Investigating the Impact of Death on Hospice Employees’ Stress Levels

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Investigating the Impact of Death on Hospice Employees’ Stress Levels

I verify that my dissertation represents original research, is not falsified or plagiarized, and that I accurately reported, cited, and referenced all sources within this manuscript in strict compliance with APA and Grand Canyon University (GCU) guidelines. I also verify my dissertation complies with the approval(s) granted for this research investigation by GCU Institutional Review Board (IRB).

Christopher Pfund  
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Abstract

This correlational quantitative research investigated to what extent, if any, a correlation between reported compassion satisfaction, burnout, and secondary traumatic stress of individual hospice employees and the number of patient deaths experienced in a 14-day period. The theoretical framework included the Job Demands-Resource Model. Data were collected via SurveyMonkey® from 117 hospice employees (registered nurses, licensed practical nurses, nursing assistants or certified nursing assistants, social workers, and chaplains) from for-profit and not-for-profit hospice companies across the United States. Spearman Correlation were computed to test the hypotheses. The results of the bivariate correlation indicated the number of deaths individual hospice employees experience have no significant correlation on compassion satisfaction \((r = -0.124, p > .05)\) and secondary traumatic stress \((r = -0.005, p > .05)\), but has a positive and significant correlation on burnout \((r = 0.261, p < .005)\). Overall, the results indicate that as deaths experienced increased, burnout tends to increase. The lack of correlation between number of deaths experienced and levels of compassion satisfaction and levels of secondary traumatic stress suggests hospice employees generally acquire satisfaction from their work and have natural mechanisms to avoid reliving the patient’s life experiences. These findings have implications for future research on the importance of understanding how the number of patient deaths relates to the hospice employees’ psychological impact, to maintain hospice employees, and ensure quality of care for years to come.

*Keywords:* Hospice employees, Job Demands-Resource Model, compassion satisfaction, burnout, secondary traumatic stress, and deaths experienced.
# Table of Contents

List of Tables .......................................................................................................................... x

List of Figures .......................................................................................................................... xi

Chapter 1: Introduction to the Study ....................................................................................... 1
  Introduction ............................................................................................................................. 1
  Background of the Study ....................................................................................................... 3
  Problem Statement ............................................................................................................... 6
  Purpose of the Study ............................................................................................................. 7
  Research Questions and/or Hypotheses ............................................................................... 8
  Advancing Scientific Knowledge and Significance of the Study ....................................... 10
  Rationale for Methodology .................................................................................................. 16
  Nature of the Research Design for the Study ..................................................................... 17
  Definition of Terms .............................................................................................................. 19
  Assumptions, Limitations, Delimitations ......................................................................... 20
    Assumptions ....................................................................................................................... 20
    Limitations .......................................................................................................................... 21
    Delimitations ...................................................................................................................... 21
  Summary and Organization of the Remainder of the Study ............................................. 22

Chapter 2: Literature Review ................................................................................................. 24
  Introduction to the Chapter and Background to the Problem .......................................... 24
  Identification of the Gap ..................................................................................................... 27
  Theoretical Foundation ........................................................................................................ 30
  Review of the Literature ..................................................................................................... 32
    Compassion satisfaction versus compassion fatigue ....................................................... 32
Burnout........................................................................................................43
Secondary traumatic stress.................................................................54
Methodology.......................................................................................65
Instrumentation................................................................................66
Summary ...........................................................................................67

Chapter 3: Methodology ....................................................................71
Introduction ........................................................................................71
Statement of the Problem .................................................................71
Research Questions and Hypotheses .................................................73
Research Methodology ....................................................................74
Research Design ...............................................................................76
Population and Sample Selection ....................................................77
Instrumentation ...............................................................................79
Validity ............................................................................................80
Reliability ........................................................................................82
Data Collection and Management ...................................................83
Data Analysis Procedures .................................................................84
Ethical Considerations .....................................................................88
Limitations and Delimitations ........................................................90
Summary ..........................................................................................92

Chapter 4: Data Analysis and Results .............................................94
Introduction ........................................................................................94
Descriptive Findings ..........................................................................97
Reliability ........................................................................................103
### Table of Contents

Data Analysis Procedures .................................................................................. 105

Validity and reliability ...................................................................................... 109

Results .................................................................................................................. 112

Research question 1 ......................................................................................... 112

Research question 2 ......................................................................................... 114

Research question 3 ......................................................................................... 123

Summary ............................................................................................................. 124

Chapter 5: Summary, Conclusions, and Recommendations ............................ 126

Introduction and Summary of Study ................................................................. 126

Summary of Findings and Conclusion ................................................................. 132

Research question 1 ......................................................................................... 132

Research question 2 ......................................................................................... 134

Research question 3 ......................................................................................... 137

Implications ......................................................................................................... 139

Theoretical implications ..................................................................................... 140

Practical implications ......................................................................................... 141

Future implications ............................................................................................. 142

Strengths and weaknesses of the study ............................................................. 143

Recommendations .............................................................................................. 144

Recommendations for future research ............................................................... 145

Recommendations for future practice ................................................................. 148

References .......................................................................................................... 150

Appendix A. Site Authorization Letter(s) ............................................................ 176

Appendix B. IRB Approval Letter ....................................................................... 177

Appendix C. Informed Consent .......................................................................... 178
Appendix D. Copy of Instruments and Permissions Letters to Use the Instruments...... 181
Appendix E. Power Analyses for Sample Size Calculation ........................................ 185
Appendix F. Detailed Data Used in Data Analysis....................................................... 186
### List of Tables

Table 1. Job Titles ...........................................................................................................98
Table 2. Hospice Has More Than One Location ..............................................................98
Table 3. Education Level ................................................................................................99
Table 4. Gender ................................................................................................................99
Table 5. State of Residence ...............................................................................................101
Table 6. Number of Deaths Experienced in the Last 14-days .........................................102
Table 7. Reliability of Cronbach’s Alpha .........................................................................103
Table 8. Frequency Table for Nominal Variables ...........................................................104
Table 9. Summary Statistics Table for Interval and Ratio Variables ..............................105
Table 10. Skewness and Kurtosis Used to Evaluate the Criterion Variables ..................108
Table 11. Skewness and Kurtosis Used to Evaluate the Predictor Variable ....................108
Table 12. Shapiro-Wilk Test Results ..............................................................................109
Table 13. Summary of Variables and Statistical Tests Used to Evaluate Research Questions .........................................................................................................................111
Table 14. Spearman Correlation Between Deaths Experienced and Compassion Satisfaction .............................................................................................................113
Table 15. Spearman Correlation Between Deaths Experienced and Burnout .................115
Table 16. Spearman Correlation Between Deaths Experienced by CNAs and Burnout .................................................................................................................117
Table 17. Spearman Correlation Between Deaths Experienced by LPNs and Burnout .............................................................................................................118
Table 18. Spearman Correlation Between Deaths Experienced by RNs and Burnout .............................................................................................................120
Table 19. Spearman Correlation Between Deaths Experienced by Social Workers and Burnout .............................................................................................................121
Table 20. Spearman Correlation Between Deaths Experienced and Secondary Traumatic Stress .............................................................................................................123
List of Figures

Figure 1. Histogram representing age of the participants................................................. 100

Figure 2. Histogram representing the number of deaths experienced in a 14-day period........................................................................................................... 102

Figure 3. Scatterplot matrix among deaths experienced, burnout, compassion satisfaction, and secondary traumatic stress. ................................................................. 107

Figure 4. Scatter plot of deaths experienced and compassion satisfaction.................... 114

Figure 5. Scatter plot of deaths experienced and burnout. ............................................... 116

Figure 6. Scatter plot of deaths experienced by CNAs and burnout. ............................... 118

Figure 7. Scatter plot of deaths experienced by LPNs and burnout................................. 119

Figure 8. Scatter plot of deaths experienced by RNs and burnout................................. 121

Figure 10. Scatter plot of deaths experienced by social workers and burnout. .............. 122

Figure 11. Scatter plot of deaths experienced and secondary traumatic stress.............. 124
Chapter 1: Introduction to the Study

Introduction

The largest generation in the United States, those born after World War II, has started to reach retirement age. The first Medicare eligible person of this generation turned 65 on January 1, 2011, and for the next 19 years, 10,000 people daily will turn 65 and become Medicare eligible (Cohn & Taylor, 2010). As this generation continues to age, their needs regarding health care and specifically end of life care, become more important to the individual. Costs associated with increased care has created increased demand and financial burdens on Social Security and Medicare programs, and overworking healthcare providers (Knickman & Snell, 2002). The topic of death and dying brings out fear, anxiety, and procrastination for the individual and for the individual’s loved ones. End of life care needs in America has created demographic shifts, financial burdens on Social Security, Medicare and Medicaid programs, and overworked healthcare providers (Knickman & Snell, 2002).

Hospice care was created in 1967 in Sydenham, England, by Dame Cicely Saunders, MD, and was implemented in the U.S. in 1974 by Florence Wald (National Hospice and Palliative Care Organization [NHPCO], 2016). From 1978 to 1986, U.S. Congress, with the Centers for Medicare and Medicaid Services (CMS), initiated demonstration projects for viability and reimbursement, which then gave approval to the hospice benefit in 1986. Hospice services are provided to people of any age who are terminally ill and have a life expectancy of six months or less, but predominately to those over age 65 (NHPCO, 2015). Some of these individuals can personally afford hospice care in their final days, while others will rely completely on the
Medicare and Medicaid programs. Since the first hospice in the United States was created in 1974, over 6,100 hospices have been created to care for the current 1.3M patients and the expected exponential demand for hospice services (Centers for Disease Control and Prevention [CDC], 2016; National Hospice and Palliative Care Organization [NHPCO], 2015). The growth in the number of hospice patients is part of the graying of America that is straining medical services, medical employees, and Medicare itself. For hospice employees and employers, it is crucial to understand factors that may contribute to employees leaving the hospice industry or not entering the industry all together.

The need to understand medical employees’, specifically hospice employees’, compassion satisfaction, burnout, and secondary traumatic stress, and the correlation with the number of patient deaths experienced by the individual hospice employee, is necessary as hospice organizations seek ways to mitigate stress and to keep their employees healthy, keep turnover low, and ensure high-quality patient care (DeLoach & Monroe, 2004). Over the last 35 years, the exploding demand of hospice patients has resulted in the creation of more than 6,100 for-profit and not-for-profit hospices, causing CMS to frequently increase regulations to stop fraud and standardize care (NHPCO, 2015). Yet, the ability and availability of hospice employee, job resources, and patient and family demands are not considered with new regulations. This could lead each employee to experience varying levels of compassion satisfaction, burnout, and secondary traumatic stress at various intervals, and caused by an indiscriminate set of factors. Various antecedents to job burnout (such as patient death) and their effects and prevalence have not been determined (Ledoux, 2015). Individual factors that may cause compassion fatigue, or how compassion fatigue affects quality of care, have left
gaps in the literature (Beaumont, Durkin, Hollins, Martin, & Carson, 2016; Potter et al., 2013; Zeidner, Hadar, Matthews, & Roberts, 2013). Conducting a study among hospice employees to understand if a specific number of patient deaths has a correlation with the hospice employee’s compassion satisfaction, burnout, and secondary traumatic stress, will be the first attempt to further the literature. This study aims to provide new research-based evidence and to investigate whether or not a correlation exists between the number of patient deaths experienced by individual hospice employees and compassion satisfaction, burnout, and secondary traumatic stress.

The remainder of Chapter One will include background on the hospice industry, the problem with stress on hospice employees, the purpose and rationale for the study, and the significance for understanding stress on hospice employees. Research questions and hypothesis, definition of terms, and assumptions, limitations, and delimitations will complete the chapter. Future chapter information will be presented at the end of Chapter One.

**Background of the Study**

After the creation of the first American hospice company around 1974, the United States Congress enacted the Medicare hospice benefit in 1986 as a source of payment for hospice services (NHPCO, 2015). In the 30 years since payment was authorized, new hospice organizations opened to an aggregate average of 185 per year and initially served 25,000 hospice patients per year (NHPCO, 2015). Hospice demand is expected to reach over 1.6 million by 2014 (NHPCO, 2015). “The rate of increase in number of hospices promises to accelerate even further. This holds great significance not only for hospice managers, but for the nursing profession as well” (Amenta, 1984, p. 414).
Amenta (1984), the first researcher to study hospice nurses, published a quantitative study that compared hospice nurses to those who work in traditional nursing settings. Since then, many quantitative and qualitative studies have focused on various aspects of hospice registered nurses, with very few giving attention to other hospice disciplines or the number of patient deaths experienced (Abendroth & Flannery, 2006; Ledoux, 2015). DiTullio and MacDonald (1999) published a qualitative grounded theory study to understand hospice-specific stressors and how hospice companies and employees can identify stressors and find resources to mitigate stressors, when compared to nurses working in traditional settings. From 1999 to 2010, other researchers attempted to understand job satisfaction, effect of attachment styles, death anxiety, and perceived stressors, all primarily with hospice nurses. However, these effects on other hospice employees had not been examined (Jonasen & O’Beirne, 2016; Quinn-Lee, Olson-McBride, & Unterberger, 2014). After 2011, the number of studies expanded significantly with international research on the effects of end of life care and patient death on hospice employees’ compassion satisfaction, burnout, and secondary traumatic stress (Gama, Barbosa, & Vieira, 2014; Peters et al., 2013; Ray, Wong, White, & Heaslip, 2013). Researchers have not currently studied if varying numbers of patient deaths affect a hospice employees’ compassion satisfaction, burnout, and secondary traumatic stress.

Significant attention has been given to hospice clinical employees regarding their stress and burnout (Whitebird, Asche, Thompson, Rossom, & Heinrich, 2013), but specific factors and how to cope with those factors do not appear to be studied. Melvin (2012) recommends that strategies for dealing with nurses’ ongoing exposure to patient death must be developed. A recent study has indicated a continual increase in clinical
burnout (Beck, LoGiudice, & Robert 2016) due to patient care and patient deaths affecting each hospice employee member differently, and at different times. Additionally, increased workloads, unpredictable patient admissions, unforeseeable patient and family needs, increased and ever-changing government regulations, and external factors in the employee’s personal life (Harrold et al., 2014; Stone et al., 2015) may cause varying levels of compassion satisfaction, burnout, and secondary traumatic stress; also, if not addressed, these could ultimately hurt patient care.

The intent of this study was to fill a gap in the research by investigating whether the number of patient deaths experienced by an individual hospice employee affects the employee’s compassion satisfaction, burnout, and secondary traumatic stress. “Previous empirical studies do not provide details regarding precisely how many patient deaths study participants were exposed to that resulted in correlations with compassion fatigue” (Pelon, 2015, p. 67). Additionally, Dearmond (2012) found that further studies are needed to understand the role of frequent exposure to death and dying and the hospice workers psychological experience. This study is noteworthy because it provides a glimpse into how one factor (number of deaths) affects hospice employees. While it is difficult to measure how or when each hospice employee may be affected by patient death, hospice staff may benefit from acknowledging and integrating death and dying into their life, as an instrument to work through psychological factors (Sinclair, 2011). While outside the scope of this study, it will also be crucial for the hospice organization to find resources to help staff cope, and develop interventions for compassion satisfaction, burnout, and secondary traumatic stress (Webb, 2014). Failing to provide resources will have a financial impact due to turnover and experienced hospice
employees vacating the industry for less emotionally exhausting jobs, and future patient care may deteriorate (Quinn-Lee et al., 2014).

**Problem Statement**

It was not known if the number of patient deaths experienced by individual hospice employees correlates with the employee’s compassion satisfaction, burnout, or secondary traumatic stress. Hospice care was created in 1967 in Sydenham, England, by Dame Cicely Saunders, MD, and was implemented in the U.S. around 1974 by Florence Wald (NHPCO, 2016). From 1978 to 1986, the U.S. Congress, with the Centers for Medicare and Medicaid Services (CMS), initiated demonstration projects for viability and reimbursement, which then gave approval to the hospice benefit in 1986. In the 30 years since, exploding demand has resulted in over 6,100 for-profit and not-for-profit hospices, causing CMS to frequently increase regulations to stop fraud and standardize care (NHPCO, 2015). Yet, the ability and availability of hospice employees, job resources, and patient and family demands are not considered with new regulations. This could lead each employee to experience various compassion satisfaction, burnout, and secondary traumatic stress at indiscriminate intervals, caused by an indiscriminate set of factors. Strategies to address compassion satisfaction, burnout, and secondary traumatic stress are essential to face future health care demands (Melvin, 2015). Numerous studies have addressed stress in hospice employees, but none have taken the steps to find out if the number of patient deaths experienced relates to compassion satisfaction, burnout, and secondary traumatic stress (Baxendale, 2015; Jonasen & O’Beirne, 2016; Noh, 2016; Stone et al., 2015).
Research on hospice employees with the Professional Quality of Life Scale (ProQOL) has broadened the knowledge of how the Job Demands-Resources Model (JD-RM) may interrelate with the hospice field. The ProQOL is a leading approach in compassion satisfaction, burnout, and secondary traumatic stress research. The findings from this study have provided additional insight based on employees’ personal opinions on experiencing patient death.

To support and preserve hospice employees, keep up with the projected patient demand, and endure increased regulations, it was important that a rigorous quantitative study be conducted to determine if the number of patient deaths experienced by individual employees affects employee compassion satisfaction, burnout, and secondary traumatic stress, or if the number of patient deaths experienced does not affect compassion satisfaction, burnout, and secondary traumatic stress.

**Purpose of the Study**

The purpose of this correlational quantitative study was to understand if the number of patient deaths experienced by individual hospice employees correlates with the employee’s compassion satisfaction, burnout, or secondary traumatic stress. This study included 115 hospice employees (registered nurses (RN), licensed practical nurses, nursing assistants or certified nursing assistants, social workers, and chaplains) from for-profit and not-for-profit hospice companies across the United States.

Hospice employees experience the deaths of patients at various frequencies but may maintain a healthy level of stress continuously. Social workers and chaplains play a psychological and spiritual role that supports patients, patients’ families, and other hospice employees (Callahan, 2015). The work of social workers and chaplains is often
continuous and requires work to be completed for the patient, while not being with the patient. For this reason, acquiring the number of patient deaths experienced by discipline of employees during a given time period was important in understanding how death affects individual hospice employee burnout and reduce employee turnover as the hospice industry grows.

The hospice industry is experiencing exponential growth from hospice providers and patients seeking services (NHPCO, 2015). Workers in healthcare are pushed mentally and physically, providing care and keeping up with demand. Results of this study may allow the hospice industry to better understand resources needed to support hospice employees, and to ensure quality patient care in the future. By understanding the relationship between the number of patient deaths experienced and compassion satisfaction, burnout, and secondary traumatic stress for individual hospice employees, this study contributed to the research by providing empirical insight into the role of death on hospice employees. The results of the a-priori power analysis were a sample of 115 hospice employees (see Appendix F for details). Due to the low number of participants, generalization is limited.

**Research Questions and/or Hypotheses**

The purpose of this correlational quantitative study was to understand if the number of patient deaths experienced by individual hospice employees correlates with the employee’s compassion satisfaction, burnout, or secondary traumatic stress. Prior research has presented that hospice employees have various levels of stress, but generally enjoy their line of work. The ProQOL survey, which measures compassion satisfaction, burnout, and compassion fatigue, has been used to understand various stress levels in
large and small sample studies (Baxendale, 2015; Ray et al., 2013). This study attempted to understand whether or not the one predictor variable (PV), patient deaths experienced by individual hospice employees, was or was not correlated with the three criterion variables (CV), compassion satisfaction measured ordinal, burnout measured ordinal, and secondary traumatic stress measured ordinal. The researcher hypothesized statistically significant correlation between the PV and each CV.

This study’s research questions and hypotheses were:

RQ1: To what extent, if any, is there a correlation between reported compassion satisfaction of individual hospice employees and the number of patient deaths experienced in a 14-day period?

H10: There will not be a statistically significant correlation between reported compassion satisfaction of individual hospice employees and the number of patient deaths experienced in a 14-day period.

H1A There will be a statistically significant correlation between reported compassion satisfaction of individual hospice employees and the number of patient deaths experienced in a 14-day period.

RQ2: To what extent, if any, is there a correlation between reported burnout of individual hospice employees and the number of patient deaths experienced in a 14-day period?

H20: There will not be a statistically significant correlation between reported burnout of individual hospice employees and the number of patient deaths experienced in a 14-day period.
H2A: There will be a statistically significant correlation between reported burnout of individual hospice employees and the number of patient deaths experienced in a 14-day period.

RQ3: To what extent, if any, is there a correlation between reported secondary traumatic stress of individual hospice employees and the number of patient deaths experienced in a 14-day period?

H30: There will not be a statistically significant correlation between reported secondary traumatic stress of individual hospice employees and the number of patient deaths experienced in a 14-day period.

H3A: There will be a statistically significant correlation between reported secondary traumatic stress of individual hospice employees and the number of patient deaths experienced in a 14-day period.

The ProQOL survey was used to collect data in three sections. Section one reported on compassion satisfaction, which provided the data for research question number one. Section two reported on burnout, which provided the data for research question number two. Section three reported on secondary traumatic stress, which provided the data for research question number three. The demographic survey was used to collect data for the number of patient deaths experienced by the individual hospice employee and demographic information such as job title, hospice company demographics, education level, gender, age, and state of residency.

**Advancing Scientific Knowledge and Significance of the Study**

**Literature gap.** Employees’ mental health continues to worry a wide variety of career fields, as each field produces its own levels of compassion satisfaction and
compassion fatigue (Salloum, Kondrat, Johnco, & Olson, 2015). This dilemma necessitates organizational interventions to help address negative outcomes while maintaining the emotional involvement that produces positive interactions between colleagues, clients, and managers. Fields that tend to experience higher levels of compassion satisfaction are ones with team cohesion, work-life balance, balanced caseloads, which are filled with manager support (Salloum et al., 2015). Individuals in the health care field, especially nurses, experience higher levels of compassion fatigue and burnout, while experiencing lower levels of compassion satisfaction (Yu, Jiang, & Shen, 2016). This often occurs due to the long hours, years in the profession, and lack of empathy and bonding with their patients (Dasan, Gohil, Cornelius, Taylor, 2014).

Organizational commitment has also been associated with compassion satisfaction, indicating that organizations can help increase compassion satisfaction when they engage in various behaviors that increase commitment (Decker, Constantine Brown, Ong, & Stiney-Ziskind, 2015). Organizations hoping to promote positive outcomes in the workplace might, therefore, benefit from training employees to be more highly aware, as well as mindful of their own thought processes and how to interact with their colleagues (Dasan et al., 2014; Decker et al., 2015). Social support systems and work life balances are just as important as manager support. At the end of the day, employees’ own self-care could promote higher levels of compassion satisfaction.

Self-care not only has the opportunity to promote higher levels of compassion satisfaction, but also could help curb side effects of burnout. Burnout has been revealed to be a multifaceted psychological issue for employees in every career field. Studies reviewing nurses (Slocum-Gori, Chan, Hemsworth, Carson, & Kazanjian, 2013; Wang,
Liu, & Wang, 2013) have demonstrated a continual issue with high levels of burnout, but this is not consistent, as individuals within the same organization can each experience different levels of stress and different types of stress that predict burnout (Sabherwal, Ahuja, George, & Handa, 2015). Burnout is not always the main factor when someone leaves a job. Other factors, such as perfectionism, play into the reason someone leaves and someone stays. Perfectionism impacts work engagement, workaholism, and burnout; however, the researchers also distinguished between various forms of perfectionism, which cause various levels of burnout (Salar, Zare, Miandoab, & Shahrokhipour, 2016).

Work-family conflict, defined as the lack of balance between work life and family time, indicates that the relationship between work and family factors has causation in creating burnout (Nilsen, Skipstein, & Demerouti, 2016). This constant dance suggests individuals do not always understand what drives them to succeed, and matching proper external motivators requires helping individuals better understand how and what drove them, may affect their levels of burnout (Rawolle, Wallis, Badham, Kehr, 2016). Home-based support and the love for the job changes as the employee ages and becomes more experienced. Self-care and balance is a fluid psychological experience that affects compassion satisfaction, compassion fatigue, and burnout (Rawolle et al., 2016).

Compassion satisfaction and burnout studies discuss how empathetic interactions with patients and colleagues can produce positive psychological effects (Wagaman, Geiger, Shockley, & Segal, 2015). However, these same interactions expose the person to another’s stress, potentially resulting in unrealized secondary traumatic stress. Secondary traumatic stress is high in fields that deal with caring for military members, mental health workers, and members of law enforcement (Hegney et al., 2014; Samios, Abel, &
Rodzik, 2013). Similar to why employees experience burnout, secondary traumatic stress varies widely. For those interacting in healthcare, the secondary stress may not be noticed until additional factors combine to cause harm to the person (Drury, Francis, & Aoun, 2014; Hunsaker, Chen, Maughan, & Heaston, 2015; Li, Early, Mahrer, Klaristenfeld, Gold, 2014). Personal coping mechanisms can help mitigate against the effect of secondary traumatic stress, even if the stress is not currently known (Bourke & Craun, 2013). With secondary traumatic stress only recently being studied, so much is unknown. The need to understand which personal responses are effective at reducing the impact of this form of stress and finding ways of integrating these methods into an organization, is important for future research.

Current research continues to demonstrate the need to understand the many factors that will lower an employee’s compassion satisfaction and increase an employee’s burnout and secondary traumatic stress (Duarte, Pinto-Gouveia, & Cruz 2016; Lizano, 2015; Mangoulia, Koukia, Alevizopoulos, Fildissis, & Katostaras, 2015; Slocum-Gori et al., 2013). Research in the hospice field is no different. Utilizing the Professional Quality of Life Scale (ProQOL) may give the researcher an unbiased opportunity to understand one factor that affects hospice employees. Additionally, the Jobs Demand-Resource Model (JD-RM) has revealed that when demands are high, and resources are low, employees will craft their daily job in a manner to compensate (Bipp & Demerouti, 2015; Bruning & Campion, 2017). As the post-World War II generation continues to enter their golden years, understanding how the hospice employees are affected by the number of patient deaths they experience will be crucial in order to reduce the psychological impact, to maintain hospice employees, and ensure quality of care for years to come.
**Theoretical framework.** Understanding how the number of patient deaths affects individual hospice employees may be understood with the use of the JD-RM. The JD-RM is broken down into job demands that include variables such as workload and role ambiguity, as well as job resources such as supervisor support and overall training (Demerouti, Nachreiner, Bakker, & Schaufeli, 2001). How the levels of compassion satisfaction, burnout, and secondary traumatic stress manifest depend on how the factors in job demands are balanced by the factors in job resources (Demerouti et al., 2001). High demands from patients and families, and staff not being able to acquire necessary resources or spend the necessary time providing care to patients, lead researchers to predict that exhaustion and disengagement will simultaneously occur, potentially resulting in psychological strain (Bakker & Demerouti, 2006). This research sought to bring the JD-RM literature together at the point it intersects with the number of deaths experienced, which has the potential to explain factors in various levels of hospice employees’ compassion satisfaction, burnout, and secondary traumatic stress. This study provided a better understanding of possible factors influencing an employee’s lower levels of compassion satisfaction and higher levels of an employee’s burnout and secondary traumatic stress. This information could be useful to determine areas that may require further development and focus during high periods of exposure to death, in order to provide extended mental health support to these individuals prior to reaching high amounts of death.

The JD-RM supports the purpose of this study because this model, which utilizes job crafting, helps to explain emotional and physical responses hospice employees experience when crafting their job in order to provide care. Individuals meet current
demands by drawing upon existing resources. Job crafting is the physical, organizational, or social level manipulation of the job to balance resources (Bruning & Campion, 2017; Bipp & Demerouti, 2015). For the hospice employee, the demands can often outweigh the resources, and buffers that would help balance the resources, such as social support, autonomy, and self-development opportunities often do not exist or diminish (Gabel-Shermueli, Dolan, & Ceretti, 2014) especially when managers perceive the hospice employee to be experienced. This assumption could cause feelings of frustration and helplessness, which could relate to a low level of compassion satisfaction and higher levels of burnout. Hospice companies and managers would benefit by understanding that job resources directly associate to reducing psychological stress with job demands. The results of this study will provide new evidence about the relationship of the JD-RM and the ProQOL, and compassion satisfaction, burnout, and secondary traumatic stress in individual hospice employees and number of patient deaths.

**Significance of The Study.** The results of this study provided a greater understanding of the correlation between the individual hospice employees exposure to number of patient deaths and the employees’ levels of compassion satisfaction, burnout, and secondary traumatic stress. This information is needed because: (1) prior research covers compassion fatigue and burnout, (2) prior research covers exposure to death and end of life caregiving, (3) prior research covers compassion satisfaction, (4) but there is a need to understand specific factors, such as how many deaths, study participants were exposed to (Pelon, 2015). The development of a better understanding may lead to determining ways to improve how the number of patient deaths impact burnout (Ledoux, 2015) in order to protect hospice employees and provide quality patient care. Prior
research data have presented, when healthcare providers generate interpersonal contact with their patients, boundaries become blurred, and the healthcare provider unconsciously assimilates the trauma experienced by the patient (Boyle, 2011, para. 7).

With the ongoing demand for hospice care, increased competition, and increased regulations, this study can help policy makers and hospice managers better understand the resources needed to support hospice employees, retain hospice employees, and provide better patient care (Bhutani, Bhutani, Balhara, & Kalra, 2012). This research helped further the understanding of the need to work with hospice employees to monitor and adjust to potential work overload issues in order to lower risk for burnout or leave the hospice field.

The study gives hospice supervisors a tool to help monitor the number of patient deaths being experienced by their hospice employees. This understanding when employees have peaked with deaths experienced may allow the manager to help make decisions to mediate burnout factors. Additionally, results of this research add to the literature that support the need to establish additional understandings for the impact each additional patient death causes after a standardized maximum threshold (Boyle, 2011; Ledoux, 2015; Pelon, 2015).

**Rationale for Methodology**

This study used a quantitative approach to see if there is a correlation between the number of patient deaths experienced by the individual hospice employee and the employee’s compassion satisfaction, burnout, and secondary traumatic stress. Using a quantitative methodology allowed the study to determine if the number of patient deaths experienced by individual hospice employees correlates with the employee’s compassion
satisfaction, burnout, or secondary traumatic stress. A quantitative method that focuses on numeric data allows for a larger sample size, objective responses, and research that can be replicated because it is highly reliable and provides statistical models to explain what is observed (Barnham, 2015; Ludwig & Johnston, 2016; Stroebe, 2016). Previous hospice and general end of life care research contains quantitative, qualitative, and mixed methods methodology, when studying levels of compassion satisfaction, burnout, and secondary traumatic stress (Gama et al., 2014; Ghesquiere et al., 2015; Houck, 2014; Jonasen & O'Beirne, 2016; Pelon, 2015; Sarafis et al., 2016).

The interactions that hospice employees have with their patients may be unpredictable, time limited, and change with each situation. Using a quantitative methodology allowed for data to be collected during a specific time period, and not require the researcher to categorizes and apply codes to responses as researchers frequently do in qualitative studies. The correlational quantitative methodology will allow future researchers to generate additional correlation studies to see if other potential demographic factors, affect the employees’ compassion satisfaction, burnout, and secondary traumatic stress with patient deaths.

**Nature of the Research Design for the Study**

To acquire the most beneficial data, a quantitative, correlational design with one predictor variable and three criterion variables was utilized. According to Gavin (2008), correlational analysis can demonstrate if, and how strongly, sets of variables are related. Using correlation allows the variables to be observed and can also indicate direction of the relationship (Gavin, 2008). This design allowed for a determination to be made to conclude to what extent, if any, the number of patient deaths experienced by individual
hospice employees correlates with the employee’s compassion satisfaction, burnout, or secondary traumatic stress. This study did not attempt to demonstrate causation since correlation does not provide evidence of causation, and other variables may contribute to the variances (Gavin, 2008). Because distinction between variables cannot be determined, variables were labeled predictor variable or criterion variable (Gravetter & Forzano, 2016).

While determining the most appropriate quantitative design for this study, other designs such as casual-comparative, experimental, and descriptive were considered. Casual-comparative design requires groups to naturally form with variables that cannot be manipulated (Gavin, 2008). To answer this study’s research questions, natural groups cannot be created as the study is specifically looking at hospice employees. Experimental design imposes control over all variables in the study, with subjects randomly assigned to groups (Gavin, 2008). The experience and education levels of hospice employees cannot be controlled because education standards and hospice regulations have possibly changed over the years. Additionally, to keep the data confidential, the researcher would not know who is responding. Lastly, descriptive design provides information about a phenomenon and often waits to generate a hypothesis until after collecting data (Gavin, 2008). To keep the integrity of this research study, hypotheses were generated first, and data collection was utilized to confirm or deny the hypotheses.

Using the Professional Quality of Life Scale Version 5 (ProQOL) (see Appendix D) survey with a demographic addition (see Appendix E), allowed the researcher to gather results directly from the individual hospice employees without the potential influence from the researcher, coworkers, and environmental factors. The correlational
design allowed for surveys to be administered once, and did not subject employees to treatment groups, control groups or imposed control, as required by other quantitative designs. The researcher used these variables to investigate whether the variables of compassion satisfaction, burnout, and secondary traumatic stress were correlated with number of patient deaths during a period of 14-days; the design also met the estimated G Power of 115 participants (see Appendix F), who are hospice employees located across the continental United States. This study patterned itself after many previous research studies, which attempted to understand compassion satisfaction, burnout, and secondary traumatic stress with a small sample size for a specific period of time (Drury et al., 2014; Pelon, 2015).

**Definition of Terms**

To provide a clear understanding of the terms utilized in this study, the following definitions are provided:

**Burnout:** Burnout refers to the three factors of emotional exhaustion, increased cynicism, and decreased perception of personal efficacy (Harr, 2013).

**Compassion fatigue:** Compassion fatigue is the cost of caring that occurs when providing levels of empathetic engagement with distressed clients (Bolick, Hamilton, Sorenson, & Wright, 2016).

**Compassion satisfaction:** Compassion satisfaction is the positivity used in a caring context, such as among health care professionals (Ray et al., 2013). It can be gauged by using a combination of the Compassion Fatigue Test and Satisfaction Test and is essentially the level of satisfaction an individual derives from the care they provide (Ray et al., 2013).
Empathy: Empathy refers to the emotional duress that arises from interactions with individuals who firsthand experience trauma (Wagaman et al., 2015).

Hospice employees: Hospice employees will be registered nurses, licensed practical/vocational nurses, nursing assistants, social workers, and chaplains.

Mindfulness: The ability to attenuate to the presence and be more highly aware and attuned to one’s feelings, was associated with not only increased compassion satisfaction, but also decreased compassion fatigue (Decker et al., 2015).

Patient families: Patient families will be anyone directly or indirectly involved with the patient, such as caregivers, relatives, and friends.

Secondary traumatic stress: Emotional exhaustion caused by trauma experienced by the patient and/or patient caregiver transferring to the hospice employee resulting in the employee believing he or she experienced the event personally (Caringi, Hardiman, Weldon, Fletcher, 2016).

Self-efficacy: Self-efficacy is one’s perception on how well work is performed to deal with the situation (Bozgeyikli, 2012).

Assumptions, Limitations, Delimitations

Assumptions. This study had the following assumptions: (1) The researcher believed the research questions were understood and comprehended. The first page of the survey presented the purpose, description, risks, benefits, confidentiality, and consent to participate question. (2) It was also assumed that the participants understood that they could opt out at any time if they desired. (3) The survey questions were understood by the individuals participating in the study. (4) The answers to the questions are truthful. (5) The ProQOL effectively measured how the number of patient deaths relates to the
individual hospice employees’ compassion satisfaction, burnout, and secondary traumatic stress. The ProQOL is a valid measure that has been used in prior healthcare studies and non-healthcare studies. (6) There would be a correlation between the number of patient death and the levels in the employees’ compassion satisfaction, burnout, and secondary traumatic stress. (7) Each position would have a different reaction to the number of patient deaths experienced. (8) The last assumption for this study was that the expected time to complete the survey was sufficient.

**Limitations.** This study had the following limitations: (1) The results of this study are limited to the population sampled and cannot be generalized to other hospice employees or hospice organizations. (2) Each state has their own hospice regulations that could have influenced hospice company operations. (3) Education level of the hospice employee may have a bearing on the adaptation to stressors experienced by the number of deaths, and without consideration, may not have provided accurate results. (4) The data was self-reported and could be subjective.

**Delimitations.** (1) While number of patient deaths may affect individual hospice employees differently, all hospice employees are affected by number of patient deaths experienced. (2) This sample was chosen because the hospice clinical employees have more frequent visits with the patients, but social workers and chaplains have psychological and spiritual interactions that do not stop when the visit is completed. (3) This study excluded managers, as it was assumed they do not provide consistent direct patient care. (4) The study is delimited to a correlational design using the ProQOL survey instrument. The correlational design looked at the correlation between number of patient deaths and compassion satisfaction, burnout, and secondary traumatic stress in the
staff. (5) This researcher did not attempt to acquire specific work history beyond employees’ years in the hospice field.

**Summary and Organization of the Remainder of the Study**

Understanding the psychological toll hospice employees experience with each patient death in the form of compassion satisfaction, burnout, and secondary traumatic stress could potentially help hospice employees and managers contend with the constantly changing environment of hospice, necessary for quality patient care and staff retention.

Many researchers have studied how working in the hospice industry affects mainly nurses (Bennett, 2016; Duarte et al., 2016). Newer studies have started looking at how nurse aides, social workers, chaplains, and the team as a whole are affected (Baxendale, 2015; Hernandez-Marrero, Pereira, & Carvalho, 2016; Pelon, 2015; Stone et al., 2015; Washington, Oliver, Gage, Albright, & Demiris, 2016). But, research has not attempted to dive into factors such as the hospice employee’s exposure to continual death and dying and how it related to changes in an employee’s levels of compassion satisfaction, burnout, and secondary traumatic stress. This research helped further the understanding of the need to work with hospice employees to monitor and adjust to potential work overload issues in order to lower risk for burnout and or the potential of leaving the hospice field. Additionally, results of this research add to the literature that supports the need to establish additional understandings for the impact each additional patient death causes after a standardized maximum threshold (Boyle, 2011; Ledoux, 2015; Pelon, 2015).
Chapter Two of this dissertation covers the ProQOL model, JD-RM, and literature review on compassion satisfaction, burnout, and secondary traumatic stress affecting healthcare, hospice employees, and other fields. Chapter Three covers the quantitative methodology, correlational design, procedures to collect, and analyses data. Data collection began on September 18, 2017 and ended on October 2, 2017. Chapter Four and Chapter Five were completed in October 2017. By December 2017, the dissertation will hopefully be submitted to the Dean for approval.
Chapter 2: Literature Review

Introduction to the Chapter and Background to the Problem

Hospice services have been available and utilized in the U.S. for over fifty years; however, the projected exponential increase in demand from the post-World War II generation has led to concern for the well-being of hospice employees and their ability to provide quality hospice services (Cohn & Taylor, 2010). The psychological well-being of hospice employees has led researchers to investigate the presence of compassion satisfaction, burnout, and secondary traumatic stress. However, researchers have only started to determine how job demands (workload, patient demands), job resources (supervisor support, trainings), and hospice specific events such as patient death, affect these factors.

Chapter Two begins with a review of the JD-RM which is the theoretical foundation for this study. The JD-RM assesses job demands, including factors such as workload and role ambiguity, as well as job resources, including such variables as supervisor and social support (Demerouti et al., 2001). Job demands can often outweigh job resources and the employees need buffers that help balance the resources. Unfortunately for hospice employees, not many buffers exist to support the number of patient death experienced.

The next section of the chapter will discuss the three main themes: compassion satisfaction, burnout, and secondary traumatic stress. To understand these themes, research was completed using scholarly studies from the past five years found in ProQuest, EBSCOhost, Google Scholar, and end-of-life-care specialty journals. Foundational articles focused on hospice, hospice employees, and ancillary fields. To
encompass a full literature review, research was performed for any career field and its relationship to compassion satisfaction, burnout, and secondary traumatic stress.

Compassion satisfaction is essentially the level of satisfaction individuals derive from the care they provide (Ray et al., 2013). Every career field experiences levels of satisfaction differently, at different times, and in different forms. Satisfaction is also influenced by colleagues, patients, and time in the career field (Ross et al., 2012; Wagaman et al., 2015). Levels of compassion satisfaction are high when job resources are abundant and low when career fields leave the individual exposed to high levels of stress or secondary traumatic stress and job demands are higher than job resources (Bakker & Demerouti, 2007; Demerouti et al., 2001).

Burnout is essentially the fatigue derived from the work being performed (Harr, 2013). Like a lack of compassion satisfaction, burnout can be experienced in many forms, but unlike low compassion satisfaction, burnout can be perceived by other psychological symptoms, such as depression, insomnia, and exhaustion (Bianchi, Schonfeld, & Laurent, 2015). Burnout can be detrimental to the employee and to the organization. For hospices, the need for balance between job demands and job resources is crucial to keep patient care consistent. Burnout continues to be prevalent in hospice, but until research can determine the various factors, such as number of patient deaths experienced, factors to help manage burnout may remain unidentified.

Secondary traumatic stress is essentially the emotional exhaustion from reliving another’s traumatic event (Beck & Gable, 2012). The issue at large for secondary traumatic stress is that it is not universal. Two individuals may relive one person’s traumatic event, but only one of those two may experience the secondary traumatic stress.
There is little consensus in current research on ways to help identify and mitigate secondary traumatic stress (Bercier & Maynard, 2014). Hospice employees often interact one on one with patients and their families. This autonomy allows for secondary traumatic stress to go unnoticed, until someone burns out and wants to leave the hospice or the hospice field entirely.

Lastly, a review of research methodologies and research instruments will be discussed. Quantitative and qualitative methodologies have been used in research to understand levels of compassion satisfaction, burnout, and secondary traumatic stress (Gama et al., 2014; Ghesquiere et al., 2015; Houck, 2014; Jonasen & O'Beirne, 2016; Pelon, 2015; Sarafis et al., 2016; Atala, 2014; Havlin, 2015; Noh, 2016; Qaseem, Shea, Connor, & Casarett, 2007). Both directions have presented to be reliable forms of understanding variables that influence various levels of compassion satisfaction, burnout, and secondary traumatic stress from childcare workers to healthcare workers to clergy. Many instruments have been used to understand levels of compassion satisfaction, burnout, and secondary traumatic stress, but two main instruments, Maslach Burnout Inventory (MBI) and Professional Quality of Life Scale (ProQOL), have been prominent (Quinn-Lee et al., 2014; Hernandez-Marrero et al., 2016; Gama et al., 2014; Duarte et al., 2016; Zeidner et al., 2013). The MBI focuses on three components of burnout syndrome and tries to predict burnout (Lizano, 2015), while the ProQOL focuses on compassion satisfaction, burnout and secondary traumatic stress (Ray et al., 2013).

Chapter Two ends with a summary of the literature review. Compassion satisfaction, burnout, and secondary traumatic stress are long researched in the healthcare field with researchers starting to investigate these factors in the hospice field. Using these
three themes with a quantitative methodology and the ProQOL instrument might contribute to the current research by starting to uncover various factors that affect all hospice employees.

**Identification of the Gap**

Employees’ mental health continues to worry a wide variety of career fields, as each field produces its own levels of compassion satisfaction and compassion fatigue (Salloum et al., 2015). This dilemma necessitates organizational interventions to help address negative outcomes while maintaining the emotional involvement that produces positive interactions between colleagues, clients, and managers. Fields that tend to experience higher levels of compassion satisfaction are ones with team cohesion, work-life balance, balanced caseloads, which are filled with manager support (Salloum et al., 2015). Individuals in the health care field, especially nurses, experience higher levels of compassion fatigue and burnout, while experiencing lower levels of compassion satisfaction (Yu et al., 2016). This often occurs due to the long hours, years in the profession, and lack of empathy and bonding with their patients (Dasan et al., 2014).

Organizational commitment has also been associated with compassion satisfaction, indicating that organizations can help increase compassion satisfaction when they engage in various behaviors that increase commitment (Decker et al., 2015). Organizations hoping to promote positive outcomes in the workplace might, therefore, benefit from training employees to be more highly aware, as well as mindful of their own thought processes and how to interact with their colleagues (Dasan et al., 2014; Decker et al., 2015). Social support systems and work life balances are just as important as manager
support. At the end of the day, employees’ own self-care could promote higher levels of compassion satisfaction.

Self-care not only has the opportunity to promote higher levels of compassion satisfaction, but also could help curb side effects of burnout. Burnout has been exhibited to be a multifaceted psychological issue for employees in every career field. Studies reviewing nurses (Slocum-Gori et al., 2013; Wang et al., 2013) have presented a continual issue with high levels of burnout, but this is not consistent, as individuals within the same organization can each experience different levels of stress and different types of stress that predict burnout (Sabherwal et al., 2015). Burnout is not always the main factor when someone leaves a job. Other factors, such as perfectionism, play into the reason someone leaves and someone stays. Perfectionism impacts work engagement, workaholism, and burnout; however, the researchers also distinguished between various forms of perfectionism, which cause various levels of burnout (Salar et al., 2016).

Work-family conflict, defined as the lack of balance between work life and family time, indicated that the relationship between work and family factors has causation in creating burnout (Nilsen et al., 2016). This constant dance suggests individuals do not always understand what drives them to succeed, and matching proper external motivators requires helping individuals better understand how and what drove them, may affect their levels of burnout (Rawolle et al., 2016). Home based support and the love for the job changes as the employee ages and becomes more experienced. Self-care and balance is a fluid psychological experience that affects compassion satisfaction, compassion fatigue, and burnout (Rawolle et al., 2016).
Compassion satisfaction and burnout studies discuss how empathetic interactions with patients and colleagues can produce positive psychological effects (Wagaman et al., 2015). However, these same interactions expose the person to another’s stress, potentially resulting in unrealized secondary traumatic stress. Secondary traumatic stress is high in fields that deal with caring for military members, mental health workers, and members of law enforcement (Hegney et al., 2014; Samios et al., 2013). Similar to why employees experience burnout, secondary traumatic stress varies widely. For those interacting in healthcare, the secondary stress may not be noticed until additional factors combine to cause harm to the person (Drury et al., 2014; Hunsaker et al., 2015; Li et al., 2014).

Personal coping mechanisms can help mitigate against the effect of secondary traumatic stress, even if the stress is not currently known (Bourke & Craun, 2013). With secondary traumatic stress only recently being studied, so much is unknown. The need to understand which personal responses are effective at reducing the impact of this form of stress and finding ways of integrating these methods into an organization, is important for future research.

Current research continues to present the need to understand the many factors that will lower an employee’s compassion satisfaction and increase an employee’s burnout and secondary traumatic stress (Duarte et al., 2016; Lizano, 2015; Mangoulia et al., 2015 Slocum-Gori et al., 2013). Research in the hospice field is no different. Utilizing the Professional Quality of Life Scale (ProQOL) gave the researcher an unbiased opportunity to understand the three criterion variables in this study that affects hospice employees. Additionally, the Jobs Demand-Resource Model (JD-RM) has revealed that when demands are high, and resources are low, employees will craft their daily job in a manner
to compensate for the demands and resources available at that moment in time (Bipp & Demerouti, 2015; Bruning & Campion, 2017). As the post-World War II generation continues to enter their golden years, understanding how the hospice employees are affected by the number of patient deaths they experience will be crucial in order to reduce the psychological impact, to maintain hospice employees, and ensure quality of care for years to come.

Theoretical Foundation

Understanding how the number of patient deaths experienced affects individual hospice employees might be understood with the use of the Job Demands-Resource Model (JD-RM). The JD-RM is broken down into job demands (workload, role ambiguity in reference to patient and family expectations, emotional labor, time pressure, and changing regulations) and job resources (supervisor and social support, training, goals, and patient resources). How compassion satisfaction, burnout, and secondary traumatic stress manifest depend on how the overall factors in job demands are balanced by the overall factors in job resources (Demerouti et al., 2001). High demands from patients and families, staff not able to acquire necessary resources, or not able to spend the necessary time lead researchers to predict that exhaustion and disengagement will simultaneously occur, potentially resulting in psychological strain (Bakker & Demerouti, 2006). The JD-RM indicates that factors between job demands and job resources vary by situation and by person. Being able to determine if correlations exists between the number of patient deaths experienced by the hospice employee and job burnout can help management ensure proper resources to keep the balance between job demand and job resources.
Prior studies have validated the JD-RM in the healthcare and other settings. A study by Elst et al. (2016) utilized the JD-RM model to predict burnout and work engagement with home health nurses. The study found that the JD-RM model indicated workloads and emotional demands were positively associated with burnout, while job resources were associated with high work engagement. Buffering occurred with increased social support. Another study by Yom (2013) echoed that the JD-RM predicted higher workloads would cause burnout and supervisor support would decrease burnout. A study by Schaufeli, Bakker, Van Rhenen (2009) utilizing the JD-RM in a telecommunications company, found that the model decreases in job resources predicted burnout, while increases in job resources predicted work engagement, and the level of burnout and engagement helped predict sickness absenteeism.

The JD-RM relates to the hospice field because the model measures the emotional and physical responses individual hospice employees experience when crafting their job in order to provide care. Job crafting is the physical, organizational, or social level manipulation of the job an individual performs to balance existing resources (Bipp & Demerouti, 2015; Bruning & Campion, 2017). Hospice employees interact with their patients differently between visits, so planning, expectations, and manager support, may not exist, resulting in the employee utilizing the tools (experience) at their disposal to meet the patient demand. Demands often outweigh resources, and buffers that help to balance those resources often diminish, or do not exist, if managers perceive the employee to be experienced (Gabel-Shermueli, Dolan, & Ceretti, 2014). With hospice employees completing their job autonomously, they may not or may not feel comfortable reaching out to coworkers or supervisors to seek psychological support. This perception
could cause feelings of frustration and helplessness, which could relate to a low level of compassion satisfaction and higher levels of burnout. Hospice companies and managers would benefit by understanding that job resources directly associate to reducing psychological stress with job demands.

The research questions for this study explored how the demands of the job (number of patient deaths experienced) and how the resources (social support, time, experience) of the job affect levels in compassion satisfaction, burnout, and secondary traumatic stress. The JD-RM helps understand each research question by measuring if the resources outweigh the demands each patient death places on the individual employee.

**Review of the Literature**

**Compassion satisfaction versus compassion fatigue.** Compassion satisfaction is the positivity used in a caring context, such as among health care professionals (Ray et al., 2013). It can be gauged by using a combination of the Compassion Fatigue Test and Satisfaction Test and is essentially the level of satisfaction an individual derives from the care he or she provides (Ray et al., 2013). Burnout refers to the three factors of emotional exhaustion, increased cynicism, and decreased perception of personal efficacy (Harr, 2013). Compassion fatigue can have a negative effect on workplace health (Harr, 2013). However, Harr (2013) also stated that compassion satisfaction helps mitigate the negative effects of stress and negative variables in a workplace environment. For this reason, organizations should explore various means of improving compassion satisfaction.

Research has been conducted into various careers as to whether or not they may be predictive of compassion fatigue (Baxendale, 2015; Drury et al., 2014; Ray et al., 2013) Once study demonstrated that members of the clergy reported low levels of
compassion fatigue (Jacobson, Rothschild, Mirza, & Shapiro, 2012). Following a survey of 95 clergy members of the Lutheran church and subsequent data analysis, these researchers (Jacobson et al., 2012) concluded that the chance for burnout was low and risk for compassion fatigue only moderate, with equal potential for ongoing compassion satisfaction. While the researchers were not able to predict when compassion fatigue might occur within this profession, burnout seemed tied to years of service, which increased burnout potential (Jacobson et al., 2012).

A study of child welfare workers revealed that multiple traumatic events lead to high levels of burnout (29.8%) and low levels of compassion satisfaction (31.7%) (Salloum et al., 2015). This compared negatively against the experiences of priests (Jacobson et al., 2012). This reinforced the idea that different careers may be conducive to greater or lower levels of compassion satisfaction and burnout (Salloum et al., 2015).

Compassion fatigue and burnout may also be related to one another, as increased compassion fatigue was associated with increased burnout in a study of 268 nurses (Lee & Yom, 2013). Conversely, increased compassion satisfaction was associated with decreased burnout, with 49% variance in burnout explained by levels of compassion satisfaction (Lee & Yom, 2013). The authors concluded therefore, that compassion satisfaction was the most significant factor in predicting burnout within the context of this study. Such findings suggest that organizations should make it a point to promote factors increasing compassion satisfaction if they hope to reduce burnout and the associated negative outcomes of burnout, such as turnover rates.

Other indicators that different careers may be more conducive to greater or lesser levels of compassion satisfaction were findings from a study of spoken-language
interpreters (Mehus & Becher, 2016). An online survey of 119 such professionals revealed they were also likely to demonstrate higher levels of compassion satisfaction despite stress derived from patient interactions and resulting secondary trauma. Not only did these findings reveal that individuals in certain careers may be prone to greater levels of compassion satisfaction, they also revealed that high levels of secondary trauma did not always correlate with lower levels of compassion satisfaction (Mehus & Becher, 2016). It may be that conditions specific to the spoken language interpreters protect them against negative outcomes, potentially providing a way for organizations to copy and reproduce these findings within the workplaces they manage. Again, illustrating how different professions carry different risks of compassion fatigue, a study of 69 non-deployed Army chaplains demonstrated low levels of such fatigue in a study of 69 individuals (Stewart, 2012). Both compassion fatigue and burnout were low within this group, who also demonstrated levels of compassion satisfaction that fell along the typical levels demonstrated in other professions (Stewart, 2012). Much like professionalized religious practitioners in the study by Jacobson et al. (2012), chaplains carried lower risks of negative outcomes within their line of work.

Lower compassion satisfaction scores were associated with increased irritability toward colleagues and patients, as well as with a reduced standard of care, among United Kingdom (UK) emergency medicine consultants (Dasan et al., 2014). Analysis of 681 such consultants found that higher compassion scores were associated based on the type of workplace types, with designated trauma centers producing employees with higher compassion satisfaction (Dasan et al., 2014). Such findings not only indicated how the
type of workplace can affect compassion satisfaction, but also revealed how compassion satisfaction could have an impact on the workplace and care quality (Dasan et al., 2014).

A study conducted by Zerach (2012) demonstrated that compassion fatigue and compassion satisfaction have both been observed in child care workers (n = 221), although different levels of compassion fatigue were present in residential child care workers versus boarding school workers. Compassion satisfaction was present in relatively equal levels among both employees. Also, different variables predicted both compassion fatigue and compassion satisfaction in residential and boarding school workers. Consequently, this indicates that different factors in different professions lead to compassion fatigue. These can include variables such as levels of administrative support or the overall workload.

Medical workers from emergency and intensive care units, working with the public, suffer from compassion fatigue for the very reason they excel at their jobs: empathy for their clients (Crumpei & Dafinoiu, 2012). A study of medical professionals revealed that empathetic treatment styles helped them bond with their patients. While in many respects this is a positive for these professionals, increased levels of emotional involvement also jeopardize the practitioners’ objectivity and put them at risk of secondary traumatic stress (Crumpei & Dafinoiu, 2012). This dilemma necessitates organizational interventions to help address negative outcomes, while maintaining the emotional involvement that produces positive interactions with clients.

A study of social workers (n = 173) revealed that higher levels of empathy prevented or reduced burnout (Wagaman et al., 2015). Empathy also reduced the amount of secondary traumatic stress, which refers to the emotional duress that arises from
interactions with individuals who experience trauma firsthand. Not only were increased levels of empathy associated with reduced negative outcomes, but they also increased gauged levels of compassion satisfaction, indicating the numerous benefits that might arise from including empathy training into the education of social workers and other potential individuals in related fields (Wagaman et al., 2015).

Such findings may be applicable to professionals in community-based mental health services, among whom psychiatrists and social workers ranked among the highest in burnout and compassion fatigue (Ross, Masters, & Hummer, 2012). Among those providing these services, individuals who experienced psychological distress reported higher burnout and compassion fatigue scores, and decreased levels of compassion satisfaction. Negative outcomes also arose after individuals worked in these communities for over a year (Ross et al., 2012). The findings of Wagaman et al. (2015) and Ross et al. (2012) suggested variables such as empathy, years of experience, and workload were predictive of positive and negative outcomes.

Therapists who work with sexual violence survivors are also exposed to secondary trauma and are at risk for the negative effects of such trauma (Samios et al., 2013). Measures of secondary traumatic stress and compassion satisfaction were made among 61 such therapists, and researchers found, following multiple regression analysis comparing variables such as positive emotions and positive reframing, that compassion satisfaction helped mitigate against the harmful effects of secondary traumatic effects. These results pointed toward the value that organizations could find in encouraging variables that promote compassion satisfaction within the workplace. Individuals at risk of experiencing burnout and secondary trauma may benefit from trauma-informed self-
care, which includes training to be more aware of one’s emotional experience that emerges in response to traumatized clients and the coping strategies a person develops (Salloum et al., 2015). In addition to this self-awareness, trauma-informed self-care promotes increased team cohesion, increased work-life balance, and increased balancing of work caseloads. Child welfare workers experienced high level of burnout; however, this effect was mitigated by the practice of trauma-informed self-care (Salloum et al., 2015). This approach yielded increased compassion satisfaction and lower levels of burnout, indicating its potentially useful role in promoting positive workplace outcomes.

An individual’s approach to the workplace includes not only coping strategies, but also mental approaches. Consequently, increased levels of mindfulness were positively associated with increased compassion satisfaction among social worker interns (Decker et al., 2015). Mindfulness, the ability to attenuate to the presence and be more highly aware and attuned to one’s feelings, was associated with not only increased compassion satisfaction, but also decreased compassion fatigue (Decker et al., 2015). Organizations hoping to promote positive outcomes in the workplace might therefore benefit from training employees to be more highly aware of their own thought processes.

Regarding psychological qualities, high self-efficacy had a positive influence on psychological counselors and increased compassion satisfaction (Bozgeyikli, 2012). In addition, there was a negative correlation with burnout and compassion fatigue. Self-efficacy, therefore, plays an important role in reducing negative workplace outcomes. In combination with the findings of Decker et al. (2015), whose work explored mindfulness; these results demonstrate that certain psychological qualities are conducive to increased compassion satisfaction and its associated benefits.
Higher levels of compassion satisfaction are inversely related to negative mental health outcomes among nurses (Hegney et al., 2014). This study of nurses (n = 132) revealed that younger nurses who worked full-time, without a postgraduate degree, were those most likely to experience higher levels of anxiety. Higher anxiety itself was positively associated with increased rates of burnout and secondary traumatic stress, and 20% of nurses suffering from high levels of anxiety also experienced compassion fatigue (Hegney et al., 2014). When levels of compassion satisfaction were higher, stress scores and depression scores went down. One influence that may increase levels of burnout and compassion fatigue among nurses is a lack of manager support (Hunsaker et al., 2015). When manager support was high, a higher level of compassion satisfaction was found among nurses in the department. The combined findings of the two studies suggested that organizations and managers can take steps to reduce negative outcomes and increase compassion satisfaction by providing close administrative support.

Group conditions in an organization may also help mitigate against compassion fatigue (Li et al., 2014). A study of nurse residents found that increased levels of group cohesion were negatively associated with compassion fatigue and burnout while preventing reduced compassion satisfaction. Increased group cohesion helped mitigate against stress and secondary stress, suggesting that organizations take steps toward increasing such cohesion among teams (Li et al., 2014). This study also demonstrated that organizational commitment was also associated with compassion satisfaction, indicating that organizations can help increase compassion satisfaction when they engage in various behaviors that increase commitment. The saliency of group cohesion was also found in an earlier study of nurses, among whom strong social and collegial support helped reduce
compassion fatigue and increase compassion satisfaction (Drury et al., 2014). These findings, in combination with those of Li et al. (2014), reveal the saliency of group cohesion to compassion satisfaction among nurses and the role they play in mitigating against negative influences.

The positive influence of social support was again found in a study of hospital nurses (n = 430), which revealed that social support was inversely related to burnout (Yom & Kim, 2012). Increased social support helped decrease burnout, although it did not have an effect on compassion fatigue. Previous research indicated the positive role of groups and social support on workplace outcomes (Drury et al., 2014; Li et al., 2014). This study validated previous evidence concerning the positive effect of social networks (Yom & Kim, 2012). However, the lack of impact on compassion fatigue suggested that social networks may have positive effects in some regards and not in others. It may be that separate factors influencing positive outcomes affected burnout and compassion fatigue differently.

Negative encounters in a job setting can negatively affect compassion satisfaction (Severn, Searchfield, & Huggard, 2012). Among audiologists, time demands were a significant predictor of decreased compassion satisfaction and increased burnout. The finding that time demands can increase compassion fatigue and burnout has previously been found in a study of Army chaplains by Stewart (2012). Among the sample studied by Severn et al. (2012), the stress of engaging with patients was positively correlated with increased compassion fatigue. Further, increased age in the employee magnified the risk of acquiring burnout (Severn et al., 2012). The findings indicated that while age increased
burnout, the regular course of patient interaction and the associated time requirements increased negative outcomes and decreased positive ones.

The routine role of stress among individuals providing care to the public was associated with decreased compassion satisfaction once again in a study of nurses (Meyer, Li, Klaristenfeld, & Gold, 2015). The study assessed pediatric nurses (n = 251) both at the start of their residency program and three months after the start of their program. Increased levels of exposure to stress were found to be associated with increased burnout and decreased compassion satisfaction. However, this relationship was also mediated to a limited degree by compassion fatigue (Meyer et al., 2015). As a result, healthcare organizations could begin to address the relationship between stress and negative outcomes by first addressing compassion fatigue.

Where Severn et al. (2012) found that audiologists of an older age were at greater risk of acquiring burnout, Millennials between the ages of 21 and 33 were at higher risk of burnout among direct care nurses (Kelly, Runge, & Spencer, 2015). Interestingly, nurses in the Baby Boomer generation, between the ages of 50 and 65 years old, were less likely to experience feelings of decreased compassion satisfaction and increased burnout (Kelly et al., 2015). Such findings indicate that age may not play a consistent role in determining burnout among healthcare providers, and that age has a differentiated effect on burnout, dependent on the profession. Conversely, oncology nurses with more years of experience were more likely to experience burnout and compassion fatigue (Yu et al., 2016). This survey of 650 nurses added to the complex evidence regarding age. While, in some circumstances, youth is associated with burnout (Kelly et al., 2015), sometimes more years are associated with burnout (Severn et al., 2012). This study added
to the evidence that more years, not fewer, were associated with burnout (Yu et al., 2016). The apparently contradictory findings may indicate several things, and age may need to be associated with burnout only within the context of larger factors.

Emotional states do impact compassion fatigue and compassion satisfaction (Thomas, 2013). A study of licensed clinical social workers (n = 171) revealed that personal distress was significantly associated with increased levels of compassion fatigue and burnout. It was also significantly inversely correlated with lower compassion satisfaction, indicating that it was detrimental to such satisfaction (Thomas, 2013).

Although organizations can take steps to mitigate the impact of job related variables that affect compassion satisfaction, personal distress arises from sources outside the work environment (Drury et al., 2014; Hunsaker et al., 2015; Li et al., 2014). Its negative effect can be hard to protect against. A separate study identified several variables that were predictive of compassion fatigue, including sex and age, which organizations have less control over (Sacco, Ciurzynski, Harvey, & Ingersoll, 2015). This same study found other variables that management can control, such as the management of nurses and the proper management of change in a medical system. However, the findings, in combination with those of Thomas (2013), reveal that there are factors beyond the control of organizations that effect compassion satisfaction.

The way individuals deal with stress and how they deal with exposure to difficulties, plays a role in the chance of decreased compassion satisfaction (Jacobson, 2012). A study of professionals working within an employee assistance program found that while traumatic events in the workplace could affect individuals, resulting in some burnout or compassion fatigue, their individual method of coping with these negative
events played a role in mitigating against harmful effects (Jacobson, 2012). Coping strategies have separately been found to contribute to burnout, with passive coping styles associated with burnout among oncology nurses (Yu et al., 2016). These findings indicate the important role that coping strategies play in mitigating against the worst effects of negative workplace experiences. Organizations may benefit from better understanding these coping strategies and attempting to translate that into tactics other employees can adopt. Workplaces should also be aware that although they anticipate high levels of trauma within a profession, this may not be the case (Sodeke-Gregson, Holttum & Billings, 2013). Therapists in the U.K. system demonstrated only an average level of risk for burnout and levels of compassion satisfaction equal to that in other professions, despite the anticipation that the profession would carry with it a greater level of negative outcomes. Sodeke-Gregson et al. (2013) did not examine why this might be the case but noted that professions may not carry high risk simply due to their nature.

The total research within compassion satisfaction demonstrates a complex topic. Different professions are susceptible to different levels of compassion fatigue and compassion satisfaction (Jacobson et al., 2012; Salloum et al., 2015; Stewart, 2012). Various factors can also contribute to compassion fatigue and satisfaction. Some are external to the employee and can be managed by organizations, such as appropriate management (Hunsaker et al., 2015). In other cases, external characteristics such as job environment, job characteristics, and coworkers may influence compassion satisfaction (Bozgeyikli, 2012; Decker et al., 2015). However, organizations should do their best, where possible, to encourage compassion satisfaction and reduce both burnout and
compassion fatigue. This can produce positive benefits for the organization in the long term.

The research to-date reflected how compassion satisfaction varies greatly between career fields and environmental factors such as colleagues and social support devices. Individuals in the clergy (Jacobson et al., 2012; Stewart, 2012) and spoken-language interpreters (Mehus & Becher, 2016) present higher levels of compassion satisfaction, but lower levels of satisfaction are found in industries with increased exposure to burnout. These industries range from child welfare (Salloum et al., 2015; Zerach, 2012) to healthcare (Dasan et al., 2014; Hegney et al., 2014; Lee & Yom, 2013; Ross et al., 2012). A gap remains regarding compassion satisfaction research into hospice workers. The unique environment of a team approach to patient care, but autonomy when providing patient care, leaves many avenues for compassion satisfaction to be studied especially how the number of patient deaths experienced influence compassion satisfaction.

**Burnout.** Burnout refers to the three factors of emotional exhaustion, increased cynicism, and decreased perception of personal efficacy (Harr, 2013). Burnout can be predicted by varying factors depending on the role an individual occupies (Sabherwal et al., 2015). Individuals within the same organization can each experience different levels of stress that may or may not predict burnout. One issue with burnout, as a concept, is that researchers continue to find it difficult to distinguish it from depression and have questioned whether they are indeed two separate constructs causing paucity on burnout and depression symptoms in individuals. (Bianchi et al., 2015). The researchers recommended, in order to better research and identify how it affects individuals in the future, studies should focus on systemic clinical observations that can establish diagnostic
criteria distinctive from depression (Bianchi et al., 2015). Otherwise, it is posited that the two constructs will remain entangled.

A longitudinal study of burnout and depression found that symptoms of burnout and depression were intertwined. Individuals who experienced an increase in burnout concomitant an increase in depression both at the time of baseline measurement and at the time of follow-up (Bianchi et al., 2015). Changes in symptoms from the first phase of measurement to the second were the same in both burnout and depression. These researchers also noted that emotional exhaustion is most strongly associated with burnout; however, it also demonstrated a high correlation with depression. Later studies also concurred (Bianchi et al., 2015; Sabherwal et al., 2015) that there was a significant overlap between the two constructs and suggested that studies focus on assessments of emotional exhaustion and depersonalization, rather than burnout and depression.

A meta-analysis of the relationship between burnout and well-being among human service workers revealed that burnout had a detrimental effect (Lizano, 2015). Nineteen studies covering a span of time between 1970 and 2014 were selected for the analysis. The researchers noted that the Maslach Burnout Inventory was the primary means of assessing burnout, and that most studies focused on affective well-being. Affective well-being focuses on both the frequency and intensity of various emotional states (Lizano, 2015). For those suffering burnout, more frequent and intense negative emotional states were likely.

Job demands that contribute to burnout, such as high workload, low resource availability, and few chances for professional development, not only contribute to burnout but also to non-work life as well (Anagnostopoulos, Demerouti, Sykioti, Niakas,
A pool of 290 studies was retained for this meta-analysis, and increased job demands were associated with lower amounts of family time and psychological distress. Workplace based factors that are associated with burnout can have significant emotional effects and can have an impact both in the workplace and away from places of employment.

The need for a balance between family and work was found in a study of child welfare and social workers (Travis, Lizano, & MorBarak, 2016). This study examined 362 social workers and supervisors. Three factors associated with burnout were found: work-family conflict, role ambiguity, and role conflict. The latter two factors related to needing clearly defined roles in an organization in order to reduce burnout (Travis et al., 2016). Work-family conflict, as well as the lack of balance between work life and family time, indicated the relationship between work and family factors in creating burnout. Together, these factors increased work withdrawal behavior and exit seeking behavior (Travis et al., 2016). Such a finding holds a negative outlook for organizations hoping to retain their existing workforce while dealing with factors associated with burnout.

Burnout has been studied among mental health professionals, revealing that they possess high levels of emotional exhaustion (Steel, Macdonald, Schröder, & Mellor-Clark, 2015). Following a study of 116 therapists, the researchers concluded that therapists possessed emotional exhaustion in excess of averages in the rest of the workforce. Similar findings were not found in another measure of burnout, depersonalization (Steel et al., 2015). However, these therapists perceived low levels of personal accomplishment, indicating the negative effect of burnout on positive work outcomes.
Ways to relieve burnout were identified in a study of nursing staff at a long-term care facility (Woodhead, Northrop, & Edelstein, 2014). These solutions included a range of available job-based resources, including supervisor support, support from work-based friends, and reassurances of worth, which were all associated with lower emotional exhaustion. The researchers also pointed to home-based solutions, including the support of family and personal friends, as a means of reducing emotional exhaustion (Woodhead et al., 2014). These supports were also tied to increased perceptions of personal accomplishments. Based on these findings, researchers could assess the results of such supports in a work environment similar to that studied by Steel et al. (2015), to determine whether a similar positive outcome occurred.

Previous work by Sabherwal et al. (2015) demonstrated that burnout occurred among staff at the university level, including lecturers and instructors. Additional research again found that burnout occurred in private institutions and universities in Pakistan (Ahmed, Vveinhardt, Meeai, & Jalees, 2015). This study of 82 participants revealed that job stress and burnout occurred, lowered employee motivation, and affected the performance of staff. Demoralization and depression were further results of job stress and burnout revealed in this study. The sum of the findings indicated that job stress and burnout had a rippling influence, creating lower morale, negative emotional states, and finally impacting performance. The researchers suggested that organizations should strive to create congenial working environments conducive to positive work experiences (Ahmed et al., 2015). Decreased performance was also observed among medical staff working in critical care units (Galletta et al., 2016). These researchers included 130 healthcare professionals, with data collected across six months using a self-taken
questionnaire. Following analysis of the data, the researchers identified high levels of emotional exhaustion, which itself was a product of high levels of workload. Another product of this exhaustion was cynicism, leading to decreased communication and team efficiency (Galletta et al., 2016). A lack of team efficiency itself created higher levels of infection in patients in the critical care unit, suggesting that burnout’s influence is systemic, has broad impact, and finally reduced performance.

Burnout was also found in institutions of medical education in a study of 360 college staff members from among 15 schools (Yao et al., 2013). A tool called the Chinese Teachers’ Burnout Inventory (TBI) was paired with a World Health Organization quality of life survey to collect data from these teachers. While burnout was found, the researchers suggested that a love for the teaching profession was associated with decreased levels of burnout. Previous studies indicated that the involvement of supervisors in their workforce could contribute to decreased burnout (Ebrahimzade, Mooghal, Lankarani, & Sadati, 2015). Previous work by Yao et al. (2013) found that when teachers were acknowledged for their work by supervisors, it contributed to reduced burnout prevention. For teachers, a specific love for their profession may reduce burnout, but the discovery that supervisor involvement reduced burnout added to the ongoing relationship and indicated the important role of leaders in managing an organization’s burnout levels.

Research into how demographics could potentially influence burnout among university instructors was conducted among staff in Pakistan (Khan, Rasli, Yusoff, & Ahmad, 2015). This study included a questionnaire returned from among 265 staff members. Following data analysis, the researchers concluded that there were no gender
differences with regard to levels of burnout. Similarly, marriage status did not have an
effect (Khan et al., 2015). However, younger academics were more likely to report higher
levels of burnout, indicating that factors such as age and experience can affect the level of
burnout felt (Khan et al., 2015). This discovery indicated the need for organizations to
address burnout specifically in younger, less experienced staff, who may be more prone
to experiencing burnout symptoms.

Burnout has been studied internationally, with at least one study focused on
Northern Iran, which revealed negative outcomes for nurses and midwives experiencing
burnout (Slocum-Gori et al., 2013). Analysis of survey data across 260 subjects revealed
that burnout and life satisfaction were inversely correlated, indicating the negative impact
burnout can have across an individual’s entire life (Slocum-Gori et al., 2013). The
findings suggested the saliency of expanding research to include ways of alleviating
burnout among this target population. Further research in an Iranian context placed the
focus of research on the Iranian Zahedan University of Medical Sciences Staff (Salar,
Zare, Miandoab, & Jafari, 2016). In this study of 172 individuals, burnout was observed
once again at levels that these researchers considered significant. Emotional exhaustion,
depersonalization, and reduced perceptions of personal accomplishment were all found,
with varying levels of burnout throughout the institution. Previous research revealed that
within an organization, burnout can vary depending on their role and different levels
within that role (Sabherwal et al., 2015; Salar et al., 2016).

A study of 165 healthcare workers took place at the Zahedan Medical Sciences
University attempted to assess the relationship between burnout and organizational
commitment. The overall commitment mean was 73.45% while the mean for burnout was
58.58% (Salar et al., 2016), though both job exhaustion and burnout were not associated with organizational commitment. This work was notable in that the findings suggested that, in this instance, the organization did not have to be concerned about turnover associated with burnout. Separate work by Salar et al. (2016) studied 172 healthcare workers to understand job burnout rates at the Zahedan Medical Sciences University. The results found that the job burnout mean score was 58.46%. The researchers concluded that there may be other on-the-job factors that play into commitment and the desire to continue working within a particular environment (Salar et al., 2016).

Clinical nurses were presented to have moderate levels of burnout in a study conducted among six hospitals in China (Wang et al., 2013). This study was conducted among 717 nurses using the Maslach Burnout Inventory, the General Self-Efficacy Scale, the Practice Environment Scale of Nursing Work Index, and Nurse Job Stressor. Moderate levels of emotional exhaustion and depersonalization were found, while perceptions of personal accomplishment were highly reduced (Wang et al., 2013). In this study, reduced perceptions of accomplishment were associated with personal factors influencing burnout, while emotional exhaustion and depersonalization were associated with environmental factors. These findings indicated that negative outcomes could be influenced by separate factors from different spheres of life, both personal and environmental. The researchers suggested that efforts to improve perceptions of self-efficacy could reduce burnout, while general improvements to the working environment could reduce stress (Wang et al., 2013).

A systematic review of the existing literature covering 25 years of research was conducted to determine the prevalence of burnout among emergency nurses
(Adriaenssens, de Gucht, & Maes, 2015). The researchers noted that nurses generally reflected high levels of burnout and indicated that emergency nurses may be prone to these effects at even higher rates. Previous research has indicated that burnout can be significant among nurses (Slocum-Gori et al., 2013; Wang et al., 2013). Among emergency nurses, the higher burnout was attributed to unpredictability in the work schedule, having to deal with a broad range of disease/injuries, the frequency of traumatic events, and the level of overcrowding in these circumstances. Seventeen studies were retained for inclusion in this meta-analysis. According to analysis of the literature, 26% of emergency nurses were found to suffer from burnout (Wang et al., 2013). The work-related factors ranging from trauma to range of injury were all associated with this level of burnout, and the researchers concluded that medical organizations needed to tailor specific solutions to this category of nurse.

Proper organizational responses to burnout should include assessing how external motivators match intrinsic motivation (Rawolle et al., 2016). A study of 49 executives enrolled in an Executive MBA program revealed that individuals could experience a higher rate of burnout in situations where these two forms of motivation were not properly matched. The researchers suggested that part of properly matching internal and external motivators included discussions with employees oriented around helping them understand what motivated them. Individuals do not always completely understand what drives them to succeed, and matching proper external motivators required helping individuals come to a better understanding of what drove them (Rawolle et al., 2016). Organizational responses to burnout can also include the integration of new leadership styles, as at least one study revealed that transformational leadership could help reduce
rates of burnout (Ebrahimzade et al., 2015). In this study of 207 nurses, reports of burnout were compared against results of a leadership questionnaire. The sample exhibited above average levels of emotional exhaustion and exhibited lower perceptions of personal accomplishment. These researchers concluded that a hands-off approach to leadership was most likely to produce significant negative outcomes, particularly to perceptions of personal accomplishment. This suggested that involvement of leaders in workers’ duties was important (Ebrahimzade et al., 2015). A transformational leadership style, associated with visionary leadership and collaborative work, was negatively correlated to burnout.

Transformational leadership has also been found to have a positive effect on job stress and burnout in a study of employees in the hospitality industry (Salem, 2015). Following the analysis of a questionnaire from 317 employees, including members of the guest contact department and non-guest contact department, researchers found that transformational leadership was implemented unevenly. Members working in a guest contact department were more likely to report that their supervisors integrated transformational leadership styles. This style of leadership was also associated with a decline in stress and burnout (Salem, 2015). Interestingly, the effect was found to be magnified among employees in the guest contact department, indicating that some job roles benefit more from a transformational leader than others.

Transformational leadership was also found to reduce the level of burnout reported from among Child Protective Services (CPS) case workers (Rittschof & Fortunato, 2015). Following analysis of the data from 197 case managers the researchers found a negative correlation between transformational leadership and burnout. These
findings were consistent with Salem (2015) and Ebrahimzade et al. (2015), who produced similar results in different employment contexts. In the specific case of Rittschof and Fortunato (2015), study findings suggested that transformational leadership styles could benefit CPS caseworkers. In addition, overall findings support the idea that transformational leaders can benefit employees from a diverse number of employment backgrounds.

Study into internal motivators found that the internal quality of perfectionism may dispose individuals toward higher levels of burnout (Stoeber & Damian, 2015). Perfectionism influences work engagement, workaholism, and burnout, but the researchers also distinguished between various forms of perfectionism (Stoeber & Damian, 2015). Those forms that drove increased obsession with perfection were most likely to produce negative outcomes, such as burnout, while simply being interested but not entirely driven by perfectionism was not associated with negative outcomes. The findings suggested that individuals can have perfectionist tendencies without producing negative outcomes dependent on the degree to which perfectionism was pursued.

A research study found that both a lack of person-organization and person-job fit could contribute to burnout (Tong, Wang, & Peng, 2015). Following surveys of 199 employees conducted in waves, the researchers collected data that indicated that a lack of these types of fit was likely to be associated with individuals who felt sensations of burnout. Employees should have a proper fit for the job they occupy in order to derive satisfaction from it and reduce symptoms of burnout (Tong et al., 2015). In this regard, it is important that job seekers find jobs and organizations in which they believe they can fit
accurately. A failure to do so could contribute to burnout and the associated negative outcomes, including workplace turnover or negative mental health outcomes.

International studies of burnout included a study of Chinese correctional officers, who demonstrated higher levels of burnout than that averaged in other professions (Hu et al., 2015). These officers, who deal with violent populations, were forced to deal with a number of stressors that individuals in other professions were less likely to experience. Following analysis of questionnaires returned from 1,769 correctional officers, the researchers concluded that the higher levels of burnout were attributable to work-related stress (Hu et al., 2015). This included the population these officers were forced to deal with on the job.

Although police officer duties do not perfectly overlap with those of correctional officers, both face encounters with difficult populations, and at least one study demonstrated that burnout among police officers could produce counterproductive work behavior among them (Smoktunowicz et al., 2015). Data collected from among 625 police officers was assessed to determine how burnout could influence work performance. The researchers concluded that the demands of the job were associated with higher burnout when social support was low. Other research indicated that social support could be critical in mitigating against burnout (Woodhead et al., 2014). The findings of Smoktunowicz et al. (2015) seemed to validate this claim, as increased social support was associated with lower burnout. Those reporting higher levels of burnout were found to more frequently act in a way that was counterproductive to their duties. Given some overlap between the population in this study and the correctional officers studied by Hu et al. (2015), the findings of Smoktunowicz et al. (2015) may indicate that research into
social support’s relationships to burnout should be conducted among correctional officers.

The research to-date reflects how burnout occurs in many forms including depression, exhaustion, and depersonalization. Burnout could affect career fields from human service workers (Lizano, 2015; Travis et al., 2016) to healthcare professionals (Slocum-Gori et al., 2013; Teimuri, 2015; Wang et al., 2013; Woodhead et al., 2014) to university lecturers and instructors (Khan et al., 2015; Sabherwal et al., 2015; Yao et al., 2013). Research on burnout in the hospice industry (Cragun, April, & Thaxton, 2016; Duarte et al., 2016; Hill, Dempster, Donnelly, & McCorry, 2016) has presented similarities to burnout experienced in other career fields. However, a gap still exists in the hospice industry in understanding if the number of patient deaths experienced impacts burnout and how workers will cope. With the hospice field exploding, losing employees to burnout can have long term effects on the ability to provide patient care.

**Secondary traumatic stress.** Secondary traumatic stress is derived from interacting with an individual who was directly exposed to a stress (Beck & Gable, 2012). Moderate to severe levels of secondary traumatic stress were found in 35% of labor and delivery nurses (Beck & Gable, 2012). This mixed method study of nurses (n = 464) included analysis of qualitative data to identify common themes among these nurses. Nurses in the study struggled to remain professional while interacting with traumatized patients, regretted the incident, carried lingering secondary traumatic stress symptoms, and considered moving on to other careers after the incident (Beck & Gable, 2012). The results indicated that steps are required to mitigate the impact of secondary traumatic stress and establish means by which nurses can respond to traumatic birth incidents.
Though not as high as among labor and delivery nurses, secondary traumatic stress was found among mental health providers who worked with military patients (Smoktunowicz et al., 2015). About 19% of individuals in this field suffered from this type of stress, among mental health providers who complained about having too many patients, had a personal history of trauma, or providers who reported higher levels of negative appraisal concerning indirect exposure to trauma (Smoktunowicz et al., 2015). This was among the first studies revealing secondary traumatic stress among providers in the military. In combination with the findings of Beck and Gable (2012), these findings suggested that secondary traumatic stress could occur among both physical and mental health providers.

A study into secondary traumatic stress was conducted among primary and mental health care providers working in military hospitals (Kintzle, Yarvis, & Bride, 2013). Following surveys and the application of the Secondary Traumatic Stress Scale, data analysis revealed that this sample reflected low rates of this type of stress. While over half of the included sample demonstrated at least one symptom of secondary traumatic stress, only 8% reflected symptoms indicated high levels of this stress. A later study by Smoktunowicz et al. (2015), found this sample displayed low secondary traumatic stress then Kintzle et al. (2013), indicating that this form of stress might not occur in high amounts among all providers of mental health care in the military.

Among individuals providing mental health care to clients experiencing trauma due to the 9/11 terrorist attacks, secondary traumatic stress remained high up to 30 months after the bombing (Pulido, 2012). The researchers found that many of the mental health providers were unfamiliar with dealing with individuals whose trauma stemmed from disaster. Such findings suggested that lack of training or experience dealing with
trauma stemming from certain types of incidents may generate increased levels of secondary traumatic stress (Pulido, 2012). Trauma therapists were found to have several personal traits that made the severity of secondary traumatic stress more likely (Rzeszutek, Partyka, & Golab, 2015). The more emotionally reactive they were to their patients, the more likely these individuals were to demonstrate secondary traumatic stress symptoms. A therapist’s temperament was also associated with these symptoms. This study found no organization or work-related variables that influenced their symptoms, in contrast with previous findings (Bonach & Heckert, 2012). The findings of the study suggested that attempts to help therapists manage symptoms should address emotional reactions and general temperament in the face of dealing with traumatized victims.

Secondary traumatic stress was demonstrated in high rates once again among clinicians who attended traumatic births (Beck, LoGiudice, & Robert, 2016). Of the 473 clinicians studied, 29% reported high to severe secondary traumatic stress and 36% were positively associated with PTSD as outlined in the DSM IV (Beck et al., 2016. These rates were in line with the previous findings of Beck and Gable (2012), whose studies of nurses revealed similarly high levels of secondary traumatic stress. Beck et al. (2016) noted the three types of traumatic births, as outlined by clinicians, included fetal death, infant resuscitation, and when an infant’s shoulder required significant manipulation to allow a birth. Content analysis revealed different themes from those identified by Beck and Gable (2012) and included categories such as the desire to protect patients and a shaken belief in the birth process (Beck et al., 2016).

A study of secondary traumatic stress with regard to traumatic births was also conducted among midwives (Rice & Warland, 2013). A descriptive qualitative method
was used in this study to explore the experiences of midwives under these conditions. Just as Beck and Gable (2012) found that nurses regretted the incident and wished they could have done more, Rice and Warland (2013) found that midwives pondered what they might have been able to do differently during the birth. They also exhibited a high degree of empathy for the woman who suffered through the birth. Midwives exhibited a high degree of empathy and emotional distress. The researchers suggested further research was required to better understand how midwives could be supported following such incidents.

Although research into secondary traumatic stress and the military has focused on mental health care providers (Smoktunowicz et al., 2015; Kintzle, 2013), research was also conducted into this type of stress as it occurred among military spouses (Bjornestad, Schweinle, & Elhai, 2014). Spouses of veterans from Iraq, Afghanistan, and other countries, were surveyed using a modified instrument traditionally used to assess post-traumatic stress disorder (PTSD) symptoms. The researchers found that secondary traumatic stress exhibited four factors that mirrored those of PTSD: the phenomenon of re-experiencing an incident, emotional numbness, hyperarousal, and avoidance of the topic (Bjornestad et al., 2014). The researchers concluded that the modified tool be used to diagnose secondary traumatic stress. With regard to number, only 5% of spouses studied demonstrated severe secondary traumatic stress, which mirrored the percentage of soldiers demonstrating PTSD suggesting that PTSD symptoms may transfer to spouses (Bjornestad et al., 2014).

Attempts to address PTSD in the military population should also take into consideration secondary traumatic stress in the spouses of veterans with PTSD.
Consistent with research that found the four factors of secondary traumatic stress mirrored in those of PTSD (Bjornestad et al., 2014), Rzeszutek, Partyka, and Golab (2015) noted that secondary traumatic stress disorder was characterized by symptoms that were identical to PTSD. The differentiating factor was that secondary traumatic stress resulted from indirect exposure rather than direct exposure to trauma.

Mental health care providers who work with military personnel who survived torture were found to be at risk of secondary traumatic stress (Akinsulure-Smith, Keatley, & Rasmussen, 2012). Of the 43 providers studied, there was a significant, positive correlation between anxiety and depression. Providers reported that their experiences with torture survivors were stressful, which the researchers associated with both depression and anxiety. In this case, 91% of the providers reported that their organizations provided significant stress-reduction activities (Akinsulure-Smith et al., 2012). Although this was reported as beneficial, the providers reported that their own activities provided the most effective approach to stress reduction. Separate research indicated that personal coping mechanisms can help mitigate against the impact of secondary traumatic stress (Bourke & Craun, 2013). This further reinforced the need to understand what personal responses are effective in reducing the effect of this form of stress and finding ways of integrating these methods into an organization.

Research into law enforcement has found that investigators investigating crimes might suffer from secondary traumatic stress, but that the level of this stress typically remained stable over time (Craun, Bourke, Bierie, & Williams, 2014). The actual level of this stress was more likely to be increased when individuals were in denial or refused to address traumatic material they came across. In contrast, supervisory support was related
to decreased levels of secondary traumatic stress. Separate research into those working with exploited children had also revealed the benefits of supervisory support in reducing secondary traumatic stress (Bourke & Craun, 2014). The findings of Craun et al (2014) suggested that acknowledging traumatic events might be beneficial, and that organization leaders could help mitigate against the effects of secondary traumatic stress. Investigators are not the only law enforcement officers at risk, but general duty police officers as well (Conn & Butterfield, 2013). However, study of these officers revealed that there were a number of ways to support officers dealing with secondary traumatic stress. Increasing family and spousal support was identified as one significant way by which coping could be facilitated, which could be accomplished by educating family members about police responsibilities and ways to support officers. There were also a number of therapeutic approaches suggested by the researchers.

Further study into the wives of veterans with PTSD revealed that 36% of wives of PTSD affected veterans demonstrated symptoms of secondary traumatic stress disorder (Stevanovic, Franciskovic, Grkovic, 2012). These were levels far above those reported by wives of veterans who did not have PTSD. These wives of PTSD affected veterans were also more likely to report having various psychological differences. Finally, they were more likely to perceive a lower general quality of life. These findings further reinforced the need for those working with PTSD affected veterans to consider the secondary impact to spouses. Further study revealed that secondary traumatic stress might not only manifest among spouses, but also among offspring (Pedras & Pereira, 2013). Research revealed a positive correlation between PTSD among veterans and secondary traumatic stress in their children. Other conditions that were positively associated included various
psychopathological and negative physical systems. These findings reveal a need to address the needs of families of PTSD affected veterans.

Psychiatric nurses were found to be at high risk of secondary traumatic stress (Mangoulia et al., 2015). Following the application of the Professional Quality of Life Scale and a separate questionnaire probing demographic and work characteristics, these researchers found that 44.8% of these nurses were at risk for this type of stress. In addition, 49.4% were likely to suffer from burnout symptoms while only 8.1% of these nurses demonstrated compassion satisfaction (Mangoulia et al., 2015). These findings demonstrated the inverse relationship between secondary traumatic stress and the satisfaction derived from helping people.

Among nurses working in hospitals, a significantly high level of secondary traumatic stress was experienced (90.3%) among nurses (Komachi, Kamibeppu, Nishi, & Matsuoka, 2012). Factors associated with secondary traumatic stress were both internal and external. Individuals reporting the personality quality of neuroticism were associated with this type of stress, as were those who reported feelings of self-reproach (Komachi et al., 2012). Meanwhile, elevated ratings of trauma severity were also associated with this form of stress. The researchers suggested that support networks be developed to help nurses cope with their experiences.

Despite various findings that secondary traumatic stress occurs among mental health workers (Smoktunowicz, 2015; Pulido, 2012), a systematic review of the literature found that there were no evidence-based interventions that could be consistently applied to supporting these workers (Bercier & Maynard, 2014). This finding conflicted with multiple recommendations in the literature that interventions be developed that could
help mental health care workers who worked with trauma victims. The researchers suggested that future research efforts be oriented toward developing interventions that would reduce the symptoms of secondary traumatic stress among mental health care workers. It should also be noted, while there has been significant research into secondary traumatic stress among practicing healthcare professionals (Akinsulure-Smith et al., 2012; Beck et al., 2015; Beck & Gable, 2012), secondary traumatic stress also manifests among medical students (Crumpei & Dafinoiu, 2012). From an early juncture in their medical careers, medical professionals are therefore at risk of acquiring secondary traumatic stress. This is yet another area of research that has yet to be thoroughly explored.

With regard to demographics, a study into the relationship between sex, ethnic background, and sexual orientation revealed no significant differences in scoring for secondary traumatic stress (Connally, 2012). This research has important implications for hiring and employment of individuals from diverse backgrounds. Specifically, while the researchers suggested that further study was required, these findings initially indicated that there were no disproportionate risks for employing a diverse range of individuals at mental health clinics.

Incidents of secondary trauma are not universal across identified groups (Duffy, Avalos, & Dowling, 2015). A study of registered nurses (n = 105) at three emergency departments in Ireland revealed that a significant number of nurses (64%) met the criteria for secondary traumatic stress. However, this study revealed that nurses of different types within this group were more likely to report this form of stress. The staff nurse group experienced the highest degree of secondary traumatic stress (82%), revealing that even
within groups of healthcare providers, sub groups could be more vulnerable to secondary traumatic stress. The findings also suggested that greater support needed to be present to help nurses in emergency departments to cope with their encounters.

Outside Healthcare. Occurrences of secondary traumatic stress occur outside of healthcare and can have negative outcomes for the workplace (Bonach & Heckert, 2012). Among the 257 forensic interviewers from children’s advocacy centers who were studied, an increase in secondary traumatic stress was negatively correlated with organizational satisfaction. The findings also indicated that if there were issues in the workplace itself, an inverse relationship existed between organizational buffers and job support with secondary traumatic stress. Organizations hoping to reduce this form of stress may want to consider addressing work-based issues before anything else (Bonach & Heckert, 2012).

Yet another example of secondary traumatic stress occurring outside the healthcare environment was that of individuals investigating child pornography (Bourke & Craun, 2013). Members of the Internet Crimes Against Children Task Force were regularly exposed to child pornography, had to interact with child pornography offenders, and interviewed children who survived abuse. These factors were associated with secondary traumatic stress within the study. Organizations hoping to deal with secondary traumatic stress may benefit from understanding the most effective coping mechanisms used among these individuals and integrating them into their own practice.

Further research was conducted into the area of secondary traumatic stress as it related to individuals working with children, with a specific emphasis on workers in the area of child exploitation (Bourke & Craun, 2014). These individuals were more likely to
demonstrate higher secondary traumatic stress scores with more frequent exposure to disturbing media, or when such material was more severe in its nature. Among these individuals, supervisory support was related to decreased secondary traumatic stress scores. These findings indicated that organizations may be able to help mitigate against secondary traumatic stress by providing support from leaders within the organization.

At least one study attempted to examine how secondary traumatic stress can transfer not only between parents and children, but also across generations (Giladi & Bell, 2013). Two-hundred fifteen Jewish Americans and Jewish Canadians whose families departed Europe shortly before or during World War II were studied. This study included both second generation and third generation individuals who had at least one parent or grandparent that survived the Holocaust. These second and third generation individuals demonstrated levels of secondary traumatic stress higher than their peers, lower levels of differentiation for their own personalities, and had poorer communication within families (Giladi & Bell, 2013). The previous research of Pedras and Pereira (2013) revealed how secondary trauma could influence offspring, while the findings of Giladi and Bell (2013) demonstrated how the impact of secondary traumatic stress could transfer not only to children, but also to grandchildren.

Research into secondary traumatic stress outside medical settings also included research into public school personnel (Borntrager, Caringi, Pol, Crosby, O’Connell, & Trautman, 2012). Following a study of 229 school staff members, the researchers concluded that there were high levels of this form of stress among personnel derived from interactions with students suffering from a range of stress related factors. Previous research indicated that secondary traumatic stress was associated with negative outcomes
for the workplace, including increased turnover intentions (Beck & Gable, 2012). In contrast, Borntrager et al. (2012) found that teachers continued to report significant levels of job satisfaction that were consistent with the national average. Their level of burnout was also consistent with the national average despite the elevated level of secondary traumatic stress (Borntrager et al., 2012). Despite these hopeful findings, researchers still recommended that programs be put in place helping school personnel identify secondary traumatic stress and making available means to deal with such stress.

Where Beck and Gable (2012) found secondary traumatic stress to be associated with turnover intentions, Perstling and Rothmann (2012) found that this form of stress affected well-being among social workers in a number of ways. Following a survey of 116 social workers, these researchers found that increased secondary traumatic stress was negatively correlated with positive attributes, including purpose in life, environmental mastery, life satisfaction, and self-acceptance. As measured by the Psychological Well-being Scale, these positive attributes decreased as scores for secondary traumatic stress increased (Perstling and Rothmann, 2012). These findings indicated several ways in which this type of stress negatively impacted social workers.

The research to-date reflected how secondary traumatic stress could affect careers from the medical care field (Beck & Gable, 2012; Mangoulia et al., 2015) to education (Borntrager et al., 2012) to individuals working with exploited and traumatized children (Bourke & Craun, 2013; Bourke & Craun, 2014). To-date, research into specific interventions to assist in coping with this form of stress has lagged (Bercier & Maynard, 2014). A gap also continues to remain regarding research into hospice workers, with the bulk of recent research focused on mental health work. Studies into individuals working
in physical care have been conducted (Beck et al., 2015); however, research examining how the number of experienced deaths impact hospice workers has yet to be completed.

**Methodology.** Previous empirical studies researching end of life care have employed a mixed use of quantitative (Gama et al., 2014; Ghesquiere et al., 2015; Houck, 2014; Jonasen & O’Beirne, 2016; Pelon, 2015; Sarafis et al., 2016) and qualitative (Atala, 2014; Havlin, 2015; Noh, 2016; Qaseem et al., 2007) designs. Utilizing a quantitative rather than a qualitative methodology is necessary to identify any correlation between the predictor variable number of patient deaths experienced and the criterion variables of compassion fatigue, burnout, and secondary traumatic stress in a structured, unbiased, and uninfluenced manner. Qualitative studies rely heavily on the researcher to be present during the data collection and to interpret and code the results. This manner of data collection is subjective and because people’s behaviors are interpreted could affect the results when one is trying to understand relationships (Bryman & Bell, 2003).

This study used a quantitative approach to determine if there is a correlation between the number of patient deaths experienced by the individual hospice employee and the employee’s levels of compassion satisfaction, burnout, and secondary traumatic stress. Using a quantitative methodology allowed the study to determine relationships between the number of patient deaths on the hospice employees’ compassion satisfaction, burnout, and secondary traumatic stress. A quantitative method that focuses on numeric and unchanging data allows for a larger sample size, objective responses, and research that can be replicated because it is highly reliable and provides statistical models to explain what is observed (Barnham, 2015; Ludwig & Johnston, 2016; Stroebe, 2016). Previous hospice and general end of life care research is about 50% quantitative in nature.
and 50% qualitative and mixed methods, when studying compassion satisfaction, burnout, and secondary traumatic stress studies (Gama et al., 2014; Ghesquiere et al., 2015; Houck, 2014; Jonasen & O'Beirne, 2016; Pelon, 2015; Sarafis et al., 2016).

The interactions that hospice employees have with their patients may be unpredictable, time limited, and change with each situation. Using a quantitative methodology allowed the researcher to acquire real time hospice employees’ compassion satisfaction, burnout, and secondary traumatic stress responses to patients who have died. Utilizing a qualitative methodology would allow too much time to elapse and potentially affect hospice employees’ responses. The correlational quantitative methodology will allow future researchers to potentially generate additional correlation studies to see if other demographic factors, affect the employees’ compassion satisfaction, burnout, and secondary traumatic stress with patient deaths.

**Instrumentation.** The instrument used in research measures the concept and provides data for the research questions (Hagan, 2014). Empirical studies researching end of life care have utilized two major instruments: Maslach Burnout Inventory (MBI) and the Professional Quality of Life Scale (ProQOL). Ray et al. (2013) found utilizing either instrument to determine the correlation between emotional fatigue and burnout are most effective in data gathering.

In examining job satisfaction among hospice employees, a study by Baxendale (2015) utilizing ProQOL found that burnout and compassion fatigue were low, due to the correlation with particular coping strategies. A study by Quinn-Lee et al. (2014) found MBI is utilized to understand the level of stress about death anxiety; the higher this level of stress rises; the more social workers depersonalize themselves with regard to their
work. The studies have presented results utilizing either of these instruments to be consistent in a variety of environments, indicating they are an appropriate tool for gauging compassion satisfaction, burnout, and secondary traumatic stress.

**Summary**

Employees’ mental health continues to worry a wide variety of career fields as each field produces its own levels of compassion satisfaction and compassion fatigue (Salloum et al., 2015). This dilemma necessitates organizational interventions to help address negative outcomes while maintaining the emotional involvement that produces positive interactions between colleagues, clients, and managers. Fields that tend to experience higher levels of compassion satisfaction are ones with team cohesion, work-life balance, balanced caseloads, and manager support (Salloum et al., 2015). Individuals in the health care field, especially nurses, experience higher levels of compassion fatigue and burnout, while experiencing lower levels of compassion satisfaction (Yu et al., 2016). This often occurs due to the long hours, years in the profession, and empathy and bonding with their patients (Dasan et al., 2014).

How the levels of compassion satisfaction, burnout, and secondary traumatic stress manifest depend on how the overall factors in job demands are balanced by the overall factors in job resources (Demerouti et al., 2001). High demands from patients and families, staff not able to acquire necessary resources, and staff not able to spend the necessary time, leads researchers to predict that exhaustion and disengagement will simultaneously occur, potentially resulting in psychological strain (Bakker & Demerouti, 2006). The JD-RM demonstrates that factors between job demands and job resources vary by situation and by person.
Organizational commitment was also associated with compassion satisfaction, indicating that organizations can help increase compassion satisfaction when they engage in various behaviors that increase commitment (Decker et al., 2015). Organizations hoping to promote positive outcomes in the workplace might therefore benefit from training employees to be more highly aware as well as mindful of their own thought processes and how to interact with their colleagues (Dasan et al., 2014; Decker et al., 2015). Social support systems and work life balances are just as important as manager support. When the work day is done, employees’ own self-care could promote higher levels of compassion satisfaction.

Self-care not only has the opportunity to promote higher levels of compassion satisfaction but could help to curb side effects of burnout. Burnout has been revealed to be a multifaceted psychological issue for employees in every career field. Studies reviewing nurses (Slocum-Gori et al., 2013; Wang et al., 2013) have presented a continual issue with high levels of burnout, but this is not consistent, as individuals within the same organization can each experience different levels of stress and different types of stress that predict burnout (Sabherwal et al., 2015). Burnout isn’t always the main factor when someone leaves a job. Other factors, such as perfectionism, play into the reason someone leaves and someone stays. Perfectionism impacts work engagement, workaholism, and burnout; however, the researchers also distinguished between various forms of perfectionism which cause various levels of burnout (Salar et al., 2016).

Work-family conflict, defined as the lack of balance between work life and family time, indicated that the relationship between work and family factors have causation in creating burnout (Nilsen et al., 2016). This constant dance suggests that individuals do
not always understand what drives them to succeed, and that matching proper external motivators required helping individuals come to a better understanding of what drove them may affect their levels of burnout (Rawolle et al., 2016). Home based support and the love for the job changes as employees age and become more experienced. Self-care and balance is a fluid psychological experience that affects compassion satisfaction, compassion fatigue, and burnout (Rawolle et al., 2016).

Compassion satisfaction and burnout studies discuss how empathetic interactions with patients and colleagues can produce positive psychological effects (Wagaman et al., 2015). However, these same interactions expose the person to another’s stress, potentially resulting in unrealized secondary traumatic stress. Secondary traumatic stress is high in fields that deal with caring for military members, mental health workers, and members of law enforcement (Hegney et al., 2014; Samios et al., 2013). Similar to why employees experience burnout, secondary traumatic stress varies widely. For those interacting in healthcare, the secondary stress may not be noticed until additional factors combined to cause harm to the person (Drury et al., 2014; Hunsaker et al., 2015; Li et al., 2014). Personal coping mechanisms can help mitigate against the effect of secondary traumatic stress even if the stress is not currently known (Bourke & Craun, 2013). With secondary traumatic stress only recently being studied, so much is unknown. The need to understand which personal responses are effective at reducing the impact of this form of stress and finding ways of integrating these methods into an organization, is important for future research.

Current research continues to present a need to understand the many factors that lower an employee’s compassion satisfaction and increase an employee’s burnout and
secondary traumatic stress (Duarte et al., 2016; Lizano, 2015; Mangoulia et al., 2015; Slocum-Gori et al., 2013). Research in the hospice field is no different. Utilizing the Professional of Quality of Life Scale gave the researcher an unbiased opportunity to understand one factor that affects hospice employees. Additionally, the jobs demand-resource theory has demonstrated when demands are high, and resources are low, employees will craft their daily job in a manner to compensate (Bipp & Demerouti, 2015; Bruning & Campion, 2017). As the post-World War II generation continues to enter their golden years, understanding how the number of patient deaths experienced affects hospice employees will be crucial in order to reduce the psychological impact in order to maintain hospice employees and ensure quality of care for years to come.

Chapter Three discusses the methodology used to obtain and analyze data for this dissertation. The problem statement, research questions, hypothesis, methodology and design, population, sample, instrumentation, reliability and validity, and data collection and analysis are stated and discussed. Chapter Three ends with an ethical review, limitations, and summary.
Chapter 3: Methodology

Introduction

The purpose of this correlational quantitative study was to examine if the number of patient deaths experienced by individual hospice employees correlates with the employee’s compassion satisfaction, burnout, or secondary traumatic stress. Past research has explored how death affects compassion satisfaction, burnout, and secondary traumatic stress; however, this quantitative correlational study examined possible correlation between the number of patient deaths experienced and compassion satisfaction, burnout, and secondary traumatic stress. The significance of this study can provide hospice organizations and managers with a tool to utilize with their various employees in order to be cognizant of impending changes to levels of compassion satisfaction, burnout, and secondary traumatic stress. Providing support prior to a specified number of patient deaths experienced could help save employees and provide consistent quality patient care.

Chapter Three discusses the methodology used to obtain and analyze data for this dissertation. The problem statement, research questions, hypothesis, methodology and design, population, sample, instrumentation, reliability and validity, and data collection and analysis are stated and discussed. Chapter Three ends with an ethical review, limitations, and summary.

Statement of the Problem

It was unknown if the number of patient deaths experienced by individual hospice employees correlates with the employee’s compassion satisfaction, burnout, or secondary traumatic stress. The concept of hospice care began in 1967 in Sydenham, England, by
Dame Cicely Saunders, MD and was started in the U.S. in 1974 by Florence Wald (NHPCO, 2016). From 1978 to 1986, the U.S. Congress, with the Centers for Medicare and Medicaid Services (CMS), initiated demonstration projects for viability and reimbursement, which then gave approval to the hospice benefit in 1986. In the 30 years since, exploding demand has resulted in over 6,100 for-profit and nonprofit hospices (NHPCO, 2015), causing CMS to frequently increase regulations to stop fraud and standardize care. Yet, the ability and availability of hospice employees, job resources, and patient and family demands are not considered with new regulations. This could lead each employee to experience various levels of compassion satisfaction, burnout, and secondary traumatic stress at indiscriminate intervals and caused by an indiscriminate set of factors. Strategies to address compassion satisfaction, burnout, and secondary traumatic stress are essential to face future health care demands (Melvin, 2015). Numerous studies (e.g. Baxendale, 2015; Jonasen & O'Beirne, 2016; Noh, 2016; Stone et al., 2015) have addressed stress in hospice, but none have taken the steps to find out if the number of patient deaths experienced by individual hospice employee’s correlates to compassion satisfaction, burnout, and secondary traumatic stress.

As discussed through Chapter Three, compassion satisfaction, burnout, and secondary traumatic stress are prevalent in many career fields. Employees across various jobs experience similar results to those working in healthcare. Because hospice is a specialty in healthcare and in order to support and preserve hospice employees, keep up with the projected patient demand, and endure increased regulations, it was important that a rigorous quantitative study be conducted to determine whether or not the number of
patient deaths experienced correlates with individual employee’s compassion satisfaction, burnout, and secondary traumatic stress.

**Research Questions and Hypotheses**

RQ1: To what extent, if any, is there a correlation between reported compassion satisfaction of individual hospice employees and the number of patient deaths experienced in a 14-day period?

H10: There will not be a statistically significant correlation between reported compassion satisfaction of individual hospice employees and the number of patient deaths experienced in a 14-day period.

H1A: There will be a statistically significant correlation between reported compassion satisfaction of individual hospice employees and the number of patient deaths experienced in a 14-day period.

RQ2: To what extent, if any, is there a correlation between reported burnout of individual hospice employees and the number of patient deaths experienced in a 14-day period?

H20: There will not be a statistically significant correlation between reported burnout of individual hospice employees and the number of patient deaths experienced in a 14-day period.

H2A: There will be a statistically significant correlation between reported burnout of individual hospice employees and the number of patient deaths experienced in a 14-day period.
RQ3: To what extent, if any, is there a correlation between reported secondary traumatic stress of individual hospice employees and the number of patient deaths experienced in a 14-day period?

H30: There will not be a statistically significant correlation between reported secondary traumatic stress of individual hospice employees and the number of patient deaths experienced in a 14-day period.

H3A: There will be a statistically significant correlation between reported secondary traumatic stress of individual hospice employees and the number of patient deaths experienced in a 14-day period.

The ProQOL survey collects primary data from the sample in three sections, and reports on compassion satisfaction, compassion fatigue, burnout, secondary trauma, vicarious traumatization, and transformation. Section one reports on compassion satisfaction, which gives the data for research question number one. Section two reports on burnout, which gives the data for research question number two. Section three reports on secondary traumatic stress, which gives the data for research question number three. The demographic survey gives the number of patient deaths experienced.

**Research Methodology**

This study used a quantitative approach to see if there is a correlation between the number of deaths experienced by a hospice employee and their compassion satisfaction, burnout, and secondary traumatic stress. Using a quantitative methodology allowed the researcher to gather numeric data and to analyze the data to determine if there is a correlation between the number of deaths experienced by a hospice employee and their compassion satisfaction, burnout, and secondary traumatic stress. Using a quantitative
methodology allowed for data to be collected during a specific time period and not require the researcher to categorize and apply variables to responses as researchers must do in qualitative studies. Quantitative methods also allow study participants to provide objective responses with research that can be replicated because it is highly reliable and provides statistical models to explain what is observed (Barnham, 2015; Ludwig & Johnston, 2016). Previous research has included quantitative (Gama et al., 2014; Ghesquiere et al., 2015; Houck, 2014; Jonasen & O'Beirne, 2016; Pelon, 2015; Sarafis et al., 2016), qualitative, and mixed method research methodologies.

Utilizing a quantitative rather than a qualitative methodology was necessary to identify any correlation between the predictor variable number of patient deaths experienced and the criterion variables compassion fatigue, burnout, and secondary traumatic stress in a structured, unbiased, and uninfluenced manner. Quantitative studies measure factors at one point in time because individual circumstances may change perceptions over time (Abendroth & Flannery, 2006).

Qualitative studies rely heavily on the researcher to be present during the data collection and to interpret and code the results. This manner of data collection is subjective and because people’s behaviors are interpreted could affect the results in understanding a correlation (Bryman & Bell, 2003). The purpose of this study was not to get in-depth and understand the why behind the response, but to acquire a ground level, time specific, numerical understanding of the correlation between the number of patient deaths experienced and compassion fatigue, burnout, and secondary traumatic stress research that will support future research with variables that affect individual hospice employees.
Utilizing a mixed method methodology rather than a qualitative or quantitative methodology would create too many variables and pollute this type of correlational study. Acquiring responses when the number of patient death experienced is fresh in the hospice employees mind will return more reliable results. With mixed method approaches, the time to acquire and complete the research would heavily affect the results and usefulness of the data.

**Research Design**

A quantitative methodology with a correlational design was used in this study to understand if the number of patient deaths experienced has any correlation to compassion satisfaction, burnout, and secondary traumatic stress. A quantitative methodology often involves research that derives its meanings from attitude scales such as a Likert scale (Bryman & Bell, 2003), which was used in the ProQOL survey. Utilizing survey research allows for indiscriminate sampling of hospice employees for a specified period of time. The correlational research determines prevalence and relationships among variables, which allows intent to generalize the sample to the population (Curtis, Comiskey, & Dempsey, 2016). The use of a quantitative methodology can determine correlations between the independent and three criterion variables, making it an appropriate approach to this research.

The researcher collected data through the ProQOL survey. This survey was used to measure the three criterion variables (1) compassion satisfaction, (2) burnout, and (3) secondary traumatic stress. The ProQOL is a 30-question survey with responses measured using a five-point Likert-type scale: 1=Never, 2=Rarely, 3=Sometimes, 4=Often, 5=Very Often. Higher scores reflect higher levels in the three criterion
variables. The demographic survey contains eight questions about the employee and his or her work demographics. Participants were asked (1) What is your job title?, (2) Does your hospice have more than one location?, (3) What is your education level?, (4) What is your gender?, (5) What is your age?, (6) What state do you live in?, and (7) How many patient deaths have you experienced in the last 14 days?. This information helped group patient deaths experienced by position and provide additional foundational data for future research. Prior to data collection, email addresses for hospice employees were gathered through public and private sources. Hospice employees received emails inviting them to participate in the study.

Using an anonymous survey allowed the researcher to gather results directly from the individual hospice employees without the potential influence from researcher involvement, coworkers, and environmental factors. Gathering numerical data once and not subjecting employees to treatment groups or control groups, as required by other quantitative designs, will provide honest feedback and keep the employees from pondering his or her response. Desiring accuracy from numerical data is why a quantitative method is the best design for this study.

**Population and Sample Selection**

All healthcare staff experience and respond to deaths differently. The hospice industry is designed to support patients with a life limiting illness of six months or less to live, causing hospice employees to experience death more frequently than in any other healthcare industry. The population was employees working in the hospice industry across the United States. The target sample for this study was hospice employees (Managers excluded) who are currently employed by a hospice company in the United
States. The anticipated sample was 115 hospice employees consisting of nursing assistants, chaplains, licensed practical/vocational nurses, registered nurses, and social workers.

A-priori power analysis was completed to determine the appropriate sample size for this study. No prior studies have been found that also correlate number of patient death experienced to compassion satisfaction, burnout, and secondary traumatic stress. It was determined to use the following elements for the power analysis: (1) one-tail, (2) effect size of 0.2, (3) \(\alpha=0.05\), and (4) power \((1-\beta) =0.95\). The results of the a-priori power analysis were a sample of 115 hospice employees. (see Appendix F for details).

Convenience sampling was used to ensure that results are received from currently employed hospice employees. Prior hospice employees may have had time to reflect on the number of patient death experienced, resulting in potentially skewed data. The first page of the survey presented the purpose, description, risks, benefits, confidentiality, and consent to participate question. Participants were fully informed of the purpose of the project, their participation, and their ability to withdraw at any time. If they chose the option to not consent to participate, the survey ended.

Email addresses were acquired from a number of public and private areas to include published rosters, personal contacts, word of mouth, and researcher recruitment. Sample participants received an e-mail with the survey link to their work or personal email address. All participants received the same survey link resulting in the researcher being unable to identify individual responses by email address, or even if the participant did or did not complete the survey. The survey was contained on the SurveyMonkey® website. The first page of the survey presented the purpose, description, risks, benefits,
confidentiality, and consent to participate question. If the employee chose not to complete the survey or stop the survey once started, the researcher considered them to have withdrawn and will not pursue future responses because the researcher did not know who started the survey. Once the survey period closed, data from SurveyMonkey® were exported to IBM SPSS for analysis. All data collected are secured by SurveyMonkey’s® secure website where access to data is only be permitted to the researcher and the SurveyMonkey® administrator. Data will be downloaded, password protected, and maintained for three years after completion of the study, then destroyed.

**Instrumentation**

The quantitative data for this study was gathered using the Professional Quality of Life Scale Version 5 (ProQOL) survey (see Appendix D). The self-scoring information for the ProQOL is for demonstration purposes only as participants will not be self-scoring. The quantitative data about employee demographic information will be collected from an eight-question participant demographic survey (see Appendix E).

The ProQOL survey is used to measure the three criterion variables. The Compassion satisfaction section measures CV1. An example question for CV1 is: I feel invigorated after working with those I care for. CV1 contains question numbers 3,6,12,16,18,20,22,24,27,30. The Burnout section measures CV2. An example question for CV2 is: I feel connected to others. CV2 contains question numbers 1,4,8,10,15,17,19,21,26,29. The Secondary traumatic stress section measures CV3. An example question for CV3 is: I can't recall important parts of my work with trauma victims. CV3 contains question numbers 2,5,7,9,11,13,14,23,25,28. The ProQOL is a 30-question survey with responses measured using a five-point Likert-type scale measured
on an ordinal scale: 1=Never, 2=Rarely, 3=Sometimes, 4=Often, 5=Very Often. Higher scores reflect higher levels in the three criterion variables.

Reliability and validity for the ProQOL comes from the 200 published articles and over 100,000 online articles utilizing the survey (Stamm, 2010). A study by Ray et al. (2013) found utilizing the ProQOL to determine the correlation between emotional fatigue and burnout was reliable. The data gathered as a result of the ProQOL presented that burnout exists with the mental healthcare workers, but also found factors that lead to the burnout. Another study by Baxendale (2015) utilized ProQOL and found that burnout and compassion fatigue were low, due to the correlation with particular coping strategies. These studies have demonstrated the ability to gauge consistently the three constructs listed here on a consistent basis, indicating the reliability of the ProQOL.

Participant Demographic Survey. The demographic survey contains seven questions about the employee and his or her work demographics. Participants were asked (1) What is your job title?, (2) Does your hospice have more than one location?, (3) What is your education level?, (4) What is your gender?, (5) What is your age?, (6) What state do you live in?, and (7) How many patient deaths have you experienced in the last 14 days?. This information helped group deaths experienced by position.

Validity

For a successful and respected research study, the study needed to be valid. Validity demonstrates that the instrument successfully measured what it was designed to measure and can be repeated by other researchers (Heale & Twycross, 2015). Within validity is content validity that refers to having valid constructs in the measure (Heale & Twycross, 2015). A valid study should also have construct validity. Construct validity
indicates that the test measures what it claims to measure (Heale & Twycross, 2015; Terpstra, Kuijlen, & Sijtsma, 2014). The ProQOL was designed from an original scale developed by Charles Figley (1995). The evolution of Figley’s scale into the ProQOL has been validated to demonstrate good reliability, good concurrent validity, and predictive validity by its ability to uncover psychological distress (Adams, Boscarino, & Figley, 2006). Additionally, the ProQOL has been used in over 200 published papers and 100,000 online articles demonstrating it has good validity (Stamm, 2010). Good validity is a reference that a test accurately measures what it claims to and can be established in multiple ways, such as through pilot studies that are performed prior to full scale testing.

A study by Samson, Iecovich, & Shvartzman (2016) validated the ProQOL in the Hebrew language and with hospice employees. The ProQOL had been validated in a variety of languages and healthcare setting, but never before in Hebrew and with hospice employees. The study included 380 hospice workers and found construct, convergent, and criterion validity, which were consistent with other studies (Samson et al., 2016). A study by Dang et al. (2015) validated the ProQOL utilizing indiscriminate sampling of 1,175 government staff members in an earthquake-stricken area of China. To validate the study, the researchers used correlational analysis, t-test, and confirmatory factor analysis. An additional study by Palestini, Prati, Pietrantoni, & Cicognani (2009) administered the Italian version of the ProQOL to 939 accident and emergency workers who were involved in healthcare and technical emergencies. When the researchers took into account Italian culturalisms the study found the ProQOL to be valid. The study also validated that compassion satisfaction and burnout are inversely related, but an employee
can have high levels in both categories and still have high levels of compassion satisfaction.

**Reliability**

Reliability of an instrument scores is its consistency of a measure (Heale & Twycross, 2015) within an acceptable variance range. Responses may not be exacting each time due to various factors. The ProQOL measures separate constructs with a distinct scale on compassion satisfaction, 2% shared variance with secondary traumatic stress, and 5% shared variance with burnout (Stamm, 2010). The burnout and secondary traumatic stress have shared variances; the two measure different constructs due to distress in both conditions (Stamm, 2010). Another reliability measure is utilizing Cronbach’s alpha. The ProQOL compassion satisfaction $\alpha$ is 0.87, burnout $\alpha$ is 0.72, and secondary traumatic stress $\alpha$ is 0.80 (Samson et al., 2016).

The ProQOL is a 30-question survey with responses measured using a five-point Likert-type scale: 1=Never, 2=Rarely, 3=Sometimes, 4=Often, 5=Very Often. Higher scores reflect higher levels in the three categories. A second attribute of reliability is stability of scores from a test-retest. When a participant is given the same test in the same environment over time, the Cronbach’s alpha should be between 0 (example 0.10) to 1(example 0.70) to express level of reliability, with 0.7 or higher being an acceptable score (Heale & Twycross, 2015). A prior study by Dang et al. (2015) found Compassion Satisfaction (CS) $\alpha$ is 0.864, Burnout $\alpha$ is 0.569, and Secondary Traumatic Stress (STS) $\alpha$ is 0.742. Another study by Samson et al. (2016) found CS $\alpha$ is 0.87, STS $\alpha$ is 0.82, and Burnout $\alpha$ is 0.69 respectively. These two studies tested the ProQOL for its reliability and found their results to be within an acceptable threshold to other studies that also utilized
the ProQOL. A third attribute of reliability is equivalence from inter-rater reliability. When various researchers score the study, the homogeneity of scores presents the level of reliability (Heale & Twycross, 2015).

**Data Collection and Management**

The target population for this study was individual hospice employees (Managers excluded) who are patient-facing and currently employed at a hospice company in the United States. The researcher acquired approval from Grand Canyon University’s International Review Board (IRB) prior to inviting hospice employees to participate in the study. Email addresses were acquired from a number of public and private areas to include published rosters, personal contacts, word of mouth, and researcher recruitment. Participants received a survey link to their home or work email. Convenience sampling was used to provider greater probability that only active hospice employees complete the survey. Surveys were sent to all employees at once, via blind copy, and a generalized follow-up email was sent to the participant group thanking those who have completed the study and giving a gentle reminder to those who have not completed the study. The survey link was included in the reminder email. To acquire the a-priori power sample of 115 hospice employees, the researcher sent out over 700 invitations via email, which was an expected return of between 16%-26%.

The following steps were taken to collect the data:

1. A permission letter was acquired to use the ProQOL instrument.

2. Email addresses were gathered from hospice published rosters, list serves, and personal and professional contacts. All email addresses were entered into SurveyMonkey®. All participants received the same survey link resulting in the researcher being unable to identify individual responses.

3. Once the Institutional Review Board (IRB) permission letter was received, the survey link was sent from SurveyMonkey®.
4. The first page of the survey presented the purpose, description, risks, benefits, confidentiality, and consent to participate question. Participants were fully informed of the purpose of the project, their participation, and their ability to withdraw at any time. If they chose the option to not consent to participate, the survey ended.

5. After one week of the survey being launched, a follow-up email was sent to all participants. The follow-up email included a thank you for those who have completed the survey and a reminder for those who had not completed the survey.

6. After two weeks of data collection, data was exported from SurveyMonkey® and imported into IBM SPSS for data review, cleaning, and analyses. Additional data collection time was not necessary to reach 115 completed surveys. Data was only exported once the minimum 115 participants completed their survey.

All data collected are secured by SurveyMonkey’s® secure website where access to data was only permitted to the researcher and the SurveyMonkey® administrator. Data will be maintained for three years after completion of the study then destroyed.

**Data Analysis Procedures**

This study attempted to understand if the number of patient deaths experienced by individual hospice employees correlates with the employee’s compassion satisfaction, burnout, or secondary traumatic stress. Utilizing the ProQOL survey provided primary data to answer the following research questions and hypotheses that are the focus of this quantitative methodology and correlational analysis:

**RQ1:** To what extent, if any, is there a correlation between reported compassion satisfaction of individual hospice employees and the number of patient deaths experienced in a 14-day period?

**H10:** There will not be a statistically significant correlation between reported compassion satisfaction of individual hospice employees and the number of patient deaths experienced in a 14-day period.
H1A There will be a statistically significant correlation between reported compassion satisfaction of individual hospice employees and the number of patient deaths experienced in a 14-day period.

RQ2: To what extent, if any, is there a correlation between reported burnout of individual hospice employees and the number of patient deaths experienced in a 14-day period?

H20: There will not be a statistically significant correlation between reported burnout of individual hospice employees and the number of patient deaths experienced in a 14-day period.

H2A: There will be a statistically significant correlation between reported burnout of individual hospice employees and the number of patient deaths experienced in a 14-day period.

RQ3: To what extent, if any, is there a correlation between reported secondary traumatic stress of individual hospice employees and the number of patient deaths experienced in a 14-day period?

H30: There will not be a statistically significant correlation between reported secondary traumatic stress of individual hospice employees and the number of patient deaths experienced in a 14-day period.

H3A: There will be a statistically significant correlation between reported secondary traumatic stress of individual hospice employees and the number of patient deaths experienced in a 14-day period.

The first step for data analysis was to collect the data utilizing SurveyMonkey®. An a-priori power analysis was conducted to determine the appropriate sample size for
this study. No prior studies have been found that also correlate number of deaths experienced to compassion satisfaction, burnout, and secondary traumatic stress, utilizing the ProQOL, so previous sample size is not available. Effective sizes range from small $r=0.10$, medium $r=0.30$, and large $r=.50$ are standard ranges in psychology (Bosco, Aguinis, Singh, Field, & Pierce, 2015). A prior study by Whitebird et al. (2013), attempted to correlate stress, burnout, and compassion fatigue with hospice employees and utilized a medium effect size. It was determined to use the following elements for the power analysis: (1) one-tail, (2) effect size of 0.2, (3) $a=0.05$, and (4) power ($1-b$) $=0.95$. The results of the a-priori power analysis were a sample of 115 hospice employees.

The ProQOL has a score range for each section with 30 being a minimum and 150 maxima. The 30 questions in the ProQOL provided data for each criterion variable. The survey data were anonymous; no ID numbers were necessary.

The second step, after two weeks of data collection, was to export data from SurveyMonkey® into an SPSS file. Additional data collection time was not necessary to reach 115 completed surveys. Data was only exported once the minimum 115 participants completed their survey. This export automatically placed data into columns and hospice employee’s responses into rows. The raw data was entered into SPSS. Data preparation happened next before the main analysis. Data was (1) checked for accuracy, (2) cleaned, (3) and corrections for missing data. Measurement types were set to ordinal.

The third step was to perform a descriptive statistics analysis to evaluate for skewness, kurtosis, and frequency. This analysis presented means, median, mode, and standard deviation for each variable. A descriptive analysis also summarized the demographic variables: (1) What is your job title?, (2) Does your hospice have more than
one location?, (3) What is your education level?, (4) What is your gender?, (5) What is your age?, (6) What state do you live in?, and (7) How many patient deaths have you experienced in the last 14 days?

The fourth step was to check for violations of assumptions for Pearson correlation. The data provided allowed for the multiple assumptions of (1) linearity, which is the relationship between dependent and independent variables (Williams, Gomez Grajales, & Kurkiewicz, 2013), (2) normality, which assumes errors are not required to be normally distributed to be unbiased, consistent, and efficient (Williams et al., 2013), (3) homoscedasticity, which is the assumption that errors have an unknown but finite variance (Williams et al., 2013), and (4) independence, which is the assumption that each error is independent (Williams et al., 2013), to be tested. The assumption of normality assumes that there is a normal distribution between criterion and predictor variables (Williams et al., 2013). Assumption violations can result in (1) biased estimates of relationships, (2) over or under-confident estimates, and (3) untrustworthy confidence intervals (Williams et al., 2013).

The fifth step was to perform a Pearson correlation, but alternatively use Spearman’s Rank-Order if the data violated any one of the Pearson r correlation assumptions, to determine strengths and direction between the predictor variable and three criterion variables. A correlation provides the magnitude between or among variables while not inferring causality or interfering with the predictor variable and the criterion variable (Schenker & Rumrill, 2004). The results displayed if there is a positive or negative correlation between the number of deaths experienced and compassion
satisfaction, burnout, and secondary traumatic stress. The level of significance was expected to have a p-value of 0.05.

The last step was to present the data in order to answer the research questions. The results from the Pearson r correlation (alternatively Spearman correlation) and multiple regression analysis were presented using tables and graphs, descriptive analysis, correlation matrices, and regression tables. The results displayed if there was any correlation between the number of patient deaths experienced by each individual hospice employee and his or her compassion satisfaction, burnout, and secondary traumatic stress.

**Ethical Considerations**

The appropriate Institutional Review Board (IRB) documentation was submitted for approval prior to any interaction with study participants and data collection. Grand Canyon University’s IRB ensured that all participants who chose to participate in the research were treated in compliance with the federal regulations (45 CFR 46.111(b)) that governs protection of human subjects (GCU, 2016). Upon approval from the IRB, email invitations were sent asking participants to participate in the study. Once the participant clicks on the link, the first page of the survey presented the purpose, description, risks, benefits, confidentiality, and consent to participate question. The participant was fully informed on the purpose of the project, their participation, and their ability to withdraw at any time.

The researcher for this study is employed by a hospice management company and has worked in the hospice field for over ten years. The researcher gained access to hospice employees’ personal and work email addresses from hospice conventions, applications/resumes for employment, list serves, and personal and professional
relationships. Email addresses were loaded into Survey Monkey in bulk and responses were collected in bulk resulting in anonymity of responses. The survey only collects basic demographic information such as gender, age, education level, position in the company, and years of hospice experience. All data collected are secured by SurveyMonkey’s secure website where access to data will only be permitted to the researcher and the SurveyMonkey administrator. Data will be maintained for three years after completion of the study, then destroyed.

Potential further harm due to reflecting on patient deaths experienced was expected to be minimal, as hospice employees and hospice companies often spend time during Interdisciplinary Team Meetings, quarterly or yearly celebration of life ceremonies, and other avenues to reflect and commemorate the passing of their patients as a form of healing. The reflection on the patient deaths experienced during the completion of the survey may help the employee recover more quickly (Dutton, Frost, Worline, Lilius, & Kanov, 2002).

The researcher anticipated hospice employees may worry that their management team or coworkers may ask for or receive a copy of the results. The researcher will not be engaging hospice management teams and is not related to any hospice manager or coworker. The completion of the survey was anonymous and could be done in the privacy of the employee’s home. All results were reported, presented, and published as a large data set with no individual identifying information.

There will be no special benefit to a person or organization as individual and company names will not be collected nor identifiable. Participant risk was no more than that experienced on a typical day. A typical day will vary by discipline and the number of
deaths experienced will also vary. Participants were not compensated nor had the opportunity to win a prize.

**Limitations and Delimitations**

**Limitations.** The first limitation to this study was the effect patient death had on the sample population. This limitation occurred because there was no way the researcher could adjust for all possible experiences in the participant’s past. Additionally, the Medicare Hospice Conditions of Participation (CoPs) provides guidelines for hospice providers but does not provide guidelines for training each discipline. This lack of guidelines leaves the resources and abilities to cope with patient death ambiguous. Finally, managers were excluded, limiting generalizability further.

The next limitation was regulations. Medicare has a condition of participation for hospice providers, but each state can add additional regulations. There is also the level of accreditation agencies (prior to 2008 3rd-party accreditation was not mandatory) that can add a third level of regulation. These inconsistent regulations could have affected responses. To minimize the effects for this limitation, this researcher requested responses from across the U.S. in an attempt to normalize the results. The hope was to increase generalizability by drawing from a wide geographical region.

A third limitation was the education received by the hospice employees. This research did not attempt to acquire the specific school that was attended. The school education could influence results. The data were also self-reported and could be subjective. The level of education could range from a basic certification program to a doctoral degree and so level of education may influence results.
A fourth limitation was the work history of the hospice employees. This research did not attempt to acquire specific work history beyond just years in the hospice field. Training and how hospice organizations operate do vary, which could influence results. The data were self-reported and could be subjective. This limitation is unavoidable, and the researcher had no resources to minimize the effects on the results.

A fifth limitation is for the period of time participants are asked about the numbers of death they have experienced. This study used a 14-day period which could be too short of a time period. At the same time, a 30-day time period may be too long. Shorter or longer time periods may affect results.

A sixth limitation comes from those participants who may not experience any deaths in a 14-day period. When a participant does not experience any deaths in a 14-day period this could cause the results to either show a correlation, not show a correlation, or need a higher number of participants to see any correlation. This could also limit the psychological response to the ProQOL questions.

The last limitation was that the participants knew the purpose of the study. The participants may give responses (consciously or unconsciously) to make the participant seem less vulnerable or reactive to the deaths they have experienced.

**Delimitations.** The first delimitation is the usage of qualitative methodologies. The researcher was not interested in understanding why number of patient deaths experienced affect compassion satisfaction, burnout, and secondary traumatic stress. The researcher wanted to understand if there was a numeric correlation between the number of deaths experienced and compassion satisfaction, burnout, and secondary traumatic stress. The next delimitation is not surveying managers, volunteers, and physicians.
Managers, volunteers, and physicians were left out of the study because if they do provide care it is in an episodic manner; otherwise, their main job is something else. Also excluded were intake workers, billing staff, and other support positions whose main job does not involve patient interaction. Correlations between the predictor variable, criterion variables, and demographic information were also not conducted. While this information could also be helpful for hospice organizations, these types of data analysis would be better suited for a second study with a larger sample size.

**Summary**

It was unknown if the number of patient deaths experienced by individual hospice employees correlates with the employee’s compassion satisfaction, burnout, or secondary traumatic stress. A quantitative methodology with a correlational design presented in Chapter Three was used in this dissertation to illustrate correlation between criterion variables (compassion satisfaction, burnout, and secondary traumatic stress) and the predictor variable (number of patient deaths).

The ProQOL instrumented was used to gather information and has exhibited to be valid and reliable. Convenience sampling was used in this dissertation. The sample chosen may not be generalized to all hospice organizations and hospice employees but can be useful for similar hospice environments. After IRB approved the research study, the researcher emailed hospice employees a SurveyMonkey® invitation link. One week later, a thank you/reminder email was sent via SurveyMonkey®. After two weeks of data collection, data was exported from SurveyMonkey® and imported into IBM SPSS for data review, cleaning, and analyses. Once data was cleaned, the SPSS Pearson
Correlation analysis (alternatively Spearman correlation) was processed. Chapter Four presents the data, data analysis, and the results.
Chapter 4: Data Analysis and Results

Introduction

The preceding chapters include an introduction to the hospice industry and the purpose of this research paper, a review of prior research discussing compassion satisfaction, burnout, and secondary traumatic stress, and lastly the methodology and structure utilized to answer the three research questions. The purpose of this correlational quantitative study was to understand if the number of patient deaths experienced by individual hospice employees correlates with the employee’s compassion satisfaction, burnout, or secondary traumatic stress. This study has one predictor variable (PV), patient deaths experienced by individual hospice employees and three criterion variables (CV), compassion satisfaction, burnout, and secondary traumatic stress. Past research by Dearmond (2012), found that further studies are needed to understand the role of frequent exposure to death and dying and the hospice workers’ psychological experience. While it is difficult to measure how or when each hospice employee may be affected by patient deaths, hospice staff may benefit from acknowledging psychological factors such as cultivating a spiritual life, reflecting on one’s own mortality, and integrating death and dying into their life, as instruments to work through mental factors (Sinclair, 2011).

To add to past research, active hospice employees across the United States were invited to partake in a survey utilizing a secure survey link through SurveyMonkey®. Data were collected utilizing the Professional Quality of Life Scale Version 5 (ProQOL) survey and a demographics survey. The ProQOL collects data in three sections. Section one reports on compassion satisfaction, which provides the data for research question number one. Section two reports on burnout, which provides the data for research
question number two. Section three reports on secondary traumatic stress, which provides the data for research question number three. The demographic survey was used to collect data for the number of patient deaths experienced in a 14-day period by the individual hospice employee and demographic information such as job title, hospice company demographics, education level, gender, age, and state of residency.

Of the over 700 emails sent, 679 people opened the survey, and 197 consented to participate in the survey. To examine if any relationship existed between the number of patient deaths experienced by individual hospice employees and compassion satisfaction, burnout, or secondary traumatic stress, quantitative statistical method of Pearson $r$ correlation (alternatively Spearman correlation) was utilized.

The purpose of this study’s hypothesis testing was to accept or reject the null-hypothesis and present statistically significant correlation between the PV and each CV.

RQ1: To what extent, if any, is there a correlation between reported compassion satisfaction of individual hospice employees and the number of patient deaths experienced in a 14-day period?

H1$_0$: There will not be a statistically significant correlation between reported compassion satisfaction of individual hospice employees and the number of patient deaths experienced in a 14-day period.

H1$_A$: There will be a statistically significant correlation between reported compassion satisfaction of individual hospice employees and the number of patient deaths experienced in a 14-day period.
RQ2: To what extent, if any, is there a correlation between reported burnout of individual hospice employees and the number of patient deaths experienced in a 14-day period?

H2₀: There will not be a statistically significant correlation between reported burnout of individual hospice employees and the number of patient deaths experienced in a 14-day period.

H2ₐ: There will be a statistically significant correlation between reported burnout of individual hospice employees and the number of patient deaths experienced in a 14-day period.

RQ3: To what extent, if any, is there a correlation between reported secondary traumatic stress of individual hospice employees and the number of patient deaths experienced in a 14-day period?

H3₀: There will not be a statistically significant correlation between reported secondary traumatic stress of individual hospice employees and the number of patient deaths experienced in a 14-day period.

H3ₐ: There will be a statistically significant correlation between reported secondary traumatic stress of individual hospice employees and the number of patient deaths experienced in a 14-day period.

The remainder of Chapter 4 includes descriptive data, data analysis procedures, and the survey results. Demographics were summarized, and results associated with each research question were explained in detail and presented in visual form with tables, graphs, and scatter plots.
**Descriptive Findings**

Descriptive findings provide a summary of data in order to provide a clear representation of the individual results (Privitera, 2014). Of the over 700 emails sent to current hospice employees, 679 people opened the survey, six clicked no to consent to the survey, and 197 consented to participate in the survey. Of those who consented, 32 respondents did not complete any of the survey, 38 completed the survey but indicated they held titles of managers, physicians, office staff, or other (who are excluded from this research), one person did not list age, one person did not list number of deaths experienced, and two people were removed for stating they had experienced an extremely large number of deaths in 14 days. As a result, 117 (n=117) surveys were analyzed, providing a 59.39% response rate. For this research, the effect size was set at 95% resulting in a minimum response rate of 115 surveys. Effect sizes are seldom known exactly in psychological research, but psychological research can acquire an estimate (McShane & Böckenholt, 2016). The final result of 117 surveys was larger than the planned sample size using a priori analysis, providing strong statistical analysis.

Participants who participated in the study were cataloged through their demographic responses. The following tables present the accumulation of job titles, if the participant works for a hospice with more than one location, education level, gender, age, state of residence, and number of patient deaths experienced in a 14-day period.
Table 1

*Job Titles*

<table>
<thead>
<tr>
<th>Job Title</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>117</td>
<td>100</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Certified Nursing Assistant (CNA)</td>
<td>16</td>
<td>13.7</td>
<td>13.7</td>
<td>13.7</td>
</tr>
<tr>
<td>Chaplain</td>
<td>7</td>
<td>6</td>
<td>6</td>
<td>19.7</td>
</tr>
<tr>
<td>Licensed Practical Nurse (LPN)</td>
<td>12</td>
<td>10.3</td>
<td>10.3</td>
<td>29.9</td>
</tr>
<tr>
<td>Nursing Assistant (NA)</td>
<td>4</td>
<td>3.4</td>
<td>3.4</td>
<td>33.3</td>
</tr>
<tr>
<td>Registered Nurse (RN)</td>
<td>64</td>
<td>54.7</td>
<td>54.7</td>
<td>88</td>
</tr>
<tr>
<td>Social Workers (SW)</td>
<td>14</td>
<td>12</td>
<td>12</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 1 presents the demographic breakdown of hospice employee job titles. The table displays that 16 (13.7%) were certified nursing assistants, 7 (6%) were chaplains, 12 (10.3%) were licensed practice nurses, 4 (3.4%) were nursing assistants, 64 (54.7%) were registered nurses, and 14 (12%) were social workers. This sample’s employee job titles are representative of the larger population of active hospice employees across the United States.

Table 2

*Hospice Has More Than One Location*

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>117</td>
<td>100</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>33</td>
<td>28.2</td>
<td>28.2</td>
<td>28.2</td>
</tr>
<tr>
<td>Yes</td>
<td>84</td>
<td>71.8</td>
<td>71.8</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 2 presents the demographic breakdown of hospice employees working with a company that has one or more locations. That table displays that 33 (28.2%) of employees work for a hospice with a single location while 84 (71.8%) work for a hospice
with multiple locations. This sample’s work locations are representative of the larger population of active hospice employees across the United States.

Table 3

*Education Level*

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Associate Degree</td>
<td>36</td>
<td>30.8</td>
<td>30.8</td>
<td>30.8</td>
</tr>
<tr>
<td>Bachelor’s Degree</td>
<td>35</td>
<td>29.9</td>
<td>29.9</td>
<td>60.7</td>
</tr>
<tr>
<td>Doctoral Degree</td>
<td>2</td>
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<td>1.7</td>
<td>62.4</td>
</tr>
<tr>
<td>High School Diploma / GED</td>
<td>20</td>
<td>17.1</td>
<td>17.1</td>
<td>79.5</td>
</tr>
<tr>
<td>Master’s Degree</td>
<td>24</td>
<td>20.5</td>
<td>20.5</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>117</td>
<td>100</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

Table 3 presents the demographic breakdown of hospice employee education levels. The table displays that 36 (30.8%) hold an associate degree, 35 (29.9%) hold a bachelor’s degree, 2 (1.7%) hold a doctoral degree, 20 (17.1%) hold a high school diploma/GED, and 24 (20.5%) hold a master’s degree. The education levels of this study’s participants are representative of the larger population of active hospice employees across the United States.

Table 4

*Gender*

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>104</td>
<td>88.9</td>
<td>88.9</td>
<td>88.9</td>
</tr>
<tr>
<td>Male</td>
<td>13</td>
<td>11.1</td>
<td>11.1</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>117</td>
<td>100</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

Table 4 presents the demographic breakdown of hospice employee genders. The table displays that 104 (88.9%) were female while 13 (11.1%) were male. This sample’s male-
to-female representation is reflective of the larger population of active hospice employees across the United States.

![Histogram representing age of the participants.](image)

Figure 1. Histogram representing age of the participants.

Figure 1 represents the demographic breakdown of age giving a visual analysis on the ranges in the sample. The average age was 48.09 with the youngest at age 23 and the oldest at age 73.
Table 5

*State of Residence*

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alabama</td>
<td>2</td>
<td>1.7</td>
<td>1.7</td>
<td>1.7</td>
</tr>
<tr>
<td>Arizona</td>
<td>17</td>
<td>14.5</td>
<td>14.5</td>
<td>16.2</td>
</tr>
<tr>
<td>Arkansas</td>
<td>1</td>
<td>0.9</td>
<td>0.9</td>
<td>17.1</td>
</tr>
<tr>
<td>California</td>
<td>6</td>
<td>5.1</td>
<td>5.1</td>
<td>22.2</td>
</tr>
<tr>
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<td>0.9</td>
<td>0.9</td>
<td>23.1</td>
</tr>
<tr>
<td>Connecticut</td>
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<td>0.9</td>
<td>23.9</td>
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<td>0.9</td>
<td>24.8</td>
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<tr>
<td>Idaho</td>
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<td>8.5</td>
<td>33.3</td>
</tr>
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<td>Illinois</td>
<td>2</td>
<td>1.7</td>
<td>1.7</td>
<td>35</td>
</tr>
<tr>
<td>Kansas</td>
<td>4</td>
<td>3.4</td>
<td>3.4</td>
<td>38.5</td>
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<tr>
<td>Maine</td>
<td>15</td>
<td>12.8</td>
<td>12.8</td>
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<td>Michigan</td>
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<td>1.7</td>
<td>53</td>
</tr>
<tr>
<td>Minnesota</td>
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<td>2.6</td>
<td>2.6</td>
<td>55.6</td>
</tr>
<tr>
<td>Mississippi</td>
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<td>0.9</td>
<td>0.9</td>
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<tr>
<td>New Mexico</td>
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<td>0.9</td>
<td>57.3</td>
</tr>
<tr>
<td>New York</td>
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<td>0.9</td>
<td>58.1</td>
</tr>
<tr>
<td>North Carolina</td>
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<td>11.1</td>
<td>11.1</td>
<td>69.2</td>
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<tr>
<td>North Dakota</td>
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<td>3.4</td>
<td>3.4</td>
<td>72.6</td>
</tr>
<tr>
<td>Ohio</td>
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<td>0.9</td>
<td>0.9</td>
<td>73.5</td>
</tr>
<tr>
<td>Oregon</td>
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<td>0.9</td>
<td>0.9</td>
<td>74.4</td>
</tr>
<tr>
<td>Pennsylvania</td>
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<td>22.2</td>
<td>22.2</td>
<td>96.6</td>
</tr>
<tr>
<td>Tennessee</td>
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<td>0.9</td>
<td>97.4</td>
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<tr>
<td>Virginia</td>
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<td>0.9</td>
<td>98.3</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>2</td>
<td>1.7</td>
<td>1.7</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>117</td>
<td>100</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

Table 5 presents the demographic breakdown of hospice employee state of residence. The table displays that 24 states were represented with the top three states being Pennsylvania (22.2%), Arizona (14.5%), and Maine (12.8%). This sample’s states of residence are representative of the larger population of active hospice employees across the United States.
Figure 2. Histogram representing the number of deaths experienced in a 14-day period.

Figure 2 represents the demographic breakdown of how many patient deaths were experienced in a 14-day period. The average age was 3.74 with the largest percent (23.1%) not experiencing any deaths in a 14-day period.

Table 6

<table>
<thead>
<tr>
<th>Variable</th>
<th>$M$</th>
<th>$SD$</th>
<th>$n$</th>
<th>$SE_m$</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deaths Experienced</td>
<td>3.4</td>
<td>3.3</td>
<td>115</td>
<td>0.31</td>
<td>1.06</td>
<td>0.55</td>
</tr>
</tbody>
</table>

The observations for deaths experienced had an average of 3.42 ($SD = 3.29$, $SE_{sd} = 0.31$, Min = 0.00, Max = 14.00). Skewness and kurtosis were also calculated in Table 1.6. When the skewness is greater than 2 in absolute value, the variable is considered to be asymmetrical about its mean. When the kurtosis is greater than or equal to 3, then the
variable's distribution is markedly different than a normal distribution in its tendency to produce outliers (Westfall & Henning, 2013).

**Reliability.** Reliability of an instrument scores is its consistency of a measure (Heale & Twycross, 2015) within an acceptable variance range. Responses may not be exact each time due to various factors. In this study, Likert-scales were reported as ordinal scales. To test for reliability, each research question was treated as a continuous variable when there were at least two or more potential responses (Heale & Twycross, 2015). Cronbach’s alpha reliability was used to explore the internal consistency of the ProQOL scales. The value of the coefficients was evaluated for the scales using incremental cutoffs described by George and Mallery (2016), in which $\alpha > .9$ Excellent, $\alpha > .8$ Good, $\alpha > .7$ Acceptable, $\alpha > .6$ Questionable, $\alpha > .5$ Poor, and $\alpha < .5$ Unacceptable. The findings indicated that all the scales met at least the good threshold for internal consistency. The Cronbach’s alpha statistics are reported in Table 1.7.

Table 7

**Reliability of Cronbach’s Alpha**

<table>
<thead>
<tr>
<th>Composite Score</th>
<th>No. of items</th>
<th>$\alpha$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compassion Satisfaction</td>
<td>10</td>
<td>0.88</td>
</tr>
<tr>
<td>Burnout</td>
<td>10</td>
<td>0.82</td>
</tr>
<tr>
<td>Secondary Traumatic Stress</td>
<td>10</td>
<td>0.85</td>
</tr>
</tbody>
</table>

Summary statistics were calculated for each interval and ratio variable. Frequencies and percentages were calculated for each nominal variable. The most frequently observed job title was Registered Nurse RN ($n = 64, 56\%$). The most frequently observed category of hospice having more than one location was Yes ($n = 83, 72\%$). The most frequently observed category of Education Level was Associate Degree ($n = 36, 31\%$). The most frequently observed category of gender was Female ($n = 102,$
89%). Frequencies and percentages are presented in Table 1.8. The observations for Age had an average of 47.85 (SD = 11.58, SEM = 1.08, Min = 23.00, Max = 73.00). Skewness and kurtosis were also calculated in Table 198. When the skewness is greater than or equal to 2 or less than or equal to -2, then the variable is considered to be asymmetrical about its mean. When the kurtosis is greater than or equal to 3, then the variable's distribution is markedly different than a normal distribution in its tendency to produce outliers (Westfall & Henning, 2013).

Table 8

*Frequency Table for Nominal Variables*

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Title</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Certified Nursing Assistant CNA</td>
<td>16</td>
<td>13.91</td>
</tr>
<tr>
<td>Chaplain</td>
<td>6</td>
<td>5.22</td>
</tr>
<tr>
<td>Licensed Practical Nurse LPN</td>
<td>12</td>
<td>10.43</td>
</tr>
<tr>
<td>Nursing Assistant NA</td>
<td>4</td>
<td>3.48</td>
</tr>
<tr>
<td>Registered Nurse RN</td>
<td>64</td>
<td>55.65</td>
</tr>
<tr>
<td>Social Workers SW</td>
<td>13</td>
<td>11.3</td>
</tr>
<tr>
<td>Missing</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>More than one hospice location</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>32</td>
<td>27.83</td>
</tr>
<tr>
<td>Yes</td>
<td>83</td>
<td>72.17</td>
</tr>
<tr>
<td>Missing</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Education Level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Associate Degree</td>
<td>36</td>
<td>31.3</td>
</tr>
<tr>
<td>Bachelor’s Degree</td>
<td>35</td>
<td>30.43</td>
</tr>
<tr>
<td>Doctoral Degree</td>
<td>2</td>
<td>1.74</td>
</tr>
<tr>
<td>High School Diploma / GED</td>
<td>20</td>
<td>17.39</td>
</tr>
<tr>
<td>Master’s Degree</td>
<td>22</td>
<td>19.13</td>
</tr>
<tr>
<td>Missing</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>102</td>
<td>88.7</td>
</tr>
<tr>
<td>Male</td>
<td>13</td>
<td>11.3</td>
</tr>
<tr>
<td>Missing</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Table 9

*Summary Statistics Table for Interval and Ratio Variables*

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>n</th>
<th>SE_M</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>47.85</td>
<td>11.58</td>
<td>115</td>
<td>1.08</td>
<td>-0.03</td>
<td>-0.85</td>
</tr>
</tbody>
</table>

**Data Analysis Procedures**

Prior to the data collection process, a-priori power analysis was completed to determine the appropriate sample size for this study. The power analysis was computed using G*Power and the following elements: (1) one-tail, (2) effect size of 0.2, (3) \(\alpha=0.05\), and (4) power \((1-\beta)=0.95\). It was determined that a sample of 115 participants were necessary for Research Questions 1, 2, and 3.

The first step of data analysis was to export responses from SurveyMonkey® and import into the Statistical Package for the Social Sciences (SPSS) version 24.0 for cleaning and analysis. Verification that all data were exported correctly was done by comparing total responses to each question in SurveyMonkey® to responses in SPSS. The response count between SurveyMonkey® and SPSS matched indicating data were exported correctly.

The second step was to assess the data for missing responses. SurveyMonkey® indicated 679 people opened the survey, but only 203 started the survey \((n=203)\). Of the n=203, six clicked no to consent and did not proceed to the survey questions while 197 consented to participate and proceeded to the survey questions. Of those who consented, 32 respondents did not complete any of the survey, 38 completed the survey, but indicated they held titles of managers, physicians, office staff, or other (who are excluded from this research), one person did not list age, one person did not list number of deaths
experienced, and two people were removed for stating they had experienced an extremely large number of deaths in 14 days. As a result, the data contained 117 (n=117) completed surveys that were saved for further analysis.

The third step was to group response questions according to the ProQOL scoring rubric. For the CV Compassion Satisfaction Scale, questions 3, 6, 12, 16, 18, 20, 22, 24, 27, and 30 were summarized to give a final score. For the CV Burnout Scale, this scale required some responses to be reversed scored before summarizing. Questions 1, 4, 15, 17, and 29 required reversed scoring. The reverse scores of questions 1, 4, 15, 17, 29 and questions 8, 10, 19, 21, and 26 were summarized to give a final score. For the CV Secondary Traumatic Stress Scale, questions 2, 5, 7, 9, 11, 13, 14, 23, 25, and 28 were summarized to give a final score.

The fourth step was to check for violations of assumptions for Pearson correlation. Two continuous variables. The one PV is measured as a nominal ration. The three CVs are measured as ordinal ratios. Reviewing scatter plots for each of the CVs displays that linearity and homoscedasticity were met. Figure 3 presents the scatterplot matrix of the correlations.
No significant outliers. Univariate outliers were reviewed while calculating z-skewness and kurtosis coefficients. Tabachnick & Fidell (2013) suggested a range of ±3.29 (p < .001, two tailed test) for non-normality. There were two cases with the number of deaths experienced with univariate outliers. After deleting the two cases, an additional analysis for z-skewness and kurtosis coefficients for each CV (see Table 10) and PV (see Table 11) were completed.
Table 10

*Skewness and Kurtosis Used to Evaluate the Criterion Variables*

<table>
<thead>
<tr>
<th></th>
<th>Compassion Satisfaction</th>
<th>Burnout</th>
<th>Secondary Traumatic Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>N</strong></td>
<td>115</td>
<td>115</td>
<td>115</td>
</tr>
<tr>
<td>Skewness</td>
<td>-0.584</td>
<td>0.269</td>
<td>0.822</td>
</tr>
<tr>
<td>Std. Error of Skewness</td>
<td>0.226</td>
<td>0.226</td>
<td>0.226</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>-0.3</td>
<td>-0.581</td>
<td>0.337</td>
</tr>
<tr>
<td>Std. Error of Kurtosis</td>
<td>0.447</td>
<td>0.447</td>
<td>0.447</td>
</tr>
</tbody>
</table>

Table 11

*Skewness and Kurtosis Used to Evaluate the Predictor Variable*

<table>
<thead>
<tr>
<th></th>
<th>Deaths Experienced</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>N</strong></td>
<td>115</td>
</tr>
<tr>
<td>Skewness</td>
<td>1.074</td>
</tr>
<tr>
<td>Std. Error of Skewness</td>
<td>0.226</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>0.633</td>
</tr>
<tr>
<td>Std. Error of Kurtosis</td>
<td>0.447</td>
</tr>
</tbody>
</table>

**Bivariate normality.** Shapiro-Wilk tests were conducted in order to determine whether the distributions of deaths experienced, burnout, compassion satisfaction, and secondary traumatic stress were significantly different from a normal distribution. The following variables had distributions which significantly differed from normality: Deaths experienced (W = 0.88, p < .001), compassion satisfaction (W = 0.95, p < .001), and secondary traumatic stress (W = 0.95, p < .001). The following variables had distributions which did not significantly differ from normality: burnout (W = 0.98, p = .067). The results are presented in Table 12.
Table 12

Shapiro-Wilk Test Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>W</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deaths Experienced</td>
<td>0.88</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Burnout</td>
<td>0.98</td>
<td>.067</td>
</tr>
<tr>
<td>Compassion Satisfaction</td>
<td>0.95</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Secondary Traumatic Stress</td>
<td>0.95</td>
<td>&lt; .001</td>
</tr>
</tbody>
</table>

The assumption of normality has not been met. Due to one of the five Pearson Correlation assumptions being violated, the remaining n=115 were analyzed using a non-parametric alternative to Pearson correlation, a Spearman correlation was used for testing the null hypotheses. Spearman correlations is used to summarize strengths and negative or positive directions between two variables.

Validity and reliability. To ensure the validity and reliability of the data, the ProQOL survey were used as the tool of measurement for this study’s data collection. Previously discussed in Chapter Three, The ProQOL has been validated across different disciplines, languages, and more recently with hospice employees (Dang et al., 2015; Samson et al., 2016). These prior studies have validated the ProQOL to show good reliability, good concurrent validity, and predictive validity to under psychological distress (Adams et al., 2006). When a participant is given the same test in the same environment over time, the Cronbach’s alpha should be between 0 (example 0.10) to 1(example 0.70) to express level of reliability, with 0.7 or higher being an acceptable score (Heale & Twycross, 2015). The survey by Samson et al. (2016) found internal consistency subscales to be: (1) compassion satisfaction 0.87, (2) burnout 0.69, and (3) secondary traumatic stress 0.82. This study had internal consistency subscales of: (1)
compassion satisfaction 0.88, (2) burnout 0.82, and (3) secondary traumatic stress 0.85. The findings indicate that all the scales met at least the acceptable threshold for internal consistency and the researcher is convinced the collected data is both reliable and valid.

The quantitative study measured factors at one point in time by reason of individual circumstances changing perceptions (Abendroth & Flannery, 2006) and meaning. The quantitative study derived meaning from an attitude scale, such as a Likert scale, (Bryman & Bell, 2003) which was the scale used in the ProQOL. The correlational research determined prevalence and relationships among variables, which allowed intent to generalize the sample to the population (Curtis, Comiskey, & Dempsey, 2016). Utilizing survey research allowed for convenience sampling of hospice employees for a two-week period. To answer the three research questions, the null hypothesis stated for each question was tested. If the results supported the null hypothesis, the alternative hypothesis was rejected. If the results failed to support the null hypothesis, the alternative hypothesis was accepted. The following are the research question and hypotheses:

RQ1: To what extent, if any, is there a correlation between reported compassion satisfaction of individual hospice employees and the number of patient deaths experienced in a 14-day period?

H10: There will not be a statistically significant correlation between reported compassion satisfaction of individual hospice employees and the number of patient deaths experienced in a 14-day period.

H1A There will be a statistically significant correlation between reported compassion satisfaction of individual hospice employees and the number of patient deaths experienced in a 14-day period.
RQ2: To what extent, if any, is there a correlation between reported burnout of individual hospice employees and the number of patient deaths experienced in a 14-day period?

H2₀: There will not be a statistically significant correlation between reported burnout of individual hospice employees and the number of patient deaths experienced in a 14-day period.

H2₁: There will be a statistically significant correlation between reported burnout of individual hospice employees and the number of patient deaths experienced in a 14-day period.

RQ3: To what extent, if any, is there a correlation between reported secondary traumatic stress of individual hospice employees and the number of patient deaths experienced in a 14-day period?

H3₀: There will not be a statistically significant correlation between reported secondary traumatic stress of individual hospice employees and the number of patient deaths experienced in a 14-day period.

H3₁: There will be a statistically significant correlation between reported secondary traumatic stress of individual hospice employees and the number of patient deaths experienced in a 14-day period.

Table 13

Summary of Variables and Statistical Tests Used to Evaluate Research Questions

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Predictor Variable</th>
<th>Criterion Variables</th>
<th>Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>RQ1</td>
<td>Deaths Experienced</td>
<td>Compassion Satisfaction</td>
<td>Spearman Correlation</td>
</tr>
<tr>
<td>RQ2</td>
<td>Deaths Experienced</td>
<td>Burnout</td>
<td>Spearman Correlation</td>
</tr>
<tr>
<td>RQ3</td>
<td>Deaths Experienced</td>
<td>Secondary Traumatic Stress</td>
<td>Spearman Correlation</td>
</tr>
</tbody>
</table>
Results

The results are presented for each research question, with accompanying alternative and null hypotheses. The data screening and assumption testing was used to ensure the data could be used with parametric procedures, descriptive statistics were used to describe the sample, and Spearman correlational was used to test hypotheses associated with the research questions in order to determine if any significant positive relationship exited between the predictor variable, number of deaths experienced, and the three criterion variables, compassion satisfaction, burnout, and secondary traumatic stress.

Research question 1: The first research question was, “To what extent, if any, is there a correlation between reported compassion satisfaction of individual hospice employees and the number of patient deaths experienced in a 14-day period?”

H1₀: There will not be a statistically significant correlation between reported compassion satisfaction of individual hospice employees and the number of patient deaths experienced in a 14-day period.

H1ᴬ: There will be a statistically significant correlation between reported compassion satisfaction of individual hospice employees and the number of patient deaths experienced in a 14-day period.

Utilizing SPSS version 24, a Spearman correlation (bivariate analysis) was used to determine if any significant positive relationships existed between the number of patient deaths experienced and compassion satisfaction experienced by hospice employees.
Table 14

Spearman Correlation Between Deaths Experienced and Compassion Satisfaction

<table>
<thead>
<tr>
<th>Variable</th>
<th>Deaths Experienced</th>
<th>Compassion Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correlation Coefficient</td>
<td>1</td>
<td>-0.124</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>-</td>
<td>0.187</td>
</tr>
<tr>
<td>N</td>
<td>115</td>
<td>115</td>
</tr>
</tbody>
</table>

For hypothesis 1, Spearman correlation indicated a weak negative and inverse relationship between deaths experienced and compassion satisfaction, \( r = -0.124, p > 0.05 \), which was not statistically significant. The null hypothesis for hypothesis 1 was retained; thus, not supporting research hypothesis 1. Displayed below in figure 4 is a scatter plot that highlights the inverse linear pattern between deaths experienced and compassion satisfaction. Also, see table 14 for the Spearman correlation results listed above.
Figure 4. Scatter plot of deaths experienced and compassion satisfaction.

Research question 2: The second research question was, “To what extent, if any, is there a correlation between reported burnout of individual hospice employees and the number of patient deaths experienced in a 14-day period?”

H20: There will not be a statistically significant correlation between reported burnout of individual hospice employees and the number of patient deaths experienced in a 14-day period.

H2A: There will be a statistically significant correlation between reported burnout of individual hospice employees and the number of patient deaths experienced in a 14-day period.
Hypothesis 2, Spearman correlation indicated a positive and direct relationship between deaths experienced and burnout, \( r = 0.261, p < .005 \). The null hypothesis for hypothesis 2 was rejected. Displayed below in figure 5 is a scatter plot that highlights the direct linear pattern between deaths experienced and burnout. Also, see table 15 for the Spearman correlation results listed above.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Correlation Coefficient</th>
<th>Deaths Experienced</th>
<th>Burnout</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deaths Experienced</td>
<td>Correlation Coefficient</td>
<td>1</td>
<td>0.261*</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>-</td>
<td>0.005</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>115</td>
<td>115</td>
</tr>
<tr>
<td>Burnout</td>
<td>Correlation Coefficient</td>
<td>0.261*</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.005</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>115</td>
<td>115</td>
</tr>
</tbody>
</table>

*. Correlation is significant at the 0.01 level (2-tailed).
Figure 5. Scatter plot of deaths experienced and burnout.

With the results of the alternative hypotheses being accepted, an additional step was taken to understand the individual employees experiencing increased burnout as the number of patient deaths experienced increases. Spearman correlation was completed for each job title results.
Table 16

*Spearman Correlation Between Deaths Experienced by CNAs and Burnout*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Deaths Experienced</th>
<th>Burnout</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correlation Coefficient</td>
<td>1</td>
<td>-0.081</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>-</td>
<td>0.765</td>
</tr>
<tr>
<td>N</td>
<td>16</td>
<td>16</td>
</tr>
</tbody>
</table>

Spearman correlation indicated a weak negative and inverse relationship between deaths experienced by CNAs and burnout, \( r = -0.081, p > .05 \). The results indicate that the number of deaths experienced by CNAs do not have a statistically significant relationship with burnout. Displayed below in figure 6 is a scatter plot that highlights the direct linear pattern between deaths experienced and burnout. Also, see table 16 for the Spearman correlation results listed above.
Figure 6. Scatter plot of deaths experienced by CNAs and burnout.

Table 17

Spearman Correlation Between Deaths Experienced by LPNs and Burnout

<table>
<thead>
<tr>
<th>Variable</th>
<th>Deaths Experienced</th>
<th>Burnout</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deaths Experienced by LPNs</td>
<td>Correlation Coefficient</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>12</td>
</tr>
<tr>
<td>Burnout</td>
<td>Correlation Coefficient</td>
<td>0.182</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.572</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>12</td>
</tr>
</tbody>
</table>

Spearman correlation indicated a positive and direct relationship between deaths experienced by LPNs and burnout, ($r = 0.182, p > .05$). The results indicate that the
number of deaths experienced by LPNs do not have a statistically significant relationship with burnout. Displayed below in figure 7 is a scatter plot that highlights the direct linear pattern between deaths experienced and burnout. Also, see table 17 for the Spearman correlation results listed above.

Figure 7. Scatter plot of deaths experienced by LPNs and burnout.
Table 18

*Spearman Correlation Between Deaths Experienced by RNs and Burnout*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Deaths Experienced</th>
<th>Burnout</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deaths Experienced by RNs</td>
<td>Correlation Coefficient</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>64</td>
</tr>
<tr>
<td>Burnout</td>
<td>Correlation Coefficient</td>
<td>0.314*</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.011</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>64</td>
</tr>
</tbody>
</table>

*. Correlation is significant at the 0.05 level (2-tailed).

Spearman correlation indicated a positive and direct relationship between deaths experienced by RNs and burnout, \((r = 0.314, p < .011)\). The results indicate that the number of deaths experienced by RNs do have a statistically significant relationship with burnout. Displayed below in figure 8 is a scatter plot that highlights the direct linear pattern between deaths experienced and burnout. Also, see table 18 for the Spearman correlation results listed above.
Figure 8. Scatter plot of deaths experienced by RNs and burnout.

Table 19

Spearman Correlation Between Deaths Experienced by Social Workers and Burnout

<table>
<thead>
<tr>
<th>Variable</th>
<th>Deaths Experienced</th>
<th>Burnout</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deaths Experienced by Social Workers</td>
<td>Correlation Coefficient</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>13</td>
</tr>
<tr>
<td>Burnout</td>
<td>Correlation Coefficient</td>
<td>0.092</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.766</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>13</td>
</tr>
</tbody>
</table>
Spearman correlation indicated a positive relationship between deaths experienced by Social Workers and burnout, \((r = 0.92,\ p > .05)\). The results indicate that the number of deaths experienced by that Social Workers do not have a statistically significant relationship with burnout. Displayed below in figure 9 is a scatter plot that highlights the direct linear pattern between deaths experienced and burnout. Also, see table 19 for the Spearman correlation results listed above.

*Figure 10.* Scatter plot of deaths experienced by social workers and burnout.
**Research question 3**: The third research question was, “To what extent, if any, is there a correlation between reported secondary traumatic stress of individual hospice employees and the number of patient deaths experienced in a 14-day period?”

H3₀: There will not be a statistically significant correlation between reported secondary traumatic stress of individual hospice employees and the number of patient deaths experienced in a 14-day period.

H3₁: There will be a statistically significant correlation between reported secondary traumatic stress of individual hospice employees and the number of patient deaths experienced in a 14-day period.

Table 20

*Spearman Correlation Between Deaths Experienced and Secondary Traumatic Stress*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Deaths Experienced</th>
<th>Secondary Traumatic Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correlation Coefficient</td>
<td>1</td>
<td>-0.005</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>-</td>
<td>0.957</td>
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<tr>
<td>N</td>
<td>115</td>
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<tr>
<td>Correlation Coefficient</td>
<td>-0.005</td>
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<tr>
<td>Sig. (2-tailed)</td>
<td>0.957</td>
<td>-</td>
</tr>
<tr>
<td>N</td>
<td>115</td>
<td>115</td>
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</tbody>
</table>

For hypothesis 3, Spearman correlation indicated a weak negative and direct relationship between deaths experienced and secondary traumatic stress, \((r = -0.005, p > .05)\). The null hypothesis for hypothesis 3 was retained; thus, not supporting hypothesis 3. Displayed below in figure 11 is a scatter plot that highlights the direct linear pattern between deaths experienced and secondary traumatic stress. Also, see table 20 for the Spearman correlation results listed above.
Figure 11. Scatter plot of deaths experienced and secondary traumatic stress.

Summary

The objective of this quantitative study was to learn to what extent, if any, if there was a correlation between reported compassion satisfaction, burnout, or secondary traumatic stress of individual hospice employees and the number of patient deaths experienced in a 14-day period. The study resulted in 115 hospice employees working across the United States. Chapter Four presented a description of the various demographic characteristics (job title, number of hospice locations, education, gender, age, state of residency) of the sample using frequency data tables and graphs. Of the over 700 emails sent, 679 people opened the survey, and 197 consented to participate in the survey. Of those who consented, 32 respondents did not complete any of the survey, 38
completed the survey, but indicated they held titles of managers, physicians, office staff, or other (whom are excluded from this research), one person did not list age, one person did not list number of deaths experienced, and two people were removed for stating they had experienced an extremely large number of deaths in 14 days. As a result, 117 (n=117) surveys were analyzed, providing a 59.39% response rate. The data were then checked for univariate outliers. Two univariate outliers were discovered and removed from the data resulting in 115 (n=115) surveys to be analyzed. Data were then reviewed to ensure skewness and kurtoses were within the critical range of ±3.29 and check for violations of assumptions for Pearson r correlation (linearity, normality, homoscedasticity, and independence). Assumptions for a Pearson r correlation were violated. A non-parametric alternative Spearman Correlation was utilized.

The correlation analysis revealed null hypotheses one was retained or not rejected because the correlation indicated a nonsignificant \(r = -0.124, p > .05\) relationship between number of deaths experienced and compassion satisfaction. Null hypothesis two was rejected because the correlation indicated a significant \(r = 0.261, p < .005\) relationship between number of deaths experienced and burnout. Null hypothesis three was accepted because the correlation indicated a nonsignificant \(r = -0.005, p > .05\) relationship between number of deaths experienced and secondary traumatic stress. Chapter Five presents a summary of findings, conclusion, implications, and recommendations for future research.
Chapter 5: Summary, Conclusions, and Recommendations

Introduction and Summary of Study

This study provided insights into the relationship between the number of patient deaths experienced by individual hospice employees and the levels of employee compassion satisfaction, burnout, and secondary traumatic stress. Hospice workers are pushed mentally and physically, providing care and keeping up with demand (Duarte et al., 2016). To support and retain hospice employees, keep up with the projected patient demand (NHPCO, 2015), and endure future regulations, it was important that a rigorous quantitative study be conducted to determine the presence or absence of a relationship between the number of patient deaths experienced by individual hospice employees and the employee’s levels of compassion satisfaction, burnout, and secondary traumatic stress.

Prior research has covered how the numbers of death experienced relates to levels of compassion satisfaction, burnout, and secondary traumatic stress, but these studies have not provided details regarding how many patient deaths hospice employees were exposed to in the correlations (Pelon, 2015, p. 67). Dearmond (2012) recommended that further studies were needed to understand how frequent exposure to death and dying related the hospice workers’ psychological experience. Additional prior research demonstrated a need to understand the many factors that may lower an employee’s compassion satisfaction and increase an employee’s burnout and secondary traumatic stress (Duarte et al., 2016; Lizano, 2015; Mangouilia et al., 2015; Slocum-Gori et al., 2013).
Compassion satisfaction is the positivity used in a caring context, such as among health care professionals (Ray et al., 2013). Burnout refers to the three factors of emotional exhaustion, increased cynicism, and decreased perception of personal efficacy (Harr, 2013). Burnout occurs in many forms including depression, exhaustion, and depersonalization. Secondary traumatic stress is the emotional exhaustion caused by trauma experienced by the patient and/or patient caregiver transferring to the hospice employee resulting in the employee believing he or she experienced the event personally (Caringi, Hardiman, Weldon, Fletcher, 2016). Researchers suggested that future efforts be oriented towards developing interventions for hospice employees. The unique environment of a team approach to patient care, combined with the autonomy when providing patient care, leaves many avenues to affect compassion satisfaction, burnout, and secondary traumatic stress.

The Job Demands-Resource Model (JD-RM) was utilized in this study to understand how the number of patient deaths experienced affected individual hospice employees. The JD-RM is broken down into job demands (workload, role ambiguity in reference to patient and family expectations, emotional labor, time pressure, and changing regulations) and job resources (supervisor and social support, training, goals, and patient resources). How compassion satisfaction, burnout, and secondary traumatic stress manifest depend on how the overall factors in job demands are balanced by the overall factors in job resources (Demerouti et al., 2001). Job characteristics, such as demands from patients and families and not being able to spend the necessary time with each patient, combined with staff not able to acquire resources needed by the employees and patients, may have a profound impact on employees’ wellbeing. Researchers using
the JD-RM have been able to predict that balancing factors between job demands and job resources vary by situation and person causing exhaustion and disengagement to simultaneously occur, potentially resulting in psychological strain (Bakker & Demerouti, 2006).

Using a quantitative correlational methodology, the Professional Quality of Life Scale version 5 as the survey instrument, and 115 active hospice employees across the United States, helped answer the following research questions:

RQ1: To what extent, if any, is there a correlation between reported compassion satisfaction of individual hospice employees and the number of patient deaths experienced in a 14-day period?

H1₀: There will not be a statistically significant correlation between reported compassion satisfaction of individual hospice employees and the number of patient deaths experienced in a 14-day period.

H₁ₐ There will be a statistically significant correlation between reported compassion satisfaction of individual hospice employees and the number of patient deaths experienced in a 14-day period.

RQ2: To what extent, if any, is there a correlation between reported burnout of individual hospice employees and the number of patient deaths experienced in a 14-day period?

H₂₀: There will not be a statistically significant correlation between reported burnout of individual hospice employees and the number of patient deaths experienced in a 14-day period.
H2A: There will be a statistically significant correlation between reported burnout of individual hospice employees and the number of patient deaths experienced in a 14-day period.

RQ3: To what extent, if any, is there a correlation between reported secondary traumatic stress of individual hospice employees and the number of patient deaths experienced in a 14-day period?

H30: There will not be a statistically significant correlation between reported secondary traumatic stress of individual hospice employees and the number of patient deaths experienced in a 14-day period.

H3A: There will be a statistically significant correlation between reported secondary traumatic stress of individual hospice employees and the number of patient deaths experienced in a 14-day period.

Results for the first research question (RQ1) which investigated a correlation between reported compassion satisfaction of individual hospice employees and the number of patient deaths experienced in a 14-day period resulted in compassion satisfaction levels not significantly relating to the number of deaths experienced by individual hospice employees. This result is comparable to prior studies by Baxendale (2015) and Whitebird et al. (2013) who suggested hospice workers generally had high levels of compassion satisfaction with no significant difference between demographic factors. Baxendale (2015) suggested that burnout was low due to the use of various coping strategies among hospice employees. Such coping strategies can help in dealing with the deaths experienced by these employees and maintain high compassion satisfaction.
Results for the second research question (RQ2) which investigated a correlation between reported burnout of individual hospice employees and the number of patient deaths experienced in a 14-day period resulted in burnout levels significantly affected by the number of deaths experienced by individual hospice employees, specifically Registered Nurses. These findings both complimented and conflicted with the existing literature. Baxendale (2015) found that burnout levels among hospice workers remained low due to the use of different coping strategies. However, Baxendale’s (2015) work conflicted with that of Slocum-Gori et al (2013), who demonstrated the opposite results and found higher levels of burnout because of the difficulties related to coping with one’s own emotional response to dying and conflicts between job demands and job resources. While Baxendale (2015) and Slocum-Gori et al. (2013) both addressed coping strategies, they arrived at opposite conclusions. Baxendale’s (2015) study indicated that coping strategies kept burnout levels low in hospice employees, while Slocum-Gori et al. (2013) found that hospice workers found it difficult to cope with the loss and resulting negative emotional state. The findings in this present study aligned with those of Slocum-Gori et al. (2013) with regard to the number of deaths having a negative emotional toll on hospice employees.

However, there were other reasons why burnout could occur. As employees gain experience, managers may turn their focus to less experienced employees potentially leaving experienced employee demands without the support given by management (a resource) (Gabel-Shermueli, Dolan, & Ceretti, 2014). With the utilization of hospice increasing, losing employees to burnout can have long term effects on the ability to
provide patient care so that finding ways to help staff cope is important for future researchers.

Results for the third research question (RQ3) which investigated a correlation between reported secondary traumatic stress of individual hospice employees and the number of patient deaths experienced in a 14-day period resulted in burnout levels not significantly related by the number of deaths experienced by individual hospice employees. Secondary traumatic stress continues to be an under researched topic especially with hospice employees. The results of this study are different than research from psychiatric nurses and nurses in hospitals who had significant levels of secondary traumatic stress (Komachi et al., 2012; Mangoulia et al., 2015). This previous research indicated that there were high levels of secondary traumatic stress experienced among nurses that stemmed from both internal and external sources. With respect to the current study, the death of patients would have acted as an external source of secondary traumatic stress. The results of Komachi et al. (2012) suggested that such an event would have acted as a source of secondary traumatic stress. However, the current study found this was not the case, despite the high rate of secondary traumatic stress among hospital workers (Komachi et al., 2012), mental health workers (Ciselak, 2015; Pulido, 2012), and other healthcare professional (Akinsulure-Smith et al., 2012). The bulk of secondary traumatic stress remains with mental health and military care givers, leaving future researchers to identify the primary factors that influence secondary traumatic stress.

The results of this study continue to show the psychological strain that hospice employees experience when balancing job demands and job resources. In order to reduce the risk for burnout and or the employee leaving the hospice field, the results should
encourage future researchers to generate additional correlation studies to see what factors provide positive and negative benefits when employees are exposed to multiple patient deaths. Chapter Five contains the study’s conclusions, implications, and recommendations.

**Summary of Findings and Conclusion**

This section summarizes the data analysis presented in Chapter Four. The relationship between number of deaths experienced and compassion satisfaction, burnout, and secondary traumatic stress in this study was analyzed using descriptive statistics and Spearman correlation. Overall, the data analysis provided no evidence of a statistically significant relationship between the number of deaths experienced (over 14 days) and compassion satisfaction (RQ1) and the number of deaths experienced and secondary traumatic stress (RQ3). However, a statistically significant relationship was demonstrated between the number of deaths experienced over 14 days and burnout (RQ2) \((r = 0.261, p < .005)\). Generally, the findings of this study supported previous literature that has demonstrated the relationship between death and compassion satisfaction, burnout, and secondary traumatic stress even with the specific number of deaths not listed (Beck et al., 2016; Harrold et al., 2014; Stone et al., 2015). Next, a summary of the findings and conclusions of the study is presented in relation to each research question.

**Research question 1**: To what extent, if any, is there a correlation between reported compassion satisfaction of individual hospice employees and the number of patient deaths experienced in a 14-day period?
H1₀: There will not be a statistically significant correlation between reported compassion satisfaction of individual hospice employees and the number of patient deaths experienced in a 14-day period.

H₁ₐ There will be a statistically significant correlation between reported compassion satisfaction of individual hospice employees and the number of patient deaths experienced in a 14-day period.

The relationship between the number of deaths and compassion satisfaction was assessed using a Spearman correlation. Compassion satisfaction is the positivity used in a caring context, such as among health care professionals (Ray et al., 2013). The findings of the bivariate correlation indicated that the number of deaths individual hospice employees experienced had no significant correlation ($r = -0.098, p >.05$) to the level of compassion satisfaction in hospice employees. In other words, hospice employees in this study generally enjoyed their field of work, regardless of whether they experienced no patient deaths in a 14-day period or experience one death each day (n=14). Research by Whitebird et al. (2013) indicated that stress was a significant issue for hospice employees, but not a pivotal factor that led to compassion fatigue and or burnout. Hospice employees generally find meaning and satisfaction in their work, which acts as a factor to keep compassion satisfaction levels high. Other researchers found that compassion satisfaction levels are influenced by a number of factors such as social support, support from management and coworkers, and other avenues to alleviate stress (Harrold et al., 2014; Stone et al., 2015).

Harrold et al. (2014) found that other elements may impact compassion satisfaction, such as patient and family needs and external factors in the employee’s life.
The current study found no correlation between the number of deaths and compassion satisfaction, which may be due to the understanding hospice workers have regarding the nature of their field. However, other factors, as suggested by Harrold et al. (2014) may impact compassion satisfaction, an avenue of research left unexplored in the current study.

Although hospice employees who participated in this survey reported no correlation between number of deaths experienced in a 14-day period and compassion satisfaction, continual supervision for increasing stress and onset of compassion fatigue will allow for earlier intervention and assistance. Job strain is the result of a disturbance of the equilibrium between the demands employees are exposed to and the resources they have at their disposal (Bakker & Demerouti, 2006). Not only can continual supervision find incidents of compassion fatigue when it does arise, but such supervision can intervene when other elements associated with compassion fatigue, as pointed out by Harrold et al. (2014), occur. Such a proactive approach can support developing interventions regardless of what variable does create compassion fatigue among hospice workers. Finding ways to support staff, provide opportunities for engagement with coworkers, and supportive self-care opportunities may alleviate some of the chronic stress staff experience.

**Research question 2:** To what extent, if any, is there a correlation between reported burnout of individual hospice employees and the number of patient deaths experienced in a 14-day period?
H2₀: There will not be a statistically significant correlation between reported burnout of individual hospice employees and the number of patient deaths experienced in a 14-day period.

H2ₐ: There will be a statistically significant correlation between reported burnout of individual hospice employees and the number of patient deaths experienced in a 14-day period.

The relationship between the number of deaths and compassion satisfaction was assessed using a Spearman correlation. Burnout refers to the three factors of emotional exhaustion, increased cynicism, and decreased perception of personal efficacy (Harr, 2013). The findings of the bivariate correlation indicated that the number of deaths individual hospice employees experienced (over a 14-day period) has a positive and significant correlation ($r = 0.207, p < .026$) to the hospice employee’s level of burnout. This often occurs due to the long hours, years in the profession, and lack of empathy and bonding with their patients (Dasan et al., 2014). Burnout has been articulated to be a multifaceted psychological issue for employees in every career field. Studies reviewing nurses express a continual issue with high levels of burnout. The same studies find burnout inconsistent, as individuals within the same organization can each experience different levels of stress and different types of burnout (Sabherwal et al., 2015; Slocum-Gori et al., 2013; Wang et al., 2013). This constant balance of factors suggests individuals do not always understand what drives them to succeed. Matching proper external motivators requires helping individuals better understand how and what drove them. Understanding external and internal factors may affect the employee’s levels of burnout (Rawolle et al., 2016). Home-based support and the love for the job changes as
the employee ages and becomes more experienced. Self-care and balance is a fluid psychological experience that affects compassion satisfaction, compassion fatigue, and burnout (Rawolle et al., 2016).

Because burnout had a significant correlation to the number of deaths experienced in a 14-day period, breaking respondents down by discipline may help to get to know the individual hospice employee and further understand what employees experience burnout and why. Out of the six disciplines represented in this study, Registered Nurses were the only individuals to experience significant correlation to burnout. Registered Nurses ($r = 0.31, p < .013$) experienced a moderate effect size indicating that both will continue to experience increased levels of burnout with each additional death experienced.

The findings that hospice employees that participated in this survey reported a correlation between number of deaths experienced in a 14-day period and burnout, echo previous research that found burnout to be prevalent in hospice workers (Pavelkova & Buzgova, 2015; Payne, 2001; Sabherwal et al., 2015; Slocum-Gori et al., 2013; Wang et al., 2013). This findings in this study were consistent with previous research that demonstrated how nurses specifically demonstrated high levels of burnout (Slocum-Gori et al., 2013; Wang, Liu, & Wang, 2013). This study was also consistent with previous research that revealed, within the same organization, different individuals can each experience different levels of stress that predict burnout (Sabherwal, Ahuja, George, & Handa, 2015). With respect to this study, it may be that chaplains and Registered Nurses endure specific factors that contributed to their higher levels of burnout, leaving room for future research to specify why these two groups experienced statistically significant correlations with burnout.
While this study did not correlate demographic factors to the level of burnout, the results demonstrated that burnout is not precipitated by job titles, number of hospice locations, education levels, gender, or the state the employee lives in. Yao et al. (2013) found the most significant predictors to prevent burnout was the love of the profession and acknowledgement from supervisors. These same factors also improved an employee’s level of compassion satisfaction.

**Research question 3:** To what extent, if any, is there a correlation between reported secondary traumatic stress of individual hospice employees and the number of patient deaths experienced in a 14-day period?

H3₀: There will not be a statistically significant correlation between reported secondary traumatic stress of individual hospice employees and the number of patient deaths experienced in a 14-day period.

H3₁: There will be a statistically significant correlation between reported secondary traumatic stress of individual hospice employees and the number of patient deaths experienced in a 14-day period.

The relationship between the number of deaths and compassion satisfaction was assessed using a Spearman correlation. Secondary traumatic stress refers to emotional exhaustion caused by trauma experienced by the patient and/or patient caregiver transferring to the hospice employee resulting in the employee believing he or she experienced the event personally (Caringi, Hardiman, Weldon & Fletcher, 2016). The findings of the bivariate correlation indicated that the number of deaths experienced by individual hospice employees in this study had no significant correlation ($r = 0.037, p > .05$) to the hospice employee’s level of secondary traumatic stress. In other words, the
hospice employee’s empathy and sympathy expressed based on the knowledge of a patient’s trauma must not transfer and cause the employee to internalize the trauma, as if the trauma was experienced by the employee. For those interacting in healthcare, secondary stress may not be noticed until additional factors combine to cause harm to the person (Drury et al., 2014; Hunsaker et al., 2015; Li et al., 2014).

Secondary traumatic stress is typically associated with fields that involve dealing with military members, members of law enforcement, and mental health workers (Hegney et al., 2014; Samios, Abel, & Rodzik, 2013). However, hospice workers may not perceive the effect of secondary traumatic stress, given the high degree of autonomy allowed for interacting with patients and families (Bercier & Maynard, 204). The current study may have captured this effect. This would be consistent with Drury et al. (2014), who found that circumstances such as social networks and lifestyles for support require additional variables in the workplace before the effects of secondary stress is perceived. The circumstances in which the work of hospice employees is also different from workers in intensive care units and emergency units, whose conditions may be more stressful and interact with a healthcare worker’s own empathetic nature to create secondary traumatic stress (Crumpei & Dafinoiu, 2012). Hospice workers may have the ability to detach from an emergency situation and benefit from the autonomous nature of their work, which could act as a job resource. Personal coping mechanisms may also help mitigate against the effect of secondary traumatic stress, even if the stress is not currently known (Bourke & Craun, 2013). Since the concept of secondary traumatic stress has only recently being studied, there is much that remains unknown.
In summary, there was a significant positive correlation between number of deaths experienced in a 14-day period and levels of burnout \((r = 0.21, p = .026)\). The correlation coefficient between deaths experienced and levels of burnout was 0.21, indicating a small effect size. At the individual employee level, chaplains \((r = 0.84, p < .035)\) experienced a large effect size while Registered Nurses \((r = 0.31, p < .013)\) experienced a moderate effect size with the remaining employee groups having no significant correlation. This indicated that as the numbers of deaths experienced increases, burnout tends to increase across all levels of hospice employees. The lack of correlation between number of deaths experienced and levels of compassion satisfaction and levels of secondary traumatic stress suggested that hospice employees generally acquire satisfaction from their work and have natural mechanisms to cope with reliving the patient’s life experiences. Results of this study demonstrated that the hospice industry needs adequate resources in order to support hospice employees during times of increased patient deaths. These resources coming in the form of social support, leadership, and self-care tools, may result in keeping employees from exiting the hospice industry and maintaining quality patient care.

**Implications**

Understanding ways to mitigate stress, keep employees healthy, keep turnover low, and ensure high-quality patient care (DeLoach & Monroe, 2004) is necessary as hospice organizations not only continue to be added to the hospice field, but current organizations continue to grow in patient capacity. The results from this study illustrated that, as the number of patient deaths increases, so does the hospice employee’s level of burnout, while number of deaths had no significance on the same employee’s levels of
compassion satisfaction and secondary traumatic stress. Therefore, the findings of this study have theoretical and practical implications.

**Theoretical implications.** The purpose of this study was to examine if presence, absence, strength, and direction of a relationship existed between the number of deaths experienced by hospice employees and levels of compassion satisfaction, burnout, and secondary traumatic stress. How compassion satisfaction, burnout, and secondary traumatic stress manifest depend on how the overall factors in job demands are balanced by the overall factors in job resources (Demerouti et al., 2001). Job characteristics, such as demands from patients and families and not being able to spend the necessary time with each patient, mixed with staff not able to acquire resources needed by the employees and by the patients, theoretically may have a profound impact on employee’s wellbeing (Schaufeli, Bakker, Van Rhenen, 2009). The unpredictable patient care needs are why management needs help to ensure proper resources are available to keep balance between job demands and job resources (Schaufeli, Bakker, Van Rhenen, 2009).

Hospice management and employees understand the demands of the jobs, but each patient brings a unique need for resources. Researchers using the JD-RM have been able to predict that balancing factors between job demands and job resources vary by situation and person causing exhaustion and disengagement to simultaneously occur, potentially resulting in psychological strain (Bakker & Demerouti, 2006). But applying this theory is very understated for the hospice industry. The psychological strain hospice employees experience with job demand and job resources is why the JD-RM could help explain compassion satisfaction, burnout, and secondary traumatic stress. Therefore, it is clear that continued research using a theoretical foundation such as the JD-RM is needed.
to better understand different demands and resources continually experienced by hospice employees.

**Practical implications.** This study also presents practical implications about compassion satisfaction, burnout, and secondary traumatic stress with hospice employees. Employees often experience complex issues with death and the resources available to be effective in their job. The survey respondents overall reported positive compassion satisfaction results towards their professional quality of life. This is similar to other studies in hospice work and found employees overall appear to be satisfied and found meaning in their work while not internalizing the experience of the patient as their own experience (DeLoach & Monroe 2004; Whitebird et al., 2013). The value that employees acquire working with patients and families while carrying out the hospice philosophy may play a role in their degree of satisfaction with the job. This unseen value needs hospice organizations to continue to nurture the reason why employees work in the hospice field.

A number of prior research studies indicated that death, end-of-life care, and demographic factors were not the cause of burnout, but rather political matters at work, large caseloads, long hours, and administrative tasks caused the high levels burnout (DeLoach & Monroe, 2004; Hawkins, Howard, & Oyebode, 2007; Pavelkova & Buzgova, 2015; Quinn-Lee et al., 2014). With these factors in mind, hospice organizations may want to consider finding ways to reduce the number of factors that increase stress and create ways for employees to express themselves as a warning that burnout is starting to appear.
**Future implications.** This study adds to the body of knowledge that hospice employees continue to experience various levels of burnout similar to industries from healthcare professionals to teachers (Slocum-Gori et al., 2013; Teimuri, 2015; Lizano, 2015; Sabherwal et al., 2015; Travis et al., 2016; Wang et al., 2013; Woodhead et al., 2014; Yao et al., 2013). These same studies continue to show there are major factors each has tried to understand, but each major factor has a lot of sub factors that researchers have not yet researched. Consistently, the research reveals a need for organizations to understand all the factors leading to burnout and creating organization-based interventions to deal with those factors. This may help mitigate against negative outcomes while maintaining the emotional involvement that produces positive interactions between colleagues, clients, and managers. Fields that tend to experience higher levels of compassion satisfaction are ones with team cohesion, work-life balance, balanced caseloads, which are filled with manager support (Salloum et al., 2015). In this study, the number of deaths experienced in a 14-day period did not affect levels of compassion satisfaction among the participants. Hospice management teams should be interested in examining how the number of deaths is related to various factors and how those factors affect each discipline at different times.

With secondary traumatic stress having no significant relationship on hospice employees, research on mental health care workers and health care workers involved with military patients continue to show that as the patients relives their trauma the employees are unconsciously acquiring the trauma as their own experience. Coping mechanisms that may be used with burnout and secondary traumatic stress have shown to help mitigate against the impact (Bourke & Craun, 2013), but developing interventions that would
reduce the symptoms of secondary traumatic stress among workers have not been researched. This further reinforced the need to understand what personal responses are effective in reducing the effect of this form of stress and finding ways of integrating these methods into an organization.

**Strengths and weaknesses of the study.** While an effort was made to conduct a comprehensive research study that involved hospice employees from across the United States, some strengths and weaknesses were identified. The use of the Professional Quality of Life Scale version five, has been used in numerous prior studies that demonstrate it is valid and reliable to assess the research questions in this study. This study’s Cronbach’s alpha scores were: compassion satisfaction $\alpha=0.88$, burnout $\alpha=0.82$, and secondary traumatic stress $\alpha=0.85$. These scores met the good threshold for internal consistency. A study by Samson et al. (2016) validated the Hebrew version of the Professional Quality of Life Scale version five and had alpha scores of: compassion satisfaction $\alpha=0.87$, burnout $\alpha=0.69$, and secondary traumatic stress $\alpha=0.82$. The findings of this study were consistent with Samson et al. (2016) study, indicating consistency with the Professional Quality of Life Scale. Another strength was the vast location of the participants. Participants from 24 states were represented allowing for results to have some generalizability. Had the participants come from a single state, the results would be limited to that state.

This study provided additional support for findings that burnout continues to be prevalent in the hospice field even without taking demographic factors into consideration. Studies by Pavelkova & Buzgova, (2015) and Payne (2001) found various levels of burnout among hospice workers but found no correlation between burnout and
demographic factors such as years of experience or type of hospice care. The same studies recommended hospice workers should be monitored to identify individuals requiring greater support, due to a continual exposure to death. At the same time, these studies reported hospice is a positive environment in which to work and hospice workers have high levels of compassion satisfaction.

A few weaknesses should be noted in this research. The first concerns the number of participants from each discipline. While it was assumed that more nurses (n=64) would respond than any other discipline, the lack of larger numbers from nursing assistants (n=4), certified nursing assistants (n=16), chaplains (n=6), licensed practical nurses (n=12), and social workers (n=13) limits the generalizability of the conclusions. The total sample size (n=115) was adequate to achieve a power level of .95. However, a more equal sample from each discipline would have allowed for better generalizability. Another weakness is that while the number of deaths experienced over 14 days was known, it is not known when burnout starts or the tipping point in burnout because the threshold between employees will vary. The use of a self-reported instrument could cause the participants to provide false answers thus limiting the data. Lastly, with study participants knowing the purpose of the study and no measure for control, participants may give responses (consciously or unconsciously) to make the participant seem less vulnerable or reactive to the deaths they have experienced.

**Recommendations**

This study has provided beneficial statistical data that addresses how deaths experienced over a 14-day period affects an employee’s levels of compassion satisfaction, burnout, and secondary traumatic stress. Prior research presented a need to
understand the many factors that impact an employee’s compassion satisfaction and increase an employee’s burnout and secondary traumatic stress (Duarte et al., 2016; Lizano, 2015; Mangoulia et al., 2015; Slocum-Gori et al., 2013). Following is a summary of the recommendations made along with an explanation for the recommendations.

**Recommendations for future research.** As the post-World War II generation continues to enter their golden years, understanding how the number of patient deaths relates to hospice employees’ experiences will be crucial in order to reduce the psychological impact on hospice employees, to retain employees in the hospice field, and ensure quality of patient care for years to come. The findings of this study yielded the following recommendations for future research in the field of psychology. First, each discipline will have a different skill set based on their academic and professional experiences. Therefore, future research may assist the hospice community by correlating how these factors contribute to the responses an employee’s gives when related to the numbers of death and the levels of compassion satisfaction, burnout, and secondary traumatic stress.

Second, years in the hospice field may affect how some individuals respond to death. A study by Kelly et al. (2015) found new nurses were associated with higher levels burnout because of their inexperience to handle job demands. Conversely, studies by Severn et al. (2012) and Yu et al. (2016) added to the evidence that more years, not fewer, were associated with burnout. The apparently contradictory findings may indicate several things, and age may need to be associated with burnout only within the context of larger factors. Future research may assist the hospice community by correlating how
numbers of death and the levels of compassion satisfaction, burnout, and secondary traumatic stress is related to year of experience in the hospice industry. There may also be differences in the type of stress, acute versus chronic. It could be hypothesized that new nurses experience a form of acute stress in the new workplace that has an outsized impact on burnout, versus chronic fatigue experienced over multiple years, that can be coped with through acquired coping strategies. The specific types of stress may be different in their impact, which could be explored in qualitative inquiries designed to capture what these phenomena feel like among the nursing staff prior to categorizing the different types of stress for future qualitative study.

Third, new healthcare workers, either new to the healthcare field or recent college graduates, getting their first exposure to patient death, may be in danger of experiencing low levels of compassion satisfaction and high levels of burnout and secondary traumatic stress at levels not experienced by seasoned healthcare workers (Kelly et al., 2015). Utilizing the results of this study compared to a future study of only new employees may provide some foundational information managers desperately need when helping train and support new staff. Future studies could compare stress levels of new versus older employees. However, coping strategies may also differ between newer and older employees. Qualitative inquiry into the types of strategies used by newer versus older employees could be conducted first, yielding categories of coping mechanisms that could then be integrated into future quantitative analysis to determine which strategies were employed by which group (new vs old). The strategies found to effectively deal with stress and reduce burnout could then be integrated into hospice organizations for future instruction to incoming employees, potentially preventing burnout.
Fourth, Lee & Yom (2013) concluded that compassion satisfaction was the most significant factor in predicting burnout. Such findings suggest that organizations should make it a point to promote factors increasing compassion satisfaction if they hope to reduce burnout and the associated negative outcomes of burnout, such as turnover rates. This study did not attempt to correlate compassion satisfaction and burnout therefore, future researchers should analyze various factors such as management support, coworkers, single-location versus multi-location hospices’, to understand what factors consistently promote increasing compassion satisfaction and decrease burnout. Future research could be designed around using regression analysis to determine which variables were most strongly correlated with compassion satisfaction, in order to best determine where hospice organizations should prioritize their improvements.

Fifth, the unique environment of a team approach to plan patient care, but autonomy when providing patient care, leaves many avenues for compassion satisfaction to be studied especially how the number of patient deaths experienced relates to compassion satisfaction. Each discipline’s involvement in planning the patient care, then providing that care, has the potential to affect each discipline differently with compassion satisfaction. In addition to the planning, what happens during the autonomous patient care should be studied to see how the number of deaths trigger compassion satisfaction when out in the field.

Sixth, complete a study that only analyses participants who have experienced deaths in the last 14-days. This study included all responses regardless if the employee had experienced no deaths in 14-days or many deaths. Having participants who experienced no deaths in 14-days has the potential to skew the results. It may be
beneficial for future research to even compare the results from no deaths experienced to those who experience one or more deaths.

Other findings of this study lend themselves to future research. Specifically, it remains unclear how coping strategies impact outcomes for hospice workers. Baxendale’s (2015) work suggested that burnout levels among hospice workers remained low due to coping strategies, while Slocum-Gori et al. (2013) found that burnout levels were higher due to difficulties coping. This study aligned more closely with the findings of Slocum-Gori et al. (2013), but it may be that the circumstances of Baxendale’s (2015) study were significantly different enough that it impacted the outcome of the study’s results. To resolve this, it would be best to determine how much research has been done regarding coping strategies and burnout among these workers; this would establish whether a new study is required that expanded the scope of previous studies, or if a meta-analysis is required to better assess which studies are of the highest quality and what impact coping strategies actually had on employees.

**Recommendations for future practice.** Based upon the findings from this study and prior research, there are recommendations for future practice. With the addition of this research to the prior research regarding burnout, it is recommended that healthcare leaders take a closer look within their organization to develop a better understanding of how to support staff who have constant exposure to death. Organizations hoping to promote positive outcomes in the workplace might, therefore, benefit from training employees to be more highly aware, as well as mindful of their own thought processes and how to interact with their colleagues (Dasan et al., 2014; Decker et al., 2015). It is recommended that employees are provided with opportunities to understand how to
utilize self-care and other resources within the organization and hospice community. Social support systems and work life balances are just as important as manager support. At the end of the day, employees’ own self-care in conjunction with the JD-RM could promote higher levels of compassion satisfaction to help curb the side effects of burnout.

It is also recommended that organizational leaders and employees work together in an effort to better balance job demands and resources. How compassion satisfaction, burnout, and secondary traumatic stress manifest depend on how the overall factors in job demands are balanced by the overall factors in job resources (Demerouti et al., 2001). Data could be collected over a period of time from a new hospice employee and compared to a seasoned hospice employee. This may provide a better understanding of some of the demands and resources that are needed as an employee evolves through years of experience. These data may be beneficial to present during simulation exercises and workshops to give hospice employees opportunities to learn and prepare for when the demands from the patient exceed the resources of the employee.

The proposed recommendations have been provided for organizations who wholeheartedly wish to protect hospice employees from psychological distress, due to continual exposure to death. The hope is that future researchers will continue to investigate and understand the various factors that affect hospice employees compassion satisfaction, burnout, and secondary traumatic stress. The future research will hopefully provide organizations tools and resources to support their employees, preserve employees from departing the hospice field, and provider proper training for new hospice employees.
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http://dx.doi.org/10.1080/15555240.2012.640574

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Appendix A

Site Authorization Letter(s)

Site authorization letters on file at Grand Canyon University.
Appendix B

IRB Approval Letter

DATE: September 15, 2017
TO: Chris Pfund, MBA
FROM: Grand Canyon University Institutional Review Board
STUDY TITLE: [1064422-1] Investigating the impact of death on hospice employees’ stress levels
IRB REFERENCE #: 
SUBMISSION TYPE: New Project
ACTION: APPROVED
APPROVAL DATE: September 15, 2017
EXPIRATION DATE: September 15, 2018
REVIEW TYPE: Expedited Review
REVIEW CATEGORY: Expedited review category # 7

Thank you for your submission of New Project materials for this research study. Grand Canyon University Institutional Review Board has APPROVED your submission. This approval is based on an appropriate risk/benefit ratio and a study design wherein the risks have been minimized. All research must be conducted in accordance with this approved submission. The approved watermarked Informed Consent is included in your published documents in your IRBNet submission for use with your study.

This submission has received Expedited Review based on the applicable federal regulation.

Please remember that informed consent is a process beginning with a description of the study and insurance of participant understanding followed by a signed consent form. Informed consent must continue throughout the study via a dialogue between the researcher and research participant. Federal regulations require each participant receive a copy of the signed consent document.

Please note that any revision to previously approved materials must be approved by this office prior to initiation. Please use the appropriate revision forms for this procedure.

All SERIOUS and UNEXPECTED adverse events must be reported to this office. Please use the appropriate adverse event forms for this procedure. All FDA and sponsor reporting requirements should also be followed.

Please report all NON-COMPLIANCE issues or COMPLAINTS regarding this study to this office.

Please note that all research records must be retained for a minimum of three years.

Based on the risks, this project requires Continuing Review by this office on an annual basis. Please use the appropriate renewal forms for this procedure.
Appendix C

Informed Consent

INFORMED CONSENT FORM (SOCIAL BEHAVIORAL)  
MINIMAL RISK SAMPLE

CONSENT FORM

Investigating the impact of death on hospice employees’ stress levels.

INTRODUCTION

The purposes of this form are to provide you (as a prospective research study participant) information that may affect your decision as to whether or not to participate in this research and to record the consent of those who agree to be involved in the study.

RESEARCH

Chris Pfund, Student Researcher at Grand Canyon University has invited your participation in a research study.

STUDY PURPOSE

The purpose of the research is to understand if the number of patient deaths experienced by individual hospice employees correlates with the employee’s compassion satisfaction, burnout, or secondary traumatic stress. Acquiring the number of patient deaths experienced by discipline of employees during a given time period is an important understanding with how death affects individual hospice employee burnout and reduce employee turnover as the hospice industry grows.

DESCRIPTION OF RESEARCH STUDY

If you decide to participate, then as a study participant you will join a study that is trying to determine if the number of patient deaths experienced by individual hospice employees correlates with the employee’s compassion satisfaction, burnout, or secondary traumatic stress. The study requires each participant to take one survey that will last a minimum of 15 to 20 minutes. The identity of each participant will not be known as only participant email addresses will be loaded into SurveyMonkey and each participant will be utilizing the same survey link. No identifying names or email addresses will be disclosed.

RISKS
There are no known risks from taking part in this study, but in any research, there is some possibility that you may be subject to risks that have not yet been identified.

**BENEFITS**

The possible/main benefits of your participation in the research is the knowledge being added to the hospice field that could help inform and support hospice employees cope with stress due to patient deaths.

**NEW INFORMATION**

If the researchers find new information during the study that would reasonably change your decision about participating, then they will provide this information to you.

**CONFIDENTIALITY**

All information obtained in this study is strictly confidential. The results of this research study may be used in reports, presentations, and publications, but the researchers will not identify you. Furthermore, all data collected will be secured by SurveyMonkey’s secure website where access to data will only be permitted to the researcher and the SurveyMonkey administrator. If there are paper copies of survey measures or informed consent disclaimers, all documents will be locked in a small private safe where the researcher will be the only person with the safe combination. Finally, all data acquired from the study will be kept for three years after completion of the study then destroyed.

**WITHDRAWAL PRIVILEGE**

Participation in this study is completely voluntary. It is ok for you to say no. Even if you say yes now, you are free to say no later and withdraw from the study at any time. Your decision will not affect your relationship with the researcher as the research will not know if you did or did not complete the survey.

**COSTS AND PAYMENTS**

The researchers want your decision about participating in the study to be absolutely voluntary. In addition, there will be no payment for participation in the study.

**VOLUNTARY CONSENT**
<table>
<thead>
<tr>
<th>Any questions you have concerning the research study or your participation in the study, before or after your consent, will be answered by Chris Pfund. Chris may be reached at <a href="mailto:cpfund01@my.gcu.edu">cpfund01@my.gcu.edu</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>If you have questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Institutional Review Board, through the College of Doctoral Studies at (602) 639-7804.</td>
</tr>
<tr>
<td>This form explains the nature, demands, benefits and any risk of the project. By signing this form you agree knowingly to assume any risks involved. Remember, your participation is voluntary. You may choose not to participate or to withdraw your consent and discontinue participation at any time without penalty or loss of benefit.</td>
</tr>
<tr>
<td>I consent to participate in this study:</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
</tbody>
</table>
Appendix D

Copy of Instruments and Permissions Letters to Use the Instruments

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:

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

1. I am happy.
2. I am preoccupied with more than one person I [help].
3. I get satisfaction from being able to [help] people.
4. I feel connected to others.
5. I jump or am startled by unexpected sounds.
6. I feel invigorated after working with those I [help].
7. I find it difficult to separate my personal life from my life as a [helper].
8. I am not as productive at work because I am losing sleep over traumatic experiences of a person I [help].
9. I think that I might have been affected by the traumatic stress of those I [help].
10. I feel trapped by my job as a [helper].
11. Because of my [helping], I have felt "on edge" about various things.
12. I like my work as a [helper].
13. I feel depressed because of the traumatic experiences of the people I [help].
14. I feel as though I am experiencing the trauma of someone I have [helped].
15. I have beliefs that sustain me.
16. I am pleased with how I am able to keep up with [helping] techniques and protocols.
17. I am the person I always wanted to be.
18. My work makes me feel satisfied.
19. I feel worn out because of my work as a [helper].
20. I have happy thoughts and feelings about those I [help] and how I could help them.
22. I believe I can make a difference through my work.
23. I avoid certain activities or situations because they remind me of frightening experiences of the people I [help].
24. I am proud of what I can do to [help].
25. As a result of my [helping], I have intrusive, frightening thoughts.
26. I feel "bogged down" by the system.
27. I have thoughts that I am a "success" as a [helper].
28. I can't recall important parts of my work with trauma victims.
29. I am a very caring person.
30. I am happy that I chose to do this work.

© B. Hudnall Stamm, 2009-2012. Professional Quality of Life: Compassion Satisfaction and Fatigue Version 5 (ProQOL). www.proqo1.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. Those interested in using the test should visit www.proqol.org to verify that the copy they are using is the most current version of the test.
YOUR SCORES ON THE PROQOL: PROFESSIONAL QUALITY OF LIFE SCREENING

Based on your responses, place your personal scores below. If you have any concerns, you should discuss them with a physical or mental health care professional.

Compassion Satisfaction

Compassion satisfaction is about the pleasure you derive from being able to do your work well. For example, you may feel like it is a pleasure to help others through your work. You may feel positively about your colleagues or your ability to contribute to the work setting or even the greater good of society. Higher scores on this scale represent a greater satisfaction related to your ability to be an effective caregiver in your job.

The average score is 50 (SD 10; alpha scale reliability .88). About 25% of people score higher than 57 and about 25% of people score below 43. If you are in the higher range, you probably derive a good deal of professional satisfaction from your position. If your scores are below 40, you may either find problems with your job, or there may be some other reason—for example, you might derive your satisfaction from activities other than your job.

Burnout

Most people have an intuitive idea of what burnout is. From the research perspective, burnout is one of the elements of Compassion Fatigue (CF). It is associated with feelings of hopelessness and difficulties in dealing with work or in doing your job effectively. These negative feelings usually have a gradual onset. They can reflect the feeling that your efforts make no difference, or they can be associated with a very high workload or a non-supportive work environment. Higher scores on this scale mean that you are at higher risk for burnout.

The average score on the burnout scale is 50 (SD 10; alpha scale reliability .75). About 25% of people score above 57 and about 25% of people score below 43. If your score is below 43, this probably reflects positive feelings about your ability to be effective in your work. If you score above 57 you may wish to think about what at work makes you feel like you are not effective in your position. Your score may reflect your mood; perhaps you were having a "bad day" or are in need of some time off. If the high score persists or if it is reflective of other worries, it may be a cause for concern.

Secondary Traumatic Stress

The second component of Compassion Fatigue (CF) is secondary traumatic stress (STS). It is about your work related, secondary exposure to extremely or traumatically stressful events. Developing problems due to exposure to other’s trauma is somewhat rare but does happen to many people who care for those who have experienced extremely or traumatically stressful events. For example, you may repeatedly hear stories about the traumatic things that happen to other people, commonly called Vicarious Traumatization. If your work puts you directly in the path of danger, for example, field work in a war or area of civil violence, this is not secondary exposure; your exposure is primary. However, if you are exposed to others’ traumatic events as a result of your work, for example, as a therapist or an emergency worker; this is secondary exposure. The symptoms of STS are usually rapid in onset and associated with a particular event. They may include being afraid, having difficulty sleeping, having images of the upsetting event pop into your mind, or avoiding things that remind you of the event.

The average score on this scale is 50 (SD 10; alpha scale reliability .81). About 25% of people score below 43 and about 25% of people score above 57. If your score is above 57, you may want to take some time to think about what at work may be frightening to you or if there is some other reason for the elevated score. While higher scores do not mean that you do have a problem, they are an indication that you may want to examine how you feel about your work and your work environment. You may wish to discuss this with your supervisor, a colleague, or a health care professional.

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**WHAT IS MY SCORE AND WHAT DOES IT MEAN?**

In this section, you will score your test so you understand the interpretation for you. To find your score on each section, total the questions listed on the left and then find your score in the table on the right of the section.

### Compassion Satisfaction Scale

Copy your rating on each of these questions on to this table and add them up. When you have added them up you can find your score on the table to the right.

<table>
<thead>
<tr>
<th>Question</th>
<th>Rating</th>
<th>The sum of my Compassion Satisfaction questions is</th>
<th>So My Score Equals</th>
<th>And my Compassion Satisfaction level is</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.</td>
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<td>6.</td>
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<tr>
<td>12.</td>
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<td>16.</td>
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<td>22.</td>
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<td>30.</td>
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<tr>
<td><strong>Total:</strong></td>
<td></td>
<td><em>The sum of my Compassion Satisfaction questions is</em></td>
<td><em>So My Score Equals</em></td>
<td><em>And my Compassion Satisfaction level is</em></td>
</tr>
</tbody>
</table>

### Burnout Scale

On the burnout scale you will need to take an extra step. Starred items are "reverse scored." If you scored the item 1, write a 5 beside it. The reason we ask you to reverse the scores is because scientifically the measure works better when these questions are asked in a positive way though they can tell us more about their negative form. For example, question 1. "I am happy" tells us more about the effects of helping when you are not happy so you reverse the score. When you have added up your answers you can find your score on the table to the right.

<table>
<thead>
<tr>
<th>Question</th>
<th>Rating</th>
<th>The sum of my Burnout Questions is</th>
<th>So my Score equals</th>
<th>And my Burnout level is</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. *</td>
<td>3</td>
<td></td>
<td>22 or less</td>
<td>Low</td>
</tr>
<tr>
<td>4. *</td>
<td>5</td>
<td></td>
<td>43 or less</td>
<td>Low</td>
</tr>
<tr>
<td>8.</td>
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<td>10.</td>
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<tr>
<td>15. *</td>
<td>4</td>
<td></td>
<td>23 or 41</td>
<td>Average</td>
</tr>
<tr>
<td>17. *</td>
<td>5</td>
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<td>26.</td>
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<tr>
<td>29. *</td>
<td>1</td>
<td></td>
<td>42 or more</td>
<td>High</td>
</tr>
</tbody>
</table>

### Secondary Traumatic Stress Scale

Just like you did on Compassion Satisfaction, copy your rating on each of these questions on to this table and add them up. When you have added then up you can find your score on the table to the right.

<table>
<thead>
<tr>
<th>Question</th>
<th>Rating</th>
<th>The sum of my Secondary Trauma questions is</th>
<th>So My Score Equals</th>
<th>And my Secondary Traumatic Stress level is</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td>22 or less</td>
<td>Low</td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td>43 or less</td>
<td>Low</td>
</tr>
<tr>
<td>7.</td>
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<td>9.</td>
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<td>11.</td>
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<td>13.</td>
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<td>16.</td>
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<td>18.</td>
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<tr>
<td>23.</td>
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<tr>
<td>25.</td>
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<tr>
<td>28.</td>
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</tbody>
</table>

**Total:**

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Demographic Survey Questions

1. What is your job title?
2. Does your hospice have more than one location?
3. What is your education level?
4. What is your gender?
5. What is your age?
6. What state do you live in?
7. How many patient deaths have you experienced in the last 14 days?
Appendix E

Power Analyses for Sample Size Calculation

![Graph showing power analysis](image)

<table>
<thead>
<tr>
<th>Test family</th>
<th>Statistical test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exact</td>
<td>Correlation: Bivariate normal model</td>
</tr>
</tbody>
</table>

Type of power analysis

A priori: Compute required sample size - given α, power, and effect size

<table>
<thead>
<tr>
<th>Input parameters</th>
<th>Output parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tail(s)</td>
<td>Lower critical r</td>
</tr>
<tr>
<td></td>
<td>Upper critical r</td>
</tr>
<tr>
<td>Determine</td>
<td>Total sample size</td>
</tr>
<tr>
<td>Correlation p H1</td>
<td>Actual power</td>
</tr>
<tr>
<td>α err prob</td>
<td>0.1541491</td>
</tr>
<tr>
<td>Power (1-β err prob)</td>
<td>0.1541491</td>
</tr>
<tr>
<td>Correlation p H0</td>
<td>115</td>
</tr>
<tr>
<td></td>
<td>0.95</td>
</tr>
</tbody>
</table>

Critical r = 0.15415

## Appendix F

### Detailed Data Used in Data Analysis

<table>
<thead>
<tr>
<th>Question</th>
<th>N</th>
<th>Range</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>How many patient deaths have you experienced in the last 14 days?</td>
<td>115</td>
<td>3</td>
<td>14</td>
<td>3.42</td>
<td>3.293</td>
<td>1.074</td>
</tr>
<tr>
<td>I am happy.</td>
<td>115</td>
<td>3</td>
<td>4.24</td>
<td>0.721</td>
<td>-0.546</td>
<td>-0.376</td>
</tr>
<tr>
<td>I am preoccupied with more than one person I care for.</td>
<td>115</td>
<td>4</td>
<td>3.07</td>
<td>0.962</td>
<td>0.1</td>
<td>-0.442</td>
</tr>
<tr>
<td>I get satisfaction from being able to care for people.</td>
<td>115</td>
<td>2</td>
<td>4.67</td>
<td>0.491</td>
<td>-0.956</td>
<td>-0.538</td>
</tr>
<tr>
<td>I feel connected to others.</td>
<td>115</td>
<td>2</td>
<td>4.35</td>
<td>0.689</td>
<td>-0.581</td>
<td>-0.753</td>
</tr>
<tr>
<td>I jump or am startled by unexpected sounds.</td>
<td>115</td>
<td>4</td>
<td>2.64</td>
<td>0.957</td>
<td>0.651</td>
<td>0.455</td>
</tr>
<tr>
<td>I feel invigorated after working with those I care for.</td>
<td>115</td>
<td>4</td>
<td>3.77</td>
<td>0.82</td>
<td>-0.316</td>
<td>0.17</td>
</tr>
<tr>
<td>I find it difficult to separate my personal life from my life as a caregiver.</td>
<td>115</td>
<td>4</td>
<td>2.48</td>
<td>0.976</td>
<td>0.465</td>
<td>0.043</td>
</tr>
<tr>
<td>I am not as productive at work because I am losing sleep over traumatic experiences of a person I care for.</td>
<td>115</td>
<td>2</td>
<td>1.73</td>
<td>0.692</td>
<td>0.415</td>
<td>-0.858</td>
</tr>
<tr>
<td>I think that I might have been affected by the traumatic stress of those I care for.</td>
<td>115</td>
<td>4</td>
<td>2.18</td>
<td>0.923</td>
<td>0.647</td>
<td>0.327</td>
</tr>
<tr>
<td>I feel trapped by my job as a caregiver.</td>
<td>115</td>
<td>3</td>
<td>1.73</td>
<td>0.862</td>
<td>0.973</td>
<td>0.117</td>
</tr>
<tr>
<td>Because of my caregiving, I have felt &quot;on edge&quot; about various things.</td>
<td>115</td>
<td>4</td>
<td>2.19</td>
<td>0.917</td>
<td>0.721</td>
<td>0.785</td>
</tr>
<tr>
<td>I like my work as a caregiver.</td>
<td>115</td>
<td>4</td>
<td>4.45</td>
<td>0.679</td>
<td>-1.195</td>
<td>1.563</td>
</tr>
<tr>
<td>I feel depressed because of the traumatic experiences of the people I care for.</td>
<td>115</td>
<td>4</td>
<td>1.96</td>
<td>0.882</td>
<td>0.709</td>
<td>0.235</td>
</tr>
<tr>
<td>I feel as though I am experiencing the trauma of someone I have cared for.</td>
<td>115</td>
<td>4</td>
<td>1.82</td>
<td>0.884</td>
<td>0.91</td>
<td>0.465</td>
</tr>
<tr>
<td>I have beliefs that sustain me.</td>
<td>115</td>
<td>4</td>
<td>4.21</td>
<td>1.158</td>
<td>-1.521</td>
<td>1.493</td>
</tr>
<tr>
<td>I am pleased with how I am able to keep up with caregiving techniques and protocols.</td>
<td>115</td>
<td>3</td>
<td>4.18</td>
<td>0.696</td>
<td>-0.581</td>
<td>0.388</td>
</tr>
<tr>
<td>I am the person I always wanted to be.</td>
<td>115</td>
<td>4</td>
<td>3.77</td>
<td>0.921</td>
<td>-0.611</td>
<td>0.27</td>
</tr>
<tr>
<td>My work makes me feel satisfied.</td>
<td>115</td>
<td>3</td>
<td>4.26</td>
<td>0.727</td>
<td>-0.725</td>
<td>0.218</td>
</tr>
<tr>
<td>I feel worn out because of my work as a caregiver.</td>
<td>115</td>
<td>4</td>
<td>2.9</td>
<td>0.968</td>
<td>0.212</td>
<td>-0.149</td>
</tr>
<tr>
<td>I have happy thoughts and feelings about those I care for and how I could care for them.</td>
<td>115</td>
<td>3</td>
<td>4.23</td>
<td>0.667</td>
<td>-0.487</td>
<td>0.06</td>
</tr>
<tr>
<td>I feel overwhelmed because my care work load seems endless.</td>
<td>115</td>
<td>4</td>
<td>2.77</td>
<td>0.899</td>
<td>0.17</td>
<td>0.119</td>
</tr>
<tr>
<td>I believe I can make a difference through my work.</td>
<td>115</td>
<td>3</td>
<td>4.48</td>
<td>0.68</td>
<td>-1.113</td>
<td>0.711</td>
</tr>
<tr>
<td>I avoid certain activities or situations because they remind me of frightening experiences of the people I care for.</td>
<td>115</td>
<td>4</td>
<td>1.59</td>
<td>0.826</td>
<td>1.841</td>
<td>4.343</td>
</tr>
<tr>
<td>I am proud of what I can do to help.</td>
<td>115</td>
<td>2</td>
<td>4.55</td>
<td>0.596</td>
<td>-0.947</td>
<td>-0.081</td>
</tr>
<tr>
<td>As a result of my care giving, I have intrusive, frightening thoughts.</td>
<td>115</td>
<td>4</td>
<td>1.63</td>
<td>0.93</td>
<td>1.46</td>
<td>1.479</td>
</tr>
<tr>
<td>I feel &quot;bogged down&quot; by the system.</td>
<td>115</td>
<td>4</td>
<td>2.7</td>
<td>1.156</td>
<td>0.1</td>
<td>-0.769</td>
</tr>
<tr>
<td>I have thoughts that I am a &quot;success&quot; as a caregiver.</td>
<td>115</td>
<td>4</td>
<td>4.11</td>
<td>0.814</td>
<td>-0.807</td>
<td>0.906</td>
</tr>
<tr>
<td>I can't recall important parts of my work with trauma victims.</td>
<td>115</td>
<td>4</td>
<td>2.02</td>
<td>0.991</td>
<td>1.065</td>
<td>0.904</td>
</tr>
<tr>
<td>I am a very caring person.</td>
<td>115</td>
<td>2</td>
<td>4.55</td>
<td>0.566</td>
<td>-0.783</td>
<td>-0.398</td>
</tr>
<tr>
<td>I am happy that I chose to do this work.</td>
<td>115</td>
<td>2</td>
<td>4.57</td>
<td>0.609</td>
<td>-1.085</td>
<td>0.166</td>
</tr>
</tbody>
</table>