.C. residents who are U.S military veterans. The resident population consisted of veterans of the U.S. military services who have received a general or honorable discharge, a S.C. resident for at least one year, and in need of long-term nursing care, regardless of their mental health status. The mission of the facility is “to create a home where residents will receive excellent care and live in peace and dignity” (SCDMH, 2018) The vision is “to be recognized as the standard of excellence in long-term care” (SCDMH, 2018). The facility is licensed by the state of S.C., certified by CMS and the Veterans Administration. It is also accredited by The Joint Commission.

The E. Roy Stone, Jr. Veterans Nursing Home is made up of three skilled nursing units. There are two open units and one secure unit. The nursing staff consisted of 15 registered nurses, 12 licensed practical nurses, and 47 CNAs. The majority of the direct nursing staff are CNAs working in conditions of high long-term demands, primarily caring for residents suffering from chronic mental and medical conditions. Along with the nursing department, an interdisciplinary staff provides on-site medical care; rehabilitative therapy; pharmacy services; recreation and therapeutic activities; social services; pastoral care; dietary services; transportation services; beauty and barber services; and laundry services. Within the facility, a private conference room was utilized for the educational program and data collection.

**Outcomes**

The outcome of this evidence-based project was to increase awareness of compassion fatigue and the use of self-care skills among CNAs working in a state-
operated veterans nursing home. The outcome was achieved by providing a 90-minute educational program titled, “What is in Your Self-Care Skills Toolbox?” A secondary outcome focused on increasing compassion satisfaction in order to increase the state-employed CNA retention rate by 10% in the 12-months post-intervention.

**Intervention**

A 90-minute interactive educational presentation was developed by the project manager using Microsoft PowerPoint software. Twelve short You- Tube video clips were embedded into the presentation. The presentation was titled “What is in Your Self-Care Skills Toolbox?” The presentation addressed compassion fatigue awareness, work-life balance, along with the following 15 self-care skills: Compassion fatigue awareness, journaling, stress awareness, stress management, grieving, breathing exercises, meditation, muscle relaxation, hand massage, physical activity, back protection, sleep hygiene, healthy nutrition through reading food labels, benefits of drinking water, and health prevention reminders. The content of the educational program was based on evidence-based interventions from the literature review.

Take away items served as a jumpstart to CNAs exercising self-care skills away from the workplace. A take away “Self-Care Skills Toolbox” was provided to each participant. A drawstring bag was given to each CNA and filled with the following items: Journal, pen, bookmark, pedometer, stress ball, hand lotion, candle, herbal tea sample, and a folder of reading materials on preventative health measures. A nutrition bag was also distributed to each participant containing healthy food items. The healthy nutrition bag included a bottle of water, apple, granola bar and nuts.
Also, a 260-page journal titled, “Self-Care Skills Journal” was developed by the project manager for the intervention. The journal was constructed using Microsoft Word software. Fifty copies were printed and bound by a local print shop. The 260 pages represented the number of work days a full-time employee works in a year so that journaling can be accomplished each workday. The journal contained positive affirmations on the top of each page. Also, compassion fatigue awareness information and various self-care skills were illustrated throughout the journal. A pen and tassel card bookmark were included so the participants could write a positive attribute about themselves on the bookmark as a real empowerment reminder.

**Data Collection Procedure**

The data for this evidence-based intervention was assessed by pre-test and post-test measures. Data collection took place pre-intervention, 1-month post-intervention, and 3-months post-intervention to determine the efficacy of a compassion fatigue awareness and self-care skills program. All data collection was performed by paper distribution by the project manager due to lack of computer access by CNAs. The paper data collection tools for each participant were pre-placed in a de-identified envelope by the project manager. Printed instructions were located on each data collection tool. Also, prior to the start of the intervention, verbal instructions were given on how to complete each data collection tool.

**Demographic Survey**

The demographic survey was completed prior to educational intervention and de-identified to maintain confidentiality. General instructions were provided to the participants on filling out the form. The participant demographic survey (see Appendix
D) contained seven questions: Age (years), gender, years of experience as a CNA, highest level of education, usual shift worked, hours worked per week, and employment status of state government or contracted agency. The demographic survey was the first tool that was filled out and took participants approximately five minutes to complete. After completion, each participant placed the demographic survey in an unmarked manila envelope.

**Professional Quality of Life Scale**

The Professional Quality of Life Scale: Compassion Satisfaction and Compassion Fatigue (Pro QOL-version 5) by Stamm (2009) was utilized to evaluate the effect of the educational program on the CNA (see Appendix F). The construct validity of the Pro QOL scale has been well established in the literature. The $\alpha$ reliability of each of the subscales ranged from 0.84 to 0.90 with a structural reliability coefficient of 0.91 (Stamm, 2010). The tool was developed by B. Hudnall Stamm (2009) who grants the tool to be freely copied as long as the author is credited, no changes are made, and it is not sold (see Appendix E). The Pro QOL is a 30-item questionnaire that uses a Likert Scale to measure the participants’ positive and negative experiences, as a [helper] in their current work situation within the last 30 days. Each item is scored using a five-point Likert-type scale (1=never, 2=rarely, 3=sometimes, 4=often, 5=very often) in response to statements such as “I get satisfaction from being able to [help] people” and “I feel trapped by my job as a [helper]” (Stamm, 2009) (see Table 1.14). For purposes of this quality improvement project, the Pro QOL tool was completed pre-implementation, post-implementation at one-month and three-months post-intervention. After general instructions printed on the tool were read and participants questions were answered, the
Pro QOL tool completion took no more than 15-20 minutes. The completed tool was then placed in the manila envelope by the participant along with the completed demographic survey.

Table 1.14
*Professional Quality of Life Scale (Pro QOL-Version 5) Tool*

<table>
<thead>
<tr>
<th></th>
<th>1=Never</th>
<th>2=Rarely</th>
<th>3=Sometimes</th>
<th>4=Often</th>
<th>5=Very Often</th>
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<tbody>
<tr>
<td>I am happy</td>
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<tr>
<td>I am preoccupied with more than one person I [help]</td>
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<td>I get satisfaction from being able to [help] people</td>
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<td>I feel connected to others</td>
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<td>I jump or am startled by unexpected sounds</td>
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<td>I feel invigorated after working with those I [help]</td>
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<td>I find it difficult to separate my personal life from my life as a [helper]</td>
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<td>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>I think that I might have been affected by the traumatic stress of those I [help]</td>
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<td>I feel trapped by my job as a [helper]</td>
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<tr>
<td>Because of my [helping], I have felt “on edge” about various things</td>
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<td>I like my work as a [helper]</td>
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<td>I feel depressed because of the traumatic experiences of the people I [help]</td>
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<td>I feel as though I am experiencing the trauma of someone I have [helped]</td>
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<td>I have beliefs that sustain me</td>
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<td>I am pleased with how I am able to keep up with [helping] techniques and protocols</td>
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<td>I am the person I always wanted to be</td>
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<td>My work makes me feel satisfied</td>
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<td>I feel worn out because of my work as a [helper]</td>
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<td>I have happy thoughts and feelings about those I [help] and how I could help them</td>
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<td>I feel overwhelmed because my case [work] load seems endless</td>
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<td>I believe I can make a difference through my work</td>
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<td>I avoid certain activities or situations because they remind me of frightening experiences of the people I [help].</td>
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<tr>
<td>I am proud of what I can do to [help]</td>
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<tr>
<td>As a result of my [helping], I have intrusive, frightening thoughts</td>
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<td>I feel “bogged down” by the system</td>
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<td>I have thoughts that I am a “success” as a [helper]</td>
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<td>I can’t recall important parts of my work with trauma victims</td>
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<td>I am a very caring person</td>
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<tr>
<td>I am happy that I chose to do this work</td>
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</table>

B. H. Stamm (2009)
After pre-implementation data collection, each subsequent data collection period lasted six to nine days. During the data collection period, CNAs were given an envelope with the data tools inside. After the participant completed the tool(s), the envelope with the completed data were placed in a secure container. Data collection container access was only permitted by the project manager. Participants were assured that no data could be traced and data would not be shared with anyone within the facility during the project duration.

Three-Month Post-Implementation Survey

A three-month post-implementation survey was conducted to collect feedback on the educational program among the remaining 35 CNAs. Participants were asked for their response to three questions. The first question involved ranking the top three self-care skills that were found most helpful in their daily lives. The participants were asked to rank the top three most helpful self-care skills out from the 15 self-care skill items presented during the educational intervention. The participants were asked to rank the items in the order of most helpful, second most helpful, and third most helpful.

The last two questions were five-point Likert scale questions. The Likert scale ranged from 1-strongly agree to 5-strongly disagree and asked the participants whether the intervention on compassion fatigue and self-care skills was informative and useful. The third question, using a Likert scale ranging from 1-strongly agree to 5-strongly disagree, asked participants whether CNAs working in other veteran nursing homes could benefit from a similar in-service on compassion fatigue awareness and self-care skills. Overall, the purpose of the three question post-intervention survey was to collect feedback on the intervention (Appendix J).
**Data Management and Analysis Procedures**

Data analysis commenced after participant completion of the demographics tool and the Pro QOL tool pre-implementation. Once the survey data were returned, the program manager, with the assistance of a biostatistician, coded and reviewed the participant data using Excel spreadsheet software. Then, the creation of data were performed in a form that would be usable in the statistical analysis using SAS® (2013) software. The project manager utilized descriptive statistical analysis which included frequency tables for categorical variables and means, standard deviation, and range for continuous variables. Demographic variables were assessed with descriptive statistics. Parametric test (ANOVA) and nonparametric test (Kruskal Wallis) were used to compare outcome differences for compassion satisfaction, burnout, and compassion fatigue pre-intervention, 1-month post-intervention, and 3-months post-intervention. Statistical significance alpha level was set at 0.05 for each of the research questions.

**Protection of Human Subjects**

The protection of human subjects was maintained throughout the implementation of the evidence-based intervention. In the planning stage, the project manager completed CITI training for the University of South Carolina (UofSC). This project was conducted only after approval from the institutional review board (IRB) at both UofSC (Appendix B) and SCDMH (Appendix C). There were no human subject requirements for the project. The project was screened by the SCDMH IRB and the UofSC IRB. Both IRBs determined that the proposed project did not meet criteria for human subjects research as defined by the Code of Federal Regulations: Title 45, Part 46, Protection of Human Subjects definitions. This project did not require continued review or oversight by either
of the IRB facilities. All data were de-identified and kept confidentially secure. The data were entered into Excel software on a password-protected computer in which only the project manager had access to throughout the intervention.

Summary

After establishing an evidence-based educational program addressing compassion fatigue awareness and self-care skills for CNAs, the use of a project management process helped to carry out and manage project activities. The 90-minute evidence-based educational program, “What is in your Self-Care Skills Toolbox?”, was performed a total of 14 times on three shifts throughout the week of September 18, 2017 to September 22, 2017. Data from the intervention was collected pre-intervention, 1-month post-intervention from October 23 to October 30, 2017, and 3-months post-intervention from December 23 to December 29, 2017. The results of the evidence based intervention are presented in Chapter Three.
CHAPTER 2

IMPROVING RETENTION AMONG CERTIFIED NURSING ASSISTANTS
THROUGH COMPASSION FATIGUE AWARENESS AND SELF-CARE SKILLS
EDUCATION

Dreher, M.M., Hughes, R.G., Handley, P.A. & Tavakoli, A.S. To be submitted to
Geriatric Nursing Journal
Abstract

Low retention rates among certified nursing assistants (CNAs) pose a significant threat to the provision of quality care to our nation’s veterans. To improve retention, the effects of a workplace educational program, addressing compassion fatigue awareness and self-care strategies was assessed. Forty-five CNAs from a state-run veterans nursing home attended a 90-minute workplace educational program. CNA’s level of compassion satisfaction, burnout, and secondary traumatic stress were measured at three intervals: pre-intervention, 1-month post- intervention, and 3-months post-intervention. Results indicated increased retention among CNAs and reduced the use of supplemental agency staff. Post-intervention, compassion satisfaction, burnout and secondary traumatic stress improved. Retention can be improved in long-term care settings, with workplace educational programs that reduce compassion fatigue among CNAs.

Keywords
Certified Nursing Assistant, Compassion Fatigue, Long-Term Care, Nursing Homes, Self-Care, Turnover, Veterans
Introduction

Certified nursing assistants (CNAs) caring for veterans in long-term care settings are at risk of developing compassion fatigue. Across multiple health domains, veterans experience poorer health and health-related behaviors than non-veterans (Hoerster et al., 2012). CNAs working with veterans endure repeated exposure to human suffering involving physical, mental, and emotional pain, as a result of a multitude of chronic health and behavioral conditions (Hoerster et al., 2012). The concept of compassion fatigue was first described in the nursing literature by Joinson (1992) who described classic stress patterns of nurses working in the emergency room. Over time, the profound exhaustion of compassion fatigue can cost a caregiver’s ability to practice their self-care nor provide a healthy work-life balance (Lombardo & Eyre, 2011).

CNAs are vital to the long-term care industry and provide the majority of nursing home care to our nation’s elderly. This direct care population makes up approximately 65% of the full-time workforce in long-term care settings (Harris-Kojetin et al., 2013). There are nearly 1.5 million CNA jobs in the United States (United States Bureau of Labor Statistics, 2017). Approximately 41% of CNAs are employed in long-term care facilities which constitutes one of the largest and fastest growing workforces in the country (United States Bureau of Labor Statistics, 2017). The growth of employment for CNAs is much faster than the average for all occupations and projected CNA employment is expected to grow 17 percent from 2014 to 2024 (United States Bureau of Labor Statistics, 2017). Despite these workforce figures, the nursing literature reveals a minute amount of published research on the effects of compassion fatigue on retention among CNAs working in long-term care settings.
To date, research on compassion fatigue and its effects on the caregiver primarily focus on registered nurses and other licensed healthcare providers (e.g., social workers, counselors, and physicians) employed in various healthcare settings. However, in the past ten years, there are currently no published studies on the effect of a compassion fatigue awareness and self-care skills educational program on retention among CNAs working in a state-run veterans nursing home.

Caregivers often provide health-promoting care in the workplace for their patients. However, caregivers do not take time out to incorporate wellness behaviors into their own lives (Zadeh, Gamba, Hudson, & Wiener, 2012). Dorthea Orem’s Self-Care Theory described self-care as deliberate actions an individual engages in for life, health, and well-being promotion and maintenance (Orem, 1995). To maintain a positive professional quality of life, known as compassion satisfaction, caregivers need to place heightened importance on their work-life balance, their boundary setting, spiritual well-being, and self-care strategies (Sacco, Ciurzynski, Harvey & Ingersoll, 2015). The United States Department of Veteran’s Affairs (2017) promotes interventions for caregivers on the recognition of physical, mental, and emotional symptoms, and through healthy nutrition, adequate sleep, and preventive health measures. The practice of self-care among CNAs builds resilience to resident and workplace stressors that may lead to compassion fatigue and low retention.

Various resident and workplace factors expose CNAs to compassion fatigue, specifically physical and emotional strain on caregivers, including: poorer health among veterans than non-veterans, dementia, and deaths (Hoerster et al., 2012; Garfield, Musumeci, Reaves & Damico, 2015; Austin, Goble, Leier, & Byrne, 2009). Also,
workplace factors such as an unstable environment, heavy workloads, and staff shortages affect emotional well-being, personal health, and the ability to provide appropriate care (Austin et al., 2009). To lessen the impact of compassion fatigue, caregivers must participate in specific preventative and coping measures Figley (2002). Otherwise, high rates of CNA absenteeism, turnover, and low retention may occur.

As the aging population continues to grow and places higher demands on the healthcare industry, high rates of absenteeism and turnover are due to significant stress and job dissatisfaction among direct-care workers (Kash, Castle, Naufal, & Hawes, 2006). High national vacant CNA positions in long-term care facilities totaled 43,300 in 2012, a 17% increase from the period of 2010 to 2012 (American Healthcare Association, 2014). Low retention and high turnover pose substantial costs to the organization. The national average cost to replace one CNA due to turnover is $4,000 (American Healthcare Association, 2014). Replacement costs are associated with recruitment and training of new CNAs, overtime for remaining staff, and the use of temporary staff to replace both voluntary and involuntary turnover (American Healthcare Association, 2014). CNA vacancy leads to more frequent use of supplemental agency staff which places higher direct cost demands on the organization and creates a fragmented delivery of care, compounded by the multitude of call-outs that force CNAs to complete mandatory overtime to cover shifts that are under-staffed. Workers providing care in environments that are short-staffed experience increased levels of stress, frustration, and lower levels of job satisfaction (Andrews & Wan, 2009). These factors have forced CNAs to leave the workforce in pursuit of a less stressful opportunity in another field of work.
Rapid turnover of CNAs leaving the bedside are of concern for the future of long-term care. The CNA retention rate in our nation’s long-term care facilities is 68.3% (American Healthcare Association, 2014). National vacant CNA positions in long-term care facilities totaled 43,300 in 2012; a 17% increase from the period of 2010 to 2012 (American Healthcare Association, 2014). As our nation’s population continues to age at a steady pace, by 2030, more than 20 percent of U.S. residents are projected to be aged 65 and over, up from 13 percent in 2010 and 9.8 percent in 1970 (United States Census Bureau, 2014). To better retain CNAs, organizations must provide workplace programs to enhance recognition, prevention, and management of compassion fatigue (Potter et al., 2013). Organizational compassion fatigue prevention programs can increase compassion satisfaction and address how to manage the risks that lead to compassion fatigue (Flarity, Gentry, & Mesnikoff, 2013).

The aim of this project was to increase CNA retention through awareness of compassion fatigue and self-care skill strategies. Improvement in retention will be accomplished by the implementation of an evidence-based workplace educational program addressing compassion fatigue awareness and building compassion fatigue resilience through the use of multiple self-care skills.

**Methods**

**Design**

This quality improvement intervention used a quasi-experimental, independent group, pre-test and post-test design. Before implementation, the Institutional Review Board (IRB) from both the participating university and organization reviewed and approved the intervention. It was determined by the IRB that this project was exempt.
Setting

This project was implemented in a non-for-profit 90-bed state-run veterans nursing home. The facility is operated by the state’s Department of Mental Health and located in the Southeast region of the United States, licensed by the state and is certified by the Centers for Medicare and Medicaid Services (CMS), the Veterans Administration, and accredited by the Joint Commission. The organization acknowledged the importance of increasing CNA retention within the facility.

Participants and Recruitment

A total of 45 CNAs were recruited using a recruitment flyer that was displayed throughout the facility, including three nurses’ stations due to the lack of computer access for CNAs. Interested CNAs were then scheduled by the project manager or nurse manager for the 90-minute intervention during their scheduled shift, accommodating the residents’ care and meal times.

Eligible participant inclusion criteria included: (a) CNA provision of direct resident care; (b) state or agency employees; (c) held full-time, part-time or temporary work status; (d) over age 18; (e) male or female; (f) English speaking; (g) able to stay for the entire 90-minute intervention; and (g) willing to fill out the 30-question instrument at 1 and 3-months post-intervention. Exclusion criteria included CNAs who did not work in direct resident care, other direct care healthcare providers, participants less than 18 years of age, and CNAs who do not speak or read the English language. All 45 interested participants met the inclusion criteria.
**Data Collection Tools**

**Participant Demographics**

Sociodemographic information was collected before the evidence-based intervention started using a participant demographic survey. The participant demographic survey assessed seven general sociodemographic items included: age, gender, years of experience as a CNA, highest level of education, the usual shift worked, hours worked per week, and employer. The participants were instructed to omit placing their names on the survey and to select the answer that best represented their current situation. The survey took less than five minutes to complete. Each participant completed the form, placed it into a large envelope, and deposited the form in a secure box located in a conference room that only the program manager had access to.

**Professional Quality of Life Version 5**

Participants completed the Professional Quality of Life Scale, (Pro QOL) Version 5 tool, (Stamm, 2010). A professional quality of life is defined as the quality a person feels relevant to their work as a caregiver (Stamm, 2010). The concept is associated with integrated features of work environment, the client environment and person-environment (Stamm, 2010). The tool is a 30-item self-report measure using the Likert scale ranging from one (never) to five (very often) and was utilized pre-intervention and at 1-month and 3-months post-intervention. Participants answered the 30-item tool based on how frequently they experienced each item in the last 30-days by using a scale from one (never) to five (very often).

The tool addressed three distinct subscales: compassion satisfaction (CS), burnout (BO), and secondary traumatic stress (STS) (Figure 2.1). Each subscale contained ten
items. The first subscale is a measure of compassion satisfaction (CS) which is pleasure derived from doing work well (e.g., ‘My work makes me feel satisfied’). The second subscale is a measure of burnout which is an element of compassion fatigue and not a desirable effect of caring (e.g. ‘I feel worn out because of my work as a [helper]’)(Stamm, 2010). The third subscale is secondary traumatic stress (STS), an element of compassion fatigue that involves secondary exposure to individuals who have suffered very stressful situations (e.g. ‘I find it difficult to separate my personal life from my life as a [helper]’)(Stamm, 2010). The 30-item tool took no longer than 15 minutes to complete. Each participant placed the completed form in a large envelope, sealed and placed the form in a secure box that only the program manager had access to.

![Professional Quality of Life Model](image)

**Figure 2.1 Professional Quality of Life Model (B. H. Stamm, 2010)**

### Post-Implementation Survey

A post-implementation survey was conducted to collect feedback on the usefulness of the educational program. Data collected included ranking the top three self-care skill topics reviewed in the intervention. Questions were included on the usefulness of the program for the participant and whether the participants indicated that the educational program would benefit CNAs working in other veterans nursing homes.
**Data Analysis**

The project manager utilized descriptive statistical analysis which included frequency tables for categorical variables and means, standard deviation, and range for continuous variables. Demographic variables were assessed with descriptive statistics. Parametric test (ANOVA) and nonparametric test (Kruskal-Wallis) were used to compare outcome differences for compassion satisfaction, burnout, and compassion fatigue pre-intervention, 1-month post-intervention, and 3-months post-intervention. Statistical significance alpha level was set at 0.05 for each of the research questions.

**Intervention**

A 90-minute interactive educational presentation was developed including 12 short You-Tube video clips embedded into the presentation. The presentation was titled “What is in Your Self-Care Skills Toolbox?” The presentation addressed compassion fatigue awareness and the following 14 self-care skills: journaling, stress awareness, stress management, grieving, breathing exercises, meditation, muscle relaxation, hand massage, physical activity, back protection, sleep hygiene, healthy nutrition through reading food labels, benefits of drinking water, and health prevention reminders.

A week before the presentation, project flyers with the theme “Compassion Fatigue Awareness Week” were developed, distributed, and displayed in common areas. Throughout the week, the project manager provided 14 education classes on all three shifts. The frequency of classes allowed adequate CNA coverage on the nursing units. Of the 45 CNAs, 76% were state employees, and 24% were agency staff who participated in the educational program. All participants met inclusion criteria.
At the beginning of each educational session, each participant was given a seven-question demographics survey and the Professional Quality of Life: Compassion Satisfaction and Fatigue Subscales, Version 5 (Pro QOL) tool developed by Stamm (2010). During the presentation, participants were actively engaged in the 90-minute presentation. The participants were able to demonstrate journaling, deep breathing exercises, meditation, and hand massage. After the initial education program, all CNAs were invited to participate in the data collection at 1 and 3-months post-education intervention. All collected data were de-identified and kept confidential.

Take away items served as a jumpstart for participants to exercise self-care skills away from the workplace. A take away “Self-Care Skills Toolbox” was provided to each participant. A drawstring bag filled with the following items: journal, pen, bookmark, pedometer, stress ball, hand lotion, candle, herbal tea sample, and a folder of reading materials on preventative health measures. A healthy nutrition bag was also distributed to each participant with healthy food items. The healthy nutrition bag included a bottle of water, apple, granola bar and nuts.

Also, a 260-page journal titled, “Self-Care Skills Journal” was developed as part of the intervention. Each page of the journal represented the number of work days a full-time employee works in a year so that journaling could be accomplished each work day. The journal contained positive affirmations on the top of each page. Also, compassion fatigue awareness information and various self-care skills were illustrated throughout the journal. A pen and tassel card bookmark were included so the participants could write a positive attribute about themselves on the bookmark as a positive empowerment reminder.
This was a low budget quality improvement intervention to implement. The total cost of the intervention was under $1,500.00 with the most significant expense being the journal printing and binding. After the educational intervention was completed, the project was sustained within the organization using a shortened version of the presentation. The intervention became a mandatory professional development tool within the organization for all nursing staff (CNA, LPN, RN) to participate in annually and upon hire in the facility.

Measures

Pre-intervention, 45 CNAs participated in and completed the demographics form and Pro QOL instrument. At one-month post-intervention, 40 CNAs participated in completing the Pro QOL tool. At 3-months post-intervention, 35 participants participated in completing the Pro QOL tool and a post-intervention survey. There was a combined total of ten participant drop-outs during the 1-month and 3-month data collection period. In addressing turnover during the post-intervention data-collection period, the majority of the ten CNAs who were unable to continue was due to involuntary turnover (n=6). Involuntary turnover occurred due to the organization’s zero tolerance policy on issues of behavior that compromise resident safety. Other factors associated with participant drop-outs were agency staff reductions (n=2), workman’s compensation (n=1), and extended leave (n=1).

Results

Retention

At the three-month period following intervention, retention rates among CNAs increased, and utilization of supplemental agency staff decreased. Following participation
in the intervention, four agency employed CNAs switched to state employment. Due to the lack of agency need within the facility, five out of nine full contract agency CNAs were reduced to an as-needed basis. Also, there was no voluntary turnover of state-employed CNAs in the facility.

Overall, retention rates increased in the three-months post-intervention when compared to the same three months from the previous year. One-month post-intervention, a 95% CNA retention rate was achieved which was a 43% increase from the previous year. Second-month post-intervention, facility CNA retention rate was 86%; a 42% increase from the previous year. The third-month post-intervention rate was 84%; a 40% increase from one-year prior. Overall retention rates were higher in all three-months post-intervention than in the previous year. CNA retention will continue to be monitored monthly for 12-months post-intervention. The data will be compared to retention 12-months before the start of the evidence-based intervention.

**Participant Demographics**

A total of 45 participants fully completed the demographics tool pre-intervention. The majority of participants were female; CNA experience of 20 plus years; CNA training or some college with no degree earned; worked the daytime work shift; worked full-time with greater than 40 hours worked per week and; the majority of participants were state employees (see Table 2.1).

**Statistical Testing and Significance**

Parametric test (ANOVA) and nonparametric test (Kruskal-Wallis) were used to compare outcome differences for compassion satisfaction (CS), burnout, and secondary traumatic stress (STS) (compassion fatigue) pre-intervention, 1-month post-intervention,
and 3-months post-intervention. Data entry and statistical analysis were completed using Microsoft Excel and SAS® for Windows 9.4 (2013) statistical software. Participant data were analyzed using a mean total for each of the CS, burnout, and STS subscales.

Statistical significance was established at $p < .05$.

Table 2.1
*Frequency Distribution for Demographic Variables*

<table>
<thead>
<tr>
<th></th>
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<th>%</th>
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</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
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<tr>
<td>Male</td>
<td>3</td>
<td>6.7</td>
</tr>
<tr>
<td>Female</td>
<td>42</td>
<td>93.3</td>
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<tr>
<td><strong>Age groups (years)</strong></td>
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<td>57.8</td>
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</table>
The data revealed that females had higher CS, burnout, and STS scores than the male gender however, the data collection was limited due to a small male sample size. Participants over the age of 50 showed higher CS and STS scores, and ages 40 to 49 had a higher burnout score. A CNA’s work experience of 1 to 5 years had higher CS, less than five years CNA experience had higher burnout, and between 6 to 10 years of experience had higher levels of STS. Hours worked per week indicated that temporary or part-time CNAs had higher CS, full-time CNAs working greater than 40 hours had higher burnout and STS scores. Level of education indicated that participants with only CNA training had higher CS and STS, and college credit without a degree earned had higher burnout. Shift work was a factor in higher CS on the evening shift (3 pm-11pm), higher burnout on the night shift (11pm-7am), and higher STS on the day shift (7am-3pm). The last demographic characteristic was the CNA’s employer. The participants who worked for the state had higher CS and higher STS, with higher burnout identified in agency employed participants.

There were two significant results for subscales by participant demographics using parametric and non-parametric testing. The first result of the parametric test (ANOVA) and non-parametric tests (Kruskal-Wallis Test) indicated that burnout for shift was significant for ANOVA (p-value=0.029) and Kruskal-Wallis (p-value =0.014). The second result, ANOVA (p-value =0.0002) and Wilcoxon Two-Sample Test (p-value=0.001) indicated that CS for employer was significant. However, the results did not indicate the mean of the T-scores were significant by other variables in both parametric and non-parametric tests.
**Pro QOL Outcome Measures and Levels by Subscale**

Pro QOL outcome measures for raw scores, mean and standard deviation, for CS, burnout, STS are presented in Table 2.2. Stamm (2010) indicates the sum of each Pro QOL score are scored as low, average, and at a high-level category for each subscale of CS, burnout, and STS. According to collective raw scores pre-intervention, all three Pro QOL subscales, CS (38.07), burnout (23.42), and STS (23.09), were at average levels. One-month post-intervention, subscales indicated CS (39.25) level remained at an average level. However, burnout (20.60) and STS (19.53) levels decreased to a low level. Three-month post-intervention scores indicated CS (37.89) remained at an average level, and burnout (21.94) and STS (21.06) scores remained at a low level as the one-month post-intervention score. Both burnout and STS three-month post-intervention scores were lower than pre-intervention scores.

Table 2.2

*Professional Quality of Life (Pro QOL-Version 5) Outcome Measures*

<table>
<thead>
<tr>
<th>Subscales</th>
<th>Pre-Intervention Mean (SD)</th>
<th>1-Month Post Mean (SD)</th>
<th>3-Months Post Mean (SD)</th>
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<tr>
<td></td>
<td>n=45</td>
<td>n=40</td>
<td>n=35</td>
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<tr>
<td>Compassion Satisfaction</td>
<td>38.07 (4.38)</td>
<td>39.25 (4.11)</td>
<td>37.89 (5.30)</td>
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<tr>
<td>Burnout</td>
<td>23.42 (5.19)</td>
<td>20.60 (5.19)</td>
<td>21.94 (6.20)</td>
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<tr>
<td>Secondary Traumatic Stress</td>
<td>23.09 (6.49)</td>
<td>19.53 (6.72)</td>
<td>21.06 (7.91)</td>
</tr>
</tbody>
</table>

Stamm, 2010

**Pro QOL Outcome Measures for T-Test Scores**

Parametric (ANOVA) and non-parametric (Kruskal-Wallis) scores were not significant for CS (0.36 and 0.38) respectively. The result of the parametric test (ANOVA) for burnout (0.06) and STS (0.06) was close to becoming significant.
However, the non-parametric test (Kruskal-Wallis) was significant for burnout (0.04) and STS (0.02) The results are presented in Table 2.3.

Table 2.3

<table>
<thead>
<tr>
<th></th>
<th>Pre-Intervention</th>
<th>1-Month Post</th>
<th>3-Months Post</th>
<th>P-Value</th>
<th>ANOVA/Kruskal-Wallis Scores</th>
</tr>
</thead>
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<tr>
<td></td>
<td>Mean (SD)</td>
<td>Mean (SD)</td>
<td>Mean (SD)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compassion Satisfaction</td>
<td>49.25 (9.56)</td>
<td>51.84 (8.96)</td>
<td>48.86 (11.56)</td>
<td>.36 / .38</td>
<td></td>
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<tr>
<td>Burnout</td>
<td>52.46 (9.29)</td>
<td>47.40 (9.29)</td>
<td>49.81 (11.11)</td>
<td>.06 / .04</td>
<td></td>
</tr>
<tr>
<td>Secondary Traumatic Stress</td>
<td>52.50 (9.13)</td>
<td>47.49 (9.45)</td>
<td>49.65 (11.13)</td>
<td>.06 / .02</td>
<td></td>
</tr>
</tbody>
</table>

Three-Month Post-Intervention Survey

The responses from the questionnaire demonstrated that the participants were satisfied with the intervention. The first survey question was, “Which of the following self-care skills did you find the most helpful?” The results indicated that 37% of the participants responded compassion fatigue awareness was the most helpful self-care topic covered in the educational program. The second-ranked choice was journaling (23%). The third-ranked choice tied at journaling (17.1%), meditation exercises (17.1 %), and work-life balance (17.1%). Overall, the top-ranked self-care topics the participants found beneficial were compassion fatigue awareness, journaling, meditation exercises, and maintaining a work-life balance.

For the question, “I found the in-service on compassion fatigue awareness and self-care skills to be informative and useful in my everyday life,” the participant response revealed 49% of participants strongly agreed and, 43% of participants agreed that the
educational program was informative and useful in their everyday lives. One person disagreed (2.9%) with no strongly disagree responses. Participants indicated that CNAs working in other veteran nursing homes would benefit from a similar in-service. The third question, “CNAs working in other veteran nursing homes would benefit from a similar in-service on compassion fatigue awareness and self-care skills.” Forty-nine percent of the participants strongly agreed and, 43% of the participants agreed. No participant disagreed. However, one participant strongly disagreed (2.9%). The post-survey responses provided insight on the usefulness of the education program for future compassion fatigue educational programs.

Discussion

The findings of this quality improvement project were successful in increasing retention among an understudied CNA population. One of the project’s aims was to increase state-employed CNAs and relatedly, reduce the use of supplemental agency CNAs in the 12-months following the intervention. Three-months following intervention, retention rates among CNAs increased, utilization of supplemental agency staff decreased, and CNAs gained valuable empowerment to manage stressors in the workplace. As a result of the evidence-based intervention, CNAs were more satisfied with their jobs as evidenced by increased retention. Ongoing education addressing compassion fatigue in the workplace is necessary to maintain job satisfaction and reduce turnover.

CNA retention improved post-intervention in several ways. First, the educational program on compassion awareness and self-care skills decreased voluntary turnover among state-employed CNAs. There was no voluntary turnover of state-employed CNAs
who attended the intervention three-months post-intervention. However, there was a loss of ten CNAs during the post-intervention data collection period in which 80% of the turnover was due to involuntary turnover. The remaining 20% of the CNAs were out of the facility on workman’s compensation and extended medical leave during the data collection period. By decreasing voluntary turnover and increasing retention among CNAs, there was a decrease in supplemental agency staff use in the three-months following intervention.

Furthermore, the use of supplemental agency staff decreased within the facility. Five out of nine full contract agency CNAs were reduced to an as-needed basis. The reduction was a direct result of four agency CNAs switching to full-time state employment. The agency staff recognized that the organization valued the CNA’s role and respected the CNA’s value that other employers tend to neglect. The intervention empowered supplemental agency staff to look at themselves more positively and recognize that work-life balance was necessary for both themselves and their families.

Retention of CNAs does not merely occur by increasing wages, but other workplace factors such as respect, work-life balance, and professional growth opportunities. Within the organization, an ongoing strategic plan to increase professional growth has been in effect since 2016. One of the components includes professional growth for CNAs. In the organization, CNAs are provided professional development tools for success such as Lippincott computer-based resources, educational in-services, career ladders, and tuition reimbursement for continued educational success.

The intervention displayed CNA interest in workplace educational programs. There was evidence of considerable appeal among the CNAs to learn about compassion
fatigue awareness and self-care skills. The participants expressed satisfaction that the educational program focused exclusively on the CNA. Engaging discussion occurred among the participants during the intervention. However, due to the 90-minute allotted time frame, the program manager encouraged the participants to engage in post-intervention discussion.

CNAs were engaged in the intervention stating the topic was interesting. The program manager was approached by participants expressing use of various self-care skill strategies, and that family members were using them. CNAs requested ongoing educational programs. CNAs were also interested in the type of apples, granola bars and herbal tea provided during the intervention. Interest was expressed by participants on how to obtain the free self-care apps and YouTube videos used in the intervention. Participant responses presented in this evidence-based intervention will be a helpful guide in the creation of future compassion fatigue educational programs on self-care skills.

The prevalence of CS, burnout, and STS was determined as average in CNAs working in a 90-bed state-run veterans nursing home on pre-intervention data. Also, compassion fatigue awareness was increased and the use of self-care skill strategies through the use of the evidence-based educational program, “What is in Your Self-Care Skills Toolbox?” The results indicate that the educational program had an impact on the overall level of significance for each Pro QOL subscale (CS, burnout, and STS), mean, and standard deviation for each subscale during each data measurement period. Most significant, post-intervention burnout and STS scores remained lower than pre-intervention and continued to stay at a low-level three-months post-intervention. The
need to re-enforce the educational program content regularly throughout the year is indicated to sustain positive results. Also, sustaining the intervention through onboarding of new staff and applying this strategy in other nursing homes.

**Strengths and Limitations**

There are a number of limitations in this quality improvement project that must be considered. Due to a small sample size at each data collection period \((n=45, n=40, n=35)\), there was limited generalizability. Females were 93% of the study participants. Due to the small sample size, dependent samples were not utilized. We could not match the participants because of confidentiality. Finally, data was collected during seasonal holidays which may have affected the data outcome due to the effects of seasonal stress.

**Conclusions**

Low retention rates among CNAs pose a significant threat to the provision of quality care to our nation’s veterans. By awareness on compassion fatigue and self-care skill strategies, CNAs can develop physical and mental resilience to compassion fatigue which can ultimately increase CNA retention rates in our nation’s state-run veteran nursing homes. If not addressed in the earliest phases, compassion fatigue among CNAs can produce adverse outcomes throughout the entire organization.

**Acknowledgements**

A special thank you to all the CNAs who participated in this quality improvement intervention. Thank you to clinical preceptor Dr. Patricia Handley; Dr. Ronda Hughes; Dr. Abbas Tavakoli; Dr. Crystal Graham; Mr. Robert Morgan, Licensed Nursing Home Administrator and Ms. Carol Ann Coker, Director of Nursing for your encouragement and support.
CHAPTER 3
FINDINGS AND CONCLUSION

Introduction

The purpose of this chapter is to summarize the data findings collected during the Doctor of Nursing Practice (DNP) quality improvement project. The clinical question answered by this evidence-based educational intervention was the following: In CNAs working in a 90-bed state-operated veterans nursing home (P), how does the implementation of a compassion fatigue awareness and self-care skills educational training (I), compared to no educational training on compassion awareness and self-care skills (C), effect compassion satisfaction and retention (O), at the completion of the intervention, both at 1-month and 3-months post-intervention (T)?

The purpose of this DNP quality improvement project was to determine the prevalence of compassion satisfaction, burnout, and compassion fatigue in CNAs working in a 90-bed state-run veterans nursing home. Also, to increase CNA awareness of compassion fatigue and the use of self-care skills through an evidence-based educational program titled, “What is in Your Self-Care Skills Toolbox?” The project’s aims increased awareness of compassion fatigue and self-care skills among CNAs in the workplace to increase compassion satisfaction and improve the CNA retention rate in the E. Roy Stone, Jr. Veterans Nursing Home. Through the implementation of this educational program, CNAs had the opportunity to develop
physical and mental resilience to workplace stressors that could ultimately lead to compassion fatigue and low retention rates in the workplace. This chapter includes a summary of the findings and implications for further education and research.

Participants

This section describes the participants of this quality improvement project. The participant characteristics were collected before the initiation of the project intervention through the use of a participant demographic tool (see Appendix D). The demographic tool contained seven characteristics that evaluated: gender, age, years of CNA experience, the highest level of education, usual shift worked, employer, and employment status with hours worked per week. Other identifying information was not collected.

CNAs were informed of the project dates and times through project flyers posted in common areas. Of the 47 CNAs on the staffing board for the week of September 18 to September 22, 2017, a total of 45 out of 47 CNAs participated in the 90-minute workplace educational program on compassion fatigue awareness and self-care skills. There were two CNAs who did not participate in the intervention due to workman’s compensation and extended sick leave. All 45 interested CNAs met the inclusion criteria. A total of 14 sessions were offered during the facility designated, “Compassion Fatigue Week.” Each participant was required to attend one session which was conducted during the CNAs’ work shift (7am-3pm), (3pm-11pm), or (11pm-7am). Each participant was scheduled to attend a 90-minute session but this varied depending on the staffing circumstances on the unit. If a CNA could not attend their scheduled time due to unit circumstances such as call-ins or resident situations, another day and time were scheduled. On each day of the educational program, unit managers were notified, and
resident care units were called by the project manager. CNAs were reminded of their scheduled day and time to attend the educational program.

Findings

Participant Demographic Variables

Descriptive statistics were used for demographic variables. CNA demographics showed the age of participants ranged from under 20 years ($n=1, 2.2\%$) to over 60 years old ($n=5, 11.1\%$). The majority of the participants were female ($n=42, 93.3\%$). CNA years of experience ranged from less than one year ($n=3, 6.7\%$) to 20 plus years ($n=22, 48.9\%$). The highest level of education ranged from a college degree ($n=11, 24\%$), CNA training ($n=17, 37.8\%$), and college credit, no degree earned ($n=17, 37.8\%$). The usual shift worked ranged from night shift ($n=5, 11.11\%$) to day shift ($n=16, 35.6\%$). The hours worked per week ranged from temporary work, less than 16 hours/week ($n=1, 2.2\%$) and full time, greater than 40 hours/week ($n=26, 57.8\%$). The majority of CNAs were state employed ($n=34, 75.6\%$). The frequency distribution for demographic variables is listed in Table 3.1.

Statistical Testing and Significance

Parametric test (ANOVA) and nonparametric test (Kruskal-Wallis) were used to compare outcome differences for compassion satisfaction (CS), burnout, and secondary traumatic stress (STS) (compassion fatigue) pre-intervention, 1-month post-intervention, and 3-months post-intervention. The 30-question Pro QOL-version 5 assessment tool was utilized. Each participant was handed a Pro QOL tool in an unmarked envelope by the project manager to fill out. Each participant was reminded by the project manager or designated assistant to check the form for completeness before submitting for
statistical analysis. This method assisted greatly in receiving all forms back that were completed with no incomplete answers. Each form was returned in a large envelope and

Table 3.1
Frequency Distribution for Demographic Variables Pre-Intervention (n=45)

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</table>
placed in a secure container. Participant responses pre-intervention, 1-month post-intervention, and 3-months post-intervention were evaluated by a mean score of each subscale. Subscales were CS, burnout, and STS.

Data entry and statistical analysis were completed using Microsoft Excel and SAS® for Windows 9.4 (2013) statistical software. Participant data were analyzed using a mean total for each of the CS, burnout, and STS subscales. Statistical significance was established at $p < .05$. Therefore, any probability value greater than .05 was statistically nonsignificant and could have been obtained by chance (Polit, 2014).

**Means and STD for Subscales by Characteristics**

The mean and standard deviation (STD) for CS, burnout, and STS subscales by characteristics using $T$-scores are located in Table 3.2. The data revealed that females had higher CS, burnout, and STS scores than the male gender; however, the data collection was limited due to a small male sample size. Participants over the age of 50 showed higher CS and STS scores, and ages 40 to 49 had a higher burnout score. A CNA’s work experience of 1 to 5 years had higher CS, less than five years CNA experience had higher burnout, and between 6 to 10 years of experience had higher levels of STS. Hours worked per week indicated that temporary or part-time CNAs had higher CS, full-time CNAs working greater than 40 hours had higher burnout and STS scores. Level of education indicated that participants with only CNA training had higher CS and STS, and college credit without a degree earned had higher burnout. Shift was a factor in higher CS on the evening shift (3 pm-11pm), higher burnout on the night shift (11pm-7am), and higher STS on the day shift (7am-3pm). The last demographic characteristic was the
CNA’s employer. The participants who worked for the state had higher CS and higher STS, with higher burnout identified in agency employed participants.

There were two significant results for subscales by participant demographics using parametric and non-parametric testing (see Table 3.6). The first result of the parametric test (ANOVA) and non-parametric tests (Kruskal-Wallis Test) indicated that burnout for shift was significant for ANOVA (p-value=0.029) and Kruskal-Wallis (p-value =0.014). The second result, ANOVA (p-value =0.0002) and Wilcoxon Two-Sample Test (p-value =0.001) indicated that CS for employer was significant. However, the results did not indicate the mean of the T-scores were significant by other variables in both parametric and non-parametric tests.

**Pro QOL Outcome Measures**

Pro QOL outcome measures for raw scores, mean and standard deviation, for CS, burnout, STS are presented in Table 3.3. The mean and standard deviation scores of pre-intervention data are: CS ($M=38.07, SD=4.38$), burnout ($M=23.42, SD= 5.19$), and STS ($M=23.09, SD=6.49$). One-month post-intervention scores for each subscale are: CS=$39.25 (SD=4.11)$, burnout ($M=20.60, SD=5.19$), and STS ($M=19.53, SD=6.72$). Three-month post-intervention scores ranges are: (CS $M=37.89, SD=5.30$), burnout ($M=21.94, SD=6.20$), and STS ($M=21.06, SD=7.91$). Overall, the score ranges pre-intervention to 3-month post-intervention were CS (37.89 to 39.25), burnout (20.60 to 23.42), and STS (19.53 to 23.09).

**Pro QOL Score Levels**

Stamm (2010) indicates the sum of each Pro QOL score are scored as low,
Table 3.2
Means and STD for Subscales by Characteristics

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>n</th>
<th>RAW SCORE</th>
<th></th>
<th>T SCORE</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>CS Mean</td>
<td>Burnout</td>
<td>STS Mean</td>
<td>CS Mean</td>
<td>Burnout</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(SD)</td>
<td>(SD)</td>
<td>(SD)</td>
<td>(SD)</td>
<td>(SD)</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under 39</td>
<td>15</td>
<td>37.93 (4.04)</td>
<td>22.87 (5.55)</td>
<td>20.53 (4.60)</td>
<td>48.38 (9.47)</td>
<td>51.44 (10.38)</td>
</tr>
<tr>
<td>40-49</td>
<td>12</td>
<td>37.17 (4.93)</td>
<td>24.92 (4.21)</td>
<td>22.58 (6.36)</td>
<td>46.59 (11.55)</td>
<td>55.28 (7.87)</td>
</tr>
<tr>
<td>50+</td>
<td>18</td>
<td>38.78 (4.40)</td>
<td>22.89 (5.54)</td>
<td>25.56 (7.29)</td>
<td>50.36 (10.30)</td>
<td>51.49 (10.36)</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>3</td>
<td>36.33 (8.08)</td>
<td>23.00 (12.53)</td>
<td>18.67 (5.69)</td>
<td>44.64 (18.93)</td>
<td>51.69 (23.43)</td>
</tr>
<tr>
<td>Female</td>
<td>42</td>
<td>38.19 (4.15)</td>
<td>23.45 (4.61)</td>
<td>23.40 (6.49)</td>
<td>48.99 (9.7)</td>
<td>52.54 (8.61)</td>
</tr>
<tr>
<td><strong>Years of Experience as a CNA</strong></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 5 Years</td>
<td>13</td>
<td>37.15 (3.85)</td>
<td>23.92 (5.04)</td>
<td>21.31 (3.88)</td>
<td>46.56 (9.01)</td>
<td>53.42 (9.42)</td>
</tr>
<tr>
<td>1-5 Years</td>
<td>10</td>
<td>39.40 (4.22)</td>
<td>22.80 (5.94)</td>
<td>21.80 (6.84)</td>
<td>51.82 (9.89)</td>
<td>51.32 (11.11)</td>
</tr>
<tr>
<td>6-10 Years</td>
<td>22</td>
<td>38.00 (4.77)</td>
<td>23.41 (5.14)</td>
<td>24.73 (7.36)</td>
<td>48.54 (11.17)</td>
<td>52.46 (9.61)</td>
</tr>
<tr>
<td><strong>Hours Worked Per Week</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temp/Part Time</td>
<td>4</td>
<td>38.75 (2.22)</td>
<td>22.25 (5.56)</td>
<td>21.00 (3.46)</td>
<td>50.30 (5.19)</td>
<td>50.29 (10.40)</td>
</tr>
<tr>
<td>Full Time (33-40 hours/week)</td>
<td>15</td>
<td>38.40 (4.64)</td>
<td>22.93 (5.39)</td>
<td>21.73 (5.74)</td>
<td>49.48 (10.87)</td>
<td>51.57 (10.08)</td>
</tr>
<tr>
<td>Full Time (greater than 40 hours/week)</td>
<td>26</td>
<td>37.77 (4.57)</td>
<td>23.88 (5.18)</td>
<td>24.19 (7.16)</td>
<td>48.00 (10.71)</td>
<td>53.35 (9.68)</td>
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<td><strong>Highest Level of Education</strong></td>
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<td></td>
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<td></td>
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<tr>
<td>CNA Training</td>
<td>17</td>
<td>38.47 (3.59)</td>
<td>22.35 (4.42)</td>
<td>23.71 (7.70)</td>
<td>49.64 (8.41)</td>
<td>50.48 (8.25)</td>
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<tr>
<td>College Credit, No Degree Earned</td>
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<td>38.12 (4.94)</td>
<td>24.12 (5.37)</td>
<td>22.76 (6.21)</td>
<td>48.82 (11.56)</td>
<td>53.78 (10.04)</td>
</tr>
<tr>
<td>College Degree</td>
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<td>37.36 (4.90)</td>
<td>24.00 (6.16)</td>
<td>22.64 (5.30)</td>
<td>47.05 (11.48)</td>
<td>53.56 (11.52)</td>
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<td>Usual Shift Worked</td>
<td>Days</td>
<td>Evenings</td>
<td>Nights</td>
<td>Mixed Shifts</td>
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<tr>
<td>-------------------</td>
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<td>-----------</td>
<td>------------</td>
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<tr>
<td></td>
<td>16</td>
<td>13</td>
<td>5</td>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>38.63 (3.84)</td>
<td>39.31 (2.81)</td>
<td>34.00 (4.58)</td>
<td>37.64 (5.78)</td>
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<td></td>
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<tr>
<td></td>
<td>23.75 (5.13)</td>
<td>21.31 (4.07)</td>
<td>29.20 (3.77)</td>
<td>22.82 (5.51)</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>24.31 (6.32)</td>
<td>22.46 (7.60)</td>
<td>24.20 (4.44)</td>
<td>21.55 (6.50)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>50.00 (9.00)</td>
<td>51.60 (6.58)</td>
<td>39.17 (10.73)</td>
<td>47.69 (13.54)</td>
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<td></td>
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<tr>
<td></td>
<td>53.10 (9.59)</td>
<td>48.53 (7.61)</td>
<td>63.28 (7.05)</td>
<td>51.35 (10.30)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>54.27 (9.30)</td>
<td>51.54 (11.18)</td>
<td>54.10 (6.53)</td>
<td>50.20 (9.56)</td>
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<td></td>
</tr>
<tr>
<td>Your Employer</td>
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</tr>
<tr>
<td>State</td>
<td>34</td>
<td>39.35 (3.52)</td>
<td>22.68 (5.38)</td>
<td>34.09 (4.53)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>24.09 (6.86)</td>
<td>24.00 (4.05)</td>
<td>25.73 (3.93)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>51.71 (8.25)</td>
<td>39.39 (10.60)</td>
<td>20.00 (4.05)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>51.09 (10.05)</td>
<td>56.79 (7.34)</td>
<td>20.00 (4.05)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agency</td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>34.09 (4.53)</td>
<td></td>
<td>25.73 (3.93)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>20.00 (4.05)</td>
<td></td>
<td>39.39 (10.60)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>56.79 (7.34)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>47.92 (5.96)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3.3
*Pro QOL Outcome Measures for Raw Scores*

<table>
<thead>
<tr>
<th>Subscales</th>
<th>Pre-Intervention Mean (SD)</th>
<th>1-Month Post Mean (SD)</th>
<th>3-Months Post Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n=45</td>
<td>n=40</td>
<td>n=35</td>
</tr>
<tr>
<td>Compassion Satisfaction</td>
<td>38.07 (4.38)</td>
<td>39.25 (4.11)</td>
<td>37.89 (5.30)</td>
</tr>
<tr>
<td>Burnout</td>
<td>23.42 (5.19)</td>
<td>20.60 (5.19)</td>
<td>21.94 (6.20)</td>
</tr>
<tr>
<td>Secondary Traumatic Stress</td>
<td>23.09 (6.49)</td>
<td>19.53 (6.72)</td>
<td>21.06 (7.91)</td>
</tr>
</tbody>
</table>

average, and at a high-level category for each subscale of CS, burnout, and STS (see Table 3.4). According to collective raw scores pre-intervention, all three Pro QOL subscales, CS (38.07), burnout (23.42), and STS (23.09), were at average levels. One-month post-intervention, subscales indicated CS (39.25) level remained at an average level. However, burnout (20.60) and STS (19.53) levels decreased to a low level. Three-month post-intervention scores indicated CS (37.89) remained at an average level, and burnout (21.94) and STS (21.06) scores remained at a low level as the one-month post-intervention score. Both burnout and STS three-month post-intervention scores were
lower than pre-intervention scores. See Table 3.5 for a summary of levels of CS, burnout, and STS at each data collection period.

Table 3.4
*Pro QOL Score and Level of CS, Burnout, STS*

<table>
<thead>
<tr>
<th>Sum of Each Score</th>
<th>Score Equals</th>
<th>Level of CS, Burnout, or STS</th>
</tr>
</thead>
<tbody>
<tr>
<td>22 or less</td>
<td>43 or less</td>
<td>Low</td>
</tr>
<tr>
<td>Between 23 and 41</td>
<td>44-56</td>
<td>Average</td>
</tr>
<tr>
<td>42 or more</td>
<td>57 or more</td>
<td>High</td>
</tr>
</tbody>
</table>

Table 3.5
*Level of CS, Burnout, and STS at Each Data Collection Period*

<table>
<thead>
<tr>
<th></th>
<th>Pre-Intervention</th>
<th>1-Month Post</th>
<th>3-Months Post</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compassion Satisfaction</td>
<td>Average</td>
<td>Average</td>
<td>Average</td>
</tr>
<tr>
<td>Burnout</td>
<td>Average</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Secondary Traumatic Stress</td>
<td>Average</td>
<td>Low</td>
<td>Low</td>
</tr>
</tbody>
</table>

**Pro QOL Outcome Measures for T-Test Scores**

Parametric (ANOVA) and non-parametric (Kruskal-Wallis) scores were not significant for CS (0.36 and 0.38) respectively. The result of the parametric test (ANOVA) for burnout (0.06) and STS (0.06) was close to becoming significant. However, the non-parametric test (Kruskal-Wallis) was significant for burnout (0.04) and STS (0.02) The results are presented in Table 3.6.

**Three-Month Post-Intervention Survey**

A three-month post-implementation survey collected participant feedback on the benefit of the educational program that was conducted the week of September 18, 2017 to September 22, 2017 (see Appendix J). Participants were asked to respond to three questions during the three-month post-intervention data collection period of December 23
to 30, 2017. The survey was in paper form with instructions and took approximately three to five minutes to complete.

Table 3.6
Pro QOL Outcome Measures and P Value for T-Test Scores

|                         | Pre-Intervention | 1-Month Post | 3-Months Post | P-Value
|-------------------------|------------------|--------------|---------------|--------
|                         | Mean (SD) n=45   | Mean (SD) n=40 | Mean (SD) n=35 | ANOVA/Kruskal-Wallis Scores |
| Compassion Satisfaction | 49.25 (9.56)     | 51.84 (8.96) | 48.86 (11.56) | .36/.38 |
| Burnout                 | 52.46 (9.29)     | 47.40 (9.29) | 49.81 (11.11) | .06/.04 |
| Secondary Traumatic Stress | 52.50 (9.13)   | 47.49 (9.45) | 49.65 (11.13) | .06/.02 |

The first survey question was, “Which of the following self-care skills did you find the most helpful?” For this question, 35 participants were asked to rank three out of the 15 self-care topics covered in the educational program that provided the most benefit in their daily life. Each participant was instructed to place a #1 next to the most helpful self-care skill, #2 next to the second most helpful self-care skill and #3 next to the third most helpful self-care skill. Some participants needed further instructions to complete. The results indicated that 37% of the participants responded compassion fatigue awareness was the most helpful self-care topic covered in the educational program. The second-ranked choice was journaling (23%). The third-ranked choice tied at journaling (17.1%), meditation exercises (17.1 %), and work-life balance (17.1%). Overall, the top-ranked self-care topics the participants found beneficial were compassion fatigue awareness, journaling, meditation exercises, and maintaining a work-life balance. The results of the post-intervention survey are found in Table 3.7.
The next two questions in the post-intervention survey used a Likert scale for responses. The Likert scale ranged from 1-strongly agree to 5-strongly disagree to the statement, “I found the in-service on compassion fatigue awareness and self-care skills to be informative and useful in my everyday life.” The participants were asked to circle their response. The participant response revealed 49% of participants strongly agreed and, 43% of participants agreed that the educational program was informative and useful in their everyday lives. One person disagreed (2.9%) with no strongly disagree responses.

The third question, using a Likert scale ranging from 1-strongly agree to 5-strongly disagree, asked participants to respond to the statement, “CNAs working in other veteran nursing homes would benefit from a similar in-service on compassion fatigue awareness and self-care skills.” The participants were asked to circle their responses. Participants indicated that CNAs working in other veteran nursing homes would benefit from a similar in-service. Forty-nine percent of the participants strongly agreed and, 43% of the participants agreed. No participant disagreed. However, one participant strongly disagreed (2.9%). The post-survey responses provided insight on the usefulness of the education program for future compassion fatigue educational programs. The participant responses to the post-intervention survey questions are found in Table 3.8.

Table 3.7
Self-Care Topics Rankings by Participants

<table>
<thead>
<tr>
<th>Question 1: Self-Care Topics</th>
<th>N</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compassion Fatigue Awareness</td>
<td>13</td>
<td>37</td>
</tr>
<tr>
<td>Journaling</td>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td>Coping with Stress</td>
<td>3</td>
<td>8.6</td>
</tr>
<tr>
<td>Meditation Exercises</td>
<td>3</td>
<td>8.6</td>
</tr>
<tr>
<td>Benefits of Drinking Water</td>
<td>3</td>
<td>8.6</td>
</tr>
</tbody>
</table>
Table 3.8
*Post-Intervention Survey Questions (n=35)*

<table>
<thead>
<tr>
<th>Question 2:</th>
<th>I found the in-service on compassion fatigue awareness and self-care skills to be Informative and useful in my everyday life.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strongly Agree</strong></td>
<td>17 (49%)</td>
</tr>
<tr>
<td><strong>Agree</strong></td>
<td>15 (43%)</td>
</tr>
<tr>
<td><strong>Neither or N/A</strong></td>
<td>2 (5.7%)</td>
</tr>
<tr>
<td><strong>Disagree</strong></td>
<td>1 (2.9%)</td>
</tr>
<tr>
<td><strong>Strongly Disagree</strong></td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question 3:</th>
<th>CNAs working in other veteran nursing homes would benefit from a similar in-service on compassion fatigue awareness and self-care skills.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strongly Agree</strong></td>
<td>17 (49%)</td>
</tr>
<tr>
<td><strong>Agree</strong></td>
<td>15 (43%)</td>
</tr>
<tr>
<td><strong>Neither or N/A</strong></td>
<td>2 (5.7%)</td>
</tr>
<tr>
<td><strong>Disagree</strong></td>
<td>0 (0)</td>
</tr>
<tr>
<td><strong>Strongly Disagree</strong></td>
<td>1 (2.9%)</td>
</tr>
</tbody>
</table>

**Retention**

The outcome of the evidence-based intervention revealed that in the three-month period following intervention, retention rates among CNAs increased and utilization of supplemental agency staff decreased. One of the project aims was to improve the CNA retention rate by 10% for state-employed CNAs and relatedly, reduce the use of agency CNAs in the 12-months following the intervention. Following participation in the intervention, four agency employed CNAs switched to state employment. Due to the lack of agency need, five out of nine full contract agency CNAs were reduced to an as-needed basis. Also, during the three-months post-intervention (September 23, 2017 to December 23, 2017), there was no voluntary turnover of state-employed CNAs in the facility.
Three factors increased CNA retention rates three-months post-intervention.

Monthly retention rates for the year 2017 were compared to monthly retention rates from the year 2016 for October, November, and December. Improved retention results were noted in October 2017. One month post-intervention, there was a 95% CNA retention rate and an increase from a 52% retention in October 2016. The second-month post-intervention retention rate was 86% for November 2017. The November retention rate was higher than the 44% in November 2016. The third-month retention rate for December 2017 was 84%. This was an increase from a 44% retention rate in December 2016, just one-year prior (see Table 3.9). CNA retention will continue to be monitored monthly for 12-months post-intervention. The data will be compared to retention 12-months before the start of the evidence-based intervention.

Table 3.9

\[
\begin{array}{lcc}
\text{Pre-Implementation} & \text{Post-Implementation} \\
\text{2016 (\%)} & \text{2017 (\%)} \\
\hline
\text{October} & 52 & 95 \\
\text{November} & 44 & 86 \\
\text{December} & 44 & 84 \\
\hline
\end{array}
\]

\textbf{Participant Drop-Out Rate}

There was a combined total of ten participant drop-outs during the 1-month and 3-month data collection period. In addressing turnover during the post-intervention data-collection period, the majority of the ten CNAs who were unable to continue was due to involuntary turnover ($n=6$). Involuntary turnover occurred due to the organization’s zero tolerance policy on issues of behavior that compromise resident safety. Other factors
were agency staff reductions \((n=2)\), workman’s compensation \((n=1)\), and extended leave \((n=1)\). The participant drop-out from the intervention by data-collection period is presented in Table 3.10.

Table 3.10
*Participant Drop-Out by Data Collection Period*

<table>
<thead>
<tr>
<th>Pre-Intervention</th>
<th>1-Month Post-Intervention</th>
<th>3-Months Post-Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>n</em>=45</td>
<td><em>n</em>=40</td>
<td><em>n</em>=35</td>
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<tr>
<td>Workman’s Comp</td>
<td>Involuntary Turnover</td>
<td>Involuntary Turnover</td>
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<tr>
<td>Extended Medical Leave</td>
<td>Involuntary Turnover</td>
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<td></td>
<td>Workman’s Comp</td>
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<td>Agency Staff Reduction</td>
<td>Involuntary Turnover</td>
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<td></td>
<td>Agency Staff Reduction</td>
<td>Extended Medical Leave</td>
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</table>

**Discussion**

This low-budget quality improvement project was successful in increasing retention among an understudied CNA population working in a state-run veterans nursing home. One of the project’s aims was to increase state-employed CNAs and relatedly, reduce the use of supplemental agency CNAs in the 12-months following the intervention. The outcome of this evidence-based intervention revealed in the three-month time-period following intervention, retention rates among CNAs increased, utilization of supplemental agency staff decreased, and CNAs gained valuable empowerment to manage stressors both at home and in the workplace. As a result of the evidence-based intervention, CNAs appeared more satisfied with their jobs and overall morale improved. Ongoing education addressing compassion fatigue in the workplace is necessary to maintain job satisfaction and reduce turnover.
CNA retention improved post-intervention in three ways. First, the educational program on compassion awareness and self-care skills decreased voluntary turnover among state-employed CNAs. There was no voluntary turnover of state-employed CNAs who attended the intervention three-months post-intervention. However, there was a loss of ten CNAs during the post-intervention data collection period in which 80% of the turnover was due to involuntary turnover. The remaining 20% of the CNAs were out of the facility on workman’s compensation and extended medical leave during the data collection period. By decreasing voluntary turnover and increasing retention among CNAs, there was a decrease in supplemental agency staff use in the three-months following the intervention.

The use of supplemental agency staff decreased within the facility. Five out of nine full contract agency CNAs were reduced to an as-needed basis. The reduction was a direct result of four agency CNAs switching to full-time state employment. The agency staff recognized that the organization valued the CNA’s role and respected the CNA’s value that other employers tend to neglect. The intervention empowered supplemental agency staff to look at themselves more positively and to recognize work-life balance was important for both themselves and their families.

Also, professional growth within the workplace is necessary to the CNA. Within the organization, an ongoing strategic plan to increase professional growth has been in effect since 2016. One of the components of the strategic plan addresses professional growth for CNAs. Retention of CNAs does not merely occur by increased wages, but other workplace factors such as respect, work-life balance, and professional growth opportunities. In the organization, CNAs are provided professional development tools for
success such as Lippincott computer-based resources, educational in-services, career ladders, and tuition reimbursement for continued educational success.

This intervention displayed CNA interest in workplace educational programs. There was considerable appeal among the CNAs to learn about compassion fatigue awareness and self-care skills. The participants expressed satisfaction that the educational program focused exclusively on the CNA. Engaging discussion occurred among the participants during the intervention. However, due to the 90-minute allotted time frame, the program manager encouraged the participants to engage in post-intervention discussion.

The CNAs expressed to the program manager that the topic was interesting and the participants seemed focused and energized on the topic. The program manager was approached by participants expressing use of various self-care skill strategies, and family members were using them, also. Several CNAs inquired about the type of apples, granola bars and herbal tea that were provided during the intervention. One participant explained how free apps and You-Tube videos on meditation and deep breathing exercises help with falling asleep. CNAs requested ongoing educational programs.

CNAs were engaged in the intervention. After the intervention, the project manager encountered CNAs interested in the outcome of the evidence-based intervention. There were positive participant responses to the educational program. Thirty-seven percent of participants responded the most beneficial self-care topic introduced during the intervention was compassion fatigue awareness. Other topics such as journaling, coping with stress, meditation exercises, and breathing exercises were also helpful in the lives of the participants. Moreover, 49% of participants strongly agreed, and 43% of participants
agreed that the educational program was informative and CNAs working in other veteran nursing homes would benefit from a similar in-service (see Table 3.10). Participant responses presented in this evidence-based intervention will be a helpful guide in the creation of future compassion fatigue educational programs on self-care skills.

Overall, the purpose of this DNP quality improvement project was achieved. The evidence-based intervention determined the prevalence of CS, burnout, and STS as average in CNAs working in a 90-bed state-run veteran’s nursing home on pre-intervention data. The second purpose was met by increasing compassion fatigue awareness and self-care skill strategies through the use of the evidence-based educational program, “What is in Your Self-Care Skills Toolbox?” This intervention increased CS, burnout, and STS scores in the participants one-month post-intervention and kept burnout and STS scores lower than pre-intervention scores.

From the results, we can conclude that the evidence-based intervention was effective. One-month post-intervention, all three subscales (CS, burnout, and STS) scores indicated that the educational program was successful in positively influencing the scores. CS remained in the average range from pre-intervention. However, participants had increased their total CS score. Also, burnout and STS score totals decreased and moved from an average range to a low range. Burnout and STS scores were lower than pre-intervention and moved into the low range. Three-months post-intervention, CS remained in the average range, and the score total went down. The lower score can be contributed to data collection during seasonal stress from the end of the year holidays. Also, the need to re-enforce the educational program content regularly throughout the year is indicated to sustain positive results. Most significant, burnout and STS scores
remained lower than pre-intervention and continued to stay at a low-level three-months post-intervention. The results indicate that the educational program had an impact on the overall level of significance for each Pro QOL subscale (CS, burnout, and STS), mean, and standard deviation for each subscale during each data measurement period.

**Conclusion**

This evidence-based intervention was successful in decreasing compassion fatigue among CNAs. Valuable insight was gained on the positive effects of a workplace education program addressing compassion fatigue awareness and self-care skills among CNAs working in a state-run veterans nursing home. The impact of the educational program, “What is in Your Self-Care Skills Toolbox,” was an increase in CS, and decrease in burnout and STS scores one-month post-intervention. Burnout and STS sustained low scores three-months post-intervention. During the intervention, CNAs had the opportunity to develop physical and mental resilience to workplace stressors that ultimately lead to increased CS and positively impacted retention in the facility.

As a result of this intervention, the facility has increased retention by reducing voluntary turnover of state-employed CNAs, three-months post-educational intervention. Also, the use of supplemental agency staff has decreased due to the increased retention of state-employed CNAs. CNA turnover and low retention rates are a concern to the quality of care provided to our nation’s veteran population. As one of the fastest growing direct-care occupations that provide the majority of care in nursing homes, more evidence-based interventions are needed in the areas of compassion fatigue and the effects on retention. This intervention empowered CNAs to manage personal and environmental stressors more efficiently which in turn, reduced compassion fatigue in participants. This
evidence-based intervention places us one step further in understanding the effects of compassion fatigue in CNAs and the how it will impact the future of long-term care.

**Implications for Practice**

Nursing homes confront the effects of compassion fatigue in CNAs on a daily basis. The effects of compassion fatigue on CNAs can increase turnover, decrease retention, and reduce the quality of care provided to residents. The outcomes of this evidence-based intervention indicated that a compassion fatigue workplace educational program on compassion awareness and self-care skill strategies was successful in increasing compassion satisfaction, decreasing burnout and compassion fatigue, and increasing retention among CNAs working in a state-run veterans nursing home. The outcomes of this quality improvement project can be helpful to nursing home administrators, chief nursing officers, directors of nursing, unit managers, and educators. It can be helpful, also, to accrediting bodies, Centers for Medicare and Medicaid Services (CMS), and legislatures.

Organizations should consider the implementation of an evidence-based compassion fatigue awareness and self-care skills educational program. The program should become mandatory and incorporated into orientation for all newly hired CNAs. Education for CNAs should be ongoing, every 30-days, to reinforce the use of self-care skill strategies. The continued education will help manage personal and environmental workplace stressors that ultimately lead to compassion fatigue. By understanding the effects of compassion fatigue on the CNA workforce, strategies such as those presented in this evidence-based intervention can assist nursing homes to gain increased compassion satisfaction, increased CNA retention, and increased quality resident care.
Limitations

There are a number of limitations in this quality improvement project that must be considered. Due to a small sample size at each data collection period \((n=45, n=40, n=35)\), there was limited generalizability. Females were 93% of the study participants. Due to the small sample size, dependent samples were not utilized. We could not match the participants because of confidentiality. Finally, data was collected during seasonal holidays which may have affected the data outcome due to the effects of seasonal stress.

Future Directions

Future quality improvement projects should include evidence-based interventions to address compassion fatigue among CNAs working in long-term care. Evidence-based interventions used in this quality improvement project should be replicated for all new CNAs hired within an organization. The educational program should be implemented during orientation with ongoing monthly educational sessions. The provision of compassion fatigue awareness and self-care strategies at an early stage of CNA employment may enable CNAs to develop physical and mental resilience to workplace stressors. The intervention may prevent voluntary turnover rate of new hires and produce higher CNA retention rates. Other quality improvement projects could focus on the cost compassion fatigue places on an organization due to high CNA turnover and low retention rates. Also, future quality improvement projects should look at how compassion fatigue affects the quality of care within an organization.

There is also a lack of research on compassion fatigue addressing CNAs working in long-term care settings. The lack of research was noted early in the development of this quality improvement project. The majority of the compassion fatigue literature
focused on licensed nurses and other healthcare providers working in various healthcare settings. Nurse researchers must take on the issue of compassion fatigue among CNAs working in long-term care to gain a better understanding of low retention, turnover, and resident quality of care. CNAs are the direct care population that make up approximately 65% of the full-time workforce in long-term care settings (Harris-Kojetin et al., 2013). Approximately 41% of CNAs are employed in skilled nursing facilities which constitutes one of the largest and fastest growing workforces in the country (United States Bureau of Labor Statistics, 2017). In this growing workforce, no literature exists on compassion fatigue among CNAs working in a state-run veterans nursing home. The future of long-term care is dependent on compassion fatigue research in the long-term care workforce.

**Dissemination**

The review of the literature and findings for this quality improvement project will be presented on April 18, 2018 at the 17th Annual Research and Scholarship Day 2018 and Mary Ann Parsons Lectureship at the University of South Carolina College of Nursing. The submitted abstract is located in Appendix K. Also, a manuscript will be submitted upon graduation to the Geriatric Nursing Journal. The journal is the official Journal of the American Assisted Living Nurses Association, National Gerontological Nursing Association, and Gerontological Advanced Practice Nurses Association. The journal’s guide for authors is located in Appendix L.
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## APPENDIX A
### EVIDENCE TABLE

<table>
<thead>
<tr>
<th>Reference, Type, Quality Rating</th>
<th>Methods</th>
<th>Study Findings</th>
<th>Threats to Validity/Reliability</th>
<th>Conclusions</th>
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<tr>
<td>Article I:</td>
<td>Design: Single psycho-educational intervention to teach positive self-care behaviors to nurses. <strong>Purpose:</strong> The purpose of this project is to develop and evaluate a psycho-educational program that assists nurses who work in high-stress areas to develop personalized stress management plans that rely on the use of adaptive coping strategies.</td>
<td>Personal accomplishment scores on the Maslach Burnout Inventory were 45% pre-course and 55% post-course. The number of low personal accomplishment scores rose after the intervention. Emotional exhaustion scores were significant for high levels of exhaustion in 37% of participant’s pre-course and in 27% of participants post-course. High depersonalization scores were 13% pre-course and 10% post-course. The results of Draw a Person in the Rain art assessment supports the results measured</td>
<td>Mostly female</td>
<td>Psycho-educational interventions including discussion of nursing specific risk factors, practice with relaxation techniques, and exploration of coping patterns via art show promise as methods to promote positive self-care strategies. Further research is needed in the area of promoting enduring change in self-care behaviors. Implications for practice and future research:</td>
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<td>Reference, Type, Quality Rating</td>
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<td>Study Findings</td>
<td>Threats to Validity/Reliability</td>
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<td>results; sufficient sample size for the study design, some control, fairly definitive conclusions; reasonably consistent recommendatios based on a fairly comprehensive literature review that includes some reference to scientific evidence.</td>
<td>Draw-a-Person-in-the-Rain Art Assessment(PIR) Wellness Plans Sample: 248-course participants New graduate nurses Staff nurses from center Nurses from community agencies Female-76% Setting: Comprehensive cancer center, Community Agencies Southern California Data Collection: An evaluation includes satisfaction with course and faculty, pre-post evaluation of burnout using the Maslach Burnout Inventory, Human Services Survey and the art technique, Draw-a-Person-in-the-Rain, and wellness plans.</td>
<td>in the Maslach Burnout Inventory. This assessment contributes information about traits associated with this pool of participants as well as state-related data. Combined with the Maslach Burnout Inventory data, this finding underscores the potential value of this course, and the need for further research. Course evaluations: The overall response to the program was extremely positive. Recommendation s for additions and changes included music therapy, increase time to create wellness plan, address specific developmental needs. of the mature worker, and offer courses twice per year.</td>
<td>Regular, systematic efforts to support positive nursing self-care behaviors and to resolve organizationa l challenges such as patient workload, conflict, and professional empowermen t are needed. Nursing as a profession can support the development of positive, proactive health care behaviors, and coping strategies by individual nurses by raising the importance of positive self-care to the forefront of discourse within the profession.</td>
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**Article 2:** Design: Qualitative Study "Compassion Fatigue" Convenience sample from Shown as a method of
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<th>Reference, Type, Quality Rating</th>
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<th>Study Findings</th>
<th>Threats to Validity/Reliability</th>
<th>Conclusions</th>
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<tr>
<td>Flarity, K., Gentry, J. &amp; Mesnikoff, N. (2013). The effectiveness of an educational program on preventing and treating compassion fatigue in emergency nurses. <em>Advanced Emergency Nursing Journal, 35</em> (3), 247-258. doi: 10.1097/TME.0b013e31829b726f</td>
<td>Purpose: Examine the treatment effectiveness of a multifaceted education program to decrease compassion fatigue and burnout symptoms and increase compassion satisfaction of emergency nurses participating in the training. The goal of the compassion fatigue multifaceted intervention program was to demonstrate a statistically significant improvement in the three compassion fatigue subscales. Instruments Utilized Professional Quality of Life Scale (Pro QOL-IV) Sample: Convenience Sample</td>
<td>Resiliency” and multimedia resources including a “Tools of Hope” DVD, guided imagery/music CD and access to resources on a website. Compassion Satisfaction: Increase P=.0004, Burnout decrease P&lt;.001Secondary Trauma: Decrease: P=001 The multifaceted education program resulted in a statistically significant increase in compassion satisfaction (p=0.004) and a decrease in burnout symptoms (p=0.001 or less) and secondary traumatic stress (p=0.001) symptoms. Positive outcomes cited by participants included the ability to develop a self-help method for addressing and resolving compassion fatigue symptoms and development of skills necessary to maintain resiliency and prevent future occurrences of compassion fatigue.</td>
<td>the same institution Majority white Females around 40 years of age and with around eight years experience in emergency nursing No randomization New graduate nurses included almost half of the participants had short tenure in the emergency department. Short time frame for return of the posttests may have influenced return rate. The 3 to 4-week time period between the pre and post tests may be a significantly enhancing compassion fatigue and lowering secondary traumatic stress and burn out symptoms.</td>
<td>Positive outcomes cited by participants included the ability to develop a self-help method for addressing and resolving compassion fatigue symptoms and development of skills necessary to maintain resiliency and prevent future occurrences of compassion fatigue. It is anticipated that integrating the</td>
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<td>Reference, Type, Quality Rating</td>
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<td>the study design; definitive conclusions, consistent recommendations based on literature reviews</td>
<td>59 Emergency Room Nurses 38% an RN for + 20 years Setting 2 Emergency Departments 69 bed ED 19 bed ED Colorado Springs, CO Intervention: 1&lt;sup&gt;st&lt;/sup&gt; level: 4-hour interactive group seminar titled, “Compassion Fatigue Resiliency” 2&lt;sup&gt;nd&lt;/sup&gt; level: multimedia resources were given to or made available to the participants. Data Collection: Data were collected pre intervention and post-intervention, recorded and scored using Statistical Package for the Social Sciences.</td>
<td>compassion fatigue symptoms and development of skills necessary to maintain resiliency and prevent future occurrences of compassion fatigue. Pre-intervention, 59.3% (n=35) of participants scored at moderate to high-risk levels for secondary traumatic stress and 57.6% (n=34) scored at moderate to high levels of burnout. Post-intervention, 40.7% (n=24) scored at moderate to high levels of secondary traumatic stress and only 23.7% (n=14) scored at moderate to high levels of burnout, improvements of 18.6 and 33.9 percentage points. Increase in compassion satisfaction (p=.004), decrease in limitation because it does not indicate long-term improvement Self-select to participate in the study with potential inaccuracy of self-reported data.</td>
<td>components of this program into the training and continuing education of emergency nurses will provide an effective method for lessening and preventing the frequency, duration, and intensity of compassion fatigue symptoms. Potential positive outcome is the retention of emergency department nurses. Evaluations suggest that the material would be beneficial to all emergency department and hospital staff members.</td>
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<td>Reference, Type, Quality Rating</td>
<td>Methods</td>
<td>Study Findings</td>
<td>Threats to Validity/Reliability</td>
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**Evidence Level:** II

**Type of Study:** Quasi-experimental

**Quality Rating:** B

| Design: Nonrandomized wait-list comparison design  
Purpose: To explore the effectiveness of an on-site, abbreviated mindfulness-based intervention for nurses.  
Instruments Utilized:  
Professional Quality of Life Scale, version 5 (ProQOL-5)  
Depression, Anxiety, Stress Scale (DASS-21)  
Acceptance and Action Questionnaire-II (AAQ-II)  
Ruminative Responses Scale Short (RRS)  
The Five Facets of Mindfulness Questionnaire (FFMQ)  
Self Compassion Scale (SCS)  
Sample: |  
|  
| Significant reduction in compassion fatigue  
Older participants were more likely to indicate experiencing symptoms of burnout  
Results indicated that nurses in the intervention reported significant decreases in compassion fatigue, burnout, stress, experiential avoidance, and increases in satisfaction with life. | Low attrition rate  
Poor follow-up data-48 of the initial 94 participants with complete data  
Less homogenous sample  
Lack of randomization  
Mostly female | A mindfulness-based intervention is efficacious in reducing burnout and other psychologica l symptoms in oncology nurses  
A mindfulness-based intervention helps reduce compassion fatigue.  
Oncology nurses show a high degree of acceptability regarding a mindfulness based intervention |
<table>
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<th>Reference, Type, Quality Rating</th>
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<th>Study Findings</th>
<th>Threats to Validity/Reliability</th>
<th>Conclusions</th>
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<td>Reasonably consistent results; sufficient sample size for the study design, some control, fairly definitive conclusions; reasonably consistent recommendations based on a fairly comprehensive literature review that includes some reference to scientific evidence</td>
<td>93 oncology nurses Self selected into experimental (n=45) and comparison condition (n=48) 82 female/9 male Mean age 41 Majority married Setting: 2 major oncology hospitals located in the north and center regions of Portugal Between 2013 and 2015 Data Collection: Abbreviated mindfulness-based intervention for nurses, using nonrandomized wait list comparison design. The effectiveness of the 6-week Mindfulness Based Stress Reduction group intervention was measured through several validated self-report measures that were completed before and after the intervention.</td>
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<th>Threats to Validity/Reliability</th>
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<td>Article 4: Branch, C. &amp; Klinkenberg, D. (2015). Compassion fatigue among pediatric healthcare providers. American Journal of Maternal/Child Nursing, 40(3), 160-166. doi:10.1097/NMC.000000000000133</td>
<td>Design: Descriptive-Cross Sectional Survey&lt;br&gt;Purpose: To determine prevalence of risk for compassion fatigue in the work environment to support development of a program for direct care providers.</td>
<td>Results demonstrated the risk for compassion fatigue and provided data necessary to support development of a compassion fatigue program for direct care providers. Nurses who work in the pediatric intensive care unit reported lower compassion satisfaction scores, and higher burnout and secondary traumatic stress scores. Nurses reportedly felt less isolated in the grieving process and were more likely to ask for help when needed.</td>
<td>Mostly female&lt;br&gt;The units surveyed have higher acuity patients than on the general medical-surgical units, which may lead to higher burnout and secondary traumatic stress scores in nurses that participated in the survey. The instrument used is a self-report measure, which may produce a response bias. Measured presence of burnout, secondary traumatic stress, and compassion satisfaction at a single point in time. Participants’ perceptions may change over time due to changes in</td>
<td>Based on these results, a resiliency program has been developed and tested in the emergency department and hematology/oncology unit. The four-hour program focuses on recognition of signs of compassion fatigue and the harmful effects of chronic stress. The resiliency strategies encompass self-regulation, intentionality, perceptual maturation and self-validation, social connection, and self-care. The program is being offered quarterly to all healthcare providers.</td>
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<tr>
<td>Evidence Level: II</td>
<td>Type of Study: Quasi-experimental</td>
<td>Quality Rating: B</td>
<td>Good Quality: Reasonably consistent results, fairly definitive conclusions, reasonably consistent recommendations based on fairly comprehensive literature</td>
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review that includes some reference to scientific evidence.

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<th>Reference, Type, Quality Rating</th>
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<td></td>
<td>of experience-58.5%</td>
<td>education, or work experience.</td>
<td>the individual and work place environment.</td>
<td>providers and an evaluation of the program is ongoing.</td>
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<td>Staff surveyed advanced practice nurses Social workers Respiratory therapists Physical therapists Occupational therapists Psychologists Child life therapists Patient care associates Setting: St. Louis Children’s Hospital Emergency unit Pediatric intensive care unit Cardiovascular intensive care unit Hematology-oncology unit Cardiology unit</td>
<td>There were significant differences in scores as a function of nursing unit.</td>
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<td></td>
<td>Data Collection: Electronic distribution for data collection.</td>
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<td>Suggested Clinical Nursing Interventions:</td>
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<td>1.Nurse leaders are responsible for understanding effects of caring for ill children and their families on nurses.</td>
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<td>2.Compassion fatigue may be present in all clinical settings and nurses need to be aware of signs and symptoms for themselves and their colleagues.</td>
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<td>3.Prevention of compassion fatigue can contribute to increased nursing satisfaction, decreased</td>
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<td>Reference, Type, Quality Rating</td>
<td>Methods</td>
<td>Study Findings</td>
<td>Threats to Validity/Reliability</td>
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<td><strong>Article 5: Little, V. (2013). Exploring compassion fatigue in long-term nursing workers and its influence on resident’s quality of life. (Doctoral dissertation, Northcentral University). Available from ProQuest Dissertations and Thesis database. UMI No: AA13578492</strong></td>
<td>Design: Qualitative exploratory case study&lt;br&gt;Purpose: To explore the complexities of compassion fatigue unique to long-term care nursing workers and to explore how compassion fatigue may influence longer term care nursing worker’s overall work and compassionate interactions with long-term care residents.&lt;br&gt;Instruments Utilized:</td>
<td>From the feedback of the participants, many participants may have compassion fatigue. The results support the premise that compassionate care and personal interactions from long-term care nursing workers is essential to enhance quality of life (QoL) for long-term care residents. Workers who showed compassion to</td>
<td>Researcher bias on compassionate care and compassion fatigue issues. Results may not be generalizable to all Long-Term Care nursing workers who may have compassion fatigue. Small sample size Participants who agreed to participate in this study may be more</td>
<td>Unique support services and educational resources about compassion fatigue are necessary to help long-term care workers to manage compassion fatigue and to help them continue to find the caregiving of their residents rewarding. Not helping long term nursing</td>
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<td>Reference, Type, Quality Rating</td>
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<td>Study Findings</td>
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<td>Evidence Level: II</td>
<td>7 basic demographic questions 19 open-ended semi-structured interview questions</td>
<td>residents enjoyed a reciprocal benefit in the relationship, and this enhanced their quality of life, also.</td>
<td>compassionately by nature.</td>
<td>workers to identify and manage compassion fatigue may prove problematic.</td>
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<tr>
<td>Type of Study: Quasi-experimental</td>
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<td>Quality Rating: B</td>
<td>Sample: 11 Long-Term Care Workers Nurses Nursing Assistants 18 years of age or older</td>
<td>Six main themes emerged: 1. The little things I do matter 2. I do the best I can do for my residents 3. I feel helpless and sad at times 4. The human touch is essential 5. Feeling needed is rewarding 6. Spiritual strength</td>
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<td>Setting: 1 Western Kentucky Long-Term Care Facility</td>
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<td>Framework: Figley’s Compassion Fatigue Model</td>
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<td>Data Collection: 19 interview questions and face-to-face observations, audio-recorded all interviews, transcribed the interview data, and analyzed the data repeatedly for emerging themes</td>
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The participant interview data may also serve to help all long-term care workers to address the unique complexities of their residents.
**Reference, Type, Quality Rating**

**Methods**

**Study Findings**

**Threats to Validity/Reliability**

**Conclusions**

<table>
<thead>
<tr>
<th>Article 6:</th>
<th>Design: Descriptive Pilot Study</th>
<th>Evidence showed reduced compassion fatigue symptoms immediately after programming, at the 3-month interval, and at the 6-month interval. Nurses were able to to reduce intrusive stressful experiences and better able to manage stress.</th>
<th>Small sample size which limited the ability to statistically document the full impact of the program and generalize findings.</th>
<th>First pilot study to suggest benefits from a compassion fatigue intervention program. Participants received useful strategies for managing stress at work and home.</th>
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<tbody>
<tr>
<td>Reference: Potter, P., Deshields, T., Berger, J., Clarke, M., Olsen, S., &amp; Chen, L. (2013). Evaluation of a compassion fatigue resiliency program for oncology nurses. <em>Oncology Nursing Forum, 40, (2) 100-107.</em></td>
<td>Purpose: To evaluate a resiliency program designed to educate oncology nurses about compassion fatigue.</td>
<td>Compassion Fatigue: No significant difference</td>
<td>Majority white Not diverse All women with minimum of BA in nursing control group</td>
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<tr>
<td>Evidence Level:</td>
<td>Instruments utilized: Professional Quality of Life Scale (ProQOL-IV) Maslach Burnout Inventory (MBI) Impact Event Scale-Revised (IES-R) Nursing Job Satisfaction Scale</td>
<td></td>
<td>No randomization</td>
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<td>Type of Study: Quasi-experimental</td>
<td>Sample: 13 oncology registered nurses employed in an outpatient infusion center</td>
<td>Secondary traumatization scores on the Pro-QOL IV declined immediately after the program, remained down at three months, and then dropped again at six</td>
<td>Self selection, nurses who were most affected by compassion fatigue may not have chosen to participate.</td>
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<tr>
<td>Quality Rating: B</td>
<td>Setting: Outpatient Infusion Center</td>
<td>Time demands for participation in the 5-week program may have been a</td>
<td>The Resiliency Program, has shown promise with informing nurses about the nature and impact of compassion fatigue in work and personal lives.</td>
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Implications for Nursing: Compassion fatigue is a prevalent
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<th>Reference, Type, Quality Rating</th>
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<td>consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence</td>
<td>National Cancer Institute Comprehensive Midwestern U.S. Intervention: The Accelerated Recovery Program called The Resiliency Program Data Collection: Nurses attended a five-week program involving five 90 minute sessions, once a week on compassion fatigue resiliency. A pre- and post test design, using repeated measures, was conducted over 6 months.</td>
<td>months, with a statistically significant mean difference compared with baseline. The average impact event scale total scores improved significantly overall and for each of three post-intervention time points. Results demonstrated a reduction of secondary traumatic stress with a mean score pre-intervention of 19.76 and mean score of 16.23 at 6-month post-intervention. At baseline, participants scored on MBI subscales were below high-risk. No significant changes were found over time. Participants evaluated the program positively.</td>
<td>barrier for those staff feeling most overwhelmed.</td>
<td>condition among healthcare providers. Development of resiliency to compassion fatigue may improve decision making, clarity of communication, and patient and nurse satisfaction.</td>
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<td>Article 7: Craigie, M., Slatyer, S., Hegney, D., Osseiran-Moissen, R., Gentry, E., Davis, S.,...Rees, C. (2016). A pilot evaluation of a mindful self-care and resiliency (MSCR) intervention for nurses. Mindfulness, 7, 764-774. Doi: 10.1007/s12671-016-0516-x. Evidence Level: II Type of Study: Quasi-experimental Quality Rating: B Reasonably consistent results: some control, fairly definitive</td>
<td>Design: Qualitative Study Purpose: To identify effective workplace strategies to help improve the resilience of nurses by evaluating the feasibility of a mindfulness-based intervention aimed at reducing compassion fatigue and improving emotional well-being in nurses. Instruments Utilized: Professional Quality of Life Scale (ProQOL-IV) Demographic Tool Face to face Power Point Presentation-30 minutes in length developed by the project manager</td>
<td>Long term benefits were realized from the program. Participants completed a number of standardized measures at pre, post, and one-month follow-up. Significant improvements were observed following the intervention for compassion satisfaction, burnout, trait-negative affect, obsessive passion, and stress scores. At pre-intervention, 45% of the sample had high burnout scores, but this reduced to just 15% by post-intervention. Nearly half the nurses had levels of burnout that were in the high category according to Stamm’s (2010) risk criteria.</td>
<td>Small sample size Lack of replication studies with comparison/control conditions and longer follow-up periods required to determine if the short term improvements are maintained over the longer term and are not just the result of time or non-specific factors. The preliminary nature of the study and imperative to minimize questionnaire burden meant that a broader range of constructs measuring positive primary implication of the findings is that a relatively brief workplace intervention may represent a feasible approach to improving resilience and well-being among nurses. The Mindful Self-Care and Resiliency (MSCR) is a group program, it may be a cost-effective means for compassion fatigue resiliency. Further controlled replication in larger samples</td>
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<td>Reference, Type, Quality Rating</td>
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<td>conclusions, reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence</td>
<td>18 Medical-Surgical Registered Nurses All Female Setting: Medical Surgical Unit 526 bed hospital-community owned, non-profit tertiary care hospital located in Northern Indiana Data Collection: 4 intervals-pre-interventions, immediate post-intervention, one-month post-intervention, three-months post-intervention Pre-test/post-test measures Secondary analyses were undertaken to compare compassion fatigue within subgroups. The intervention consisted of a one-day compassion fatigue prevention educational workshop, followed by a series of weekly</td>
<td>Results one-month follow-up is promising because it suggests that the benefits of the intervention persist beyond the initial training period. A significant reduction in burnout scores (one aspect of Compassion Fatigue) was observed following the intervention and at follow-up. Primary finding is there are significant improvements across a number of symptom domains following the Mindful Self-care and Resiliency (MSCR) intervention.</td>
<td>resources purported to underlie resilience were not included.</td>
<td>appears warranted. Important to determine if the findings can be generalized to other nurse populations that may be less experienced and or more symptomatic in regard to Secondary Traumatic Stress (STS).</td>
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<td>Article 8: Zehr, K. (2015). The effect of education on compassion fatigue as experienced by staff nurses. Evidence-Based Practice Project Reports, Paper 65.</td>
<td>mindfulness training conducted over 4 weeks.</td>
<td>Data analysis demonstrated a patterned decrease in compassion fatigue among participating nurses, even if this change was not to a statistically significant level. Pre-Intervention $M=20.7$ (SD 2.0); immediate post-intervention $M=20.6$ (SD 3.6); 1-month post-intervention $M=18.8$ (SD 2.7); and 3-month post-intervention $M=17.9$ (SD 3.1). Each of the four testing intervals were determined to have mean cumulative scores within the low level of compassion fatigue, which was defined as a mean score of 22 or less. No statistical significance in</td>
<td>During best evidence phase, identified limitation was that articles were determined to be lower levels of evidence. Derived from expert opinions.</td>
<td>Education intervention resulted in a reduction of compassion fatigue scores over time (3 months). No statistical reduction in compassion fatigue immediate post-intervention.</td>
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<tr>
<td>Evidence Level: II</td>
<td>Design: Qualitative Study Purpose: To increase awareness about compassion fatigue risk factors, symptoms, and coping mechanisms through educational training for registered staff nurses in an effort to ultimately decrease levels of compassion fatigue. Instruments Utilized: Professional Quality of Life Scale (Pro-QOL-IV) Sample: 18 Medical-Surgical Registered Nurses All Female Age majority-31-40 years</td>
<td>Data analysis demonstrated a patterned decrease in compassion fatigue among participating nurses, even if this change was not to a statistically significant level. Pre-Intervention $M=20.7$ (SD 2.0); immediate post-intervention $M=20.6$ (SD 3.6); 1-month post-intervention $M=18.8$ (SD 2.7); and 3-month post-intervention $M=17.9$ (SD 3.1). Each of the four testing intervals were determined to have mean cumulative scores within the low level of compassion fatigue, which was defined as a mean score of 22 or less. No statistical significance in</td>
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<td>Type of Study: Quasi-experimental</td>
<td>Quality Rating: B Reasonably consistent results: some control, fairly definitive conclusions, reasonably consistent recommendatio ns based on fairly</td>
<td>Data analysis demonstrated a patterned decrease in compassion fatigue among participating nurses, even if this change was not to a statistically significant level. Pre-Intervention $M=20.7$ (SD 2.0); immediate post-intervention $M=20.6$ (SD 3.6); 1-month post-intervention $M=18.8$ (SD 2.7); and 3-month post-intervention $M=17.9$ (SD 3.1). Each of the four testing intervals were determined to have mean cumulative scores within the low level of compassion fatigue, which was defined as a mean score of 22 or less. No statistical significance in</td>
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<td>Education intervention resulted in a reduction of compassion fatigue scores over time (3 months). No statistical reduction in compassion fatigue immediate post-intervention.</td>
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<td>Implications for the Future</td>
<td>Education intervention resulted in a reduction of compassion fatigue scores over time (3 months). No statistical reduction in compassion fatigue immediate post-intervention.</td>
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<td>comprehensive literature review that includes some reference to scientific evidence</td>
<td>Majority Associate degree Setting: Medical Surgical Unit 526 bed hospital-community owned, non-profit tertiary care hospital located in Northern Indiana Data Collection: 5 educational sessions- 4 intervals-pre-interventions, immediate post-intervention, 1-month post-intervention, 3-months post-intervention Pre-test/post-test measures Secondary analyses were undertaken to compare compassion fatigue scores within subgroups.</td>
<td>reduction of compassion fatigue immediate post-intervention. A reduction in compassion fatigue scores was noted over time</td>
<td>number of cardiac arrest codes on the target units in the months of the study 3) unforeseen change in patient acuity.</td>
<td>Future projects incorporate larger sample sizes that would incorporate various specialties and work shifts. Also, a more variable population group would be beneficial (inclusion of males and more diverse educational preparation). Higher levels of evidence are needed to gain better insight to the contents of educational measures and the length of the teaching intervention.</td>
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<td>Article 9: Potter, P., Pion, S., &amp; Gentry, E. (2015). Compassion fatigue resiliency</td>
<td>Design: Pilot program/Narrative analysis using the phenomenological method Purpose:</td>
<td>The results of this program demonstrate the powerful impact participating in a compassion fatigue facilitator training program</td>
<td>Small sample size Mostly female No randomization</td>
<td>This program shows promise in ameliorating compassion fatigue and burnout in health care providers.</td>
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<td>Training: The experience of facilitators. The Journal of Continuing Education in Nursing, 46 (2), 83-88. doi: 10.3928/00220124-20151217-03</td>
<td>To examine compassion fatigue facilitators’ perceptions of the effects of compassion fatigue resiliency training program in an urban medical center in the Midwestern United States.</td>
<td>Two main themes were identified among the responses: The first theme, self-improvement, encompasses the many ways the facilitators benefited from the program. The second theme, application of resiliency, addresses how the facilitators applied the program’s strategies and techniques to their daily life.</td>
<td>The compassion fatigue facilitator training program had many positive perceived effects on the program participants, particularly on their emotional health and use of resiliency skills. Components of the compassion fatigue resiliency program are designed to help staff achieve resiliency by adopting five key strategies: 1. Self Regulation 2. Intentionality 3. Perceptual maturation 4. Connection</td>
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<td>Evidence Level: II</td>
<td>Instruments Utilized: Narrative evaluations Sample: 15 oncology nurses who completed the facilitator training program Setting: Barnes Jewish Hospital 1,200 bed tertiary academic medical center Midwestern United States</td>
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<td>Type of Study: Quasi-experimental</td>
<td>Data Collection: Nine months after completing a compassion fatigue resiliency facilitator training program, 15 participants wrote short narratives</td>
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<td>Quality Rating: B</td>
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<td>Reasonably consistent results: some control, fairly definitive conclusions, reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence</td>
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**Purpose:** This pilot study evaluated whether short (less than 10 minutes) structured meditations decrease compassion  
Outcomes for intervention: Breathing and meditation techniques 5 days per week for a 4-week period  
Compassion Satisfaction: P=0.27 (increase)  
Burnout: (decrease) P=.003  
Small sample size  
Lack of control group | Small sample size  
Lack of control group  
Positive results in this small pilot project demonstrate the effectiveness of meditation practices on the well-being of the nurse participants by reducing stress and | 5. Self-Care  
This resiliency training program seems to be a viable method for increasing employee satisfaction and hardiness |
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<td><em>Nursing, 34 (4), 343-350, doi:10.1177/0898010115615981</em></td>
<td>Fatigue and improve compassion satisfaction in oncology nurses. Instruments Utilized: Professional Quality of Life Scale (Pro-QOL-IV) version 5 Supplementary questions. Sample: Convenience sample of self-identified nurses from a pilot unit 17 Registered Nurses All female. Setting: Intermediate care oncology unit. Data Collection: During a one-on-one educational session, educational Power Point on compassion fatigue, compassion satisfaction, burnout, self-care, and mindfulness. An author made CD on breathing meditation for secondary trauma: (decrease) ( P = .047 )</td>
<td>Secondary Trauma: The mediation-based intervention appears to have been successful as demonstrated by statistically significant improved Pro-QOL scores, a large effect size despite the small sample was, and self-reported feelings of well-being. Paired ( T ) test of the Pro-QOL constructs revealed that the intervention demonstrated statistically significant increase in compassion satisfaction scores and decrease burnout and secondary trauma. The effect size, which measures the magnitude of the treatment effect, was large despite the small sample.</td>
<td>Cultivating self-compassion. Even in this small sample, the practice of short breathing and meditation exercises was effective in improving nurse outcomes. A larger study is warranted including tracking sustained effects relative to maintaining a meditation practice. On the supplementary questions, all participants reported increased feelings of relaxation; developing since of self-compassion; positive changes in...</td>
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<td>Reference, Type, Quality Rating</td>
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<td>relaxation was given with commitment of participants to practice 5 days a week for a 4-week period. Participants completed the Pro-QOL, Version 5 survey prior to beginning and at the end of 4 weeks of practicing the intervention exercises.</td>
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<td>physical, emotional, and mental reactions to stress; and a high likelihood of incorporating meditation into their self-care plans. Relationships among individual and organizationa l variables indicated caregivers for critical patients scored significantly lower on the Professional Quality of Life subscale of burnout when compared with those working in a noncritical care unit.</td>
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**Article 11:**
Smart, D., English, A., James, J., Wilson, M.,

**Design:** Cross-sectional design and survey methodology

Linear regression results indicate that high sleep levels and employment in critical care areas may have permitted the ability to to find

The small sample size may have inhibited the ability to to find

Relationships between professional quality of life ratings and individual
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<tr>
<td>Daratha, K., Childers, B., &amp; Magera, C. (2014). Compassion fatigue and satisfaction: A cross-sectional survey among US healthcare workers. <em>Nursing and Health Sciences, 16</em>, 3-10. doi: 10.1111/nhs.12068</td>
<td>Purpose: To investigate compassion fatigue and compassion satisfaction levels and identify variables that might improve these aspects of professional quality of life. Identification of predictors can be used to design interventions that address modifiable risks. Instruments Utilized: Professional Quality of Life Scale (ProQOL) Version 5 instrument. Demographic, health behavior, and environmental items. Sample: 139 healthcare providers Registered Nurse: 63.3% (n=88) Physician: 14% (n=10.1)</td>
<td>are associated with less burnout. The findings in this study demonstrate that nurses have an average level of compassion satisfaction and burnout related to their professional practice compared with the normative data provided by Stamm (2010). Pearson product-moment correlations revealed significant relationships with the total health promotion scale and compassion satisfaction, indicating the moderate positive association between engaging in health promotion behaviors and compassion satisfaction. A moderate inverse relationship was also noted between the total health promotion differences among groups. The small number of non-nursing personnel who responded limits the usefulness of findings about these employee groups. Limitations include the self-reporting instrument and convenience sampling with self-selection. Study does not allow researchers to establish causality between variables. Ethnically homogeneous 96% Caucasian population Use of a single hospital site does not and organizational variables identified in this study build on what is understood about compassion satisfaction and compassion fatigue.</td>
<td>Implications for clinical practice: The ability for organizations to develop programs that promote self-care and test them using the Pro-QOL to measure effects on professional quality of life. Strategies addressing restorative rest and sleep since increased reported sleep is...</td>
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<td>fairly comprehensive literature review that includes some reference to scientific evidence</td>
<td>Certified Nurse Assistant: 30% (n=21.6%) Other: 55 (n=7%) Predominately nurses Ages: 21 to 60 years 31.3% worked in the emergency room 30.6% worked in the nursing resource team</td>
<td>and burnout scales, indicating the positive association between engaging in health promotion behaviors and the reduction of burnout.</td>
<td>allow for generalizability and all departments studied were not equally represented The majority of participants completed the surveys at work. It is possible that completing this survey on the job might cause employees to guard responses or give responses.</td>
<td>linked to less burnout. Awareness of the factors associated with compassion fatigue may assist healthcare professionals with early self-identification so they may seek help from appropriate sources. Future studies that explore how compassion fatigue and compassion satisfaction are related to employee and patient outcomes may increase organizational support for developing and maintaining healthy work environments. Efforts to improve</td>
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<td>Evidence Level: II</td>
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<td>Type of Study:</td>
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<td>Design: Cross-sectional</td>
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<td>Purpose: To explore the relationship between self-care, compassion fatigue, burnout, and compassion satisfaction among healthcare providers. Self-care strategy intervention.</td>
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<td>Instruments Utilized: Basic demographic information sheet Professional Quality of Life Assessment (Pro-QOL-RIII) Self-Care Assessment Worksheet (SCAW)</td>
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<td>Results indicate a tentative relationship between self-care, compassion fatigue, burnout, and compassion satisfaction.</td>
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<td>Threats to Validity/Reliability: Small sample size No qualitative data from participants Lack of mixed methods including in-depth qualitative methods and confirmatory, cause and effect research designs. Lack of diversity in the sample.</td>
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<td>Conclusions: Taking part of in self-care strategies that are effective in promoting compassion satisfaction may not directly equate to low levels of burnout and fatigue. The results have ramifications for the manner in which healthcare providers take care of themselves relative to job stress and satisfaction. HCP who are not experiencing...</td>
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<td>Quasi-experimental</td>
<td>Sample: Convenience sample 37 healthcare providers predominately registered nurses 2 males, 35 female 28 Caucasian, 2 African American, 1 Middle Eastern, and 1 multiple  Average Age: 46.35 years  Average length of employment: 53 months  Setting: 2 home hospice agencies Midwest  Data Collection: 3 data collection instruments were used in the study. Researchers visited interdisciplinary team meetings at each of the hospice care agencies to collect data.</td>
<td>compassion fatigue ($r = -0.300$) which supports suggestion that compassion fatigue and burnout may be different constructs. Data analysis also revealed a strong positive correlation between compassion fatigue and burnout ($r = 0.761$) suggesting these are related, but different constructs. Significant positive correlations between all areas of self-care measured by Self-care Assessment Worksheet (SCA W). This result suggests that HCPs who take care of themselves in one area are more likely to take care of themselves in several other areas. Healthcare workers with</td>
<td>burn-out or compassion fatigue, but wish to increase their compassion satisfaction may find it most effective to focus their self-care efforts in the emotional, spiritual, and personal-professional balance areas of life. It is suggested that HCP professionals and their employers match the types of self-care strategies they engage in with their desired outcome, either to reduce burnout and fatigue, increase satisfaction, or both.</td>
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<td>more months of service in the profession seem to be taking care of themselves in all areas of self-care to a greater extent than those with less experience.</td>
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<td>Article 13:</td>
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<td>Design: Quantitative and Qualitative</td>
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<td>Yoder, E.A. (2010). Compassion fatigue in nurses. <em>Applied Nursing Research</em>, 23, 191-197. Doi: 10.1016/j.apnr.2008.09.003</td>
<td>Purpose: To describe the prevalence of compassion fatigue among a broad spectrum of nurses and to investigate the situations that lead to compassion fatigue and methods of coping.</td>
<td>There were significant differences in compassion satisfaction, depending on the unit worked and time as a nurse. Participants were able to identify a variety of coping strategies, both work related and personal, which help them through the days and weeks. Compassion fatigue scores were significantly different between nurse who worked 8 or 12 hour shifts. 15% of the participants had scores indicating risk of the compassion fatigue.</td>
<td>Limited for generalizability by the qualitative nature, but it rather represents the perceptions and ideas of a Level I trauma team. Responses are categorized by discipline of team members for identity protection with small sample. Focus group findings are limited by the phrasing of questions and skill of moderator. Responders could have been biased</td>
<td>Compassion fatigue is a phenomenon present not only in emergency workers and volunteers dealing with catastrophic events but also in nurses who work in a small community hospital. Being aware of these triggers and coping strategies may help the nurses and their managers deal with the inevitable stressors which nurses face on a daily basis.</td>
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<td>Evidence Level: II</td>
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<td>Instruments Utilized: Questionnaire with demographic information. The Professional Quality of Life Scale (Pro-QOL R-IV) 2 narrative questions</td>
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<td>Type of Study: Quasi-experimental</td>
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<td>Quality Rating: B</td>
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<td>Reasonably consistent results: sufficient sample size for the study design, some control, fairly definitive conclusions, reasonably</td>
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<td>Reference, Type, Quality Rating</td>
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<td>consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence</td>
<td>Sample: Convenience sample 106 Registered Nurses Employed in home care, emergency department, intensive care unit, progressive care unit, oncology unit, and medical-surgical units. Setting: Midwest Magnet 123-bed community hospital Data Collection: Questionnaires with cover letters were placed in the hospital mailboxes of the registered nurses on the selected units. Of the 106 returned, 71 completed the narrative responses that comprised the qualitative component of the study.</td>
<td>Participants were not only aware of patient and system problems that are triggers but also recognize that they bring their personal limits and experiences with them to the job and that these add to the potential to make a given situation stressful.</td>
<td>by social desirability with honest and open participation.</td>
<td>More studies are needed to determine ways in which compassion fatigue can be predicted and perhaps avoided. Further research questions: Are there individual characteristics and specific situations as yet undefined which place nurses at risk? Which coping strategies are most helpful? We can support the nursing role by acknowledging the risk of compassion fatigue, exploring what might protect the nurse as he or she faces the suffering that the patients experience,</td>
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Purpose: To measure compassion fatigue and burnout syndrome in a trauma team and allow them to share perceptions of related stress triggers and coping strategies.  
Instruments Utilized: Surveys for: Demographic information  
Perceived quality of life  
Live stress inventory  
Focus group script  
The Holmes-Rahe Life and Stress Inventory | More than half scored at risk for compassion fatigue and burnout syndrome. Stress triggers were described as situation (abuse, age of patient) versus injury-related.  
Personal coping mechanisms were most often reported. Both compassion fatigue and burnout symptoms can be assessed with a simple survey tool.  
Strategies for developing a program culturally sensitive to compassion fatigue and burnout symptoms are; | Small sample size  
Gaps in literature between the male nurses in this project. | Study indicated that both compassion fatigue and burnout symptoms are not just complex concepts described in the literature but can be identified as real and present in the midst of an unsuspecting trauma team.  
The team can self-manage stress by creating a culture that acknowledge s, accepts, and proactively supports staff to prevent or control compassion fatigue and burnout. |
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<tr>
<td>Reasonably consistent results: some control, fairly definitive conclusions, reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence</td>
<td>The Professional Quality of Life Scales (ProQOL)</td>
<td>1. As a program, acknowledge and accept that compassion fatigue and burnout symptoms exist but are an expected reality.</td>
<td>fatigue and burnout.</td>
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<td>Sample: Focus group of 12 trauma team nurses</td>
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<td>2. Educate the team on how to recognize symptoms in themselves.</td>
<td>Using simple tools and qualitative methodology, a trauma program can conduct a modest, but effective, needs assessment for education, intervention, or even surveillance of compassion fatigue and burnout symptoms within the team.</td>
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<td>Age &gt;18 years old</td>
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<td>3. Embody professional stress relief coping skills as a team.</td>
<td>Data collected from the small focus group gives evidence that describes and quantifies professional stress.</td>
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<td>Employed as a member of a trauma team</td>
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<td>4. Make social support a priority in leadership development.</td>
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<td>Article 15: Petleski, T. (2013).</td>
<td>Design: Qualitative methodology</td>
<td>Reported feelings of relief and encouragement after the one-hour education session. Average to high compassion satisfaction was reported by 87.5% of respondents, while all participants reported average to high burnout and average to high secondary trauma stress. High burnout was reported by 29.2% of participants and high secondary trauma by 91.7% of participants.</td>
<td>Mostly female</td>
<td>This project demonstrated results consistent with the literature review in terms of validating the presence of compassion fatigue and secondary trauma among healthcare workers.</td>
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<td>Compassion fatigue among emergency department nurses. Nursing Theses and Capstone Projects. Paper 82.</td>
<td>Purpose: To determine the prevalence of compassion fatigue among emergency department nurses &amp; provide an intervention “Coping with Compassion Fatigue”</td>
<td>Male subjects reported higher level of burnout and secondary stress than was reported by the female subjects.</td>
<td>Mostly Caucasian</td>
<td>Successful intervention. Intervention of a one-hour education session ”Coping with Compassion Fatigue”. The education included 10 activities to improve self-care and work life balance. They were learning about getting</td>
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<td>Evidence Level: II</td>
<td>Instruments: Professional Quality of Life (Pro-QOL) version 5 assessment tool</td>
<td>Sample: Convenience sample 24 registered nurses from Emergency Department</td>
<td>Control group: no</td>
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<td>Type of Study: Quasi-experimental</td>
<td>Demographic survey Identification of changes tool Evaluation of program</td>
<td>Mostly female</td>
<td>No randomization</td>
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<tr>
<td>Quality Rating: B</td>
<td>Sample: Convenience sample 24 registered nurses from Emergency Department</td>
<td>Mostly female</td>
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<td>Reasonably consistent results: some control, fairly definitive conclusions, reasonably consistent recommendations based on fairly comprehensive literature</td>
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<td>care and realized the need to make maintaining emotional health a priority.</td>
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<td>review that includes some reference to scientific evidence</td>
<td>Setting: Large urban emergency department in a level 2 trauma center Southeast United States</td>
<td>experience as a nurse and years of experience as an emergency department nurse on three different variable compassion satisfaction, burnout, and secondary trauma experienced by emergency department nurses. Participants reported the importance of taking time to make a commitment to self-care activities away from work. Self-reported lower compassion satisfaction scores, and higher self-reported burnout scores and secondary stress scores indicating the need for further education and assessment of compassion satisfaction and compassion fatigue among male emergency</td>
<td>more exercise, meditating, deep breathing exercises, getting more sleep, increasing communication, going to lunch, and taking a 15 minute breaks during their work day. Nurses participating in this project commented on the importance of learning about the different concepts and how they affected their practice as ED nurses. Participants reported feeling surprised by learning the physical and emotional symptoms associated with these concepts and</td>
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<td>Data Collection: Completion of a one-hour education module and a Pro-QOL version 5 questionnaire.</td>
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<td>Article 16:</td>
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<td>department nurses</td>
<td>Low participation</td>
<td>the easy steps they could take to improve their coping skills.</td>
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<td>Meadors, P., &amp; Lamson A. (2008).</td>
<td></td>
<td><strong>Design:</strong> Quantitative Pretest-posttest design</td>
<td>Larger replication studies that include a variety of work settings are needed to add confidence in differences detected among unit types.</td>
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<td>Compassion fatigue and secondary traumatization: Provider self-care on intensive care units for children.</td>
<td><strong>Purpose:</strong> To describe the scope of compassion fatigue in healthcare providers working on critical care units with children. The second aim was to evaluate the effectiveness of providing educational seminars on compassion fatigue to healthcare providers working on critical care units with children.</td>
<td>The researchers found that this educational seminar was successful in raising awareness on compassion fatigue and reducing clinical stress. -Reported increased knowledge of the warning signs of compassion fatigue following the seminar (P=.001) -Reported increased feelings that they had more resources to manage stressors at work and home (P_ &lt; .002) Reported feeling that they had enough resources to manage grief (P=.001) and multiple traumas at work. Following the seminar, the participants reported decreased tenseness, feeling</td>
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<td>Journal of Pediatric Health care, 22(1), 24-34. doi: 10.1016/j.pedhc.2007.01.006</td>
<td><strong>Evidence Level:</strong> II</td>
<td><strong>Type of Study:</strong> Quasi-experimental study</td>
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<td><strong>Quality Rating:</strong> B</td>
<td><strong>Instruments:</strong> Self-report questionnaires Modified version of the Social Readjustment Rating Scale (modified) (SRRS), Index of Clinical Stress (ICS), and a compassion</td>
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<td>Reasonably consistent results: fairly definitive</td>
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Providers working on the intensive care units for children needed to be aware of compassion fatigue symptoms and techniques to manage or minimize their symptoms. Taking care of the providers on a personal and professional level had a significant impact on the amount of stress and compassion fatigue exhibited by health care professionals. If providers neglect caring for themselves and
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<td>conclusions, reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence</td>
<td>fatigue measure developed by the researchers</td>
<td>jittery, and feelings of being overwhelmed. Reported an increase in relaxed feelings and felt calm and peaceful: ( P &lt; .003 ) The results suggested that providers who experienced higher levels of personal stressors also experienced higher levels of clinical stress and compassion fatigue. Many of the participants reported healthy behaviors in regard to compassion fatigue. The participants strongly agreed that they were using humor, developing supportive professional relationships, and seeing the strengths in their job despite trauma and death. Low stress level groups seemed to incorporate more self-care</td>
<td>recognizing the symptoms of compassion fatigue, we may be compromisin our ability to care for the patient at the high standard we expect from health care providers. Recommendations: Given the significant findings from this research, providers should be offered a seminar on compassion fatigue, primary and secondary traumatization, and clinical stress management. Having a work culture that supports the physical and emotional health of providers is critical and</td>
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<td>occasions in a period spanning over 3 consecutive weeks.</td>
<td>strategies into their routine to help them manage or prevent the symptoms of compassion fatigue that did those in high stress level group.</td>
<td>may be especially helpful on intensive care and pediatric units during the holiday season. A culture that encourages providers time off, ensures that providers during their shift, and promotes self achievements is essential for minimizing the likelihood of compassion fatigue.</td>
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<td>Article 17: Neville, K. &amp; Cole, D. A. (2013). The relationship among health promotion behaviors, compassion fatigue, burnout, and compassion satisfaction in nurses practicing in a community</td>
<td>Design: Non-experimental, descriptive, correlational design</td>
<td>The major findings of this study can be summarized in three themes; 1) relentless vigilance, 2) consistent inconsistency, and 3) role confusion These tell us about the factors that may contribute to compassion</td>
<td>Limited to English literature All search data included</td>
<td>This study demonstrates the importance of health promotion behaviors on the 3 variables investigated. Health promotion behaviors were shown to be positively associated</td>
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<td>medical center. <em>Journal of Nursing Administration</em>, 43(6), 348-354. Doi:10.1097/NNA.0b013e3182942c23</td>
<td>among nurses practicing in a community medical center. Instruments Utilized: Professional Quality of Life Scale (ProQOL-R-V) Demographic form Psychometric Evaluation of the Health Promoting Lifestyle II (HPLP-II) scale Sample: 214 RNs, full time, part time, per diem staff nurses, clinical nurse leaders, and advanced nurse practitioners involved in direct patient care in outpatient and inpatient settings. predominantly female (94%; n=196) substantial years of experience (50%; n=93 of the sample with &gt;20 years’ experience) well educated (49%; n=105 obtaining a BSN</td>
<td>fatigue in the family caregivers. Long-term care staff can play an active role in preventing or at least reducing, compassion fatigue in family caregivers. Development and adherence to a self-care plan for family caregivers is a useful strategy identified in the literature.</td>
<td>with compassion satisfaction and inversely related to both burnout and compassion fatigue, although the relationship was less strong for compassion fatigue. Compassion fatigue, burnout, and compassion satisfaction are outcomes associated with nursing practice. Support for engagement in health promotional behaviors may contribute to nurses’ well being in counteracting compassion fatigue and burnout and enhancing compassion satisfaction.</td>
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<td>scientific evidence.</td>
<td>or graduate degrees) Certified in varied nursing specialties (60.2%; n=118) Setting: Community Medical Center HMC and Kean University New York Data Collection: After distribution of the research packets, 2 follow-up emails were sent to the entire outpatient and inpatient nursing staff, resulting in 214 completed survey packets (52%) returned within 2 months.</td>
<td>The evidence referred to a variety of concepts related to the manifestation of compassion fatigue, including burnout,</td>
<td>Identification of predictor can be used to design interventions that address modifiable risks. While engagement in health promotion is important and contributes to nurses’ well-being in counteracting compassion fatigue, nurses may benefit from additional measures, such as workshops and educational opportunities.</td>
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<td>Article 18: Gillman, L., Adams, J., Kovac, R., Kilcullen, A., House, A, &amp; Doyle, C. (2015).</td>
<td>Design: Comprehensive Systematic Review Purpose: To identify personal and organizational strategies that</td>
<td>Burnout and compassion fatigue share similarities in the literature. Articles involving all nurses</td>
<td>This review identified a number of strategies to better prepare nurses for practice and maintain</td>
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<td>Strategies to promote coping and resilience in oncology and palliative care nurses caring for adult patients with malignancy: A comprehensive systematic review. <em>JBI Database of Systematic Reviews and Implementation Reports, 13(5), 131-204.</em> doi:10.11124/jbisrir-2015-1898</td>
<td>promote coping and resilience in oncology and palliative care nurses caring for adult patients with malignancy. <strong>Instruments Utilized:</strong> Reviewers used standardized critical appraisal instruments developed by Joanna Briggs Institute tools in order to extract data <strong>Sample:</strong> 20 studies total were included in the review <strong>Oncology &amp; Palliative care nurses</strong> <strong>Setting:</strong> Royal Perth Hospital Western Australia <strong>Inclusion criteria:</strong> The quantitative and qualitative components of this review considered studies that included oncology and palliative care nurse caring for adult patient with malignancy in a</td>
<td>emotional exhaustion, and workplace stress. The researchers reported significantly more negative behaviors and feelings (p=0.001-0.003) demonstrate by the high stress level participant group vs. the low stress level group on a compassion fatigue tool developed by the researchers for use in their study. After attending a compassion fatigue seminar, participants demonstrated significant increases (p=0.001) in compassion fatigue knowledge, and awareness of stress management resources. Two studies emphasized the inclusion of self-care training as an intervention to decrease burnout.</td>
<td>their psychological well-being. Strategies with merit include: a) foster connections within the team, b) provide education and training to develop behaviors that assist in controlling or limiting the intensity of stress, or aiding recovery. c) assist in processing emotion and learning from experiences. Individuals must take responsibility for developing personal strategies to assist coping and resilience, organizational support is integral to equipping</td>
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<td>hospital or community setting. Data Collection: The search strategy identified published and unpublished studies from 2007 to 2013. Individual search strategies were developed for the 12 databases accessed and search alerts established. The review considered qualitative, quantitative, and mixed methods studies that assessed personal or organizational interventions, programs or strategies that promoted coping and resilience</td>
<td>Significant decreased in emotional exhaustion (p=0.0005) and depersonalization (p&lt;0.0005) were found after a course that included the use of self-care discussion, relaxation, guided imagery, art, and wellness planning. Low stress level participant group in their study had a significantly higher incorporation of self-care practices (p=0.001-0.003) as compared to the high stress level group.</td>
<td>individuals to deal with work related challenges.</td>
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<td>Article 19: Cincinnati Children’s Design: Best Evidence Statement/Clinic</td>
<td>The researchers reported significantly more negative</td>
<td>It excluded studies with non-nurse samples</td>
<td>It is recommended that nurses working in</td>
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<td>Hospital Medical Center. (2013). Best evidence statement (BEST). Decreasing compassion fatigue among pediatric intensive care nurses using self-care skills and compassion fatigue training. Retrieved from <a href="http://www.guideline.gov/content.aspx?id=47065&amp;search=%22compassion%22">http://www.guideline.gov/content.aspx?id=47065&amp;search=%22compassion%22</a></td>
<td>al Practice Guideline Clinical Question: Among pediatric intensive care nurses, does functional knowledge of compassion fatigue and the practice of self-care skills, compared to not, demonstrate less compassion fatigue? Purpose: To recommend that nurses working in pediatric intensive care settings receive training that includes compassion fatigue awareness, coping strategies, stress management, relaxation techniques and self-care interventions to decrease the level of fatigue experienced in the work environment.</td>
<td>behaviors and feelings (p=0.001-0.003) demonstrated by the high stress level participant group vs. the low stress level group on a compassion fatigue tool developed by the researchers for use in their study. After attending a compassion fatigue seminar, participants demonstrated significant increases (p=0.001) in compassion fatigue knowledge, and awareness of stress management resources. Two studies emphasized the inclusion of self-care training as an intervention to decrease burnout. Significant decreased in emotional exhaustion (p.=0.0005) and depersonalization (p&lt;0.0005) were unless data for the population of interest could be extracted. It is possible that some inter-professional programs that may have merit were not included. Studies addressing barriers to coping or resilience were also actively excluded as this issue was outside the scope of this review.</td>
<td>pediatric intensive care settings receive training that includes compassion fatigue awareness, coping strategies, stress management, relaxation techniques and self-care interventions to decrease the level of compassion fatigue experienced in the work environment. Implications for Practice Implementati</td>
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<td>of a systematic literature search strategy; definitive conclusions; developed or revised within the last 5 years.</td>
<td>Instruments utilized: Meta-Analysis of literature  Sample: Nurses working in a Pediatric Intensive Care settings  Setting: Pediatric Intensive Care  Data Collection: Literature review of 6 articles using databases CINAHL, Medline  Search Terms: Compassion fatigue, self-care, burnout, workplace stress, coping, intensive care nursing, pediatric nursing</td>
<td>found after a course that included the use of self-care discussion, relaxation, guided imagery, art, and wellness planning. Low stress level participant group in their study had a significantly higher incorporation of self-care practices (p=0.001-0.003) as compared to the high stress level group. The concepts were similar in referring to nurses’ limitation in providing a high standard of patient care due to the events, experiences and challenges associated with their job responsibilities.</td>
<td>meet the desired objectives, including compassion fatigue awareness, self-care and coping skills. Implementati on of a compassion fatigue training program would require trained instructors educated in the components needed to meet the desired objectives, including compassion fatigue awareness, self-care and coping skills. Compassion fatigue levels can be measured prior to, and after, the training program, using tools</td>
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Purpose: To critically examine the construct of compassion fatigue and to determine if it is an accurate descriptor of work-related stress in healthcare providers and a valid target variable for intervention.  
Instruments Utilized: Seminal articles and theoretical and empirical studies on compassion fatigue in the healthcare literature were selected for their validity and reliability, as well as using narrative written or verbal statements from participants. | 90 articles from the nursing literature and healthcare in general were included in the review. Findings emphasized that the physical, emotional, social, and spiritual health of healthcare providers is impaired by cumulative stress related to their work, which can impact the delivery of healthcare services; however, the precise nature of compassion fatigue and that it is predicated on the provision of compassionate care is associated with significant Study is limited, did not supply a strength of evidence criteria to included articles, which is more characteristic of a systematic review than a meta narrative review. This methodologic al decision was based on the observation that many articles considered relevant to this review were theoretical and could not be appropriately assessed with | In the last two decades, compassion fatigue has become a contemporar y and iconic euphemism that should be critically re-examin ed in favor of a new discourse on healthcare provider work-related stress. |
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<td><strong>Type of Study:</strong> Literature Review</td>
<td>identified and appraised for their validity and relevance the review. Sample: 90 studies from the nursing literature and healthcare were included in the review. Inclusion criteria: Mapped according to the following criteria: definitions, conceptual analyses; signs and symptoms; measures; prevalence and associated risk factors; and interventions. <strong>Data Collection:</strong> PubMed, Medline, CINAHL, PsycINFO, and the Web of Science databases, Google Scholar, the grey literature, and manual searches of bibliographies.</td>
<td>limitations. The conceptualization of compassion fatigue was expropriated from crisis counseling psychotherapy and focuses on limited facets of compassion. Empirical studies primarily measure compassion fatigue using the Professional Quality of Life Scale, which does not assess any of the elements of compassion. Reported risk factors for compassion fatigue include job-related factors, fewer healthcare qualifications and less years experience; there is no research demonstrating that exemplary compassionate careers are more susceptible to ‘compassion fatigue’.</td>
<td>a strength-of evidence grading.</td>
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| Article 21 Sorenson, C., Bolick, B., Wright, K., & Hamilton, R. (2016). Understanding compassion fatigue in healthcare providers: A review of current literature. *Journal of Nursing Scholarship*, 48(5), 456-465. Evidence Level: V Type of Study: Integrative Literature Review Quality Rating: A High Quality: Expertise is clearly evident, draws definitive conclusions; provides scientific rationale. Design: Comprehensive literature review Purpose: To provide clarity on compassion fatigue, distinguishing compassion fatigue from burnout, discuss risk factors, assessment of compassion fatigue, explore the need to support nurses who witness tragedy, and describe workplace interventions to confront compassion fatigue. Instruments Utilized: Literature search Sample: 64 articles of literature Nurses Setting: Literature databases The management of compassion fatigue must be multifaceted. Interventions identified: Work/Life Balance Education Work Setting Compassion fatigue is commonplace in healthcare today. Compassion fatigue is a relational phenomenon stemming from therapeutic connectedness with patients and families in need. Compassion fatigue and related concepts are a pervasive concern in health care providers working in a wide variety of clinical settings and practice settings. Fatigue, stress, sadness, and the associated decrease in Methodologic al quality assessments revealed 3 (30%) rated as low quality, 7 (70%) rated as medium quality. Independent variables were categorized as either individual or organizational factors. Limitations of the review include the exclusion of studies not written in English, heterogeneity of included studies, and bias towards significant results inherent with vote counting procedure. No restrictions were placed on the location or year of publication. While the presence of compassion fatigue and related concepts has been well established in many healthcare providers, some providers are absent from current literature, including respiratory therapists, physical therapists, occupational therapists, and advanced practice registered nurses. The literature shows that compassion fatigue and related concepts contribute to burnout, healthcare providers leaving the profession, and healthcare providers leaving the profession.
<table>
<thead>
<tr>
<th>Reference, Type, Quality Rating</th>
<th>Methods</th>
<th>Study Findings</th>
<th>Threats to Validity/Reliability</th>
<th>Conclusions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Collection: Review of 64 articles</td>
<td></td>
<td>morale and work performance, are all influenced by psychosocial factors that have traditionally been ignored in nursing. These conditions not only impact retention of staff but also may influence patient satisfaction and patient safety.</td>
<td></td>
<td>providers ability to interact with patients; therefore, a better understanding of the effects of compassion fatigue and related concepts and effective prevention and intervention need to be explored.</td>
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</table>

**Clinical Relevance:**
A better understanding of current research on compassion fatigue through narrative review, development of a concept analysis, and further exploration of its impact on health care providers has the potential to improve...
<table>
<thead>
<tr>
<th>Reference, Type, Quality Rating</th>
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<th>Threats to Validity/Reliability</th>
<th>Conclusions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Design: Literature review</td>
<td>Literature suggests multiple strategies, such as debriefing and the promotion of self-care that can lessen the risk and impact of compassion fatigue in the individual caregiver and on the organization as a whole. The review focused on interventions that are appropriate for healthcare providers in this setting including unlicensed assistive personnel and</td>
<td>Limitations of the review include the exclusion of studies not written in English, heterogeneity of included studies, and bias towards significant results inherent with vote counting procedure. No restrictions were placed on the location or year of publication.</td>
<td>the overall well-being of healthcare providers has the potential to improve the overall well-being of healthcare providers, ultimately leading to better patient care and retention within the profession.</td>
</tr>
</tbody>
</table>

**Article 22:**

<table>
<thead>
<tr>
<th>Reference, Type, Quality Rating</th>
<th>Methods</th>
<th>Study Findings</th>
<th>Threats to Validity/Reliability</th>
<th>Conclusions</th>
</tr>
</thead>
<tbody>
<tr>
<td>V</td>
<td>PubMed</td>
<td>health unit coordinators are at risk for compassion fatigue and 2) the workplace environment for this caregiver population holds unique challenges when compared to outpatient oncology settings.</td>
<td>assessments revealed 3 (30%) rated as low quality, 7 (70%) rated as medium quality. Independent variables were categorized as either individual or organizational factors.</td>
<td>and socially complex and vulnerable older adults in residential long-term care settings.</td>
</tr>
<tr>
<td>Type of Study: Expert Opinion</td>
<td>Sample: 43 articles met inclusion criteria from 2005-2015</td>
<td>Recent nursing literature has identified a strong relationship between a perceived lack of compassionate care, negative patient outcomes and the financial impact on healthcare organizations.</td>
<td>Factors associated with burnout in health care aides are similar to those reported among nurses, although the level of evidence and low methodological rigor of these studies suggest more robust study designs are warranted.</td>
<td></td>
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<tr>
<td>Systematic Literature Review</td>
<td>Setting: On-line data bases</td>
<td></td>
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<tr>
<td>High Quality: Expertise is clearly evident; draws definitive conclusions; provides scientific rational: thought leaders in the field</td>
<td>Data Collection: A literature search, guided by search terms related to compassion fatigue, was conducted using the Cumulative Index to Nursing and Allied Health Literature (CINAHL) and PubMed encompassing publications between 2005 and 2015. The selected literature was then systemically reviewed and synthesized for this narrative review.</td>
<td></td>
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<tr>
<td>Studies are needed to investigate the causal relationship between individual and organizational factors that influence burnout. Replication</td>
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<tr>
<td>Reference, Type, Quality Rating</td>
<td>Methods</td>
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<td>Conclusions</td>
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<td>of studies investigating the relationship between organizational factors such as workload and work environment would strengthen or refute findings.</td>
</tr>
</tbody>
</table>
APPENDIX B

IRB APPROVAL LETTER: UOFSC

UNIVERSITY OF
SOUTH CAROLINA

OFFICE OF RESEARCH COMPLIANCE

INSTITUTIONAL REVIEW BOARD FOR HUMAN RESEARCH
DECLARATION OF NOT RESEARCH

Michele Dreher
College of Nursing
1601 Greene Street
Columbia, SC 29208

Re: Pro0078880

This is to certify that research study entitled, “The Effect of Self-Care Skills Education on Compassion Fatigue in Certified Nursing Assistants Working in a Long Term Care Veterans Home,” was reviewed on 9/13/2017, by the Office of Research Compliance, which is an administrative office that supports the University of South Carolina Institutional Review Board (USC IRB). The Office of Research Compliance, on behalf of the Institutional Review Board, has determined that the referenced research study is not subject to the Protections of Human Subject Regulations in accordance with the Code of Federal Regulations 45 CFR 46 et seq.

No further oversight by the USC IRB is required. However, the investigator should inform the Office of Research Compliance prior to making any substantive changes in the research methods, as this may alter the status of the project and require another review.

If you have questions, contact Arlene McWhorter at arlene@scc.edu or (803) 777-7095.

Sincerely,

Lisa M. Johnson
ORC Assistant Director
and IRB Manager
APPENDIX C

IRB APPROVAL LETTER: SCDMH

MEMORANDUM

TO: Michele Dreher
FROM: Patricia Handley, DNP
       SCDMH IRB Administrator

SUBJECT: Approval of Proposed Project

DATE: 7/12/2017

The proposed project "The Effect of Self-Care Skills Education on Compassion Fatigue Among Certified Nursing Assistants Working in a Long-Term Care Veterans Home," was screened by the SC Department of Mental Health Institutional Review Board. The SCDMH IRB has determined that your proposed project does not meet criteria for human subjects research as defined by Code of Federal Regulations: Title 45, Part 46, PROTECTION OF HUMAN SUBJECTS Definitions. This project does not require review or oversight by the SCDMH IRB.

SCDMH IRB Study Assigned Number: 2017-07-12

Thank you for submitting your application. We wish you success in your project.

cc: Monica McConnell, Chair SCDMH IRB
    Versie Bellamy, SCDMH Inpatient Services Deputy Director

MISSION STATEMENT
To support the recovery of people with mental illnesses.
APPENDIX D

PARTICIPANT DEMOGRAPHICS FORM

Participant Demographics
Instructions: Please place a check in the box ☑ that applies to you.

1. Age (Years):
   - ☐ Under 20
   - ☐ 20-29
   - ☐ 30-39
   - ☐ 40-49
   - ☐ 50-59
   - ☐ 60 or older

2. Gender:
   - ☐ Male
   - ☐ Female

3. Years of Experience as a CNA:
   - ☐ Less than 1 Year
   - ☐ 1-5 Years
   - ☐ 6-10 Years
   - ☐ 11-15 Years
   - ☐ 16-20 Years
   - ☐ 20 + Years

4. Highest Level of Education:
   - ☐ CNA Training
   - ☐ College Credit, No Degree Earned
   - ☐ College Degree

5. Usual Shift Worked:
   - ☐ Days
   - ☐ Evenings
   - ☐ Nights
   - ☐ Mixed Shifts

6. Hours Worked Per Week:
   - ☐ Temp (Less than 16 hours/week)
   - ☐ Part Time (32 hours or less/week)
   - ☐ Full Time (33-40 hours/week)
   - ☐ Full Time (greater than 40 hours/week)

7. Your Employer is:
   - ☐ State
   - ☐ Agency
APPENDIX E

PERMISSION FOR USE OF THE PROQOL TOOL

Permission for Use of the ProQOL (Professional Quality of Life Scale: Compassion Satisfaction and Compassion Fatigue) www.proqol.org

Accompanied by the email to you, this document grants you permission to use for your study or project

The ProQOL (Professional Quality of Life Scale: Compassion Satisfaction and Compassion Fatigue) www.ProQOL.org

Prior to beginning your project and at the time of any publications, please verify that you are using the latest version by checking the website. All revisions are posted there. If you began project with an earlier version, please reference both to avoid confusion for readers of your work.

This permission covers non-profit, non-commercial uses and includes permission to reformat the questions into a version that is appropriate for your use. This may include computerizing the measure.

Please print the following reference or credit line in all documents that include results gathered from the use of the ProQOL.


Permission granted by
Beth Hudnal Stamm, PhD
Author, ProQOL
ProQOL.org
info@proqol.org

Help us help all of us. Please consider donating a copy of your raw data to the data bank. You can find more about the data bank and how you can donate at www.proqol.org and www.proqol.org/Donate_Data.html. Data donated to the ProQOL Data Bank allow us to advance the theory of compassion satisfaction and compassion fatigue and to improve and norm the measure itself.
APPENDIX F

PROFESSIONAL QUALITY OF LIFE TOOL (PROQOL)

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>
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<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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<tr>
<td>6. I feel invigorated after working with those I [help].</td>
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<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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<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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<tr>
<td>12. I like my work as a [helper].</td>
<td></td>
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<tr>
<td>13. I feel depressed because of the traumatic experiences of the people I [help].</td>
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<tr>
<td>14. I feel as though I am experiencing the trauma of someone I have [helped].</td>
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<tr>
<td>15. I have beliefs that sustain me.</td>
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<tr>
<td>16. I am pleased with how I am able to keep up with [helping] techniques and protocols.</td>
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<tr>
<td>17. I am the person I always wanted to be.</td>
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<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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<tr>
<td>20. I have happy thoughts and feelings about those I [help] and how I could help them.</td>
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<tr>
<td>22. I believe I can make a difference through my work.</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>
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<tr>
<td>24. I am proud of what I can do to [help].</td>
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<tr>
<td>25. As a result of my [helping], I have intrusive, frightening thoughts.</td>
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<tr>
<td>26. I feel &quot;bogged down&quot; by the system.</td>
<td></td>
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<tr>
<td>27. I have thoughts that I am a &quot;success&quot; as a [helper].</td>
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<tr>
<td>28. I can't recall important parts of my work with trauma victims.</td>
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<tr>
<td>29. I am a very caring person.</td>
<td></td>
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</tr>
<tr>
<td>30. I am happy that I chose to do this work.</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

© B. Hudnall Stamm, 2009. Professional Quality of Life: Compassion Satisfaction and Fatigue Version 5 (ProQOL). www.isu.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 G

INTERVENTION: POWERPOINT PRESENTATION

What is in Your Self-Care Skills Toolbox?

E. Roy Stone Veterans Nursing Home
C.M. Tucker, Jr. Nursing Care Center
DNP Quality Improvement Project
Michele Breher, RN, MN, FNP-BC

Objectives:

1. The learner will be able to explain what Compassion Fatigue is.
2. The learner will be able to state ways to prevent and manage signs & symptoms of Compassion Fatigue.
3. The learner will be able to demonstrate self-care skills of: Journaling, deep breathing, meditation, and hand massage.
CNAs make a difference...

What Tools are in Your Toolbox?

- Compassion Fatigue Awareness
- Self-Care Skills
- Stress Awareness
- Breathing Exercises
- Grieving
- Journaling
- Meditation
- Physical Activity
- Muscle Relaxation
- Back Protection
- Sleep Tips
- Healthy Nutrition
- Drink Water
- Health Prevention
- Look in a Mirror
There is a downside to caregiving. Caregivers who do not balance taking care of themselves with the demands of taking care of others can face the negative effects of stress, burnout and compassion fatigue.

**What is Compassion Fatigue?**

“Compassion Fatigue is a state experienced by those helping people or animals in distress: it is an extreme state of tension and preoccupation with the suffering of those being helped to the degree that it can create a secondary traumatic stress for the helper.” -Dr. Charles Figley

**Recognizing Compassion Fatigue**

Compassion Fatigue symptoms are normal displays of stress resulting from caregiving you perform on a day to day basis. While the symptoms are disruptive, the best way to your path of wellness and positive change is to be aware of the symptoms and their negative effects in your life. Reaching a point where you have control over the effects will take time and effort.

Commit to make your life the best it can be. Recognize the symptoms.

Resource: Compassion Fatigue Awareness Project© (2013).
Compassion Fatigue

- Recognize the Symptoms
  - Bottled-up emotions
  - Isolation from others
  - Excessive blaming
  - Poor self-care (i.e. hygiene, appearance)
  - Receives unusual amount of complaints from others
  - Compulsive behaviors such as overspending, over-eating, gambling and sexual addictions
  - Chronic physical ailments such as gastrointestinal problems and recurrent colds
  - Re-occurrence of nightmares and flashbacks to traumatic events
  - Apathy, sad, no longer finds activities pleasurable
  - Difficulty concentrating, preoccupied
  - Mentally and physically tired
  - In denial about problems

Wellness Path

As a caregiver, you are a candidate for compassion fatigue. Now that you gained a new awareness that can lead to an insights concerning past trauma, pain, and defeating behaviors. One caregiver coping mechanism is to ignore the overwhelming emotions that surface on a day to day basis. Over time, these emotions refuse to be ignored. In many cases, mental and physical crisis issues occur. With support, awareness, and self-care, you can get a better handle on the emotions you have been ignoring.

Resource: Compassion Fatigue Awareness Project © (2013).

What is Self-Care?

Self Care is......
CARING FOR ONESELF

FIND A BALANCE IN YOUR LIFE

Balance taking care of yourself while taking care of others

Resource: Merriam Webster (2017)
Self Care

How will self-care skills help me in the workplace and at home?

- When you take care of yourself, you can take care of others better.
- Being aware of Compassion Fatigue and stress will enable you to recognize the symptoms early and do something about it before it becomes too much for you to handle.

Let's learn about our first self-care skill, Compassion Fatigue awareness

Self Care Tips
Stress Symptoms

What is Stress?

Stress is both a mental and physical reaction to events upsetting the balance in our lives. Controlling stress is a matter of taking charge of your thoughts and how you deal with problems, controlling your schedule and seeking help from others. Recognizing stress is the first step in relieving it.

Self-Check

Are you experiencing any of these symptoms? √ all that apply to you.

- Headaches
- Irritability
- Depression
- Neck and shoulder tightness
- Fatigue
- Trouble sleeping
- Weight change
- Stomach upsets
- Fear and worry
- Mood Swings
- Crying
- Forgetfulness
- Poor concentration
- Low productivity
- Negative attitude
- Confusion
- Weariness
- Boredom
- Feelings of isolation
- High blood pressure


Breathing Exercises

Breathing deeply is a quick way to relax and relieve stress. Deep breathing maintains a sense of calm. It is part of almost all relaxation and meditation techniques. The key is to breathe deeply from your abdomen, rather than shallowly from your lungs, and get as much as much fresh air and oxygen into your lungs as possible. Try it today!

Instructions:

- Sit or lie down in a comfortable position
- Put one hand on your stomach (and the other on your chest, if possible)
- Feel your breathing for a short time, noticing the rise and fall of your stomach
- Breathe in (inhale) deeply through your nose. As you breathe in, the hand on your stomach should rise (and the one on your chest should move very little)
- Breathe out (exhale) through your mouth—push out as much air as you can and feel your stomach tighten as it flattens. Again, the hand on your stomach should move (your chest shouldn’t move much)
- Be sure that you empty out all the air and then pause
- Try to inhale to the count of 10 and then exhale to the count of 10. This helps to slow your breathing
- Repeat this breathing for several minutes. If you are lying down, you can put a small book on your stomach and try to breathe so it rises as you inhale and falls when you exhale

Basic Breathing Meditation

Coping with Stress

Caregivers experience stress. Stress is harmful to your mental and physical health. Practice activities that will help you cope with stress and relieve it early on. Try relaxation techniques. Self-care skills such as relaxation techniques are useful in reducing stress and feelings of burden. Most importantly, do something you will enjoy and find relaxing. Learn how to relax today!

Ways to Relieve and Cope with Stress:

- Taking time for yourself to recharge
- Talking to others
- Accept help from friends and family
- Walking
- Spending time outside
- Taking a bath
- Playing with a pet
- Gardening
- Reading
- Listening to music
- Join a support group
- Avoid drugs and alcohol

- Try simple relaxation techniques:
  - Journaling
  - Breathing Exercises
  - Muscle Relaxation
  - Meditation
  - Yoga

Most important... Reward yourself... You deserve it... You are special!

Grieving

Grieving for the loss of a resident is difficult. Over the course of your work, you will develop relationships with residents and their families. When a loss occurs, it can make an emotional impact in your life. Remember, grieving is a normal human process. No one grieves in the same way. However, the best thing you can do is to allow yourself time to grieve.

Here are ways you can cope with a loss:

- Take care of yourself by eating properly, exercising and getting plenty of rest
- Use self-care skills to take care of yourself.
- Seek support from friends and family members. Tell them how you feel. It will help you through the grieving process
- Seek comfort from your faith and/or minister
- Talk to a mental health professional if feelings become too much

Remember.....be patient; it takes time to absorb the loss.

Reference: Compassion Fatigue Awareness Project© (2013).
Dealing with Grief

Journaling

Journaling is a great life tool. You can express your thoughts, feelings, and experiences without others needing to know. Journaling often leads to valuable insights into the moment or after reflection and review. Journaling is not a new trend. It is an ancient tradition in Japan that dates back to the 19th century and has been associated with physical well-being. Self-discovery and finding solutions to problems take place when maintaining a journal, reviewing entries and looking back on them. And don’t worry about perfect spelling or grammar; the journal is only for you.

Journaling has many benefits:

- Makes your thoughts and feelings clear
- Reduces stress by writing about emotions
- Allows you to get to know yourself better
- Solves and takes care of problems or misunderstandings

It is easy to start journaling. Start with getting your feelings or thoughts flowing by selecting a journal starter. Commit to writing at least six lines and stay inspired to write each day.

Journal Starters:

- “I feel like …”
- “Today I …”
- “I wish I could change…”
- “If I am honest with myself, I …”

Take a break from the demands of caregiving and journal. In turn, the positive benefits will be passed along to the resident you care for and your family.

The goal of meditation is to quiet the mind. It reduces the feelings of stress and gets you in touch with your emotions.

**Imagery Meditation**

Quiet your mind by imagining yourself in a relaxing spot that you most enjoy such as the beach or mountains.

1. Find a place to lie down or seat yourself so you can fully relax.
2. Begin with deep breathing. Practice deep breathing for approximately 5 minutes.
3. As you calm down and relax, begin to imagine yourself in your special place.
4. Use your imagination to block other thoughts and allow your mind to quiet and concentrate on the details of the place you are imagining. For example: If you imagine the beach, ask yourself: What does the sky look like? Are there clouds? What shade of blue is it? Is it sunrise, sunset, mid-day? Where is the sun? What is near you? If there are birds, what are their colors? Are they making sounds? Are there shells? What are their shapes and colors? Where are you in this place? Are you on the beach under an umbrella? Are you in a chair, on a blanket or on the sand?
5. Each time a thought about something else intrudes, just let it go and concentrate on your special place.
6. Continue using deep breathing as you do your imaging.
7. Try to stay with the thought of the imagined place for 10-20 minutes.

Mindful Meditation

Physical Activity

You do not have to go to a gym to get the benefits out of physical activity. Anyway you move counts!

- Walk around the block
- Use a Fitbit or smartphone to track steps, calories and distance
- Park at the far end of a parking lot and walk
- Take the stairs rather than the elevator
- Try a hobby such as gardening
- Exercise to a DVD at home
- Get a fitness app on your phone
- Do everyday chores to music

The benefits of physical activity include:

- Reduced Stress
- Increased Alertness
- Better Sleep
- More Energy
- Weight Control
Exercise

Muscle Relaxation techniques are simple. Combine with deep breathing to make more effective in relieving stress and falling asleep.

Instructions:
- Lie down in a comfortable position, arms slightly out to the side with legs straight
- Start with deep breathing for a minute or so
- Concentrating on each body part, one at a time, you will tense that body parts
  muscles as tightly as you can, hold them for 10 seconds, then release and
  completely relax
- Start with your head and face and move down through your body to your feet and
  toes
- Raise your eyebrows as high as you can and hold for 10 seconds and then release
- Smile as wide and hard as you can, hold for 10 seconds and then release
- Touch your chin to your chest, hold and then release
- Raise your shoulders as high as you can, hold and then release
- Force your arms straight making them unbendable, hold and then release
- Make fists, hold and then release
- Tighten your stomach, hold and then release
- Tighten your buttocks, hold and then release
- Force your legs straight, hold and then release
- Bend your ankles, pointing your toes at your knees, hold and the release
- Curl your toes, hold and then release
- After relaxing each body part, notice how heavy each part feels when it is totally
  relaxed
- When completed, continue performing the deep breathing

**Muscle Relaxation Meditation**

![Image](HappierTV)

**Protect Your Back**

Providing physical care can place your back at risk for injury. Many back injuries result from weak, tight muscles. Make sure you are in the best physical condition for the job. The goal is to avoid low back injury or strain. The key to avoiding injury is to plan the lift procedure prior to starting.

**Back Protection Steps:**

- Think through the entire lift. Map it out.
- Determine if moving the object or person is manageable. If you cannot comfortably handle the lift, stop and seek others to assist.
- Identify any obstacles in the way and remove them.
- Keep feet shoulder width apart. Bend your knees and lift with your legs, not your back.
- Keep the object balanced as you lift. Keeping load close to your core.
- Avoid twisting or bending.

Sleep

Getting a good night's sleep is important to your health

Did you know?

- A lack of sleep can make you less alert, impair your productivity and the ability to pay attention.
  Reduce the ability to remember new information and slow your reaction times.

Too little sleep is linked to:

- Obesity: due to increased appetite due to sleep deprivation
- Car accidents
- Diabetes and heart problems
- Depression

Tips:

- Get 7-8 hours of sleep every night so that you can be your best.
- Avoid caffeinated drinks prior to bedtime.
- Enjoy a regular, relaxing bedtime routine such as soaking in the tub or listening to soothing music.
- Create a space that is sleep friendly—a space that is dark, cool, and quiet with comfortable mattress and pillows.
- Use meditation or relaxation recordings

Healthy Nutrition Tips

Nutrition affects both your physical and emotional health. A proper diet helps to protect you from stress, while poor nutrition can lead to lower immunity and disease. Changes in your diet can have benefits for your health and well-being.

Start today by eating more:
- Fruits & Vegetables
- Dairy
- Lean Meats
- Whole Grains

Start today by consuming less:
- Salt Intake. Since sodium is added during the processing of foods provides more than 1% of total intake, it is important to know the sodium content on the food label when you are grocery shopping.
- Saturated fat. Saturated fats come from animal products such as meat, dairy products, and from coconut oil, palm kernel oil and partially hydrogenated oils. Some products made with these oils: fried chicken and fish, cakes, pies, and cookies.
- Carbohydrates: Reduction of added sugars (especially sugar sweetened beverages) may be helpful in weight control and overall health.

Nutritional Tips from ChooseMyPlate.gov to help maintain a balanced diet. For more information go to: http://www.choosemyplate.com


Reading Nutrition Labels
Drink Water

- Water is a great drink whenever you are thirsty. Our bodies require water, especially when stressed. Water cleanses, refreshes and cuts down on the urge to indulge in mindless snacking or overeating for comfort.

- Drink a glass of water before a meal so you do not eat too much. This makes your brain register that your stomach is getting full and helps you feel full with normal portions.

- Replace sodas with water to cut unwanted calories.


Importance of Drinking Water
Health Prevention

Take care of yourself. There is only one you. Caregiving can be demanding. Being a caregiver requires you to be in good health by staying healthy. If you are in a good physical and mental health, you will be able to manage the challenges that present each day and provide the best possible care for the residents. Also, maintaining your own health will allow you to be your best for your family and friends.

Start today with the following preventative health measures:

- Immunizations and vaccines (flu shot)
- Cancer screening (breast, colorectal, skin, prostate, testicular, thyroid)
- Cholesterol screening
- Diabetes screening
- Mammogram
- Pap Test
- Colonoscopy
- Cardiovascular screening
- Blood pressure checks

Do you know your blood pressure and cholesterol numbers?


Self-Care Begins With You...Today

Look in a Mirror

Real and Long Lasting Self-Care Begins Now

- Enhance your awareness of self-care skills
- Accept where you are on your path at all times
- Exchange information and feelings with people who can validate you
- Clarify your personal boundaries. What works for you and what doesn’t
- Express your needs verbally. Don’t keep them inside
- Take positive action to change your environment
- Love yourself by taking care of your body, mind, and spirit

Resource: Compassion Fatigue Awareness Project (2013).
References


Happier TV. (2015, November 16). One minute basic breathing meditation [Video file]. Retrieved from https://www.youtube.com/watch?v=SNwKr3HCGqA

Happier TV. (2015, November 16). One minute progressive muscle relaxation meditation [Video file]. Retrieved from https://www.youtube.com/watch?v=m8zZ2WhvUT0

Never Had a Vanity.(2016, December 12). Quick morning self-care routine [Video file]. Retrieved from https://www.youtube.com/watch?v=Fnrp1gEgQp4


APPENDIX H

SELF-CARE SKILLS JOURNAL SAMPLE

Self-Care Skills Journal

As a Caregiver, the very best thing you can do for those who depend on you is to take care of yourself.

C.M. Tucker, Jr. Nursing Care Center Pilot Project
Michele Dreher, RN, MN, FNP-BC
Self-Care Skills

Learn to fall in love with taking care of yourself...

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Journaling is a great life tool. You can express your thoughts, feelings, and experiences without others needing to know. Journaling often leads to valuable insights into the moment or after reflection and review. Journaling is not a new trend. It is an ancient tradition in Japan that dates back to the 10th century and has been associated with physical well-being. Self-discovery and finding solutions to problems take place when maintaining a journal, reviewing entries and looking back on them. And don’t worry about perfect spelling or grammar, the journal is only for you!

Journaling has many benefits:
- Makes your thoughts and feelings clear
- Reduces stress by writing about emotions
- Allows you to get to know yourself better
- Solves and takes care of problems or misunderstandings

It is easy to start journaling. Start with getting your feelings or thoughts flowing by selecting a journal starter. Commit to writing at least six lines and stay inspired to write each day.

Journal Starters:
- “I feel like …”
- Today I …
- I wish I could change.
- “If I am honest with myself, I …”

Take a break from the demands of caregiving. In turn, these positive benefits may be passed along to the residents and your family.

Reference: Compassion Fatigue Awareness Project®
I BELIEVE IN MYSELF AND MY ABILITIES
APPENDIX I

CLASSROOM AND TAKEAWAYS

Intervention Healthy Snack Bag and Take Away Self-Care Skills Toolbox
3rd Month Post-Intervention Take-Away
APPENDIX J

POST-INTERVENTION SURVEY

Supplemental Questions- 3 months Post In-Service

1. Which of the following self-care skills did you find to be the most helpful?

   *Select the TOP 3 self-care skills by ranking them:

   #1 (most helpful),
   #2 (2nd most helpful)
   #3 (3rd most helpful)

   a.  Compassion Fatigue Awareness
   b.  Journaling
   c.  Work-Life Balance
   d.  Coping with Stress
   e.  Hand-Massage
   f.  Breathing Exercises
   g.  Meditation Exercise
   h.  Muscle Relaxation Exercises
   i.  Grieving Tips
   j.  Physical Activity Tips
   k.  Back Protection Tips
   l.  Sleep Tips
   m.  Healthy Nutrition / Reading Labels
   n.  Benefits of Drinking Water
   o.  Health Prevention Tips

2. I found the in-service on Compassion Fatigue Awareness and Self-Care Skills to be informative and useful in my everyday life.

   *Please circle your answer

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<td>Agree</td>
<td>Neither Or N/A</td>
<td>Disagree</td>
<td>Strongly Disagree</td>
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3. CNAs working in other veteran nursing homes would benefit from a similar in-service on Compassion Fatigue Awareness and Self-Care Skills.

   *Please circle your answer

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<td>Strongly Agree</td>
<td>Agree</td>
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<td>Disagree</td>
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APPENDIX K
POSTER ABSTRACT

Improving Retention Among Certified Nursing Assistants in a Veterans Nursing Home Through Compassion Fatigue Awareness and Self-Care Skills Education

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Abstract

Background: Compassion fatigue is the emotional and physical exhaustion that can affect helping professionals and caregivers over time. Certified nursing assistants (CNAs) are at high-risk for compassion fatigue due to their daily exposure to veterans who are suffering from a myriad of chronic medical and behavioral illnesses along with repeated workplace stressors. If not addressed early, compassion fatigue can adversely impact a CNA’s wellbeing and quality of resident care. Compassion fatigue is associated with high absenteeism, high turnover, and low retention rates. Despite these challenges, there is no published research on the effects of a workplace compassion fatigue awareness and self-care skills education program for CNAs caring for veterans in a state-run veterans nursing home.

Purpose: The purpose of this evidence-based quality improvement project was to explore the outcomes of a 90-minute workplace educational program addressing compassion fatigue awareness and the use of self-care skills among CNAs working in a 90-bed state-run veterans nursing home.

Methods: A quasi-experimental design was utilized. A seven-question demographic survey and the Professional Quality of Life Scale (Pro QOL-version 5) tool was used to measure CNAs’ level of compassion satisfaction, burnout and secondary traumatic stress at three intervals: pre-intervention, one-month post-intervention, and three-months post-intervention.
**Results:** Forty-five CNAs participated in the intervention. One-month post-intervention scores indicated that the 90-minute intervention was successful in increasing compassion satisfaction, decreasing burnout and secondary traumatic stress known as compassion fatigue. Three-month post-intervention scores revealed the intervention was successful in sustaining low burnout and compassion fatigue levels. State-employed CNAs retention increased with less use of agency staff.

**Conclusions:** By bringing awareness to compassion fatigue and self-care skill strategies in the workplace, CNAs can develop physical and mental resilience to workplace stressors that can ultimately lead to an increase in CNA retention, quality care delivery, and improved resident outcomes.

**Applying for Poster Presentation**
APPENDIX L

GERIATRIC NURSING MANUSCRIPT GUIDELINES

DESCRIPTION

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