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Servant Leadership on Burnout among Physicians in Residency Training

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This is to certify that the doctoral dissertation by

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Walden University
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Abstract

Servant Leadership on Burnout among Physicians in Residency Training

by

Karen Grant-Hewitt

MPhil, Walden University, 2020

MS, Mercy College, 2008

BA, Hunter College, 2005

Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

Physicians in residency training (PIRTs) in the United States are facing extreme burnout. The prevalence of burnout among physicians in residency training may cause adverse consequences due to physical and mental exhaustion. The purpose of this study was to analyze servant leadership style of physician trainers and burnout among PIRTs in academic medical centers in the United States to ultimately increase wellness and thereby mitigate burnout. Servant leadership was the theoretical foundation for this study. This research investigated whether servant leadership characteristics of physician trainers played a statistically significant role in burnout of PIRTs while controlling for demographic variables (age, gender, and years in residency training). A sample of 122 PIRTs in academic medical centers in the United States were recruited through email list and others with explicit permission from program administrators and senior leaders. Each participant answered a servant leadership survey, Oldenburg burnout inventory, and a learning climate questionnaire. Hierarchical multiple linear regression analysis was performed to investigate the relationship between the independent variable, servant leadership, and the dependent variable, burnout. The results indicated that there was a statistically significant, negative relationship between the perceived servant leadership of physician trainers and the burnout of PIRTs. Overall, PIRTs had a moderate degree of burnout. Physician trainers generally showed a high degree of servant leadership characteristics. Implications for positive social change include educators and leaders in academic medical centers potentially use servant leadership characteristics to mitigate burnout among PIRTs, while contributing to a collaborative learning environment.

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Dedication

I dedicate this accomplishment to my parents, my father the late Mr. Walter Grant and my Mother Mrs. Catherine Grant, thank you for always believing in me and bestowing your positivity, and knowledge to excel in education and in life. To my amazing husband, Rashiid, thank you for your support, encouragement and love. To my daughter Keioki, I dedicate my work to you. I am proof that you can do anything and accomplish greatness. Your possibilities are endless. I love you my darling daughter. This dissertation is dedicated to you, my parents and your dad, because without all you, this would not be possible.

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Chapter 1: Introduction to the Study

Physician residents in the U.S. healthcare systems are suffering from mental and physical exhaustion otherwise known as burnout. Consequently, healthcare leaders, medical educators, and physician trainers may potentially be incognizant of components to minimize burnout for physician residents. Burnout is an imminent healthcare crisis as physicians in residency training (PIRTs) are facing extreme burnout (Brady et al., 2018; Frajerman et al., 2019; Hamidi et al., 2018; Ripp et al., 2017; Trockel et al., 2018) overwhelmingly, preceding the current global pandemic of COVID-19, otherwise known as the coronavirus. A leadership style that encompasses empowerment and productivity during employee turbulence is servant leadership (Bilal et al., 2020; Eva et al., 2019). Servant leadership is an approach of service to individuals and teams for improving organizational processes (Gunnarsdottir et al., 2018; Hoch et al., 2016). I conducted this study to empirically analyze the perceived servant leadership constructs as precursors to mitigate burnout during residency training to eschew irrevocable fatalities in healthcare.

Physician burnout is a national quandary in the United States (Bai et al., 2020; Brady et al., 2018). I examined servant leadership theory to mitigate this phenomenon. Servant leadership principles are quintessential for healthcare as the components manifest the desire to make a difference in communities (Hoch et al., 2016). The potential for positive social change included engaging PIRTs through servant leadership principles, and thereby minimizing stressors causing burnout, increasing wellness to exhibit positive training trajectories, and ultimately, improving healthcare outcomes.

This chapter includes a background of the literature related to defining residents, ubiquity of burnout, and principles of servant leadership. In this chapter, I also discuss the problem statement and the purpose of the study. Additionally, I introduce the research question, the method, and design of the study. The chapter concludes with the significance of the study and a summary of the chapter.

Background of the Study

Burnout is an emerging area of research in the medical field. Approximately 78% of physicians experienced symptoms of burnout, constituting a public health crisis for the United States (Survey of American Physicians, 2018). Burnout has been defined as a syndrome indicative of emotional exhaustion and decreased personal accomplishment (Leiter & Schaufeli, 1996), and is a consistent concern in the healthcare industry (Molero et al., 2018). Patient care requirements are often overwhelming for PIRTs due to extensive job demands which will lead to severe consequences.

Some repercussions of burnout are comprised job performance, satisfaction, and interpersonal relationships (Chemali et al., 2019). Burnout is caused by psychological strain and physical depletion of energy (Maslach, 1976). Researchers contend there are supplemental signs of burnout including alcoholism and depression (Dyrbye & Shanafelt, 2016). With these profound effects of burnout, further analysis was required to minimize the gap in knowledge for factors to mitigate burnout among PIRTs in healthcare.

PIRTs

PIRTs are graduates of medical schools who earned a medical degree and have enrolled in a residency program under a U.S. institution that is accredited by the

Accreditation Council for Graduate Medical Education Accrediting (ACGME) for residency and fellowship programs (ACGME, 2018; Maniar et al., 2019). Completing this program is necessary for specialty training (ACGME, 2018). During this training stage PIRTs learn how to diagnose patient illness, gather in depth medical histories, conduct physical exams, order medications, procedures, and acquire other essential skills. ACGME sets standards for PIRTs to prepare them to become efficacious physicians (Maniar et al., 2019).

There are many requirements for PIRTs set by the ACGME. For instance, researchers found that PIRTs are responsible for implementing plans of care for patients within the scope of their level of training, discharge patients, perform medical procedures, maintain clinical notes, provide sound medical judgement to support medical necessity to obtain authorizations for procedures, and provide quality care to patients (ACGME, 2018; Reith, 2018; Solm et al., 2019). PIRTs are also required to attend clinical rotations, seminars, conferences, performing research and scholarly activities, and log weekly duty hours while studying for medical board exams and abiding to the 80 hours per week work restriction instituted by ACGME (ACGME, 2018).

PIRTs must maintain current medical certifications in basic life support, advanced cardiac life support, pediatric life support and other certifications for specialty populations (ACGME, 2018). Researchers avowed numerous requirements have contributed heavily to burnout among PIRTs (Solm et al., 2019). Additionally, researchers contended that PIRTs are inundated with high educational and clinical

demands which contributed to stress and burnout (Brady et al., 2018; Callahan et al., 2018; Hamidi et al., 208; Trockel et al., 2018).

According to Dyrbye et al. (2019), if burnout is unresolved in the medical industry, increased levels could result in higher rates of patient mortality. Reith (2018) posited that when burnout is not addressed in the U.S. health system, this phenomenon contributes to medical turnover and physician shortages. Extreme occupational stress may adversely impact care provided to patients (Ebrahimi & Kargar, 2018; Privitera et al., 2015; Yates, 2020). Servant leadership was a viable option for invention and structural improvement for healthcare systems.

Servant Leadership

The notion of servant leadership was referenced by Greenleaf as a philosophical leadership approach for how to be selfless as a leader (Greenleaf, 1970). A servant leader develops processes to enhance engagement and performance of individuals and teams within organizations. Essentially servant leaders are the epitome of benevolent human beings who are committed to interconnectedness, expansion and growth of others (Greenleaf, 1977).

Correspondingly, Eva et al. (2019) asserted servant leadership was advantageous within organizations by awakening, engaging, and developing employees. Eva et al. (2019) further postulated the demand for ethical, caring, and inspired leadership is comprehensible. Servant leadership has been instituted in several industries by advocates of this style who concluded that, servant leadership improved performance in the

workplace through collaboration and creativity, engaging employees, and establishing positive work outcomes (Eva et al., 2019; Sousa & Van Dierendonck, 2017).

Servant leadership has proven to have positive organizational outcomes, and improved job satisfaction and commitment (Hoch et al., 2016). An investigation of the effects of servant leadership strategies to mitigate burnout was essential for healthcare leaders and medical educators.

Problem Statement

The general problem for my study is the exponential cost of physician burnout. Burnout amounts to more than $4.6 billion per year in lost revenues for the U.S. hospitals (Dyrbye et al., 2019). Researchers found that PIRTs experienced burnout at an even greater level because of increased job and educational demands, which often lead to missed diagnoses, lost productivity, and poor life coping skills (Busireddy et al., 2017). Rodriguez et al. (2018) argued that the burnout syndrome in specialties was significantly higher among some PIRTs compared to others. The specific research problem was that PIRTs were facing extreme burnout. Burnout causes adverse reactions leading to alcoholism, stress, medical errors, and fatalities (Frajerman et al., 2019; Yates, 2020).

Chemali et al. (2019) found that burned out professionals are often frustrated and experience negative interpersonal relationships with coworkers, and Ripp et al. (2017) argued professionals who experienced burnout often experienced a lack of emotional support. While a preponderance of literature existed on servant leadership, there was a gap in the literature examining the predictive relationship between servant leadership and

burnout among physicians in residency training in academic medical centers in the United States, after controlling for age, gender, and years in residency training.

Purpose of the Study

The purpose of this quantitative correlational study was to examine if there was a relationship between perceived servant leadership characteristics of physician trainers and burnout among physicians in residency training in academic medical centers in the United States. The intended purpose of this research was to identify a gap between servant leadership and strategies to mitigate burnout in the existing body of literature. The independent variable was servant leadership as measured by the servant leadership survey (SLS) created by Liden et al. (2008). The dependent variable was burnout as created by Demerouti and Nachreiner (1998) and modified by Demerouti et al. (2001). The Learning Climate Questionnaire (LCQ) by Black and Deci (2000) was adopted to measure the affective of PIRTs pertaining to leadership from their physician trainers. The demographic variables in the study were age as measured by years, gender as reported, and experience as measured by years in training.

Research Question (RQ) and Hypotheses

RQ: Is there any statistically significant relationship between the perceived servant leadership of physician trainers and the burnout of PIRTs controlling for demographic variables (age, gender, and years in residency training)?

Hypotheses

$H_0 1$: There is no statistically significant relationship between the age of PIRTs and burnout.

$H_1$1: There is a statistically significant relationship between the age of PIRTs and burnout.

$H_0$2: There is no statistically significant relationship between the gender of PIRTs and burnout.

$H_1$2: There is a statistically significant relationship between the gender of PIRTs and burnout.

$H_0$3: There is no statistically significant relationship between years in residency training and burnout.

$H_1$3: There is a statistically significant relationship between years in residency training and burnout.

$H_0$4: There is no statistically significant relationship between servant leadership and burnout.

$H_1$4: There is a statistically significant relationship between servant leadership and burnout.

Theoretical Foundation

In this study, I used the servant leadership theory (Greenleaf, 1977) and constructs from the scale developed by Liden et al. (2008) to analyze the associations with burnout. Liden et al.'s (2008) version of the servant leadership theory defined seven measurable principles of servant leadership: (a) emotional healing, (b) creating value for the community, (c) conceptual skills, (d) empowering, (e) helping subordinates grow and succeed, (f) putting subordinates first, and (g) behaving ethically. For the purpose of this

study, I analyzed the following principals (a) empowerment, (b) helping employees grow and succeed, and (c) putting employees first. I discuss these principals in detail in Chapter 2. Servant leadership theory has weaknesses and is moderately associated to transformational leadership. However, the value in further investigating the theory of servant leadership augmented its value of relationships, focusing on followers rather than leaders, and its congenial connection to altruism and interconnectedness (Hoch et al., 2016).

Servant leadership was originated by Greenleaf (1977). At the time some researchers controverted the theory was more a movement and was not founded in research, nonetheless, was more personal observation (Eva et al., 2019). These researchers deduced Spears (1998) was the one who identified 10 principles of the movement, which led to the development of a theory. These principles included:

- Listening: Making the commitment to attentively listen to others eschewing interruptions.
- Empathy: Valuing the perspectives of colleagues.
- Healing: Collaborating in a work environment.
- Awareness: Acknowledgment of how actions and behaviors of colleagues affect performance of the team.
- Persuasion: Encouraging people to act.
- Conceptualization: Looking forward without being distracted,
- Foresight: Predicting the future and conceptualizing consequences for actions.

- Stewardship: Being accountable for one's actions.
- Commitment to the growth of people: Committed to enhancing personal achievement and development of colleagues.
- Building community: Encourage interconnectedness among individuals and teams and communicate the importance of collaboration to meet goals (Spears, 1995, 2016).

According to a growing number of researchers (Eva et al., 2019; Parris & Peachy, 2013), servant leadership has been espoused as a valid theory and provided benefit for developing organizational leadership. A purpose of servant leadership was the emphasis on followers rather than the interest of leaders. Laub (1999) postulated this was accomplished by (a) valuing and developing people (b) practicing authenticity in leadership (c) building community, (d) providing leadership for the good of followers, and (e) sharing status and power for the common good of followers.

The theory of servant leadership has several instruments to measure its construct. Conversely, no consensus among researchers on a superior instrument was proposed. Servant leadership characteristics have been associated with positive outcomes in various industries including healthcare, which I will discuss in greater detail in Chapter 2. Servant leadership characteristics are essential for PIRTs to demonstrate responsibility, display transparency, and set goals in accordance to their abilities. Servant leadership was the quintessential essence for the healthcare systems because the characteristics encompass caring for others and providing quality care to customers, through collaboration, strength, and teamwork (Belsky, 2016).

During the COVID-19 pandemic, healthcare workers trust in their organizational leaders for the safety of themselves, healing patients in the community, and displaying courage. Essentially, to keep each other and patients safe, healthcare workers exhibited altruism by placing the needs of the community first, requesting the public to remain home to minimize the spread of the coronavirus. These servant leadership characteristics exemplified collaboration and enrichment thereby leading to a prosperous community (Aij & Rapsaniotis, 2017). Undoubtedly, healthcare workers faced uncertainty and stress in traumatic situations that ultimately lead to extreme levels of mental and physical exhaustion. Linking servant leadership as an antecedent to mitigate burnout of PIRTs was detrimental to their wellness and the community.

The theoretical propositions delineated in servant leadership theory relate to this study and research questions to investigate principles of servant leadership and any associations to burnout. I examined the effects of servant leadership principles on burnout of PIRTs, controlling for the demographics (age, gender, and training experience of PIRTs. Minimal studies have examined servant leadership theory as a precursor to minimize burnout. I empirically investigated the construct for validation and existence of relationships.

Nature of the Study

I used a nonexperimental, quantitative research design using online surveys of PIRTs' perceived servant leadership characteristics (creating value for the community, empowering, helping subordinates grow and succeed, and putting others first) of their physician trainers, and burnout. The key variables in this study were the independent

variable servant leadership, and the dependent variable was burnout. The demographic controlling variables in this study were age as measured by years, gender as reported, and experience as measured by years in training. The target population for the survey were approximately 1590 PIRTs from 10 academic medical centers in the United States. A minimum sample size of 122 was required for a .80 power level. Generalizations pertaining to the perceptions of servant leadership principles among PIRTs of dissimilar age, gender and training experiences were collected.

I conducted this study via the internet using three validated survey instruments: SLS (see Liden et al., 2008), OLBI, (see Demerouti et al., 2001), LCQ (see Black & Deci, 2000), and one demographic survey which was descriptive of PIRTs in the United States. I tested the independent variable servant leadership the dependent variable burnout and controlling variables of PIRTs to assess the relationship between the independent and dependent variable utilizing SPSS software. A multiple regression analysis was the preferred method for identifying relationships in continuous data (e.g., age, gender, training experience, SLS, OLBI, and LCQ scores). According to Tai-Seale et al. (2019), generalizing was applicable in various populations for quantitative research. The applicability of this data analysis of variables among the sample population was to permit generalizations of the population test the research question and hypotheses.

I chose a quantitative methodology instead of the qualitative or mixed methods methodology for several reasons. A qualitative methodology would not be applicable for conducting this study because this methodology involved collecting data by interacting with participants, verifying responses, and interpreting responses of participants. Using

such strategies was not part of this study. I did not consider mixed methods methodology because of the qualitative aspects of the methodology. Researchers used correctional design to test relationships between variables (Tai-Seale et al., 2019). Several other researchers have used a correlational research design to test relationships between variables because correctional designs were the most applicable to test hypotheses and theories (Jackson et al., 2016). I used a quantitative methodology to collect data using surveys, create research questions, test hypotheses, utilize statistical methodologies, and test theories, all from a postpositivist worldview.

There were two other designs available in the quantitative methodology such as the quasi-experimental design and the true experimental design. These designs are not suitable for testing relationships and are more applicable when testing interventions and cause and effect outcomes (Maciejewski, 2020). For the purpose of this, study a nonexperimental design was applicable. Nonexperimental research designs are conducted through observation and documenting outcomes found within a population.

Definitions

Burnout: Burnout is comprised of three conditions: emotional exhaustion, depersonalization, and a reduction in work achievement (Demerouti et al., 2001; Leiter & Schaufeli, 1996; Maslach & Leiter, 2016). Chemali et al. (2019) defined burnout as emotional stress caused from work demands. Jackson et al. (2016) defined burnout as having minimal personal accomplishment at work as a result of stress. For the purpose of this study, burnout is defined as PIRTs feeling overwhelmed emotionally and physically from work (Jackson et al., 2016). PIRTs often exhibit depression as a result of increased

work. PIRTs often experience detachment from responsibilities and diminished motivation to complete job responsibilities (Chemali et al., 2019).

Physician in Residency in Training (PIRT): PIRTs are graduates of medical schools who earned a medical degree. PIRTs are enrolled in specialty training for one through three years residency program. Institutions in the United States are accredited by the Accreditation Council for Graduate Medical Education Accrediting (ACGME, 2018).

Servant Leader: A leader who expresses sensitivity by using seven principles: emotional healing, creating value for the community, conceptual skills, empowering, helping subordinates grow and succeed, putting subordinates first, and behaving ethically (Liden et al., 2008). For the purpose of this research, the servant leader is defined as: (a) displays sensitivity, (b) facilitates authentic concern to uplift other PIRTs in similar work environments, (c) possesses the knowledge and skills to assist and empower other PIRTs, (d) motivates other PIRTs to overcome challenges and complete tasks, (e) provides support and commitment to the growth and development of other PIRTs, (f) facilitates support to PIRTs to achieve goals thereby displays compassion and altruistic qualities, and (g) demonstrates moral and honest behaviors toward others (Hoch et al., 2016; Liden et al., 2008).

Servant Leadership: A servant leader is one who supports those who choose to serve and leads through encouragement, trust and empowerment. Servant leaders are servants first and display concern for the needs of their employees (Greenleaf, 1970).

Assumptions

I assumed that the subpopulation used for this study was representative of the overall population. I assumed that participants of this survey provided thoughtful and honest answers. I assumed that communication was effective for anonymity of the survey to encourage truthful answers. I also assumed that PIRTs believed their level of burnout had an effect on their ability to perform their job functions. My final assumption was that respondents communicated the true nature of their internal thought and behaviors. To ensure the mitigation of these assumptions, I used a sufficiently large sample size and traditional processes for survey research.

Scope and Delimitations

In this research, I excluded nurses, medical assistants, office managers, and administrative support staff. I focused specifically on PIRTs as a result of the exponential burnout rates in this population and the significant cost to the healthcare industry. Graduate medical educators and physicians are the decision makers in medical training and must actively participate in educating PIRTs to care for the community with competence and sanity. The theory of servant leadership to diminish levels of burnout proved to be an efficacious leadership practice for healthcare. Internal validity was addressed within the large population of PIRTs. This study provided guidelines and principles to design curriculum for servant leadership development in residency training programs. Graduate medical educators and organizational leaders may use the results of this study to cultivate a servant leadership culture within healthcare.

Delimitations

The delimitations of the study are those elements that the researcher has direct control over. While the scope of conducting this study was limited to PIRTs in the healthcare industry, professionals who use servant leadership strategies in other industries also had similar experiences with the burnout phenomenon in the United States and the rest of the world. The choice of topic for this study materialized after a careful examination of the literature.

Another delimiter was the sample pool. The participants were limited to PIRTs who were (a) graduates from a U.S. medical school and licensed to practice medicine, (b) currently employed as residents and were in specialty training from one through ten years. Purposeful sampling was used to invite participants to take an online survey based on consent from healthcare leadership.

Limitations

A stratified random sampling was necessary to give participants from all academic medical center's equity and inclusion in the study. Participants were selected from academic medical centers who were representatives of several residency programs. The participants of the study experienced different degrees of burnout due to the nature of the functionality of their discipline and job responsibilities.

This research was limited to servant leadership and therefore was not aligned with dissimilar leadership styles. The uniqueness of PIRTs and their perception of servant leadership within the healthcare environment influenced their interpretation and answers to the questions on the survey instruments. PIRTs level of knowledge and interaction

with their leaders affected how they perceived servant leadership principles within the work environment. This affected the way the PIRTs interpreted the survey questions.

Significance of the Study

Conducting this study may contribute to positive social change by providing results that may help to reduce burnout among PIRTs and increase completion of specialty field certification through post graduate education. When PIRTs complete their training with low levels of burnout, these professionals are more likely to render more accurate and efficient medical care to the community. In turn, members of the community are more likely to depend on and follow the advice of their doctors to ensure optimum health. Therefore, the findings of this study may contribute to social change by enhancing and improving services in healthcare. Consequently, improving financial health and wellness, which is essential for overall institutional healthcare success.

Significance to Theory

The results of this study may contribute to the servant leadership theory. Although this theory has been studied with the burnout phenomenon, there are no available studies between servant leadership and burnout on PIRTs. Therefore, the results of this study benefits leaders in the management discipline to understand how servant leadership dimensions affect the attitudes and behaviors of PIRTs. Leaders in other similar disciplines are able to apply the results of this study for mitigating the negative effects of burnout. The theory was used for addressing the need for healthcare educators to achieve long-term goals through facilitating well-being initiatives for PIRTs. The relevance of

this research allowed healthcare leaders, practitioners, and residency program directors to strategically evaluate training orientations to minimize burnout.

Significance to Practice

The results of this study may advance knowledge in the organizational leadership and change management discipline for potentially changing how PIRTs are trained to control the burnout phenomenon. Studies were required to substantiate the importance of using servant leadership qualities, which were prevalent to influence performance and positive healthcare outcomes. The results of this study were promising when addressing burnout among PIRTs because according to Reith (2019), burnout was shown to contribute to physician shortage in the United States. PIRTs need to know how to manage their feelings of mental exhaustion, physical exhaustion, stress, and other contributors of burnout.

Significance to Social Change

Conducting this study may contribute to positive social change by providing results that help to reduce burnout among PIRTs and potentially increase specialty certification rates in the medical population. When PIRTs complete their training with low levels of burnout, these professionals are more likely to render more accurate and efficient medical care to the community (Dyrbye et al., 2019). In turn, members of the community are more likely to depend on and follow the advice of their doctors to ensure optimum health (Reith, 2018). The findings of this study will contribute to positive social change by enhancing medical knowledge which is essential for overall institutional healthcare success.

Summary and Transition

This chapter presented a research plan to investigate servant leadership as an influential factor for healthcare graduate medical leaders to reduce burnout among PIRTs. Servant leadership has gained an enormous amount of popularity in organizations by being viewed as a promising resolution to a perceived need for leaders to become more efficient, principled, and employee focused (Coetzer et al., 2017; Jaramilo, et al., 2015). The purpose of this quantitative correlational study was to examine if there was a relationship between perceived servant leadership characteristics of physician trainers and burnout among PIRTs in academic medical centers in the United States.

Chapter 2 of this study includes a review of the current literature on servant leadership theory and resident burnout. The literature review encompassed the principal variables in this study. Additionally, the review of literature delineated the theoretical basis of servant leadership to test the hypotheses of the study.

Chapter 2: Literature Review

PIRTs are facing extreme burnout (Brady et al., 2018; Dyrbye et al., 2017; Frajerman et al., 2019; Hamidi et al., 2018). Consequently, the cost of physician burnout is more than $4.6 billion per year in lost revenues for the U.S. hospitals (Dyrbye et al., 2019). The purpose of this quantitative correlational study was to examine if there was a relationship between perceived servant leadership characteristics of physician trainers and burnout among PIRTs in academic medical centers in the United States. Researchers found that PIRTs experience burnout at an extreme level than other specialties because of their increased job and educational demands, which often lead to missed diagnoses, lost productivity, and poor life coping skills (Busireddy et al., 2017; Panagioti et al., 2018).

In this literature review, I examined areas related to burnout of PIRTs and servant leadership characteristics. I also examined peer reviewed literature relating to servant leadership theory, history and practice of servant leadership, motivational leadership practices, physician burnout, and the consequences it has on healthcare outcomes and performance. I identified a gap in the literature which identified the relationship between perceived servant leadership and burnout among PIRTs in academic medical centers in the United States. I illustrated supplemental insight into PIRTs and servant leadership thereby adding value to the existing body of literature.

Literature Search Strategy

I began this literature search using peer reviewed journal articles and books using the following databases through Walden University library resources. The key words I used in this study were: *burnout and prevention*, *servant leader*, *leadership behavior*, and

healthcare management. The subject variables were: *physician resident* and *burnout prevention, physician residency training, emotional exhaustion, servant leadership and physician resident burnout, stress and physician residents, team performance and healthcare,* and *management of quality care*. I added an additional criterion for the search terms to obtain peer reviewed articles within the United States. In addition, I used other criteria for the literature review search, such as journal articles published within the last 5 years. The scope of the literature ranged from 2016 through 2021, but some of the literature was greater than 10 years old to support the historical content and origins within this study.

The database that I searched was conducted using Business Source Complete, Google Scholar, PsycARTICLES, Emerald Management, Academic Search Complete, ERIC, ProQuest, and PubMed. The literature search on servant leadership, resident burnout, and mental exhaustion in healthcare included three relevant categories of articles to the population of this study.

Table 1

Resources Used for Literature Review from Walden Library and PubMed

Theoretical Concepts Topics	Peer Reviewed Journals	PubMed Articles

Burnout prevention AND physician residents AND United States	5	50
Physician resident AND burnout AND the United States	85	171
Physician resident training AND the United States	62	1,021
Stress AND physician resident AND the United States	66	246
Emotional exhaustion AND physician residents	13	33
Servant leadership AND burnout AND physician residents AND the United States	0	
Servant leadership AND burnout	48	
Leadership behavior AND healthcare AND the United States	78	
Management of healthcare leadership AND the United	138	

Note. Extracted period December 2016 - June 2021

The literature search in the selected databases included multiple duplicates. Upon eliminating the duplicate articles, the literature search results on the prevention of burnout among PIRTs encompassed a total of 55 articles, 164 articles on burnout amongst PIRTs, and 1083 articles pertaining to training of PIRTs within the United States. Additionally, I reviewed a total of 216 articles pertaining to leadership in healthcare, and 48 articles on servant leadership and burnout. All of the literature reviewed did not pertain to the population of this study and all were not peer reviewed. I used approximately, 30 peer reviewed literature to analyze burnout among PIRTS.

However, there were no articles concerning servant leadership and burnout of PIRTs in the United States. I expected this outcome due to the gap in the existing literature. Thus, this study filled the gap in the existing literature.

Theoretical Foundation

Burnout

Historically, the word burnout was used to describe drug addicts (Freudenberger, 1974). Burnout was also used for air traffic controllers in the United States in 1971, who reported vocational burnout from exhaustion, which manifested a decline in productivity and work quality (Freudenberger, 1974). Freudenberger detected similar burnout behaviors of physical and emotional depletion used to describe drug addicts, among the staff while volunteering in a clinic in the United States (Freudenberger, 1974). Freudenberger categorized burnout as a psychological phenomenon consisting of three components: emotional exhaustion, depersonalization, and reduced personal accomplishment (Freudenberger, 1974). In 1974, Freudenberger acknowledged that burnout was hazardous for professionals in healthcare and proposed for organizational leaders to facilitate intervention as it has become a systemic enigma.

Currently, burnout remains prevalent and is impacting copious occupations (Gabriel & Aguinis, 2021; Zajac et al., 2021). Following the work of Freudenberger (1974), psychological and medical studies on burnout have been conducted by Maslach and other researchers since Freudenberger's 1974 work (Demerouti et al., 2001; Halbesleben & Demerouti, 2005; Leiter & Schaufeli, 1996; Maslach, 1976; Maslach & Jackson, 1981; Maslach & Leiter, 2016, 2017). Conversely, Maslach was known to be

one of the pioneer researchers to investigate burnout in healthcare (Maslach, 1976). Maslach (1976) deduced that burnout consisted of exhaustion and cynicism and inefficacy, which contributed to a validated instrument to measure burnout in various professions (Maslach, 1976). Beginning in 1981, researchers started to focus on burnout in medical professionals and physicians (Kane, 2020; Leiter & Schaufeli, 1996; Rodrigues et al., 2018; Schaufeli, 2017; Solm et al., 2019).

Burnout adversely impacts the medical industry, specifically PIRTs, as they experience stress, and physical and emotional exhaustion, which are factors that contributed to reduced productivity and may lead to burnout (Baker & Sen, 2016; Busireddy et al., 2017 Dyrbye et al., 2019; Reith, 2018;). Researchers established that building relationships at work with colleagues and leaders may positively reduce symptoms of burnout (Fernet et al., 2010; Kelly & Hearld, 2020; Reith, 2018; Tafvelin et al., 2018). In a study conducted by Busireddy et al. (2017), the prevalence of burnout among physician residents was extremely high with minimal consensus on methods to effectively reduce the construct. Financial burdens may also contribute to burnout in PIRTs, which may lead to poor mental, career change, and/or suicide (Wisenberg, 2017).

Financial Impact

Many physicians are concerned about the financial cost of medical education as it continued to increase over time (Wisenberg, 2017). The financial burden for physicians equaled over $200,000, which has been associated with burnout (Wisenberg, 2017). Additionally, physicians feel that they are inadequately prepared to navigate their finances while transitioning to their new roles as attending physicians (Ahmad et al.,

2017; Hamidi et al., 2018). Consequently, this lack of preparation may, result in increased stress and burnout (Butcher, 2017; Minder 2016), which may also potentially lead to a reduction in the quality of healthcare.

Quality of Healthcare

Health care leaders recognize the negative impact of burnout on the quality of healthcare, and patient safety (Baker & Sen, 2016; Bauchner & Redberg, 2020; Dyrbye et al., 2017; Panagioti et al., 2018). In a study of the United States surgeons, researchers proclaimed there were increased rates of medical errors and work dissatisfaction for physicians experiencing burnout (Appelbaum et al., 2019). In another meta-analysis study, researchers ascertained that a negative relationship existed between physician burnout and patient safety, as well as burnout and quality healthcare (Salyers et al., 2017). Burnout also affects interactions with colleagues creating a negative work environment and placing others at risk for burnout (Baker & Sen, 2016; Patel et al., 2018; Salyers et al., 2017).

Career Change

Physicians suffering from burnout are significantly more likely to experience career changes or leave the healthcare (Page, 2018; Sinsky et al., 2017). The estimated cost to replace a physician is approximately $160,000–$1,000,000, depending on their area of medical specialization (Berg et al., 2019; Shah et al., 2020). Interventions to mitigate physician burnout are vital to increase their well-being, which decreases their decision to consider a career change (Page, 2018).

Researchers established that approximately 10-12% of physicians developed at least one substance abuse disorder (Balch et al., 2011; Oreskovich et al., 2015). Currently, 12.9% of male physicians and 21.9% of female physicians abuse alcohol (Kane, 2020; NIH, 2019). Excessive substance abuse leads to suicide (Dyrbye & Shanafelt, 2016).

Suicide

In the United States, over the past 10 years an estimated 400 physicians died per year as a result of suicide (Dyrbye et al., 2019; Ward & Outram, 2016). According to a national survey, physician suicide rates are higher than those of the general public (Kane, 2020; NIH, 2019). Dyrbye et al. (2019) reported that 6.4% of physicians in the United States considered suicide in previous years. Physicians in training are not immune to suicide; it is the second leading cause of death among resident trainees in the United States (Jackson et al., 2016; Yaghmour et al. 2017; ACGME, 2020).

In a study by Dyrbye et al. (2019), a national survey was conducted to assess burnout symptoms of depression, fatigue, and suicidal ideation among residents, fellows, medical students, and physicians in the United States. In a multivariate study that controlled for relationship status, sex, age, and program level of residents and fellows, indicated that an association existed with increase odds of burnout (Shanafelt et al., 2015). The data presented confirmed that burnout was more rampant among physicians in the United States (Dyrbye et al., 2019; Jackson et al., 2016).

Servant Leadership Theory

In a meta-analysis study, Banks et al. (2018) examined the proliferation of servant leadership theories as a result of the variations of each principle of the theory. The theories were theoretically and empirically different than other leadership styles. (Banks, et al., 2018). Banks et al. (2018) and Hoch et al. (2016) provided empirical evidence for the validation of servant leadership over other leadership styles. In a study by Hoch et al. (2016), researchers confirmed the fact that servant leadership had greater variance on follower outcomes compared to other leadership approaches. Additionally, Banks et al. (2018) reported similar outcomes when comparing servant leadership to other leadership approaches.

The construct of servant leadership style has been investigated by numerous researchers. This leadership style has been proven to significantly impact behaviors for decades (Eva et al., 2019; Hoch et al., 2016; Barbuto & Wheeler, 2006; Ehrhart, 2004; Otero-Neira et al., 2016; Page & Wong, 2000; Spears, 2016). The emergence of servant leadership research has been vastly analyzed. The innumerable characteristics surveyed resulted in individual, team, and organizational strategic evidence-based practices (Eva et al., 2019; Liden et al., 2008; Neubert et al., 2008; Van Dierendonck & Patterson, 2015).

There has been an abundance of research investigations on the leadership style which erupted into prevalent analysis. Fleishman (1998) investigated the structures of servant leadership, whereas other scholars (e.g., Liden et al., 2008, Neubert et al., 2008; Peterson et al., 2012; Van Dierendonck & Patterson, 2015) examined individual components of servant leadership. Conversely, Ehrhart (2004) and Schaubroeck et al.

(2011) examined servant leadership within groups, and Peterson et al. (2012) examined the organizational qualities of the construct. Through acknowledging the needs of others, leaders may effectuate positive change.

Servant leadership style was created to build confidence and empowerment to individuals and teams (Chen et al., 2015; Eva et al., 2019; Greenleaf, 1977). Servant leadership was instituted to guide declining leaderships in copious industries (Chen et al., 2015; Greenleaf, 1977; Liden et al., 2014; Wu et al., 2020). Greenleaf (1977) asserted that adequate training on listening may result in positive change. Greenleaf further proposed that listening to others helps to improve and strengthen relationships. Researchers concurred that servant leadership was positively associated to copious individual outcomes such as self-efficacy, job performance, engagement, organizational citizenship behaviors, community citizenship behaviors, organizational commitment, creativity, and customer service behaviors (Chen et al., 2015; Liden et al., 2015, 2014; Neubert et al., 2008; Saleem et al., 2020; Van Dierendonck et al., 2014; Walumbwa et al., 2010). Conversely, similar relationships between teams and servant leadership influenced team outcomes, for instance team performance, satisfaction and organizational citizenship behaviors (Ehrhart, 2004; Hu & Liden, 2011; Hunter et al., 2013; Liden et al., 2014; Saleem et al., 2020; Schaubroeck et al., 2011). Additionally, servant leadership has been positively associated with organizational leadership performance (Dyrbye & Shanafelt, 2016; Van Dierendonck et al., 2016; Wu et al., 2020).

Servant leaders began with self-awareness, which assisted others to be aware of ethics and values (Eva et al., 2019). In an effort to assist others in being aware, a person must first depict self-awareness attributes (Saleem et al., 2020). Servant leaders are persuasive, and make decisions by consensus (Spears, 2016). For servant leaders, influencing others may often be challenging, which entails persuading one person at a time and performing one action at a time (Saleem et al., 2020). Serving the needs of others first is the hallmark of the servant leader (Eva et al., 2019; Lapointe & Vandernberghe, 2018; Liu, 2019; Newman et al., 2017; Spears, 2016).

The theoretical framework in my study posits supporting the theory of servant leadership and its influence on minimizing burnout of PIRTs. Examining models of servant leadership and the behaviors and traits of servant leaders may support the investigation of the primary research question, specifically in helping to identify those traits that define servant leaders. By identifying common characteristics of servant leaders, past theories add relevance to the current premise in which servant leaders, by their actions, drive empowerment. For a theory to be useful, it must be reliable (Fellow & Liu, 2020; Whetten, 1989), and for meaningful tests to be conducted, reliable measurements are essential.

Positive leadership theories are indispensable to endorse collaborative engagement, and increase wellness and performance in individuals and teams. The following leadership theories was analyzed in this chapter (a) path goal leadership, (b) motivational theories, (c) expectancy theory, and (d) Porter-Lawler theory. These theories

have similarities to servant leadership and are pertinent to organizational growth and wellness as they encompass encouragement to individuals and teams.

Path Goal Leadership

Motivation theories are advantageous to gain momentum from employees (House, 1971; Rockmann & Ballinger 2017). Several researchers promulgated investigations on how to motivate employees (Evans, 1970; House, 1971; House & Dressler, 1974; House & Mitchell, 1974; Schriesheim & Glinow, 2017; Rockmann & Ballinger 2017). The researchers confirmed that great leadership qualities consist of empowering employees through motivation. Evans (1970) proclaimed that the work environment as well as the authority of the leader, significantly impacts employees' motivational behaviors, the attainment goals, and job satisfaction. House and Mitchell (1974) confirmed employees and engaged in work performance through motivation from leaders. Leaders who exhibit behaviors of trust, respect, evoke open communication, show concern for the well-being of employees, and positively impacting engagement (Evans, 1970; Kaya & Karatepe, 2020).

Servant leadership and other motivation theories are common for some healthcare organizations. The motivation theories previously discussed in this study, can be applied to healthcare facilities, as a result of the patient centeredness, and fostering an environment for change through engagement initiatives (Wu et al., 2020). These assertions are similar characteristics of a servant leader which utilizes motivation strategies to foster collaborative interconnections among individuals and teams (Spears, 2016; Hoch et al., 2016; Wu et al., 2020).

Motivation Theories

Huffmeier and Hertel (2011) proposed that teams increase performance through individual motivation and improved coordination. Hunter et al., (2013) affirmed that the most fundamental motivational theory is the needs-goal theory, and that motivation is initiated with the belief that a need exists. The belief then converts to a behavior that supports performance and ultimately, reduces the need (Hunter et al., 2013). According to Hunter et al., (2013), goal-supported behaviors continue until the goal is acquired. Similarly, the expectancy theory has goal oriented motivational connotations which benefits individuals and teams.

Expectancy Theory

The expectancy theory was built on the needs-goal theory. This theory suggests that needs reflect behavior and motivation based on the desire of employees to perform the behavior or obtain the need (Ugah & Arua, 2011; Zboja et al., 2020). In 1964 the expectancy theory was proposed by Vroom.

Vroom (1964) focused on outcomes. This theory describes an individual's motivation as an outcome of how much they desire a reward (Vroom, 1964). This effort may lead to predictable performance, and thereby lead to a reward. Rewards are expectations in which employees anticipate receiving after achieving goals (Vroom, 1964).

Expectancy is influenced by factors such as possession of appropriate skills for performing the job, availability of appropriate resources, pertinent information, and getting the required support to complete tasks (Vroom, 1964). The explication of

motivational theories is advantageous for employees to encompass a sense of accomplishment within their organizations. The interconnection between motivational theories and behaviors is crucial to the emergence of servant leaders. The Porter-Lawler theory is another motivation geared towards employee performance and has similar reward outcomes as expectancy theory.

The Porter-Lawler Theory

Porter- Lawler theory was formed to measure motivation and the impact of performance to determine job satisfaction (Lawler & Porter, 1967). This theory was based on assumptions of human behaviors needs, desires and goals. Porter-Lawler theory for motivation was determined by the perceived value of the reward (Arkhipova et al., 2020; Lawler & Porter, 1967). Leaders may find it formidable to determine the perceived value of a reward without consistent communication and interconnectedness with employees (Lawler et al., 1968). Porter-Lawler theory rationalizes that the necessity for frequent communication exists between leaders and employees.

To facilitate change efforts, leaders must act as change agents who encourage staff members to take ownership and participate in the change efforts (Henderson, 2015; Mortenius et al., 2012). To achieve this, leaders must engage in relevant frequent communication with staff (Henderson, 2015; Mortenius et al., 2012). Jones et al., (2017) accentuated when leaders keep employees informed through open and consistent communication, trust and engagement increases.

In this era of change, a decrease in satisfaction may occur when the communication is diminished (Sfantou et al., 2017). If trust is neglected between

employees and leaders, communication must occur to rebuild the relationship (Slack et al., 2010). These connections may reduce barriers and increase quality communication leading to increased wellness and trust (Zeffane et al., 2011).

In summary, employees' attitudes toward their jobs and their institutions directly relate to organizational success. Evidence demonstrated that a direct correlation exists between wellness and business drivers, most importantly, organizational profits (Henderson, 2015; Sfantou et al., 2017; & Zeffane et al., 2011).

Literature Review

This review of literature explored the impact of burnout among PIRTs in the United States. The relationship between burnout and patient outcomes has shown to impact quality of care (Maslach & Leiter, 2016). This chapter explored quantitative inquiry on the following topics: (a) the emergence of leadership, (b) work stress and performance, (c) characteristics and criticism of servant leadership, (d) causes of burnout for PIRTs, (e) consequences of burnout, and (f) synthesis and of previous research. Burnout and servant leadership among PIRTs was explored and encompassed psychological consequences and its impact on the healthcare industry.

Leadership Emergence

The evolution of leadership has evolved over the years. From 1900 to 1929, leadership was defined as, "the ability to impress the will of a leader on those led and induced on obedience, respect, loyalty, and cooperation" (Moore, 1927, p. 124). In the 1930s, traits became the focus of defining leadership, and leadership became an influence rather than dominance (Moore, 1927). In 1940, the group approach became prevalent,

and leadership was defined as the behavior of an individual while involved in-group activities (Hemphill, 1949). Conversely, Copeland (1942) asserted that leadership by persuasion, initiated drivership and or coercion.

During the 1950s, three themes were prevalent: (a) continuance of group theory; which framed leadership as what leaders do in groups; (b) leadership as a relationship that develops shared goals which defined leadership based on the behavior of the leader; and (c) effectiveness in which leadership is defined by the ability to influence overall group effectiveness (Madanchian et al., 2017). In the 1960s, the prevailing definition of leadership developed into a behavior according to Seeman (1960). Seeman stated leaders are influencers who demonstrated shared vision within organizations. The role of leadership continued to progress in the 1970s into a collaborative construct. Burns (1978) definition was the most essential concept of leadership to emerge: "Leadership is the reciprocal process of mobilizing by persons with certain motives and values, economic, political and other resources, in a context of competition and conflict, in order to realize goals independently or mutually held by both leaders and followers" (p. 425).

In the 1980s, leadership developed into the apex of academic and public consciousness. In the 21st century, the definition of leadership transformed and splintered with various definitions (Solomon & Steyn, 2017). Debates continued as to whether leadership and management were separate processes. Researchers indicated that effective management in organizations reduces chaos in organizations and are efficient (Luria et al., 2019). The primary functions of management, as first identified by Fayol (1916), were planning, organizing, staffing, and controlling, which remained prevalent in the 21st

century. Leadership is a complex concept in which a finite definition may be in flux as growing global influences emerge (Luria et al., 2019; Solomon & Steyn, 2017). Leadership is a process in which an individual influence a group of individuals to achieve a common goal (Cook et al., 2019; Derue et al., 2015; Liu, 2019).

Efficacious leadership encompasses effective communication skills, motivational attributes, concise vision, and strategic planning to attain goals (Henderson, 2015). Leaders are agents of change as they inspire individuals and teams through motivation, commitment, and collaboration as an inspiring team emerge (Henderson, 2015). De Vries et al. (2010) postulated that leaders must comprehend communication strategies with employees to gain their commitment. Goleman and Lueneburger (2010) asserted that leaders should gain trust and a sense of understanding from employees, and further concurred that trust and understanding can be achieved by gaining commitment from employees. Furtado et al. (2011) argued that leadership plays a vital role in performance within organizations. A similar finding was reported by Artiz and Walker (2014) who conceded that a positive link existed between leadership styles and organizational performance. According to Delmatoff and Lazarus (2014), leadership styles influenced motivation of employees as well as increased their performance levels.

Leadership is a process through which one person influences others, who are called followers (Furtado et al., 2011). Leaders enables individuals and groups to influence behaviors, inspire and motivate others (Artiz &Walker, 2014, & Delmatoff & Lazarus, 2014). Effective management uses leadership as a mode to generate high motivation among employees to attain desired targets (Levin et al., 2017; Lorinkova et

al., 2013; Schwarz et al., 2016). Brewer et al. (2011) promulgated that human resources cannot be used effectively without high motivation and empowerment.

Empowerment in Servant Leaders

Shekari and Nikooparvar (2012) defined empowerment as one of the elements of servant leadership. These authors delineated that servant leaders empower followers to perform their best. Correspondingly, Boone and Makhani (2012) defined empowerment as an important goal of the servant leader. Ding et al. (2012) attested that manager who are servant leaders, and attentive to the needs of followers, improved employee loyalty. By being supportive, encouraging, ethical, and communicative, a servant leader creates an environment of trust, loyalty, hard work, and engagement (Ding et al., 2012). This is essential as a follower's engagement helps organizations achieve its institutional goals (Levin et al., 2017; Osborne & Hammoud, 2017; Schwarz et al., 2016).

Vinod and Sudhakar (2011) described part of a servant leader's role as helping people to achieve their goals. The servant leader acts as teacher and coach by praising, supporting, and listening to assist individuals to do their best (Harwiki, 2016; Laub, 1999; Liden et al., 2008; Spears & Lawrence, 2016; Wu et al., 2020). Servant leaders are interested in their employees, and as a result, influenced organizations (Harwiki, 2016; Sendjaya, 2015; Vinod & Sudhakar, 2011). Vinod and Sudhakar (2011) delineated that servant leadership as a catalyst, may lead staff to commitment and quality, increased customer service, and enhanced the stature of a company, which may result in increased profitability. By focusing on others, being genuine, and establishing credibility, servant

leaders induce mutual respect and trust (Boone & Makhani, 2012; Sousa & Van Dierendonck, 2017; Van Dierendonck & Patterson, 2015).

Shekari and Nikooparvar (2012), described servant leadership as embodying empowerment, team building, quality, service ethic, and participatory management. Bangari and Prasad (2012), also acknowledged that good leaders are those who do what is required. These authors further distinguished that leadership requires the moral courage to make the right choice under difficult circumstances, specifically increasing work performance and minimizing stress (Bangari & Prasad, 2012).

Work Stress and Performance

Increased work demands for PIRTs may lead to occupational stress which may impact quality patient care (Ebrahimi & Kargar, 2018). Other factors that contribute to stress of PIRTs are prolonged work hours, increased workload, and educational and clinical demands, which may impact their job performance (Ebrahimi & Kargar, 2018). Ebrahimi and Kargar (2018), conducted a study on residents in multiple specialties and concluded that a relationship existed between stress, age, gender and hours worked. The researchers surmised that interventions to manage stress were required in addition to facilitating interpersonal mechanisms to reduce stress among PIRTs (Ebrahimi & Karger, 2018).

Halkos and Bousinakis (2010) investigated the impact of stress and job satisfaction on organizational functionality by examining factors that affect stress and job performance. The number of work hours, the relationship between leaders and employees, the function of the team, and work related to employee professional

development are factors that affect work related stress. The study results indicated that increased levels of stress led to reduced levels of productivity, while increased levels of satisfaction led to increased levels of productivity as a result of the behavior of leaders.

Leadership Behavior

Evidence suggests that leadership behaviors in physician trainers decreased burnout and increased work satisfaction among trainees (Shanafelt et al., 2015). In a leadership behavioral study, Shanafelt et al. (2015), conducted a multivariate analysis of professional satisfaction and burnout among 3895 physicians controlling for age, gender and duration of employed in large healthcare organizations. The results revealed that leadership qualities of physician trainers and supervisors significantly impacted the satisfaction rate of physicians working in healthcare, indicating that leadership behaviors impact physician's wellness within healthcare environments (Shanafelt et al., 2015). Andolsek (2018), concurred that leadership behaviors positively impacts performance and culture in physicians.

Tasi et al. (2019) conducted a large study of physician leaders within a healthcare setting to investigate the impact of their operational efficiency and performance. The study consisted of a bivariate analysis comparing physician lead and non-physician healthcare facilities to determine, quality, volume and performance (Tasi et al., 2019). The results indicated that healthcare facilities managed by physicians possessed qualities and management skills which impacted healthcare quality and delivery of care.

Yukl (2012) stated that behavior objectives of change agents are to increase innovation and promote collective learning. For Yukl (2012), change agents provided

information showing and comparing other work units with better performance. Boone and Makhani (2012) cited the following strengths of a servant leader: (a) believing that visioning is not everything but is the beginning of everything, (b) expends energy to listen, (c) believes in being a talent scout and making a commitment to ensure employees success, (d) believes in empowering employees, and (e) serves as a community builder. The counterintuitive approach of the servant leader was to focus on influence instead of power. These strengths are part of the reason that servant leadership increases trust and morally ethical behavior and team performance in organizational cultures (Boone & Makhani, 2012).

Team Performance

Politis (2013) delineated that team performance improved in an organization following the implementation of servant leadership, which in turn improved organizational performance. De Waal and Sivro (2012) also determined that servant leadership improved overall employee behavior, which increased factors associated with job satisfaction and job performance.

A contributing attribute of a server leader is having concern for the growth of others (Graham, 1991; Greenleaf, 1970), as servant leaders have the social responsibility to observe and remove inequalities and social injustices (Graham, 1991). A servant-led environment provides affirmation of justice and fair treatment, which is positively associated with procedural justice or the perception of how a work group is treated (Chung et al., 2010; Eva et al., 2019; Walumbwa et al., 2010). Procedural justice fosters trust in the servant leader and in the servant-led organization (Eva et al., 2019).

Collaboration within a servant-led organization creates a healthy culture, and increases team organizational citizenship behavior, defined as prosocial and altruistic behaviors that have been shown to improve organizational performance (Ehrhart, 2004; Hu & Liden, 2011; Walumbwa et al., 2010). Servant leadership also improves overall team effectiveness and can enhance the effectiveness of leaders (Hu & Liden, 2011; Schaubroeck et al., 2011).

Findings from empirical studies illustrated that servant leadership enhanced the well-being of employees. Creating a positive work environment result in greater organizational commitment and job satisfaction, which is related to greater organizational commitment (Lapointe & Vandenberghe, 2018; Sipe & Frick, 2015; Sousa & Van Dierendonck, 2017). Greater commitment to the organization increases employee job satisfaction (Chung et al., 2010; Sousa & Van Dierendonck, 2017) and, consequently, decreases employee turnover (Babakus et al., 2010). The characteristics of servant leadership are relevant and advantageous in the healthcare industry (Liden et al., 2015; Wu et al., 2020). The specific qualities such as putting employees first, helping employees grow and succeed, creating value for the community, empowerment, emotional healing, and serving others are all indicative of the altruism of healthcare professionals to serve communities (Liden et al., 2015, 2014; Wu et al., 2020).

Characteristics of Servant Leadership

Putting Your Team First

Servant leaders' service-oriented approach to leadership includes placing the needs of followers above the needs of the leader. Servant leaders verbalize that their

priority includes meeting the needs of followers (Liden et al., 2008; Liden et al., 2015; Wu et al., 2020). In addition, servant leaders support this through action by interrupting their work to help employees to solve their problems (Liden et al., 2008). Many organizations actualized putting employees first to succeed and grow (Liden et al., 2015; Schwarz et al.,2016).

Helping Employees Grow and Succeed

Medical educators are the epitome of servant leadership, as they are tasked with ensuring that PIRTs grow professionally and are successful (Liden et al. 2008; Wu et al., 2020). It is essential for PIRTs to be adept administering patient care. Servant leaders invest in employees to develop long-term relationships, provide support and mentorship in an effort to heighten their development (Kaya & Karatepe, 2020; Liden et al., 2008; Wu et al., 2020).

Empowerment

Empowerment refers to encouragement and facilitation of immediate followers and assisting them in identifying solutions to work-related problems (Liden et al., 2008: 2015; Wu et al., 2020). Lack of empowerment within organizational structure has been linked to burnout in numerous studies (Ayala & Garcia, 2017; Doolittle, 2020; Kruja et al., 2016; Orgambidez-Ramos et al., 2017). Servant leaders serve through empowerment (Wu et al., 2020).

Serving Others

Servant leadership is centered on the core values of caring and serving others, and focuses on the values of trust, appreciation and empowerment (Hoveida et al., 2011; Wu

et al., 2020). Great leaders lead by example and enables and empowers followers with the tools necessary to succeed. This epitome of genuine caring and authenticity for the needs of others has led to improved organizational effectiveness (Bilal et al., 2020; Eva et al., 2019). The characteristics of empowerment, and putting others first, and helping others succeed and grow, confirms that servant leadership model is considered to be the most appropriate leadership style to increase organizational performance and enhance employee satisfaction through improved focus customers (Liden et al., 2008; Wu et al., 2020).

Multiple researchers concurred that servant leadership positively affects employee behavior (Chen et al. 2015; Laub, 1999; Liden et al., 2008; Neubert et al., 2016; Parris & Peachey, 2013; Spears & Lawrence, 2016; Tang et al., 2016; Sousa & Van Dierendonck, 2017; Van Dierendonck et al., 2014; Walumbwa et al., 2010; Wu et al., 2020). Walumbwa et al. (2010) declared that servant leadership is conducive to molding positive employee attitudes as well as, create work environments that promote benefits for both individuals and teams. While servant leadership practices have been advantageous in copious industries, some researchers have criticized the elements of this style (Liden et al., 2008; Parris & Peachey, 2013; Sipe & Frick, 2015; Spears & Lawrence, 2016; Sousa & Van Dierendonck, 2017).

Criticisms of Servant Leadership

Although many studies correlate positive organizational outcomes from servant leadership, there are critics of servant leadership. The main criticism of servant leadership initiated from the ambiguity of Greenleaf's definition. Researchers have noted that the

definition of servant leadership varies as well as the characteristics (Liden et al., 2008 Parris & Peachey, 2013; Sipe & Frick, 2015; Spears & Lawrence, 2016). The continual revision of servant leadership has been a challenge to unite a common definition and has prevented other researchers from taking servant leadership seriously (Russell & Stone, 2002). Some researchers surmised that without Greenleaf being able to provide a definitive resolution to define servant leadership, a challenging issue for servant leadership will be continuous (Parris & Peachey, 2013; Sipe & Frick, 2015; Spears & Lawrence, 2016; Wu et al., 2020).

Another issue that plagues servant leadership is the lack of a universally accepted measurement tool. Researchers (e.g., Eva et al., (2019); Hoch et al., (2016); Sipe & Frick, (2015); Spears, (2016); Sendjaya et al., (2019) and Wu et al., (2020) examined dissimilar servant leadership measurement models. As each measurement model was developed, the researchers created their own definition of the specific characteristics for servant leadership. The researchers subsequently determined methods to measure those characteristics under investigation (Eva et al., 2019; Hoch et al., 2016; Wu et al., 2020). Having so many competing measurement models indicates a vast availability for servant leadership measurement models which may minimize the precise definition of the term.

Another criticism of servant leadership is that it is too passive to be effective. Critics contend that it reduces individual accountability and minimizes the competitive performance incentives for individual employees (Eicher-Catt, 2005). Leaders who appear to overstep their duties and do too much for their employees tend to assume too much of the burden for the personal responsibilities of the which can lead to a lack of

individual responsibility and accountability (Nayab, 2011). The majority of the criticism is a result of servant leadership being compared to other leadership theories (Ehrhart, 2004; Hoch et al., 2016).

Leadership in the Healthcare Industry

As the healthcare industry continues to advance, it has become one of the most powerful in society, providing a significant number of jobs and critical medical services for the community (Delmaloff & Lazarus, 2014; Ford, 2019). Because of the of the system changes in health care, some leaders are weary of their ability to rebuild trust and provide their organizations with a sense of direction (Ford, 2019; Mawer & Katz, 2019). Healthcare employees must have effective leadership, to combat the challenges in the industry (Ford, 2019; Mawer & Katz, 2019; Murphy, 2018). The challenges of providing quality care to patients, productivity and engagement, will continue to evolve for years to come (Ford, 2019; Murphy, 2018).

Importance of Leadership in Hospitals

Leadership in hospitals is essential for two reasons. First, leadership has an impact on employee commitment and dedication in supporting the organization's values, mission, and vision (Cornell, 2020; Ford, 2019). Second, this commitment and dedication are related to both hospital and employee performance, which has a direct correlation to overall quality of care (Cornell, 2020; Ford, 2019). According to researchers Cornell (2020) and Ford (2019), the quality of leadership will have an impact on patient care and the practice of future medicine. Leadership this is poor or of mediocre quality will have a negative impact on the organizational performance, as well as the quality of care that is

provided (Cornell, 2020; Ford, 2019). It is effective leadership that enables healthcare organizations to successfully convey their values, missions, and visions, as well as reach their established goals.

According to Arroliga et al. (2014), one of the most significant investments that healthcare organizations can make is to improve the knowledge and skills of their leaders in preparation of future opportunities and challenges. This investment not only includes knowledge of current operations and the ability to adapt to changes in the healthcare environment, but also this investment in their professional development can have a positive impact on job satisfaction (Arroliga et al., 2014). In addition, these efforts will also help keep employees motivated while improving job performance, turnover rates, and patient care (Cornell, 2020; Ford, 2019). It is the responsibility of leadership to ensure that healthcare is moving in the right direction (Cornell, 2020; Ford, 2019; Murphy, 2018).

It is imperative that hospital leaders consider patients as more than customers, and physicians as partners within healthcare organizations, because patients and physicians are not just serving hospitals and healthcare systems (Mawer & Katz, 2019). Hospitals and healthcare systems are what enables health professionals to provide patients and communities the best possible care (Murphy, 2018). Hospital leadership need to acknowledge what is most important about their work each day, including finding ways to assist all healthcare employees in improving their performance (Cornell, 2020; Ford, 2019).

Healthcare financial leaders spend a significant amount of money investing in infrastructure, renovating facilities for improvements, and acquiring new equipment, all of which are necessary to keep up with advancements in patient care and demands of community needs. Healthcare organizational leaders need to understand the nature of their institutions and the essential roles of physicians (Cornell, 2020).

Conversely, if leaders do not understand the individuals that work within organizations for them, performance will suffer, which can have a negative impact both financially and patient care (Ford, 2019; Murphy 2018; Van der Wal et al., 2015). In a study conducted by Van der Wal et al. (2015), physician residents observed and survey their supervisor's leadership behavior. The results indicated that resident's observed dissimilar leadership perceptions of what their supervisors reported, indicating a requirement for formal training in clinical settings. (Van der Wal et al., 2015). If organizational leaders fail to provide support to their staff, retaining them, as well as recruiting new staff, will deem to be debatable (Murphy, 2018). In addition, morale. commitment and quality in the organizations will suffer because crucial needs and aspirations of employees were underdeveloped (Cornell, 2020; Ford, 2019; Murphy, 2018).

Management of Quality Healthcare

Consumer Assessment of Healthcare Providers

Healthcare organizations all strive to provide quality patient care and are cognizant of the fact that the snapshot of their sustainability is based on the quality of the service provided to their primary customer base (Cornell, 2020;). The Hospital Consumer

Assessment of Healthcare Providers and Systems Survey (HCAHPS) developed by the Agency for Healthcare Research and Quality for the Centers of Medicare and Medicaid Services (CMS) provides a standardized data collection tool to measure the patient's perspective of the care they received (HCAHPS, 2015). The significance of achieving high scores on the HCAHPS is indicative of the performance of the hospital and the amount of government funding received (HCAHPS, 2015).

According to Mianda and Voce (2018), there is an identified relationship between healthcare cost and the wellness of healthcare providers. Health care costs are associated with the wellness of healthcare providers (Mianda & Voce, 2018). It is crucial for healthcare professionals to experience minimal burnout symptoms and increased wellness. The Accredited Council for Graduate Medical Education (ACGME) facilitates best practices and advances for PIRTs to help better ensure quality care is provided and wellness initiatives are instituted in residency programs (ACGME, 2020). The ACGME is committed to improving PIRTs future independent practices in clinical learning environments of superior care, safety and professionalism (ACGME, 2020).

Accreditation Council for Graduate Medical Education (ACGME)

The Accreditation Council for Graduate Medical Education (ACGME) is a private professional organization that provides accreditation to approximately 12,000 residency and fellowship programs within approximately 850 sponsoring institutions in the United States. An ACGME residency and fellowship program educates approximately 140,500 PIRTs and fellows within 180 specialties and subspecialties. The mission of ACGME is to improve healthcare and population health by assessing the quality education of PIRTs

and fellow physicians through advancement in accreditation and education (ACGME, 2020). ACGME set standards for PIRTs to train and prepare to become efficacious physicians by developing skills, enhancing knowledge to engage in providing quality patient care. In addition to the educational demands, PIRTs have a myriad of patient care planning with succinct documentation of records (Shanafelt et al., 2019). These responsibilities as well as a multitude of other comprehensive program demands are required for PIRTs to complete residency training (ACGME, 2020).

PIRTs Program Requirements

The program requirements for PIRTs are similar in each program as all sponsoring healthcare institutions utilize guidelines from ACGME for structure, policies and procedures of residency and fellowship training (ACGME, 2018). The general responsibilities of PIRTs may include: initial and continuous patient assessments of medical, physical and psychosocial status, perform physicals and take patient history, develop assessments and treatment plans, conduct patient rounds, document patient progress, order tests, conduct examinations, administer medication and therapies, arrange discharge and aftercare, provide patient education and counseling covering health status, test results, disease processing, as well as perform procedures and assist with surgeries (ACGME, 2020). These responsibilities may attribute to burnout of PIRTs.

Burnout Among PIRTs

Healthcare workers are tasked with prolonged and irregular work hours, which are extreme work demands that can cause pressure, work life balance and job insecurities (Berg et al., 2019; De Beer et al., 2016; Solm et al., 2019). According to Dyrbye and

Shanafelt (2016), many physicians are concerned with patient satisfaction surveys, as there is an exponential increase in stress levels to practice safe evidence-based medicine to provide quality patient care. Callahan et al. (2018) asserted residents must continuously enhance their medical knowledge to ensure that quality patient care is provided.

Scheepers et al. (2017) and Shanafelt et al. (2016) further asserted the necessity for physicians to obtain electronic medical records has increased their clerical burden and level of burnout. Healthcare workers have high work engagement and are absorbed by work and dedication to patient care (Scheepers et al., 2017). Burnout in healthcare workers is often characterized as emotional exhaustion and increased depersonalization, which is caused by emotional stress from work (Chemali et al., 2019).

Shanafelt et al. (2016) stated burnout is a syndrome of depersonalization, emotional exhaustion, and a sense of low personal accomplishment. Maslach and Leiter, (2016) conceded burnout is a syndrome indicative of emotional exhaustion and decreased personal accomplishments. Burnout has been defined as a constellation of emotional exhaustion where the provider is depleted of emotional, spiritual, and physical energy (Doolittle, 2020; Shanafelt et al., 2019).

According to Awa et al. (2010) it is essential to conduct intervention initiatives periodically to identify those who may be prone to burnout and avoid reoccurrence in the future as burnout symptoms has grown vastly within organizations. There are copious symptoms of burnout for PIRTs, which may obstruct patient care and the well-being of physicians. Burnout has been associated with anxiety, irritability, depression (Reith,

2018; Holmes et al., 2017), decreased work engagement (Parker & Kulik, 1995; Leiter & Maslach, 2017), commitment (Leiter & Schaufeli, 1996) and decreased satisfaction (Goldberg et al., 1996).

Some symptoms of burnout for PIRTs are irritability, depression, and anxiety (Parker & Kulik, 1995). Goldberg et al. (1996) asserted symptoms of burnout include reduced work commitment and lowered career satisfaction. Other factors that may lead to burnout of PIRTs are system inefficiencies, inadequate emotional and physical support from senior leadership or colleagues, and inability to make informed clinical decisions, which may contribute to malpractice suits, as a result of medical errors due to knowledge deficits (Privitera et al., 2015). According to Maslach and Leiter (2017), there are six work life areas that are predictors of burnout when an imbalance is prevalent: workload, control, reward, community, fairness, and values. The authors proposed analyzing work life pertaining to the six predictors to help identify workplace factors associated with burnout and actionable system wide strategies to address drivers of burnout. From this perspective may clarify how factors lead to increases in burnout in healthcare professionals and strategies to support positive social change.

Causes of Burnout

Historically, In the medical industry, burnout was an indication of personal weakness, or unfit for the profession (Dyrbye & Shanafelt, 2016) Without consideration of organizational and societal influences on burnout development, researchers contended that a resolution would occur if one recognized his or her condition and engaged in improved communication and management-skills training or routine exercise and

wellness initiatives (Frajerman, 2020; Matheson et al., 2016). Shanafelt et al. (2016) asserted that physician burnout was related to stressful work by doing too much and putting others' needs before their own.

Impact of Burnout for Physicians

Recent studies have estimated 54% of physicians experience burnout (Shanafelt et al., 2015). Burnout in both residents and fellows, in all specialties (Dolan et al., 2015; Levin et al., 2017; Mahan, 2017; McKinley et al., 2017). The intensity of burnout in residents may be a result of training and didactics, and a decreased focus on their personal health (Boni et al., 2018). In a cross-sectional study conducted by Dyrbye (2014), 60.3% of residents reported that they experienced burnout compared to 51.4% of new physicians in the field.

In a meta-analysis on resident burnout conducted by Rodriguez et al. (2018), the burnout rate among residents was significantly higher in some specialties with extreme critical care compared to less intensified emergency care. Nonetheless, physicians in academic and non- academic environments experience excessive burnout (Dyrbye et al., 2017; Rodriguez et al., 2018; Starmer et al., 2016). Academic physicians experience high burnout rates because of innumerable responsibilities that may potentially influence burnout among PIRTs as a result, of their dependence on practices for guidance and support (Montgomery, 2014).

The majority of healthcare workers experience burnout (Dyrbye et al., 2017). Burnout is a universal dilemma that requires immediate intervention for the safety of medical personnel and the community. Burnout in medical professionals may adversely

impact interpersonal relationships, work performance, satisfaction as well as the entire healthcare system (Chemali et al., 2019; Mazzetti et al., 2016).

It has also been found that malpractice suits have a significant impact on the care physicians provide (Balch et al., 2011; Babyar, 2017). Studies have shown more than 7,100 surgeons in the United States experienced burnout as a result of medical errors (Shanafelt et al., 2010) and malpractice inquisitions (Balch et al., 2011).

Pandemic Stress Among PIRTs

In 2020, a fight for survival became prevalent, as the world faced a global pandemic that challenged clinical expertise, management resiliency and financial discipline (Lai et al., 2020). As the world faces unpreceded times of staffing, retention and depression, organizations are faced with financial strain.

The coronavirus (COVID-19) emerged from Wuhan, China in December of 2019 (Lai et al., 2020; Qun Li et al., 2020). The virus spread to every country and generated extreme stress and anxiety to the population and healthcare workers who played a significant role in management of the virus spread (Lai et al., 2020). Consequently, increased emotional distress has been placed on the nation (Lai et al., 2020; Mosheva et al., 2020; Qun Li et al., 2020;). Minimizing and containing the virus is crucial for the well-being of all countries (Mosheva et al., 2020). This pandemic onset is an additional stressor for healthcare professionals, and the public as interventions to minimize stressors and burnout are essential (Lai et al., 2020. Mosheva et al., 2020).

A study was conducted by Mosheva et al. (2020) examined physicians working through the pandemic to determine if there was a connection between stress from the

pandemic and anxiety. The authors evaluated the propensity for physicians to be resilient in tragic situations (Mosheva et al., 2020). A survey was distributed a survey to 1106 physicians in Israel during the COVID-19 pandemic. Anxiety was measured by a patient outcome measurement information system, and resilience was measured by the Connor Davidson Resilience Scale. Stress was measured using Pandemic related stress factors inventory (Mosheva et al., 2020). The results indicated that there was an inverse association between resilience and anxiety. The results showed that mental health, anxiety and sleep difficulties were positively associated with anxiety scores. Additionally, workload and fear of infection were also associated with increased anxiety and resilience (Mosheva et al., 2020).

Similarly, West et al. (2020) investigated resilience and burnout of physicians and workers in the United States. The study results concluded, physicians' scores for resilience were higher than the general population. Additionally, higher resilience scores were associated with lower burnout rates in physicians. The study consisted of a cross sectional national survey of 5445 Physicians in the US with a probability sample of 5198 working individuals in the United States between October 2017 and March 2018. The authors also utilized the Connor- Davidson Resilience Scale, the scores ranged from zero to eight, the higher the resilience score, greater the resilience. Burnout was measured using the MBI with an overall score of 27 ranging from 0 to 54 for the emotional exhaustion subscale, and 10 for the depersonalization subscale. The higher scores indicated greater burnout (West et al., 2020). The authors' presumptions were similar to Mosheva et al. (2020) signifying that resilience is associated with burnout (West et al.,

2020). Other researchers concurred that interventions are required to minimize burnout and promote physician well-being (West et al., 2020).

West et al. (2016) conducted a meta-analysis on interventions to reduce or mitigate physician burnout with comparison studies. Results from the review of literature, indicated that the authors concluded individual focused and structural organizational strategies may have meaningful reductions in burnout among physicians. The authors also conveyed further research is required to establish the most effective intervention in specific populations. Organizations require individual and institutional solutions to have increased improvements in physician wellness (West et al., 2019).

Blake et al. (2020) stated the pandemic indubitably has psychological affects for healthcare workers and placed frontline worker in extreme peril. It was further conveyed that actions are required to alleviate the impacts of the coronavirus on mental health by protecting and promoting the psychological well-being of healthcare workers during and after the pandemic (Blake et al., 2020). The World Health Organization (WHO) declared COVID-19 to be a pandemic and a public health emergency of international concern in the beginning months of 2020. Immediate action is required to provide psychological support to frontline workers to safeguard metal health challenges and the welfare of the community and healthcare workers (Brady et al., 2018; Moazzami et al., 2020).

Summary and Conclusions

This review of literature I delineated the foundation of leadership within organizations, pertinent motivational theories and factors of burnout within the residents. The emergence of addressing burnout in physician residents is an effort to mitigate

contributing factors that cause stress, physical and mental exhaustion. The theoretical foundation that I used in this study encompassed path goal leadership theory, expectancy theory and the Porter and Lawler theory of Motivation. These theories were used by leaders in various industries to explore causalities of motivation for plausible solutions to myriad organizational quandaries and dilemmas. As a result of the complexities of burnout, multiple theories were essential for this study.

Few studies exist on servant leadership as a mitigation for burnout in PIRTs. It was indistinct which intervention were best to decrease burnout in healthcare residents. The current literature lacked appropriate evidence that demonstrated an optimal solution. Therefore, further research was required to minimize the gap and identify options in which medical educators and healthcare leaders can facilitate sustainable interventions in servant leadership.

In my research I found that servant leadership impacted employer-employee relationships to the extent that it reduced levels of job stress, increased levels of wellness, and solicited greater organizational commitment from the employee base (Hoveida et al., 2011). There was a paucity in the literature associating servant leadership characteristics and burnout rates in residency programs, hence, the relevance to conduct this study.

Chapter 3 consisted of a review of the methodology for this study to address the research questions. My rationalization for conducting a quantitative correlational research design was provided. I also included a discussion of the research design, sample population, data collection method, instrumentation, validity, reliability, and data analysis of this research.

Chapter 3: Research Method

This chapter I presented a description of the research design to be used to test the hypotheses outlined in Chapter 1. The purpose of this quantitative research study was to investigate if there was a relationship between perceived servant leadership of physician trainers and burnout among PIRTs in academic medical centers in the United States. If a relationship exists, the findings should help mitigate burnout among PIRTs in academic medical centers in Arizona, Boston, Cincinnati, Chicago, Colorado, Connecticut, Detroit, Milwaukee, New York, and Virginia. The independent variable was servant leadership as measured by the SLS created by Liden et al. (2008). The dependent variable was burnout as measured by the Oldenburg burnout Inventory (OLBI) developed by Demerouti et al. (2001). I used an additional instrument, the LCQ developed by Black and Deci (2000), was adopted to measure PIRTS affective of their physician trainers. The demographic variables in this study were age as measured by years, gender as reported, and experience as measured by years in residency training.

Research Design and Rationale

This quantitative research was an investigation to determine if a relationship existed between the independent variable servant leadership and the dependent variable burnout among PIRTs within academic medical centers in Arizona, Boston, Cincinnati, Chicago, Colorado, Connecticut, Detroit, Milwaukee, New York, and Virginia. The control variables were the demographic variables, such as age, gender, and year in residency training. I used three validated survey instruments were utilized to test the research question and hypotheses in this study.

The three validated instruments that I used for this study was the SLS to measure servant leadership as measured by Liden et al. (2008), the OLBI as measured by Demerouti et al. (2001) to measure burnout among PIRTs, and the LCQ as measured by Black and Deci (2000) to assess the affective learning environment of leadership from physician trainers. The servant leadership instrument (Liden et at., 2008) was a 7-point Likert scale ranging from 1, *strongly disagree* to 7, *strongly agree*. This made the comparison more logical than using different measurement tools. The OLBI (Demerouti et al., 2001) survey instrument measured two constructs of burnout, which were engagement and exhaustion. The Demerouti et al. (2001) scales for the OLBI were based on a 5-point Likert scale with scores ranging from 1, *not at all*, to 5, *very often*. The purpose of this measurement is to assess the characteristics of burnout (Demerouti et al., 2001). The Black and Deci, (2000) LCQ tool uses a 7-point Likert scale ranging from 1, *strongly disagree* to 7, *strongly agree*. The results of the instrument measured the effectiveness for increasing wellness and productivity in PIRTs.

I negated the use a qualitative design for this proposed research study for the following reasons: (a) time constraints and (b) the existing necessity for pragmatic interventions. Therefore, this study did not consist of interviews, case studies, observations or any other data collection methods used in qualitative research. Instead, I used a quantitative study design was selected because there is minimal empirical research on servant leadership and burnout in PIRTs. In this quantitative study, I used an objective instrument and an operational definition of servant leadership produced data

that was compared to other PIRTs, and the results of the study may contribute broadly to the body of knowledge on servant leadership in terms of mitigating burnout.

Methodology

Upon receiving Institutional Review Board (IRB) approval to conduct this study, program coordinators, administrators and residents received a recruitment flyer inviting PIRTs who met the study requirements to participate in the survey. I gathered the data for this study through the use of an online survey. I communicated with administrators and coordinators from the mentioned facilities, were asked to forward the recruitment flyers to PIRTs personal email within their program to complete. Consent was electronically recorded upon participants accessing the survey link and clicking on the tab indicating they wish to participate. I used Google forms to collect the data and I analyzed the data using the latest version of SPSS.

Population

The target population for this study was PIRTs in residency training for a minimum of 1 year. The proposed setting for the study was in academic medical centers in Chicago, Cincinnati, Colorado, Connecticut, Massachusetts, Michigan, Milwaukee, New York, Phoenix, and Virginia. According to Israel (2012), to determine sampling errors, three components are essential: the level of precision, the confidence level, and degree of the variability. A population defines the sample of interest essential for the research design and purpose (Litt, 2010). The population size for this research was approximately 1570 PIRTs who deliver care to patients.

Sampling and Sampling Procedures

This research study consisted of a stratified random sampling technique. I used this technique to ensure that relevant groups were represented within the study sample and increased the precision of samples. According to Daniel, (2012) and Lemm (2010) samples should include adequate representation of the sample population. I choose this sampling method to help reduce the sampling error, minimize bias, and allow estimation of random sampling error. Conversely, random sampling strategy may result in inequitable independent variable groups, which may inhibit meaningful comparisons (Stratified Random Sample, 2005). Diversity in the sample size consisted of a sufficient consistency of PIRTs experience from various levels of burnout within medical centers. Frankfort et al. (2008) articulated that a population for a study is indicative of the research problem being investigated.

The sample size of 122 PIRTs included a diverse subpopulation of residents, which created a reliable data collection size. According to Miaoulis and Miaoulis (1976), samples should include diverse diversity to increase the reliability of the study. The sample did not include nurses, physician assistants, licensed practical nurses, or nursing aides. The sample only included physician residents. According to Miaoulis and Michener (1976), to determine the appropriate sample size, three components should be considered: the level of precision (true value of the population or sampling error), confidence level (population is repeatedly sampled) or risk, and the degree of variability (attributes being measured). The target population for this study consisted of 1590 PIRTs from multiple healthcare facilities throughout the United States. The confidence level was

95%, the confidence interval was ±5; thus, the required sample size was 122 participants; Survey and the sampling error was 5%.

Procedures for Recruitment, Participation, and Data Collection (Primary Data)

The process for recruiting, participation, and data collection required IRB approval prior to conducting this study. Upon receiving approval from Walden University committee members and Institutional Review Board (IRB), I used online invitations, which encompassed the recruitment flyer and informed consent, were sent to program administrators to be forwarded to the personal email addresses of PIRTs within their programs. Other participants were emailed from an email list obtained from a research pool. Each participant had access to participate in the online survey. According to Denscombe (2010), it is appropriate to use surveys to measure some facets of a social phenomenon or gather data to test theory. The author further asserted that a Likert-type survey is a plausible methodology to compare two sets of data to determine if a significant difference exists between them.

I excluded the participants' names to ensure confidentiality of each participant. The participants were advised that all information was confidential to minimize apprehension or trepidations. To ensure anonymity, I kept electronic signatures in a secure file. I sent a thank you note was sent to each participant for their participation upon completion of the surveys. No monetary funds or gifts were provided for participants who participate in this study. The participants were advised that the information provided was confidential. I provided my contact information and email to the participants, for any inquires pertaining to the study or questionnaires.

Instrumentation and Operationalization of Constructs

The servant leadership scale (SLS) instrument consisted of three constructs: (a) empowerment; (b) helping employees grow and succeed; and (c) putting employees first. The measurement consisted of a 7-point Likert-type scale, ranging from1 strongly disagree to 7 strongly agree, and required PIRTs to self-identify qualities and characteristics about themselves. I obtained permission to use the (SLS) from the publishers Liden et a. (2008) upon receiving IRB approval. There were three characteristics on the scale: empowering, helping others grow, and putting your team first. The characteristics mentioned were the constructs used to measure servant leadership qualities of physician trainers. The (SLS) instrument was one of the most relevant validated measures for servant leadership for my study.

The (SLS) was validated by Liden et al. (2008) who developed a 7-item and a 28-item scale to examine performance within organizations. The researchers elucidated that a positive relationship existed between servant leadership, performance, and organizational commitment (Liden et al., 2008). The 7-item SL scale was the short version of the 28-item SL Scale which was developed to assess servant leadership behaviors in 729 students and 552 leaders. The results exhibited correlations between the SL-7 and SL-28 scales ranging from .78 to .97, the internal consistency reliabilities were over .80 in the samples, and significant criterion related validities for the 7- item SLS were equivalent to the 28-item SL scale.

The Oldenburg burnout instrument (OLBI) was used in the United States among various occupations to test burnout via multiple methods and confirmatory factor

analyses of 2599 employees. The results revealed test reliability, internal consistency as well as factorial, convergent and discriminant validity (Demerouti et al., 2001). The findings suggested that the OLBI offered researchers and alternative to measure burnout, as well as engagement (Demerouti et al., 2001; Halbesleben & Demerouti, 2005). This scale measures physical affective of employees, cognitive exhaustion and disengagement, but personal accomplishment was excluded from the scale. The OBLI consists of 16 items to assess exhaustion and disengagement components of burnout. The items reflect the theoretical assumption that the dimensions of burnout may be interpreted in terms of continuous ranges from disengagement to dedication, and exhaustion to vigor. This was supported by the fact that exhaustion and disengagement are dissimilar and do not share antecedents (Demerouti et al., 2001).

The OLBI was used by Demerouti er al. (2001) to measure burnout in employees, irrespective of their occupation. Previous studies demonstrated that the convergent validity of the OLBI and the Maslach Burnout Inventory general survey and various cultures (Demerouti et al., 2001; Halbesleben & Demerouti, 2005). According to Halbesleben (2010), the OLBI dimensions ranged from r =.45 to r =.68, the reliability of the exhaustion subscale has been found to range from a = .74 to a =.85, and the reliability of the disengagement subscale ranged from .73 to .85 in various studies (Demerouti & Bakker, 2008; Demerouti et al., 2003; Halbesleben & Demerouti, 2005; Halbesleben, 2010; Sonnentag et al., 2010; Timms, et al., 2012). These empirical findings demonstrated that the OLBI was a psychometrically robust instrument used to measure burnout.

The LCQ (Black & Deci, 2000) contained a 15-item long-form and a 6-item short form. For the purpose of this research, I used the short form. The questionnaire was created to assess the perception of learning environments as teaching styles vary. Apprentices were able to evaluate the efficacy of support and autonomy of physician trainers in academic medical centers. The questions were related to experience and encounters with instructors, preceptors, professors, and/or trainers. The survey scale ranged from one strongly disagree to seven strongly agree. The scores were calculated by averaging the individual item scores. The higher the score, the higher the perceived autonomy support.

The LCQ was adopted by Williams and Deci (1996) from a healthcare climate questionnaire (Williams & Deci, 1996). The LCQ had a high internal consistency and the score for the leader's autonomy support is the sum of the six questions (Williams & Deci, 1996). In a study conducted by Black and Deci (2000), the alpha levels were 0.93 and 0.94 when students met with instructors a minimum of three times a week as well as the semester term. In Williams and Deci's (1996) study, the LCQ was used to assess the perception of student's autonomy and support from their instructors using a 5-pont Likert scale and the alpha reliability were .85 and .89. Researchers who utilized the LCQ reported valid reliability (Black & Deci, 2000; Williams & Deci, 1996; Williams et al., 1994).

I had to obtain IRB approval prior to collecting data. I presented my research to the senior executive and administrators in academic medical centers to obtain their permission to conduct my research upon receiving IRB approval. The survey consisted

of an informed consent. I emailed the recruitment flyer to residency program administrators (see Appendix B). I provided the participants with an electronic consent to complete, afterwards, the participants were instructed to take three demographic online surveys (see Appendix C). I asked PIRTs to complete demographic questions such as age, gender, and year in residency training. All survey instruments, recruitment flyer, and informed consent are obtainable in the appendices of this research study.

The SLS instrument to evaluate the characteristics of physician trainers will be included in the Appendix (see Appendix D). The SLS Scale and key to determine the results from the instruments is also included in the Appendix (see Appendix E). I also included the OLBI instrument which was available for free online (see Appendix F). The score and key to assess the burnout inventory for this study is in the Appendix (Appendix G). Additionally, the (LCQ) to address supplemental servant leadership characteristics of physician trainers according to PIRTs (see Appendix H) as well as the certificate to conduct research with human subjects provided by the CITI program (see Appendix I) will be in the Appendix. The permission from the survey publishers of the LCQ (Appendix J), the servant leadership scale (Appendix K), and the OLBI (Appendix L) was granted for this study.

Data Analysis Plan

I used the latest version for the Statistical Package for Social Science (SPSS) for analysis of the data. The data was automatically entered into an excel data file from the online survey tool, and the data was stored in Google documents, which is password protected. The data was entered and extracted from SPSS for interpretation.

Research Question and Hypotheses

RQ: Is there any statistically significant relationship between the perceived servant leadership of physician trainers and the burnout of PIRTs controlling for demographic variables (age, gender, and years in residency training)?

Hypotheses

$H_0$1**:** There is no statistically significant relationship between the age of PIRTs and burnout.

$H_1$1**:** There is a statistically significant relationship between the age of PIRTs and burnout.

$H_0$2**:** There is no statistically significant relationship between the gender of PIRTs and burnout.

$H_1$2**:** There is a statistically significant relationship between the gender of PIRTs and burnout.

$H_0$3**:** There is no statistically significant relationship between years in residency training and burnout.

$H_1$3**:** There is a statistically significant relationship between years in residency training and burnout.

$H_0$4**:** There is no statistically significant relationship between servant leadership and burnout.

$H_1$4**:** There is a statistically significant relationship between servant leadership and burnout.

Statistical Test

The research question was tested with hierarchical multiple linear regression. The independent variable was be servant leadership. The control variables were the demographic variables of age, gender, and years in residency training. The dependent variable was be burnout among PIRTs. In step one of the model, the demographic variables were entered. In step two of the model, the independent variable, servant leadership, was entered. Age, and years in residency training were categorical ordinal variables with more than two categories, polytomous.

When polytomous variables are entered into linear regression models they must be dummy coded into several dichotomous variables. For instance, age consisted of 7 categories (20-25, 25-30, 30-35, 35- 40, 40-45, 45-50, and over 50); see Appendix C. The first three categories were entered as dichotomous variables and the fourth category was left out of the model and was used as a reference category. To dichotomize a category, new variables must be created. For instance, the 20-25 age category was recoded to (yes= 1, no= 0). Similarly, the 30-35 age category was recoded to (yes = 1, no= 0), and so on. Gender was a dichotomous variable. Years in residency training consisted of ten possible categories. This required three polytomous variables to be entered into the regression model. Upon IRB approval, the servant leadership scale adopted by (Liden et al., 2008) was utilized.

Servant leadership, the independent variable, was on an interval-level variable once a score was computed. Burnout, the dependent variable was measured by the OLBI (Demerouti et al., 2003). Once a score was computed for burnout, the variable was on an

interval scale of measurement. Table 2 provides the variables of interest and scales of measurement of the data.

Table 2

Variables of Interest, Scales of Measurement, Categories for Model Entry

Variable	Variable Type	Scale of Measurement	Number of Categories	Number of Variables Entered into Model
Age	Control	Ordinal	7	3
Gender	Control	Nominal	2	1
Years in residency training	Control	Ordinal	10	9
Servant Leadership	Independent	Interval	N/A	1
Burnout	Dependent	Interval	N/A	1

Note. The required statistical test will be hierarchical multiple linear regression.

Research Design

Research designs were described or labeled in various ways. For instance, the research design was quantitative rather than qualitative or mixed methods. The research required the use of surveys therefore, it was described as a survey design. The research question was answered with hierarchical multiple linear regression. Regression is an advanced correlational technique. Therefore, the research design was also be described as correlational (Jackson, 2011).

Alpha Level

The alpha level in a study is the value at which the null hypothesis is rejected under the assumption that the null hypothesis is true (Brace et al., 2013). It is the probability of making a type I error. In social sciences, the alpha level is $p < .05$ (Brace et al., 2013). Cronbach's Alpha was used to test for reliability and construct validity of this study (Brace et al., 2013). The responses are nominal data. *A priori* significance level of .05 was selected to provide a 95 percent confidence level for hypotheses testing. The analysis of the data determined the presence of a positive or negative correlation. If the correlation coefficient results in an output of 0.00, when using a value scale of -1.00 to +1.00, no correlations exist. If the correlation coefficient has a positive indication of at least .7, a linear regression model required to analyze the correlation in greater detail.

Presentation of Data

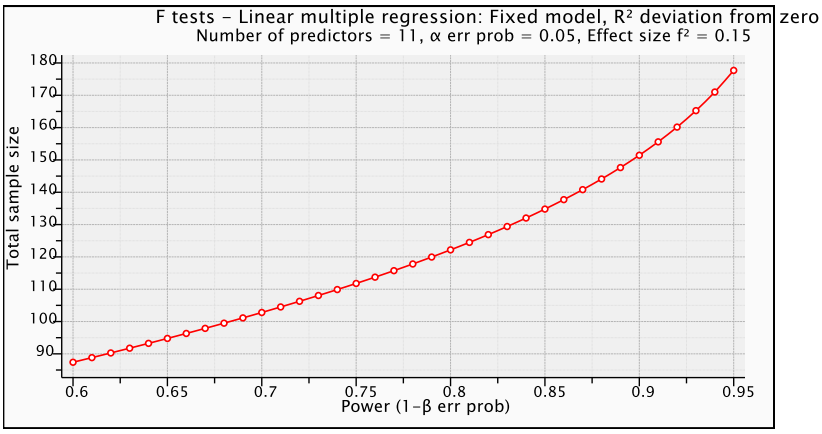
The presentation of the data was done in a narrative format. The demographic data was on a nominal scale of measurement. Data on an interval scale of measurement was presented in measures of central tendency (minimum, maximum, mean, and standard deviation).

Power Analysis

An a priori power analysis was conducted with G*Power 3.1 (Faul et al., 2007). For a medium effect size ($f^2 = .15$), an alpha level of $p < .05$, a power level of .95, with 11 predictors, a sample size of 178 will be required. However, the minimum power level is .80 at the power level, a sample size of 122 was required. Statistical power increases as the sample size increases. This was illustrated in Figure 1.

Figure 1

Required sample size



Threats to Validity

External Validity

The measurement of the external validity stems from when the discoveries could be generalized from one sample to another sample of a larger, or different population (Calder et al., 1983). External validity focuses on the extent to which the discoveries could be generalized beyond the research study sample (Green & Glasgow, 2006). The current research study served as a basis for additional studies relating to servant leadership and burnout. Validity is the relevance of the research design for the question investigated (Frankfort-Nachmias & Nachmias, 2008). An accurate conclusion available would come from a convergent validity that revealed if a test correlates with other

measures and the construct validity it would correlate with the stated measure (Frankfort-Nachmias & Nachmias, 2008).

In an effort to increase external validity, an increased sample from PIRTs in other regions within the United States such as Arizona, Boston, Cincinnati, Chicago, Colorado, Connecticut, Detroit, Milwaukee, New York, and Virginia were selected. Increasing the sample size ensured external validity to generalize the other populations. Additionally, larger sample size was advantageous if respondents decide to opt out of the study. The results of this study have the propensity to be generalized to other environments and populations and specialties beyond healthcare with sampling measures that are consistent.

Internal Validity

Analyzing internal and external validity contributed in determining the certainty of the study conclusions. The internal validity of a research study is the extent to which the design and data allowed drawing accurate conclusions about relationships within the data and the explanation or ruling out of alternative explanations (Torre & Picho, 2016). The relevant answers were determined by the objectives and the null hypothesis, which required validity and reliability. A self-administered instrument of servant leadership and the servant leadership questionnaire measurement tools permitted the desired competencies to be measured. Testing the reliability of the competencies of the servant leadership perceptions of physician trainers and LCQ were required to validate accurate assessment of the variable(s) being measured. The measure of the variables from each of three well-established, commercially available, validated research instruments (OLBI, servant leadership assessment and the LCQ) were the interest for this study (Black &

Deci, 2000; Demerouti et al., 2003; Liden et al., 2008). The internal validity of the current research study was represented from the targeted population the study.

There are several factors that adversely impact internal validity. Internal validity of a study was comprised by the population selected and misconceptions of measurements to establish a cause-and-effect relationship. Maturation is the process in which an individual has biological or psychological progression that may impact the results of the research study over time (Frey, 2018). This occurrence may impact the internal validity of the study (Frey, 2018). Internal validity is achieved when the independent variable affects the change to the dependent variable (Frey, 2018).

In this study, re -testing was not be an option as this was survey research. Therefore, dissimilar responses from participants were not an option or impact the results of the study. The methodology for assessing the quality of research consisted of internal and external validity and reliability (Cook & Campbell, 1979; Dillman, 2000). In this study, the threat to internal validity would exist if the survey scores represent minimal reliability or lacked inadequate construct validity. Consequently, statistical regression was obtained as a result of the specialized participants of PIRTs selected. However, a loss of participants may occur as a result of decreased motivation, and this loss in attrition may affect the outcome of the study. Regression can be measured based on group selection, statistical equations, scores, and longitudinal studies (Campbell & Kenny, 1999).

Construct Validity

For construct validity and reliability of measures, the following data analysis tools were considered: (a) descriptive statistics; (b) Pearson correlations to identify how variables are related as presented by the theoretical model; (c) internal consistency among items within each scale were be calculated using the Cronbach alpha analysis; and (d) factor analysis were utilized to determine items on the factors. Regression analysis determined how the independent variable or predictor variables contributed to the dependent or criterion variables.

Ethical Procedures

Prior review and approval were sought from the Walden University IRB. Participation in the research was completely voluntary and participants were able to withdraw at any time. Participants were advised that this study was a personal research project and their participation could possibly contribute to the body of knowledge on mitigating burnout for PIRTs. All communication regarding the study and concerns of prospective study participants occurred through their personal email. Additionally, confidentiality procedures were delineated on the invitation, which further supported participation without hesitation or trepidation. All data will be contained in a locked file cabinet for 5 years and only accessible to the primary researcher. The documents will be destroyed after the required retention period set by Walden University. Data will be electronically shredded using McAfee electronical shredding software. Informed consults will be destroyed utilizing similar processes.

All perspective study participants must review an informed consent form at the beginning of the survey, in order to proceed. By continuing to participate in the survey, participants established their consent to participate. Participants' identities and their responses were kept strictly confidential. Some participants in the study were selected from my current employer. However, there was no conflict of interest because I do not have the authority to make decisions or influence their behaviors. In addition to circumventing any biases, the program manager from my institution sent an informed consent to PIRTs via their personal e-mail. Conversely, participants outside of my institution were sent an e-mail by their program managers requesting their participation in the study. There were no conflicts of interest.

Summary

After examination of significant literature and accessing research methods, it has been determined that a quantitative method using an experimental design was well-suited for this study. An experimental design allowed for causality to be established and variables to be closely controlled. The survey instruments have been tested for reliability and validity (Black & Deci, 2000; Demerouti et al., 2003; Liden et al., 2008). This research may be replicated using other groups. While external validity is harder to establish from this initial experimental design, further reproduction can add to its validity. The research methodology that I selected remains congruent with previous studies and will add depth to the body of research related to the relationship between burnout and servant leadership. In chapter 4 I provided the results from the surveys.

Chapter 4: Results

The purpose of this quantitative correlational study was to determine if there was a significant relationship between perceived servant leadership characteristics of physician trainers and burnout among PIRTs in academic medical centers in the United States. The dependent variable was burnout created by Demerouti and Nachreiner (1998) and modified by Demerouti et al. (2001). The LCQ by Black and Deci (2000) was adopted to measure the impact of physician trainers' on PIRTs. There was one research question and associated hypotheses.

The research question of this study was, is there any statistically significant relationship between the perceived servant leadership of physician trainers and the burnout of PIRTs controlling for demographic variables (age, gender, and years in residency training)?

The Null Hypothesis ($H_0$1) stated that there is no statistically significant relationship between the age of PIRTs and burnout. The alternate Hypothesis ($H_1$1): stated there is a statistically significant relationship between the age of PIRTs and burnout.

Null Hypothesis 2 ($H_0$2): stated that there is no statistically significant relationship between the gender of PIRTs and burnout. The alternate Hypothesis ($H_1$2) stated there is a statistically significant relationship between the gender of PIRTs and burnout.

Null Hypothesis 3 ($H_0$3): stated that there is no statistically significant relationship between years in residency training of PIRTs and burnout. The alternate

Hypothesis ($H_1$2) stated there is a statistically significant relationship between years in residency training of PIRTs and burnout.

Null Hypothesis 4 ($H_0$4): stated that there is no statistically significant relationship between servant leadership and burnout. The alternate Hypothesis ($H_1$4) stated there is a statistically significant relationship between servant leadership burnout.

Chapter four is organized by a discussion of the sample demographics, reliability analysis, descriptive statistics, research question/hypothesis testing, post hoc analyses, and a summary of the results. Data were analyzed with SPSS 23 for Windows. The following provides a discussion of the sample demographics.

Data Collection

Sample Demographics

The timeframe for data collection from PIRTs was approximately 2 months. A sample of 122 PIRTs in academic medical centers in the United States was recruited through an email list, and other with explicit permission from program administrators and senior leaders. The response rate of PIRTs was 100% (n = 122) most of whom (63.9%, n = 78) were females, whereas 36.1% (n = 44) were males. Regarding age group, approximately half (52.5%, n = 64) were 21 to 30 and 47.5% (n = 58) were 31 to 45. Years in residency ranged from 2 to 8 years (M = 3.74, SD = 1.61) with a median of 4 years. See Table 3.

Table 3

Sample Demographics

Variable	Description	*n*	*%*
Gender	Female	78	63.9
	Male	44	36.1
Age	21-25	1	0.8
	26-30	63	51.6
	31-35	46	37.7
	36-40	10	8.2
	41-45	2	1.6

Note. $N = 122$ for both groups.

Instrument Reliability for Sample

The reliability of the instruments used in the study was tested with Cronbach's alpha. I used the OLBI was utilized to measure burnout. It consists of 16 items and has been historically used in the United States across various occupations to assess burnout. The reliability for the sample of PIRTs was excellent ($\alpha = .916$). The LCQ contains a 15-item long-form and a 6- items short form. I used the short form for the purpose of this research. The questions are related to experience and encounters with instructors, preceptors, professors, and/or trainers. The survey scale is ranged from 1(strongly disagree) to 7 (strongly agree). The reliability of the LCQ for the sample of PIRTs in the study was also excellent ($\alpha = .93$). Servant leadership was measured by the Servant Leadership Scale (SLS). The instrument consisted of a 7-point Likert-type scale, ranging from 1 strongly disagree to 7 strongly agree, and required PIRTs to self-identify qualities and characteristics about themselves. I observed the reliability of the SLS for the sample to be .529. I used an interitem analysis on the scale to determine if the reliability might be

improved by deleting certain items from the scale. I determined that the reliability could not be improved significantly if certain items were excluded, due to the lack of reliability the study results cannot be generalized. The interitem total statistics are presented in Table 4.

The Inter-Item Statistics

Table 4

Inter-Item Total Statistics

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1. My attending can tell if something work-related is going wrong.	28.66	25.68	.082	.543
2. My attending makes my career development a priority.	28.49	21.38	.338	.462
3. I would seek help from my manager if I had a personal problem.	30.06	17.16	.425	.403
4. My Attending emphasizes the importance of giving back to the community	28.68	20.91	.292	.477
5. My attending puts my best interests ahead of his/her own.	30.31	25.34	.002	.586
6. My attending gives me the freedom to handle difficult situations in the way that I feel is best.	29.59	18.52	.446	.401
7. My attending would not compromise ethical principles in order to achieve success.	27.81	22.62	.227	.503

The reliability coefficients for the variables of interest are summarized in Table 5. The instruments for the sample are burnout, learning climate and servant leadership. The sample and Cronbach's alpha are delineated below.

Table 5

Reliability Coefficients of Instruments for Sample

Variable	*N* of Items	Cronbach's alpha
Burnout	16	.916
Learning Climate	6	.930
Servant Leadership	7	.529

Study Results

Descriptive Statistics

I computed the scores for the variables of interest by computing the mean responses for each variable. Scores for burnout can range from 1 to 4 with higher scores representing a higher degree of burnout. Scores for the sample ranged from 1.19 to 3.69 (M = 2.51, SD = 0.60). A mean score of 2.51 reflects a moderate degree of burnout for the sample. Scores for servant leadership can range from 1 to 7 with higher scores representing a higher degree of servant leadership. Scores for the sample ranged from 2.86 to 6.43 (M = 4.85, SD = 0.75). A mean score of 4.85 indicated the overall presence of high servant leadership. Scores for learning climate can range from 1 to 7 with higher scores indicating a more positive perception of learning environments. Scores for the sample ranged from 1.17 to 7.00 (M = 5.09, SD = 1.33). A mean score of 5.09 indicated

that the sample had overall positive learning environments. Descriptive statistics are presented in Table 6.

Table 6

Descriptive Statistics

Variable	*n*	*Minimum*	*Maximum*	*M*	*SD*
Burnout	122	1.19	3.69	2.51	0.60
Servant Leadership	122	2.86	6.43	4.85	0.75
Learning Climate	122	1.17	7.00	5.09	1.33

I provided further insight into the pattern of responses for the descriptive data, then created additional variables by segmenting closely related values into specific categories. The scoring instructions for the OLBI guided how values might be categorized to facilitate the interpretation. Scores ≤ 1.62 were categorized as low, 1.63-2.67 = medium, ≥ 2.68 = high. See Table 7.

Burnout Scores

Table 7

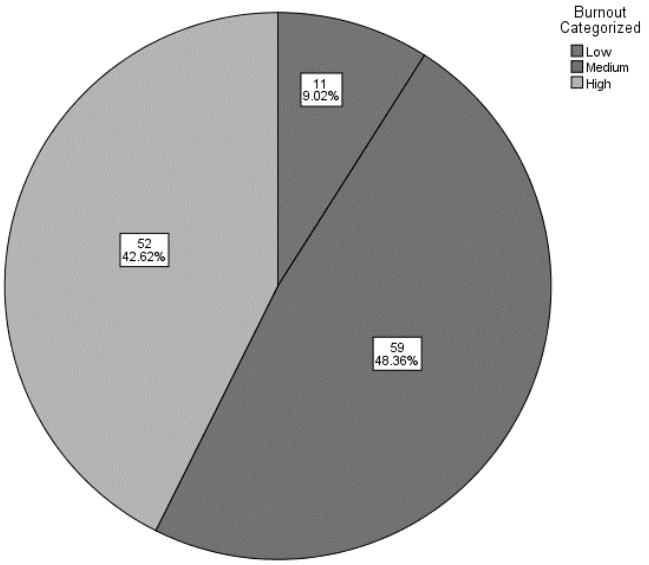
Variable Coding for Creation of Companion Variable to Burnout Scores

Score	Label	SPSS Coding
≤ 1.62	Low	1
1.63-2.67	Medium	2
≥ 2.68	High	3

Thus, 9% (*n* = 11) of PIRTs were categorized as having low burnout, 48.4% (*n* = 59) were classified as having medium or moderate burnout, and 42.6% (*n* = 52) were labeled as having high burnout. This is illustrated in Figure 2.

Figure 2

Burnout Categorized



A frequency distribution for burnout scores is presented in Table 8.

Table 8

Burnout Scores Categorized

Classification	*n*	%	Cumulative %
Low	11	9.0	9.0
Medium	59	48.4	57.4
High	52	42.6	100.0
Total	122	100.0	

A similar process was followed for the variable servant leadership. Scores 1 to 3.49 were categorized as low servant leadership, scores 3.50 to 4.49 were classified as neutral, and scores 4.50 to 7.00 were labeled as high. This is a way of qualitizing quantitative data (Teddlie & Tashakkori, 2009). See Table 9.

Servant Leadership Scores

Table 9

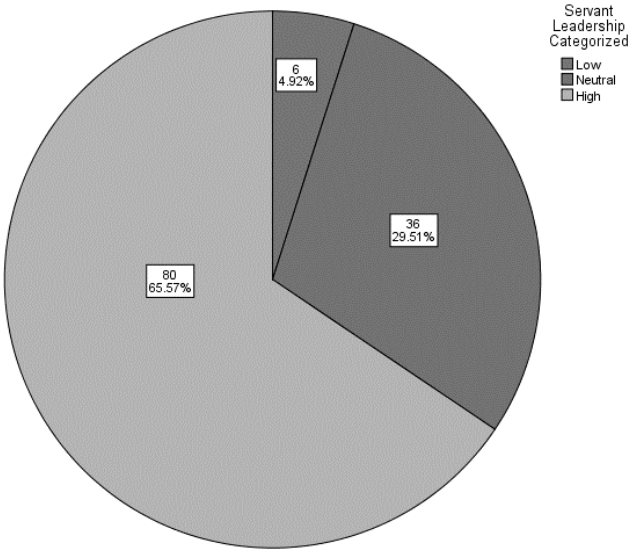
Variable Coding for Creation of Companion Variable to Servant Leadership Scores

Score	Label	SPSS Coding
< 3.49	Low	1
3.50-4.49	Neutral	2
4.50- 7.00	High	3

In this manner, 4.9% (*n* = 6) of physician trainers were categorized as having low servant leadership characteristics, 29.5% (*n* = 36) were classified as having neutral servant leadership characteristics, and 65.6% (*n* = 80) were labeled as having high servant leadership characteristics. This is illustrated in Figure 3.

Figure 3

Servant Leadership Categorized



A frequency distribution for servant leadership scores is presented in Table 10.

Table 10

Servant Leadership Scores Categorized

Classification	*n*	%	Cumulative %
Low	6	4.9	4.9
Neutral	36	29.5	34.4
High	80	65.6	100.0
Total	122	100.0	

For learning climate, seven categories were created to facilitate the10 interpretation of the scores. Scores 1 to 1.49 were categorized as being in a highly unsupported learning environment, scores 1.50 to 2.49 were classified as being in an unsupported learning environment, scores 2.50 to 3.49 were labeled as being in a somewhat unsupported learning environment, and so forth. See Table 11.

Table 11

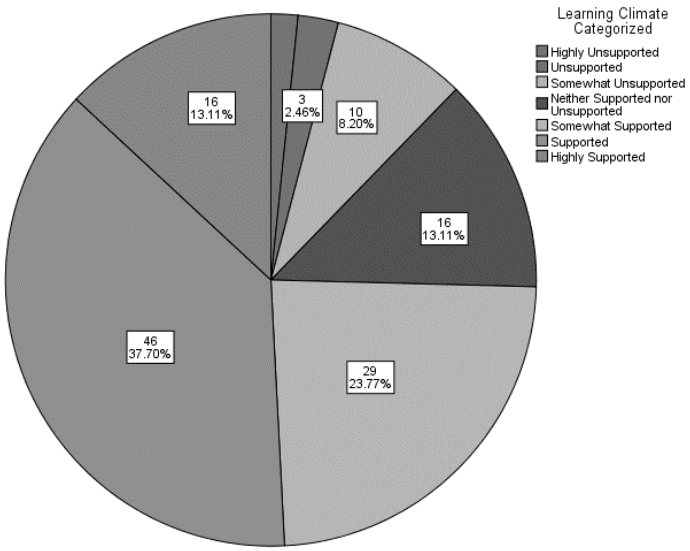
Variable Coding for Creation of Companion Variable to Learning Climate Scores

Score	Label	SPSS Coding
1-1.49	Highly Unsupported	1
1.50-2.49	Unsupported	2
2.50-3.49	Somewhat Unsupported	3
3.50-4.49	Neither Supported nor Unsupported	4
4.50-5.49	Somewhat Supported	5
5.50-6.49	Supported	6
6.50-7.00	Highly Supported	7

Thus, 12.3% (*n* = 15) of PIRTs were categorized as having highly unsupported to somewhat unsupported learning environments, 13.1% (*n* = 16) were classified as having a neither supported nor unsupported learning environment, and 74.6% (*n* = 91) were labeled as having somewhat supported to highly supported learning environments. This is illustrated in Figure 4.

Figure 4

Learning Climate Categorized



A frequency distribution for learning climate scores is presented in Table 12.

Table 12

Learning Climate Scores Categorized

Classification	*n*	%	Cumulative %
Highly Unsupported	2	1.6	1.6
Unsupported	3	2.5	4.1
Somewhat Unsupported	10	8.2	12.3
Neither Supported nor Unsupported	16	13.1	25.4
Somewhat Supported	29	23.8	49.2

Supported	46	37.7	86.9	
Highly Supported	16	13.1	100.0	
Total	122	100.0		

To provide further insight into learning climate, responses to the individual questions were analyzed by computing the means for each response and then arranging them in descending order according to the means. The highest endorsed item was "My attendings encouraged me to ask questions" (M = 5.60, SD = 1.37). The lowest endorsed item was "I feel understood by my attendings" (M = 4.66, SD = 1.63). See Table 13.

Table 13

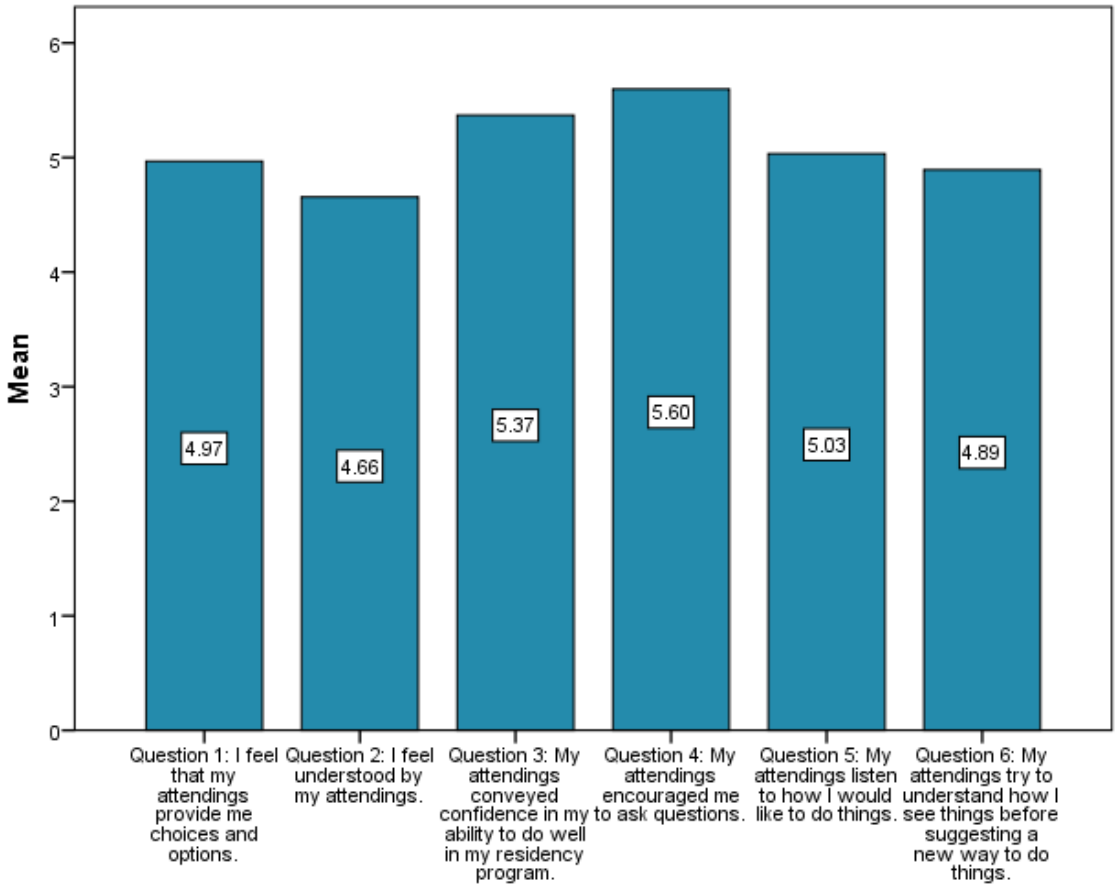
Mean Responses to Items on the Learning Climate Questionnaire

Item	*Minimum*	*Maximum*	*M*	*SD*
Question 4: My attendings encouraged me to ask questions.	1	7	5.60	1.37
Question 3: My attendings conveyed confidence in my ability to do well in my residency program.	1	7	5.37	1.46
Question 5: My attendings listen to how I would like to do things.	1	7	5.03	1.63
Question 1: I feel that my attendings provide me choices and options.	1	7	4.97	1.55
Question 6: My attendings try to understand how I see things before suggesting a new way to do things.	1	7	4.89	1.60
Question 2: I feel understood by my attendings.	1	7	4.66	1.63

A bar graph of the mean responses to the items on the LCQ is presented in Figure 5.

Figure 5

Bar Graph of Mean Responses to Items of Learning Climate Questionnaire



Research Question/Hypothesis Testing

Research question one asked, "Is there any statistically significant relationship between the perceived servant leadership of physician trainers and the burnout of PIRTs controlling for demographic variables (age, gender, and years in residency training)?" The research question was tested with hierarchical multiple linear regression. The independent variable was servant leadership. The control variables were the demographic variables of age, gender, and years in residency training. The dependent variable was burnout. In Step 1 of the model, the demographic variables were entered. In Step 2 of the

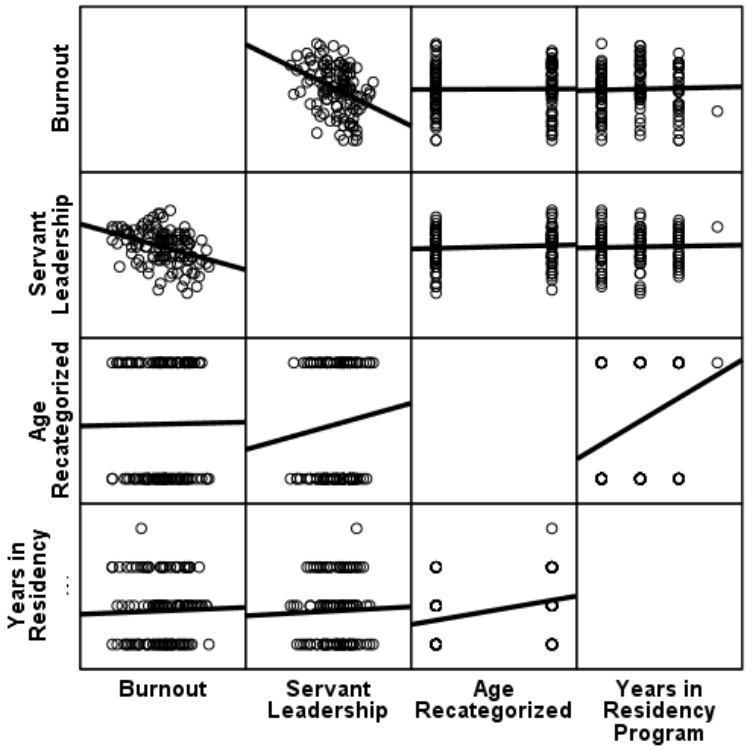
model, the independent variable, servant leadership, was entered. Prior to the analysis, the assumptions of multiple linear regression were tested.

Assumption 1: Linearity of Relationships

Multiple regression assumes that the relationships between the independent and dependent variables is linear. This assumption was tested by generating a scatterplot matrix between the variables. The relationships between the variables can be characterized by a straight line. This is illustrated in Figure 6.

Figure 6

Scatterplot Matrix



Assumption 2: No Multicollinearity

Multiple linear regression assumes that the independent variables are not too highly correlated. The assumption of multicollinearity was tested with the variance inflation factor (VIF) and tolerance statistics. Tolerance values should be greater than 0.2, and VIF values should be well below 10. Tolerance values for the independent variables ranged from 0.88 to 0.98. VIF values ranged from 1.08 to 1.19. Therefore, the assumption of no multicollinearity was met. Tolerance and VIF values are presented in Table 14.

Table 14

Tolerance and VIF Statistics

Variable	Tolerance	VIF
Age	.844	1.19
Gender	.938	1.07
Years in Residency Program	.883	1.13
Age	.842	1.19
Gender	.929	1.08
Years in Residency Program	.883	1.13
Servant Leadership	.983	1.02

Note: Age: 0=21-30, 1=31-45; Gender: 0=Female, 1=Male.

Assumption 3: Independence of Residuals

Multiple linear regression assumes that the values of the residuals are independent or uncorrelated. A residual is a difference between an observed value and a predicted value of the dependent variable. This was tested with the Durbin-Watson statistic. The statistics can vary from 0-4. For the assumption to be met, the value should be close to 2. Values below 1 and above 3 are a cause of concern. The Durbin-Watson statistic is

generated in the Model Summary Table. The value = 1.96. Therefore, the assumption was met. See Table 15.

Table 15

Model Summary[a]

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					$R^2\Delta$	$F\Delta$	df1	df2	Sig. $F\Delta$	
1	.068[a]	.005	-.021	0.61	.005	0.18	3	117	.910	
2	.372[b]	.139	.109	0.57	.134	18.07	1	116	.000	1.96

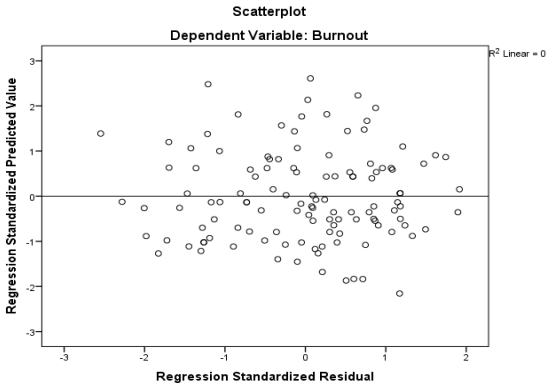
a. Predictors: (Constant), Years in Residency Program, Gender, Age (Age: 0=21-30, 1=31-45; Gender: 0=Female, 1=Male)
b. Predictors: (Constant), Years in Residency Program, Gender, Age, Servant Leadership
c. Dependent Variable: Burnout

Assumption #4: Homoscedasticity

Multiple linear regression assumes that the variation of residuals is constant at each point of the model. This assumption was tested by generating a scatterplot of the standardized residuals by the standardized predicted values. For this assumption to be met, scatterplot should look like a random display of dots. This is illustrated in Figure 7.

Figure 7

Scatterplot of Standardized Residuals by Standardized Predicted Values

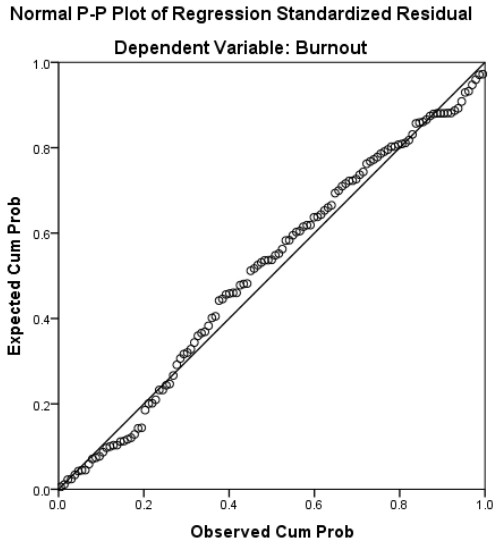


Assumption #5: Normality of Residuals

Multiple linear regression assumes that the residuals are normally distributed. This assumption was tested by generating a Normal P-P Plot. The closer the points are to the diagonal line, the closer to normal the residuals are distributed. Several data points are touching the line or very close to the line. Therefore, the normality assumption was met. This is illustrated in Figure 8.

Figure 8

Normal P-P Plot of Regression Standardized Residuals



Assumption #6: No Multivariate Outliers

Multiple linear regression assumes that there are no influential cases biasing the model. This assumption was tested by analyzing the residuals. Any standardized residual that exceeded ±3 was a candidate for exclusion. However, the residuals ranged from -2.55 to 1.92 and were therefore within normal limits. There were no multivariate outliers in the distribution. Since all assumptions were met, the analysis proceeded as planned.

In Step 1 of the model, when the demographic variables were added, the model was not statistically significant, $F(3, 117) = 0.18$, $p = .910$. However, in Step 2 of the model, when servant leadership was added, the model was statistically significant, F(4, 116) = 4.67, p = .002. The ANOVA Summary Table for the model is presented in Table 16.

ANOVA Summary

Table 16

ANOVA Summary Table for Regression Model[a]

Model		Sum of Squares	*df*	Mean Square	*F*	*p*
1	Regression	0.20	3	0.07	0.18	.910[b]
	Residual	42.97	117	0.37		
	Total	43.17	120			
2	Regression	5.99	4	1.50	4.67	.002[c]
	Residual	37.18	116	0.32		
	Total	43.17	120			

a. Dependent Variable: Burnout
b. Predictors: (Constant), Years in Residency Program, Gender, Age (Age: 0=21-30, 1=31-45; Gender: 0=Female, 1=Male.)
c. Predictors: (Constant), Years in Residency Program, Gender, Age, Servant Leadership

Based on the previous results, in Step 1 of the model, this means that none of the demographic variables were significantly related to burnout. Specifically, in Step 1 of the model, there was no significant relationship between age and burnout ($\beta = 0.02$, $t = 0.15$, $p = .879$). There was no significant relationship between gender and burnout ($\beta = -0.06$, $t = -0.65$, $p = .515$). There was no significant relationship between years in residency program and burnout ($\beta = 0.02$, $t = 0.23$, $p = .815$). There was a significant F-change from Step 1 to Step 2 of the model, $F\Delta(1, 116) = 18.07$, $p < .001$; $R^2 = .139$, which

represented a 13.4% increase in the amount of variance explained by the model. There was a significant, negative relationship between servant leadership and burnout (β = -0.37, t = -4.25, p < .001). As servant leadership increased by one standard deviation, burnout decreased by 0.37 standard deviations. Regression coefficients are presented in table 17.

Table 17

Regression Coefficients

	Variable	*B*	SE *B*	β	*t*	*p*	R^2	ΔR^2
1	(Constant)	2.49	0.15		16.90	.000	.005	.005
	Age	0.02	0.12	0.02	0.15	.879		
	Gender	-0.08	0.12	-0.06	-0.65	.515		
	Years in Residency	0.01	0.04	0.02	0.23	.815		
2	(Constant)	3.89	0.36		10.92	.000	$.139^{***}$	$.134^{***}$
	Age	0.04	0.11	0.04	0.38	.703		
	Gender	-0.03	0.11	-0.02	-0.27	.788		
	Years in Residency	0.01	0.03	0.03	0.32	.749		
	Servant Leadership	-0.30	0.07	-0.37	-4.25	.000		

Note: Age: 0=21-30, 1=31-45; Gender: 0=Female, 1=Male. Dependent variable =Burnout., ***p < .001.

Null Hypothesis

H_{01} stated that there is no statistically significant relationship between the age of PIRTs and burnout. In Step 1 of the model, there was no significant relationship between age and burnout (β = 0.02, t = 0.15, p = .879). Therefore, the null hypothesis was not rejected.

H_{02} stated that there is no statistically significant relationship between the gender of PIRTs and burnout. In Step 1 of the model, there was no significant relationship between gender and burnout (β = -0.06, t = -0.65, p = .515). Therefore, the null hypothesis was not rejected.

H_{03} stated that there is no statistically significant relationship between years in residency training and burnout. In Step 1 of the model, there was no significant relationship between years in residency program and burnout (β = 0.02, t = 0.23, p = .815). Therefore, the null hypothesis was not rejected.

H_{04} stated that there is no statistically significant relationship between servant leadership and burnout. There was a significant, negative relationship between servant leadership and burnout (β = -0.37, t = -4.25, $p < .001$). Therefore, the null hypothesis was rejected. The hypothesis summary and outcomes are provided in Table 16.

Table 18

Hypothesis Summary and Outcomes

Hypothesis	Significance	Supported/Not Supported
H_1: There is a statistically significant relationship between the age of PIRTs and burnout.	p = .879	Not Supported
H_2: There is a statistically significant relationship between the gender of PIRTs and burnout.	p = .515	Not Supported
H_3: There is a statistically significant relationship between years in residency training and burnout.	p = .815	Not Supported
H_4: There is a statistically significant relationship between servant leadership and burnout.	$p < .001$	Supported

Summary

I used one multivariate research question and associated hypothesis were formulated for investigation. It was determined that there was a statistically significant, negative relationship between the perceived servant leadership of physician trainers and the burnout of PIRTs controlling for demographic variables (age, gender, and years in residency training). As servant leadership increased, there was a corresponding decrease in burnout. None of the demographic variables were significant predictors of burnout. There was no significant relationship between age and burnout. There was no significant relationship between gender and burnout. There was no significant relationship between years in residency training and burnout. The regression model I used accounted for approximately 14% of the variance in burnout. Overall, PIRTs had a moderate degree of burnout. Physician trainers generally had a high degree of servant leadership. PIRTs generally had positive learning environments. Recommendations and implications will be discussed in Chapter Five.

The next chapter I presented the interpretation of the findings and recommendations of this study, which revealed the relationship between servant leadership of physician trainers and burnout of PIRTs. I also presented the significance of the theoretical framework, limitations of the study, and implications to positive social change, theory, and practice. I concluded the chapter with recommendations for further research and a summary of the study.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this quantitative correlational study was to examine and test the OLBI created by Demerouti and Nachreiner (1998), the LCQ created by Black and Deci (2000), and the SLS created by Liden et al. (2008) was used to determine if there was a significant relationship between the perceived servant leadership characteristics of physician trainers and burnout among PIRTs in academic medical centers in the United States. I used a multiple linear regression analysis was conducted to examine the significance of the relationship. The study participants were PIRTs of various ages, experience levels, and were trained in multiple residency programs.

The statistical analysis that I disclosed provided support for the alternative hypothesis which indicated that a statistically significant relationship exists between servant leadership and burnout. The multiple regression analysis verified that a statistically significant negative relationship existed between the perceived servant leadership of physician trainers, and the burnout of PIRTs, controlling for demographic variables (age, gender, and years in residency training). Revealing that, as servant leadership increased, there was a corresponding decrease in burnout None of the demographic variables were significant predictors of burnout. There was no significant relationship between age and burnout ($\beta = 0.02$, $t = 0.15$, $p = .879$). There was no significant relationship between gender and burnout ($\beta = -0.06$, $t = -0.65$, $p = .515$). There was no significant relationship between years in residency program and burnout ($\beta = 0.02$, $t = 0.23$, $p = .815$). Overall, PIRTs experienced a moderate degree of burnout. Physician trainers generally sustained a high degree of servant leadership. PIRTs

generally had positive learning environments according to the results of this study as 74.6% (n = 91) reported having somewhat supported to highly supported learning environments.

Interpretation of the Findings

Relationship between Servant leadership and Burnout

Physician trainers have a significant role to teach, train, and cultivate PIRTs, therefore examining the leadership style was pivotal. One multivariate research question and associated hypothesis were formulated for investigation. The outcome suggests that physician trainers had a crucial impact on the reduction of burnout amongst PIRTs. Servant leadership behaviors influenced the progression, learning environment, and engagement of PIRTs.

Servant Leadership and Burnout Among PIRTs

Prior researchers established that building relationships at work with colleagues and leaders positively reduced symptoms of burnout (Kelly & Hearld, 2020; Reith, 2018; Tafvelin et al., 2018). These assertions are congruent with the reliability instrument to test burnout in this study. The reliability of the instruments used in the study was tested with Cronbach's alpha. I used the OLB to measure burnout, which has been historically used in the United States across various occupations to assess burnout.

Servant leadership in physician trainers was relevant in this study as 4.9% of the physician trainers had low servant leadership characteristics, 29.5% of the trainers were classified as being neutral, and 65.6% of the trainers had high servant leadership characteristics. This implies that physician trainers were concerned for the well-being of

PIRTs. The learning climate questionnaire was a subset of the servant leadership survey due to the similarities in the characteristics of the leadership style.

The reliability for the sample of PIRTs was excellent (α = .916). The LCQ contained a 15-item long-form and a 6-items short form. The questions were related to experience and encounters with instructors, preceptors, professors, and/or trainers. The reliability of the LCQ for the sample of PIRTs in the study was also excellent (α = .93). The learning climate scores ranged from 1 to 7, with higher scores indicating a more positive perception of learning environments. For this sample, the scores ranged from 1.17 to 7.00 (*M* = 5.09, *SD* = 1.33). A mean score of 5.09 indicates that the sample had overall positive learning environments. The results confirmed that PIRTs are more engaged academically and derive positive benefits from clinical training when their physician trainers show compassion and concern for trainees' educational and professional development and well-being. The learning environment for PIRTS is essential for their success and growth in healthcare organizations. Physician trainers portray servant leadership characteristics of putting employees first and helping employees grow and succeed (Liden et al., 2008; Wu et al., 2020). By fostering a nurturing, supportive learning environment, physician trainers inspire PIRTs to interconnect and engage intellectually while minimizing the effects of burnout.

Many PIRTs in this study conveyed experiencing symptoms of burnout. The scores for burnout in this study ranged from 1 to 4, with higher scores representing a higher degree of burnout. Scores for the sample ranged from 1.19 to 3.69 (*M* = 2.51, *SD* = 0.60). A mean score of 2.51 reflected a moderate degree of burnout for PIRTs. Thus,

9% (*n* = 11) of PIRTs faced having low burnout, 48.4% (*n* = 59) experienced having medium or moderate burnout, and 42.6% (*n* = 52) experienced having high burnout. These findings exemplified that physician trainers and healthcare leaders have a positive impact in minimizing burnout in employees. Correspondingly, researchers such as Busireddy et al. (2017), Reith (2018), and Shanafelt et al. (2017), exhibited comparable findings regarding the ability of leadership to reduce burnout amongst employees.

Similarly, Ripp et al. (2017) revealed a positive association between leader's, physician trainers, and educators, with the well-being of trainees. In addition, Rockmann and Ballinger, (2017) and Kaya and Karatepe, (2020) declared that behavioral focused leadership theories positively influenced behaviors and organizational outcomes. Researchers Wu et al. (2020) found that servant leaders exhibit positive interactions with employees. Liden et al. (2008) established that servant leadership was positively associated with organizational commitment, performance, and commitment to the community. Clinical training prepares PIRTs to take a leading role as physicians, thereby increasing their level of stress, physical and mental exhaustion, leading to burnout. Conceivably, if training demands are condensed, the anxiety and stress of PIRTs will diminish.

Contributing factors for burnout include unpredictable and long work hours, extreme work demands of time and pressure, emotional patient interaction, work-life balance, and job insecurities (Solms et al., 2019); the results of this study affirmed that PIRTs are experiencing symptoms of pressure from work demands. In this study, patient satisfaction surveys (Dyrbe & Shanafelt, 2016) were not a major determinant to amplified

stress levels and burnout among PIRTs. However, burnout does influence patient safety, quality care, and employee turnover (Dyrbe & Shanafelt, 2016).

In this I recognized that burnout of PIRTS in healthcare systems require immediate interventions to restore well-being, trust, and engagement. Correspondingly, this study confirmed that PIRTs faced mental and emotional exhaustion and increased depersonalization (Chemali et al., 2019) caused by stress from work, which was also depicted by Leiter and Maslach (2017). Researchers confirmed that burnout may impact work performance and interpersonal relationships (Chemali et al., 2019). As burnout is a global concern for individuals in various occupations, particularly in post-graduate medical training, efficacious leadership was identified in this research as a positive component to minimize burnout among PIRTs in academic medical centers in the United States.

In a study conducted by Dyrbye et al. (2019), a survey of physicians in a large healthcare facility revealed leadership correlated moderately with burnout and strongly in satisfaction. The authors concluded that the process of medical education creates situations in which PIRTs who are not well prepared to lead are thrust into a challenging leadership situation. PIRTs are not adequately trained to develop their leadership skills, however, they are expected to be leaders. Congruently, this is evidence that leadership can also be the precursor to reducing burnout, similar to the findings in this study. This insight should give trainers and program directors pause for thought if they seek to optimize the training yield of PIRTs within their academic medical centers. The factors

that contribute to improved well-being and effective leadership are established by effective leadership.

Other influences leading to burnout of PIRTs require immediate interventions. Some precursors of burnout are related to lack of support from physician trainers or necessary coping mechanisms to deal with the overwhelming responsibilities and psychological impact of patient care. Implications from this study suggest that physician trainers have a positive influence on the learning environment of PIRTs to diminish their degree of burnout. Additionally, this finding revealed that regular and engaged communication between physician trainers and PIRTs played a key role in positively impacting the work performance of PIRTs.

The servant leadership component of placing the needs of others first (Liden et al., 2008) is a significant element in the learning environment within healthcare systems. Confirmed by the results of this study, leadership is indispensable for physician trainers who consistently displayed the characteristics of servant leaders during residency training of PIRTs. Empirical studies confirmed that significant relationships exist between effective servant leadership and positive trainee outcomes. Servant leadership in healthcare systems is essential to improve the academic performance, competence, and wellness of PIRTs. Leadership was a motivating factor in reducing burnout as a result of this study. Healthcare organizational leaders have tangible evidence of the thought processes of the residents in their program to institute positive social change.

Relationship between Burnout, Age, Gender and Years in Residency Training

The results of this study showed that no significant statistical relationship existed between burnout of PIRTs and age. Indicating burnout has no specification or limitation based on age. The age of the sample participants in this study ranged from 21 to 50 years old and had no effect on the level of burnout PIRTs experienced.

In this study, no significant statistical relationship existed between burnout and gender. Although the sample population yielded more females than males, each participant experienced similar symptoms of burnout. Ultimately, despite the dissimilarities in gender, burnout is prevalent in PIRTs.

Furthermore, PIRTs have several years of residency training based on their career specialty. The years of residency training can range from 1 to 10 years. The result of this study showed that there was no significant statistical relationship between burnout and years in residency training for PIRTs. Consequently, burnout is experienced at all levels of training in academic medical centers.

The theoretical framework for this study was servant leadership, which is a motivational leadership style that has been used in various occupations. I selected servant leadership for this study as a result of the characteristics and the conceivable impact on increasing performance, interconnectedness, and trust among employers and staffs. The servant leadership theory presented an application of evidence-based recommendations to minimize burnout among PIRTs.

Limitations of the Study

Limitations of the study included stratified random sampling to give participants from all academic medical center's equal representation and inclusion in the study. I selected participants from academic medical centers in several residency programs in the United States. The participants of the study experienced different degrees of burnout due to the nature of the functionality of their discipline and job responsibilities. Participation required completion of online questionnaires, which took 10 to 15 minutes, a time commitment could dissuade study participation. The online environment and individual circumstances were not controlled in this study.

This research provided a platform for servant leadership to be the optimal leadership style for physician trainers. This research was limited to servant leadership and therefore was not aligned with other leadership styles. The uniqueness of PIRTs and their perception of servant leadership within the healthcare environment influenced their interpretation and answers to the questions on the survey instruments. PIRTs level of knowledge and interaction with their physician trainers impacted how they perceived servant leadership principles within their work environment.

This study did not entail demographic information relative to ethnicity, specialty, or hours worked for each PIRTs. In an effort to maintain anonymity, minimal demographic information was collected from the study participants. The demographics of age, gender, and years of training provided scarce comparisons and mandates further study.

Recommendations

Servant leadership strategies are essential characteristics for physician trainers and educators. It is recommended that further research would be replicated using a greater sample size to measure servant leadership in all physicians. Consequently, if all physician trainers proclaimed to display servant leadership characteristics, perhaps burnout and stress levels in PIRTs will be diminished. Additionally, the uniqueness of examining servant leadership and burnout among PIRTs in academic medical centers in the United States utilizing combined SLS, OLBI, and LCQ surveys identified a paucity in the literature.

There have been copious studies investigating physician burnout with other burnout instruments. The results from this study suggest the following recommendations for further research. One perspective is to focus on other healthcare providers such as nurses, physician assistants, social caseworkers, etc. instead of only PIRTs, as the majority of healthcare services in the United States require dedicated multidisciplinary team allied healthcare professionals working together.

Communication and collaboration are essential to ensure cohesion among different members of the team to deliver quality care to all patients. Oftentimes, contention between colleagues while providing care to patients may attribute to elevated levels of burnout. Further research is required to ascertain specific mitigations to burnout for PIRTs. Other research methods, such as a qualitative approach, may be utilized to specifically inquire about PIRTs burnout before experiencing the phenomenon. A

different research method, such as a qualitative approach, would give further insight into the specific factors contributing to burnout among PIRTs.

In addition, program directors exploring measures to reduce burnout, may include activities that create supportive learning environments to encourage positiveness in PIRTs. The complexities within healthcare systems and academic medical centers have implications to further investigate the concept of servant leadership that will enact a supportive and positive learning experience. Greenleaf's (1970) and Liden et al.' (2008) theories substantiate the value of the servant leadership style that serves and inspires employees within organizations. Physician trainers who embody servant leadership characteristics are better equipped to improve processes by cultivating and encouraging their employees. This leadership style may promote engagement strategies that may improve and reshape residency programs within the United States.

The findings from dissimilar servant leadership surveys and burnout instruments may provide further value relating to reducing burnout. Investigations should be conducted to supplement education on servant leadership and wellness in PIRTs to ensure positive learning experiences and work-life balances. Servant leadership is an exceptional model for physician trainers in terms of the emotional and physical well-being of PIRTs. Researchers asserted that a positive association exist between servant leadership and positive working environments (Liden et al., 2008; Hoch et al., 2016; Wu et al., 2020).

Implications

Positive Social Change

This study may contribute to the existing body of research on burnout mitigation and servant leadership. Servant leadership characteristics have the potential to reinforce trust, empowerment, commitment, and wellness of PIRTs in academic medical centers globally. The implications for positive social change include educational trainers and leaders in academic medical centers mitigating burnout among PIRTs, while contributing to active learning, wellness, and a collaborative working environment.

The research question in this study delineated a significantly negative relationship between servant leadership and burnout. As servant leadership increases the level of burnout among PIRTs decreases. The literature review suggests that work related exhaustion, stress, and lack of support lead to increased burnout negatively impacts the healthcare system. Healthcare educators and administrators must rectify burnout among PIRTs.

Theoretical Implications

The existing literature examined in this study depicted the measurements and correlations among servant leadership, engagement, and well-being. Participants in this study assessed their level of burnout as well as evaluated the servant leadership characteristics of their physician trainers. Servant leadership characteristics has significant leadership traits that extend beyond medical training. These findings suggest that physician trainers need to possess inspirational leadership qualities that must be recognized by senior leadership as they are responsible for the structure of the delivery of

care provided within healthcare organizations. The servant leadership characteristics of empowerment, helping employees grow and succeed, and putting employees first, are beneficial for the betterment of PIRTs. Servant leadership fosters positivity and connectedness among PIRTS and minimizes symptoms of burnout thereby creating a profound learning experience.

Implications for Practice

The implications from this research further suggests that educational trainers, administrators, and program directors need to continuously support and guide PIRTs to create well-trained experienced physicians thereby increasing wellness and reducing burnout for the betterment of healthcare systems and effective patient care. The support and training from physician servant leaders will give PIRTs the sense of confidence to become competent, compassionate, and skilled physicians. Approximately 42.6% of PIRTS indicated they experienced a high degree of burnout, 48.4% indicated that they have moderate or a medium degree of burnout, and 9% indicated they have low burnout. Incorporating servant leadership may offset the level of burnout, physical and mental exhaustion articulated by PIRTs in this study. Leadership must devise a plan to mitigate the level of burnout that PIRTs experience in academic medical centers. The results of this study reveal that physician trainers appear to have a significant degree of servant leadership characteristics. These trainers have a significant role in reshaping the delivery of care PIRTs provide to patients. Physician trainers need to develop attributes of PIRTs to increase their overall effectiveness, performance, and wellness.

Conclusion

In summary, in this current stage of uncertainty, burnout is exponentially heightened, and positive social change is required. This study may add value to the existing body of research on mitigating burnout among PIRTs, and consequently may facilitate insight on PIRTs in academic medical centers in the United States. The results of this study concluded that a significantly negative relationship exists between servant leadership and burnout. This outcome indicates that the more physician trainers portray servant leadership characteristics during the training of PIRTs, the more the level of burnout of PIRTs decreases. Burnout has severe consequences on PIRTs, as well as the care provided to all patients. Healthcare leaders must recognize the symptoms of burnout among PIRTs. It would be advantageous for senior leadership to also institute learning processes to minimize factors of burnout for the healthcare system as it impacts all professions.

The literature review provided value for examining servant leadership in academic medical centers in the United States. The characteristics of physician trainers' supportiveness of PIRTs is evidence that utilizing leadership style will increase both engagement and competence. The evidence in this study has the pertinency for physician trainers and PIRTs to identify components to minimize burnout, increase knowledge, wellness, confidence and engagement through servant leadership. Healthcare organizations within the United States are responsible for delivering the best care to patients. Physician trainers facilitate personal development of PIRTs, and as a result will

develop meaningful collegiality, increase professional life enrichment, and abate burnout in residency training programs.

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Appendix A: Recruitment Flyer

Online Survey Study Seeks Physicians in Residency for Participation

This study is designed to examine **"Servant Leadership on Burnout among Physicians in Residency Training**.*"* This online survey is part of the doctoral study for Karen Grant-Hewitt, a Ph.D. student at Walden University.

About the study:

- The survey will take about 10-15-minutes to complete
- No names will be collected to protect your privacy

Volunteers must meet the following requirements:

- Be a graduate from an accredited medical school/college within the United States, and;
- Currently be in a post-graduate residency training program.

To participate please click the following hyperlink:
[Physician Research Study**]**

Appendix B: Demographic Survey

Servant Leadership on Burnout among Physicians in Residency Training

Instructions: *Please answer the following questions as best describes your status:*

What is your age group?

20 -25 Yrs.____25-30 Yrs.___ 30-35 Yrs.____35-40 Yrs.___40-45 Yrs. __45- 50 Yrs.__ over 50Yrs. ____

What is your gender?

Male _____ Female _____

Program Year in Residency Training: (Please select training year)
PGY1__ PGY2___ PGY3___PGY4___PGY5___
PGY6___PGY7___PGY8___PGY9___PGY10___

Appendix C: Servant Leadership Scale

***Servant Leadership Measures (*SL-28 and SL-7)**
Liden, R.C., Wayne, S.J., Zhao, H., & Henderson, D. (2008). Servant leadership: Development of a multidimensional measure and multilevel assessment. ***Leadership Quarterly,*** 19, 161-177. [original scale development research]

****

Section A. In the following set of questions, think of your immediate supervisor or manager (or team leader); that is, the person to whom you report directly and who rates your performance. If the person listed above is not your immediate supervisor, please notify a member of our research team.
Please select your response from Strongly Disagree = 1 to Strongly Agree = 7 presented below and enter the corresponding number in the space to the left of each question.

****

Strongly Disagree	Slightly Disagree	Disagree	Neutral	Agree	Slightly Agree	Strongly Agree
1	2	3	4	5	6	7

____1. My manager can tell if something work-related is going wrong.
____2. My manager gives me the responsibility to make important decisions about my job.
____3. My manager makes my career development a priority.
____4. My manager seems to care more about my success than his/her own.
____5. My manager holds high ethical standards.
____6. I would seek help from my manager if I had a personal problem.
____7. My manager emphasizes the importance of giving back to the community.
____8. My manager is able to effectively think through complex problems.
____9. My manager encourages me to handle important work decisions on my own.
____10. My manager is interested in making sure that I achieve my career goals.
____11. My manager puts my best interests ahead of his/her own.
____12. My manager is always honest.
____13. My manager cares about my personal well-being.
____14. My manager is always interested in helping people in our community.
____15. My manager has a thorough understanding of our organization and its goals.
____16. My manager gives me the freedom to handle difficult situations in the way that I feel is best.
____17. My manager provides me with work experiences that enable me to develop new skills.
____18. My manager sacrifices his/her own interests to meet my needs.
____19. My manager would **not** compromise ethical principles in order to achieve success.
____20. My manager takes time to talk to me on a personal level.
____21. My manager is involved in community activities.
____22. My manager can solve work problems with new or creative ideas.
____23. When I have to make an important decision at work, I do **not** have to consult my manager first.
____24. My manager wants to know about my career goals.
____25. My manager does whatever she/he can, to make my job easier.
____26. My manager values honesty more than profits.
____27. My manager can recognize when I'm disappointed without asking me.
____28. I am encouraged by my manager to volunteer in the community.

Appendix D: Servant Leadership Scale & Key

Item Key (SL-28)

Item #s	Reference/comments
1, 8, 15, 22	Servant Leadership: Conceptual skills
2, 9, 16, 23	Servant Leadership: Empowering: our items
3, 10, 17, 24	Servant Leadership: Helping subordinates grow and. Item #3 is adapted from Ehrhart, PPsych, Spring, 2004
4, 11, 18, 25	Servant Leadership Putting subordinates first. Items #11 and #18 adopted from Barbuto & Wheeler, 2006 G&OM.
5, 12, 19, 26	Servant Leadership: Ethical Behavior. Item #5 is adapted from Ehrhart, PPsych, Spring, 2004.
6, 13, 20, 27	Servant Leadership: Emotional healing
7, 14, 21, 28	Servant Leadership: Creating value for the community. Item #7 is adopted from Ehrhart, PPsych, Spring, 2004

Item Key for SL-7 (short form)

Item #s	Reference/comments
1, 3, 6, 7, 11, 16, 19	Servant Leadership short form (SL-7): Liden, R.C., Wayne, S.J., Meuser, J.D., Hu, J., Wu, J., & Liao, C. (2015). Servant Leadership: Validation of a Short Form of the SL-28. ***Leadership Quarterly***, *26*, 254-269. - also used in: Liden, R.C., Wayne, S.J., Liao, C., & Meuser, J.D. (2014). Servant leadership and serving culture: Influence on individual and unit performance. ***Academy of Management Journal***, *57*, 1434-1452.

____1. My attending can tell if something work-related is going wrong.
____2. My attending makes my career development a priority.
____3. I would seek help from my manager if I had a personal problem.
____4. My attending emphasizes the importance of giving back to the community.
____5. My attending puts my best interests ahead of his/her own.
____6. My attending gives me the freedom to handle difficult situations in the way that I feel is best.
____7. My attending would **not** compromise ethical principles in order to achieve success.

Appendix E: Oldenburg Burnout Inventory

Instructions: Below you will find a series of statements with which you may agree or disagree. Using the scale, please indicate the degree of your agreement by selecting the number that corresponds with each statement.

		Strongly Agree	Agree	Disagree	Strongly Disagree
1.	I always find new and interesting aspects in my work (D)	1	2	3	4
2.	There are days when I feel tired before I arrive to work (E.R.)	1	2	3	4
3.	It happens more and more often that I talk about my work in a negative was (D.R)	1	2	3	4
4.	After work, I tend to need more time than in the past in order to relax and feel better (E.R)	1	2	3	4
5.	I can tolerate the pressure of my work very well (E)	1	2	3	4
6.	Lately, I tend to think less at work and do my job almost mechanically (D.R)	1	2	3	4
7.	I find my work, to be a positive challenge	1	2	3	4
8.	During my work, I often feel emotionally drained (E.R)	1	2	3	4
9.	Over time, one can become disconnected from this type of work (D.R)	1	2	3	4
10.	After working, I have enough energy for my leisure activities (E)	1	2	3	4
11.	Sometimes I feel sickened by my work task (D.R)	1	2	3	4
12.	After my work, I usually feel worn out and weary (E.R)	1	2	3	4
13.	This is the only type of work that I can imagine myself doing (D)	1	2	3	4
14.	Usually, I can manage the amount of my work well (E)	1	2	3	4
15.	I feel more and more engaged in my work (D)	1	2	3	4
16.	When I work, I usually feel energized (E)	1	2	3	4

Note: Disengagement items are 1,3(R), 6(R), 7 9(R), 11(R), 13, 15. Exhaustion items are 2(R), 4(R), 5 8(R), 10, 12(R), 14, 16. (R) means reversed item when the scores should be such that higher scores indicate more burnout.

Delgadillo et al. (2018) reported “Therapists are identified as having low, medium or high OLBI-D scores, based on scores above or below 1 standard deviation of the mean(M-2.15, SD=0.52; ≤1.62 = low, 1.63 to 2.67 = medium, ≥ 2.68 = high).”

Appendix F: Oldenburg Burnout Inventory Scoring

Oldenburg Burnout Inventory Scoring

1) “Reverse” scores on items 2, 3, 4, 6, 8, 9, 11, 12. This means if you scored a 1, make it a 4. If you scored a 3, make it a 2, etc.
2) Add together scores on all 16 items, including those “reversed” as above.
3) Your total score should be between 16-6

Appendix G: The Learning Climate Questionnaire

Instructions: Below you will find a series of statements with which you may agree or disagree. Using the scale, please indicate the degree of your agreement by selecting the number that corresponds with each statement.

	Strongly Disagree						Strongly Agree
I feel that my attendings provide me choices and Options.	1	2	3	4	5	6	7
I feel understood by my attendings.	1	2	3	4	5	6	7
My attendings conveyed confidence in my ability to do well in training.	1	2	3	4	5	6	7
My attendings encouraged me to ask questions.	1	2	3	4	5	6	7
My attendings listen to how I would like to do things.	1	2	3	4	5	6	7
My attendings try to understand how I see things before suggesting a new way to do things.	1	2	3	4	5	6	7

Appendix H: CITI Certificate

CITI PROGRAM

Completion Date 12-Aug-2020
Expiration Date N/A
Record ID 37845877

This is to certify that:

Karen Grant

Has completed the following CITI Program course:

Not valid for renewal of certification through CME. Do not use for TransCelerate mutual recognition (see Completion Report).

Student's (Curriculum Group)
Doctoral Student Researchers (Course Learner Group)
1 - Basic Course (Stage)

Under requirements set by:

Walden University

CITI
Collaborative Institutional Training Initiative

Verify at www.citiprogram.org/verify/?w528f6d02-19f3-4af5-b5db-93998683b62a-37845877

Appendix I: Permission to use the LCQ

Permission Request to use the Learning Climate Questionnaire

9:49 AM

to AEBlackPhD

Good Morning Dr. Black,

I hope you are well. Thank you for your call this morning. My name is Karen Grant, and I am a doctoral student specializing in Leadership and Organizational Change at Walden University in Minneapolis, Minnesota. I am writing to request permission to use your Learning Climate questionnaire to conduct research for my dissertation proposal. The focus of my research study pertains to burnout among physician residents in academic medical centers in the United States. The Learning Climate Questionnaire (LCQ) contains measures that are advantageous to my study. Along with your permission, might I receive the scoring key (Coding key) to record the results?

Thank you for your time and consideration.
Have a wonderful day.

Respectfully,
Karen Grant, MPhil, MS
Walden University
School of Management and Technology
Doctoral Candidate

Aaron Black 1:35 PM (40 minutes ago)

to me

Hi Karen. You are absolutely permitted to use the LCQ in support of your research. Sounds like a very important area that you are investigating. You may use the instrument, or modify it, in any way you choose. Unfortunately, I no longer have access to the coding key, however, I believe that we were simply adding up the responses using a linear scale for each question. It's a pretty simple instrument so you can adjust the coding in whatever way you would like to. Once you have the data, just run the typical statistics to ensure that your coding scheme is consistent with the scale's internal validity. I wish I could be more helpful with that but once you put it to work, I think you'll find it easy to decide how to code the responses. Good luck to you!

Appendix J: Permission to use the Servant Leadership Scale

From:
Sent: Thursday, Jul 30, 2020 2:11 PM
To:
Subject: Re: Permission request to use Servant Leadership Survey

Dear Karen,
Yes, you may use our scale...we placed in the public domain. I've attached it along with a recent article describing research in which we had physicians included in our sample.

Best of luck with your research,
Bob Liden

On Thu, Jul 30, 2020 at 10:31 AM Karen Grant wrote:

Dear Dr., Liden,
My name is Karen Grant, and I am a doctoral student at Walden University in Minneapolis, Minnesota. I am interested in Servant Leadership as a focus of my research and preparing my dissertation proposal. I am writing to request permission to use the Servant Leadership questionnaire to conduct my research on resident physicians and their levels of servant leadership and burnout. Along with your permission, might I receive the scoring key (Coding key) to record the results? This information will not be circulated. Upon completion of my examination of physician resident's servant leadership self-assessment and their levels of burnout, a copy will be available to you for your review. Thank you for your time and consideration,

Respectfully,
Karen Grant
Doctoral Student, Walden University, School of Management

Appendix K: Permission for the Oldenburg Burnout Inventory

No cost involved in this Oldenburg Burnout Inventory (OLBI). The OLBI is based on a model similar to that of the Maslach Burnout Inventory (MBI). This inventory was constructed and validated in an independent study among employees from different occupational fields.