

PREDICTED BURNOUT FROM A LINEAR COMBINATION OF PERSONAL AND
CULTURAL FACTORS FOR DEPARTMENTAL CHAIRS AT ACADEMIC HEALTH
CENTERS

by

Loraine AnnMarie Antoine

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Philosophy

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ABSTRACT

Academic departmental chairs at academic health centers have multifaceted roles that entail of faculty obligations, leadership tasks, and the provision of clinical care. Increasing job demands at academic healthcare centers and higher education institutions has led to an increase in burnout, job dissatisfaction, and attrition of faculty and departmental chairs. Departmental chairs at academic health centers must determine strategies to balance their multiple roles held at their institution, as well as roles held in personal aspects of their lives. The purpose of this study was to identify factors that contributed to turnover and job dissatisfaction for academic departmental chairs to assist in the retention of leadership at academic health centers. The researcher utilized a quantitative non-experimental approach. A sample size of 100 participants was recruited to take part in this study. Data collection was completed via a survey that entailed of the Maslach Burnout Index-Human Sciences Survey (MBI-HSS) and a survey created by Gabbe et al. (2002, 2018). Data analysis was conducted through IBM SPSS (Version 27) and the hypothesis was analyzed using multiple regression. The null hypothesis was rejected as increases in satisfaction with life-work balance, current job satisfaction, self-perceived effectiveness, and the likelihood of professional life improving all resulted in significant decreases in burnout. An increase in irritability with one's spouse, however, resulted in a significant increase in burnout. The predictor that was most influential in burnout was satisfaction with life-work balance. Future research can be conducted to include additional geographical regions to assess the effects of the different stressors faced by academic health centers. The study may also be completed via interviews for data collection to enhance transparency in the provision of responses among the participants.

Keywords: Departmental chairs, burnout, academic health centers, job satisfaction

Dedication

This manuscript is dedicated to my son Liam Antoine. You have been with me every step of my doctoral journey and continued to support me when I needed dedicated time to research, brainstorm, and write. Thank you for allowing mommy to utilize time as a student while attempting to make sure your needs were met. I would also like to dedicate the completed manuscript to my support system of family and friends that offered many words of encouragement when I was in obvious need and those times when I became discouraged by the tasks ahead. This journey could not have been completed without your continued support. May God continue to bless you all as you have continually served as blessings to me.

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List of Abbreviations

Coronavirus disease 2019 (COVID-19)

Coronavirus 2 (SARS-CoV-2)

Maslach Burnout Index-Human Sciences Survey (MBI-HSS)

CHAPTER ONE: INTRODUCTION

Overview

The purpose of this quantitative predictive correlational design study was to determine how accurately can burnout be predicted from a linear combination of personal and cultural factors for departmental chairs at academic health centers to assist in the retention of leadership at academic health centers. Chapter One provides a background of academic health centers, education of the healthcare professional, and the demands faced by faculty and departmental chairs at academic health centers. The problem statement examines the scope of the recent literature on this topic. The purpose of this study is followed by the significance of the current study, and the research question. The chapter concludes with a list of key terms and their definitions.

Background

Education of the healthcare professional consists of a didactic component that occurs at a higher education institution and a clinical component that takes place in the clinical setting. Academic health centers are partnerships between one or more clinical centers and a higher education institution with the primary objective of utilizing the strength of both organizations to provide optimal patient care and educational opportunities (Allen, 2019). Faculty at the higher education institution of academic health centers are tasked with the responsibility of providing students with the knowledge and practical skills required to treat patients in the clinical setting (Ozga et al., 2016). Faculty must remain abreast on current clinical care guidelines and maintain their clinical skills by continuing to work in their respective fields. Academic health centers also require faculty to perform scholarly activities, including research and service to the institution by serving on committees.

The demand on faculty in academic healthcare programs is consistently increasing as the clinical world constantly evolves and the need for private funding and grants for research increases as governmental funding decreases (Bonilha et al., 2019). Academic health centers utilize leadership of academic deans and academic departmental chairs to counter the increasing demand and to provide support and guidance for faculty throughout their academic career at the institution. Factors that contribute to burnout, turnover, and job dissatisfaction for faculty and healthcare professionals have been assessed to determine internal and external influences that contribute to dissatisfaction and turnover in the clinical and academic worlds. Burnout and low engagement in clinical health professionals predicted clinician turnover in the healthcare setting (Willard-Grace et al., 2019). Researchers have determined factors such as burnout, feeling moral distress in the workplace, low institutional support, lack of engagement, lack of recognition, lack of opportunities for professional development, and negative perceptions of the culture contribute to decreased job satisfaction and retention in academia (Bonilha et al., 2019; Bowling et al., 2010; Cerci & Dumludag, 2019; Gabbe et al., 2018; Girod et al., 2017; Nausheen et al., 2018; Owen et al., 2018; Salyers et al., 2016; van den Berg et al., 2015).

Reed (2006) completed a literature review to determine the critical factors that contributed to job satisfaction and faculty retention in physician assistant programs at academic health centers. Reed (2006) reported multiple internal and external variables that affected job satisfaction of faculty in physician assistant programs: recognition, achievement, passion for the physician assistant profession, advancement, responsibility, and salary. Mentoring, availability of resources for faculty, decision-making participation, respect by colleagues, autonomy and clinical freedom are also factors that affect job satisfaction and faculty retention in physician assistant programs (Reed, 2006). Faculty mentorship at academic health centers is often provided

by departmental chairs. Lieff et al. (2013) completed semi-structured interviews of 84% of departmental chairs at an academic health center to determine the intricate needs of the departmental chairs. Lieff et al. (2013) determined cultural and structural awareness, a comprehensive network of support for obtaining advice and sharing information, a network for emotional support, and effective interpersonal and influence skills were needs required by the departmental chairs to succeed within their roles at the academic health center.

Gabbe et al. (2018) conducted a study comparing responses to a burnout survey of departmental chairs in obstetrics and gynecology at an academic health center in 2002 and 2017. Gabbe et al. (2018) reported significant stressors for departmental chairs in obstetrics and gynecology were department budget deficits, hospital budget deficits, loss of key faculty, and union disputes. Hospital and departmental budget deficits as stressors are consistent with data collected by the researchers in their study 15 years prior (Gabbe et al., 2002). The lack of sufficient staff, systemwide integration difficulties, and lack of efficacy with organizational administrative were also reported as stressors. Gabbe et al. (2018) concluded that although burnout of departmental chairs of obstetrics and gynecology has decreased in the past 15 years there continues to be significant job-related stress, which can lead to job dissatisfaction and turnover.

Chairs at academic health centers constantly demonstrate mimetic learning as they engage in everyday activities and interactions (Billet, 2014). Chairs must be able to mediate between internal processes and influences from the social and physical world to determine which actions and behaviors are needed to achieve established goals. Chairs must also utilize self-reflection, self-reactiveness, and forethought to balance the effects of their behaviors, personal factors, and the environment to remain engaged in their position and satisfied with their job

(Bandura, 2018). Self-efficacy and self-regulation are also important in determining the behaviors and actions of chairs that lead to success within their multiple roles at academic health centers (Bandura, 1986, 1991; Pajares, 1996).

Academic departmental chairs have multifaceted roles at academic health centers. Each role has specific job duties and expectations that affect the departmental chair's subjective well-being and overall job satisfaction. The ability of departmental chairs to exhibit behaviors and actions that lead to success within their multiple roles affects their ability to accomplish goals and their decision to remain within their position at academic health centers. Improving retention at the departmental chair position at academic health centers allows for long-term effective leadership.

Problem Statement

Academic health centers, including academic medical centers, provide complex care to patients, conduct research that lead to health improvements, and educate and train healthcare professionals (Johnston, 2019). As academic health centers continue to grow medically, economically, and in research, improvement in job satisfaction and retention of faculty and academic departmental leadership are prioritized by institutional leadership. Increasing job demands at academic healthcare centers and higher education institutions has led to an increase in job dissatisfaction, burnout, and turnover of faculty and departmental chairs (Bonilha et al., 2019; Gabbe et al., 2018; Lee et al., 2019; Salyers et al., 2016). Academic departmental chairs have multifaceted roles at academic health centers that entail of faculty obligations, leadership tasks, and the provision of clinical care. Healthcare professionals exhibit a higher level of burnout compared to employees in other organizations (Atkinson et al., 2018). Departmental

chairs at academic health centers must determine strategies to balance all roles held at their institution with their roles held in personal aspects of their lives.

Job security, paucity of time for research, academic mobbing, lack of control over workload, and formal and informal pressures are some of the many factors that have been determined to influence job satisfaction and the subjective well-being of faculty members (Cerci & Dumludag, 2018; Lee et al., 2019). Many studies have identified factors that contribute to dissatisfaction, burnout, and turnover of academic health centers' faculty but there was a gap in the literature regarding the leadership that is expected to support the faculty. This study focused on the personal and cultural factors that influence dissatisfaction and turnover in departmental chairs at academic health centers. There is increasing burnout and turnover of departmental chairs and faculty at academic health centers and the lack of research focusing on the factors that influence job dissatisfaction, subjective well-being, and turnover within the position (Flynn & Ironside, 2018; Gabbe et al., 2002, 2018; Kusano et al., 2014; Lee et al., 2019). The problem was we did not know how accurately burnout can be predicted from a linear combination of personal and cultural factors for departmental chairs at academic health centers (Flynn & Ironside, 2018; Gabbe et al., 2002, 2018; Kusano et al., 2014).

Purpose Statement

The purpose of this quantitative predictive correlational design study was to identify factors that contribute to burnout, turnover, and job dissatisfaction for academic departmental chairs to assist in the retention of leadership at academic health centers. Academic departmental chairs at academic health centers were the target population for this study. The participants for the study were drawn from a convenience sample of academic departmental chairs at academic health centers within New York, New Jersey, Connecticut, and Philadelphia, PA during the

2021-2022 academic school year. The criterion variable for this study was burnout. Subjective well-being and burnout are examples of internal factors that have been correlated to job satisfaction (Bowling et al., 2010; Gabbe et al., 2018; Lee et al., 2019; Owen et al., 2018; Salyers et al., 2016). Burnout is characterized by emotional fatigue, a reduced sense of personal accomplishments in the workplace, and skeptical attitudes (Salyers et al., 2016). External factors such as mentorship, workplace interactions, financial factors, and level of responsibility and recognition also contribute to one's job satisfaction in academia (Bonilha et al., 2019; Cerci & Dumludag, 2018; Girod et al., 2017; Nausheen et al., 2018; Pololi et al., 2012; Reed, 2006).

The predictor variables for this study were spousal support, self-efficacy scores, and satisfaction for work-life balance. Spousal support is conceptualized as the degree to which one partner offers emotional and tangible assistance in the other partner's career (Bures et al., 1996). The amount of spousal support received by an individual affects job satisfaction, burnout, and turnover (Bures et al., 1996; Gabbe et al., 2002, 2018). Higher levels of spousal support led to higher levels of overall job satisfaction (Bures, 2006; Carnes, 2017; Gabbe et al., 2002, 2018). Self-efficacy is an individual's beliefs about his or her own capability to demonstrate control over events that affect his or her life and the amount of command over one's own level of functioning (Bandura, 1986). Work-life balance is measured by one's ability to balance professional duties and personal or leisure time in order to achieve harmony in emotional, physical, and spiritual health (Simmons, 2012). Self-efficacy and one's satisfaction with work-life balance also affect burnout, with higher levels of self-efficacy and satisfaction being linked to lower levels of burnout (Gabbe et al., 2002, 2018; Girod et al., 2017; Lee et al., 2019; Nausheen et al., 2018).

Significance of the Study

Departmental chairs at academic health centers have a supportive role in counteracting dissatisfaction and discontent among faculty while being faced with the task of maintaining their own job satisfaction. Academic departmental chairs must balance their roles as faculty, leaders, and clinical health practitioners to attain job satisfaction. Both faculty and staff rated work engagement, global empowerment, psychological empowerment, and structural empowerment highly when assessing job satisfaction (Owen et al., 2018). The ability of departmental chairs to engage and empower their faculty and staff is dependent on their leadership skills and can help to shape the culture of the department. Research has demonstrated the effectiveness of departmental support and mentoring on job satisfaction and career development, which depicts the importance of assessing factors that contribute to turnover in chairs due to the importance of retention in the position over time to offer effective leadership (Bonilha et al., 2019; Nausheen et al., 2018).

The demands of departmental chairs at academic health centers vary from those of faculty and, therefore, should be addressed independently. Exploring the internal and external factors that influence dissatisfaction and turnover in departmental chairs and employing interventions that counter the increasing demands of the position may assist in the departmental chair's ability to utilize the three components of agentic perspective: forethought, self-reactiveness, and self-reflectiveness. The three components of agentic perspective may be used to balance effects of the departmental chair's behavior, personal factors, and the academic institution (Bandura, 2018). Achieving balance may increase job satisfaction, job engagement, and retention of departmental chairs of academic health centers. Understanding the personal and cultural factors that may affect job satisfaction in academic departmental chairs can assist in preventing burnout and turnover within the position at academic health centers. The opportunity

for career advancement and professional growth is a form of recognition offered by institutional leadership that can contribute to the decision of departmental chairs to leave academic health centers (Girod et al., 2017; Nausheen et al., 2018). Results from this study can lead to interventions that decrease burnout in departmental chairs, improve retention, encourage professional growth, and enhance the overall function of the academic department at health centers.

Research Question

RQ1: How accurately can burnout be predicted from a linear combination of personal and cultural factors for departmental chairs at academic health centers?

Definitions

1. *Burnout* – Burnout is characterized by emotional fatigue, a reduced sense of personal accomplishments in the workplace, and skeptical attitudes (Salyers et al., 2016).
2. *Forethought* – One’s ability to guide and motivate him or herself and establish goals by visualizing future outcomes of his or her actions (Bandura, 2018).
3. *Mimetic learning* – Mimetic learning describes the intra- and inter-psychological practices that create order and contribute to mimesis, a mixture of one’s ability to observe, imitate, and rehearse (Billet, 2014).
4. *Self-diagnosing* – Identifying recurrent patterns of behaviors and emotional reactions to determine when they occur and under which conditions (Bandura, 1991).
5. *Self-efficacy* – One’s beliefs about his or her own capability to demonstrate control over events that affect his or her life and the amount of command over one’s own level of functioning (Bandura, 1986).
6. *Self-monitoring* – Examining one’s own performance and actions to establish realistic

goals and assess one's progress towards the goals (Bandura, 1991).

7. *Self-reactiveness* – One's ability to self-regulate via self-sanctioning to manage his or her behavior and actions (Bandura, 2018).
8. *Self-reflectiveness* – One's ability to self-examine and assess efficacy, thought processes, values, and actions (Bandura, 2018).
9. *Self-regulation* – Self-regulation is the ability of the individual to regulate and inspire his or her current behavior using cognitive representations of future events in the present (Bandura, 1991).
10. *Spousal support* – Spousal support is conceptualized as the degree to which one partner offers emotional and tangible assistance in the other partner's career (Bures et al., 1996).
11. *Subjective well-being* – Subjective well-being is one's overall happiness, life satisfaction, positive affect, and absence of a negative affect (Bowling et al., 2010).
12. *Work-life balance* – Work-life balance is measured by one's ability to balance professional duties and personal or leisure time in order to achieve harmony in emotional, physical, and spiritual health (Simmons, 2012).

CHAPTER TWO: LITERATURE REVIEW

Overview

The purpose of this literature review is to present the vital role of departmental chairs at academic health centers and describe factors that contribute to burnout and attrition of departmental chairs at academic health centers. The chapter opens with the theoretical framework. This study is grounded first in Bandura's (1986) social cognitive theory, which focused on the reciprocal relationship that existed between an individual's behavior, personal factors, and the environment. In addition, Stephen Billet's (2014a, 2014b) mimetic learning theory is foundational to this research study. A thorough review of the literature pertinent to departmental chairs at academic health centers, burnout, and factors that influence burnout such as spousal support, self-efficacy, and satisfaction of work-life balance complete the chapter, which ends with a summary.

Theoretical Framework

Understanding how one's thought processes and perceptions influence his or her behavior and actions will further assist in the assessment of burnout, dissatisfaction, and attrition in departmental chairs at academic health centers. Decisions to leave academic health centers are based on multiple internal and external factors. Forethoughts, self-efficacy, self-regulation, and mimesis are practices that may ultimately decide one's job satisfaction and engagement in the workplace (Bandura, 1986, 1991, 2018; Billet, 2014).

Social Cognitive Theory

The social cognitive theory was developed from the social learning theory of the 1960s (Bandura, 1986). The social learning theory focused on learning as it occurred in a social context and was further developed in 1986 to examine the reciprocal relationship that existed between an

individual's behavior, personal factors, and the environment. According to the social cognitive theory, individuals utilize self-reflection to evaluate and control their experiences and thought processes (Bandura, 1986). Self-reflection and evaluation are influenced by self-efficacy and can determine an individual's behavior. An individual's belief about his or her capability to manage and implement necessary actions to navigate prospective situations can affect performance in the academic setting (Pajares, 1996). Greater self-efficacy scores correspond to lower rates of procrastination and burnout among faculty, with procrastination positively related to burnout (Hall et al., 2019). Self-efficacy may have a role in how academic departmental chairs problem-solve, handle stress and burnout, and remain in their positions as leaders. Bandura (1991) expanded the social cognitive theory by further developing the concept of self-regulation.

Self-regulation concentrates on the ability of the individual to regulate and inspire his or her current behavior using cognitive representations of future events in the present (Bandura, 1991). The cognitive representations, forethoughts, provide the individual with incentive to purposeful actions that allow for self-directed change. Academic departmental chairs must self-regulate to determine their level of success within their multiple roles at the academic health center. The ability of chairs to self-monitor, self-evaluate, establish goals, and control their perceptions of outcomes can influence job satisfaction, burnout, and attrition (Bowling et al., 2010; Gabbe et al., 2018; Owen et al., 2018; van den Berg et al., 2015). The use of self-regulation via forethoughts to produce human function is further discussed in the agentic perspective of the social cognitive theory.

Bandura (2018) reported personal determinants, environmental determinants, and behavioral determinants interplay to generate human functioning. The use of forethoughts, self-examination and self-sanctioning of behaviors, thoughts, and actions link moral reasoning to

moral conduct via self-regulation. Academic departmental chairs must utilize forethought, self-reactiveness, and self-reflectiveness, the three components of agentic perspective, to balance effects of their behavior, the academic institution, and personal factors (Bandura, 2018).

Achieving balance may increase job engagement and job satisfaction, decreasing burnout and increasing retention.

Mimetic Learning Theory

Mimetic learning is the human process by which learning occurs through dynamic engagement with one's social circumstances (Billet, 2014b). The degree by which activities and interactions at the academic health center provide opportunities for mimetic learning for chairs limits dissonance and unhelpful challenges to one's sense of self. Chairs must learn to create order via intra- and inter-psychological practices that contribute to mimesis, a mixture of an individual's ability to observe, imitate, and rehearse (Billet, 2014b). Mimesis determines one's behaviors as the individual attempts to achieve an established goal. Mimetic learning also encourages professional development (Billet, 2014b). The ability of academic health centers to create experiences for workers based on the application and relevance of the organization's goals and procedures affects mimetic learning and therefore might affect job satisfaction, burnout, and retention.

Mimesis is one of the most common forms of engagement and response to the environment exercised by individuals (Billet, 2014a). Employees, such as departmental chairs at academic health centers, list engagement in work activities as a method of learning through and for work (Billet, 2014a). The ability of departmental chairs at academic health centers to understand, value, and achieve work goals is partly based on their ability to develop skillfulness and carry out mimetic learning (Billet, 2014a, 2014b). Lack of mimetic learning via observation

and imitation in the workplace can lead to a decrease in cognitive capacities, such as directing energy and reconciling what one experiences, leading to an increased risk of job dissatisfaction and burnout (Billet, 2014a). Departmental chairs of academic health centers are responsible for mentoring and coaching employees and students in the clinical and academic settings. Mimetic learning influences how departmental chairs at academic health centers perceive and cope with daily experiences at the workplace, clinically and academically, that can lead to stress and burnout.

Theoretical Framework, Burnout, Dissatisfaction, and Attrition

Analyzing and understanding how the thought processes and perceptions of departmental chairs at academic health centers influence their behaviors and actions may further assist in the assessment of burnout, dissatisfaction, and attrition within the position. Forethoughts, self-efficacy, self-regulation, and mimesis are practices that may ultimately decide one's job satisfaction and engagement in the workplace (Bandura, 1986, 1991, 2018; Billet, 2014). Dynamic engagement within the workplace influences the amount of job satisfaction experienced by the departmental chair and affects mimetic learning (Billet, 2014; Cerci & Dumludag, 2019; Nausheen et al., 2018). As mimesis is the individual's ability to observe, imitate, and rehearse behaviors, it is important that chairs utilize self-reflection to evaluate and control their experiences and thought processes (Bandura, 1986; Billet 2014).

The use of self-regulation via forethoughts, self-reactiveness, and self-reflectiveness influences the effects of the departmental chair's behaviors, which are determined by mimesis while attempting to achieve an established goal (Bandura, 2018; Billet, 2014). The departmental chair's belief about his or her capability to manage and implement the necessary actions to traverse prospective situations, self-efficacy, can affect performance or behavior, job satisfaction,

and retention at the academic health center (Gabbe et al., 2018; Girod et al., 2017; Lee et al., 2019; Nausheen et al., 2018; Pajares, 1996). Therefore, burnout, dissatisfaction, and attrition are influenced by the departmental chair's thought processes and perceptions. Determining what factors predict burnout, and influence the behavior, job satisfaction, and retention of departmental chairs at academic health centers may assist higher education institutions determine methods to improve leadership's thought processes, perceptions, and self-efficacy at the workplace.

Determining the factors that predict and contribute to burnout, which can lead to job dissatisfaction and attrition, for academic departmental chairs can assist leadership at academic health centers develop training programs and interventions to mitigate burnout, improving retention. Training programs, to improve resiliency, that are developed for leaders and individuals at high-risk organizations should encourage and simulate mimetic experiences to allow the trainees to link their feelings and responses with targeted work conditions (Flandin et al., 2018). Wilkinson et al. (2012) utilized principles of the social cognitive theory and reports of self-efficacy and outcome expectancy with allied health care professionals to determine the need for ongoing service development and training in evidence-based practice. Self-efficacy, outcome expectancy, and knowledge scores were high but did not correlate to the use of evidence-based practice, signifying the need for continued training for health care professionals (Wilkinson et al., 2012). Training for the health care professional, specifically departmental chairs at academic health centers, should not be limited to evidence-based practice but can also include training and interventions for burnout.

Mindfulness or one's awareness that arises when purposely and nonjudgmentally paying attention to the moment by moment unfolding of an experience is studied as a treatment for

work-related burnout in healthcare professionals (Luken & Sammons, 2016). Mindfulness exercises decrease burnout among physicians, nurses, psychologists, occupational therapy educators, and social workers in the clinical and academic settings (Luken & Sammons, 2016). Departmental chairs at academic health centers may utilize mindfulness to increase their self-care and well-being. Increased mindfulness can improve workplace behavior and engagement within the department, increasing commitment of the departmental chair, faculty, and staff. Committed employees are more engaged and productive, contribute to the growth of the organization, have lower turnover rates, and make decisions that are in line with the academic health center's goals and mission (Bray & Williams, 2017).

Related Literature

Academic health centers are the result of a partnership between clinical centers and higher education institutions (Allen, 2019). Academic health centers partake in clinical and laboratory research, educate and train future healthcare professionals, and deliver high-quality care to patients (Allen, 2019; Edelman et al., 2018; Johnston, 2019). Faculty at higher education institutions of academic health centers provide students with the necessary knowledge and practical skills required to treat patients in the clinical setting while remaining up to date on clinical guidelines and working in their respective clinical fields (Ozga et al., 2016; Rowbotham & Owen, 2015). As the demand on faculty has increased at academic health centers, leadership from academic departmental chairs have been vital to the success of the department (Bonilha et al., 2019; Gabbe et al., 2018). Academic departmental chairs are faced with the tasks of running the department, supporting faculty and staff, teaching, and maintaining their clinical skills by continuing to work in the clinical setting. The multifaceted roles of academic departmental chairs leave them susceptible to burnout.

Internal and external factors contribute to faculty's and chairs' job satisfaction and decision to leave their academic positions. Researchers have determined factors such as burnout, feeling moral distress in the workplace, low institutional support, lack of engagement, lack of recognition, lack of opportunities for professional development, lack of spousal support, and negative perceptions of the culture contribute to decreased job satisfaction and retention in academia (Bonilha, 2019; Bowling et al., 2010; Cerci & Dumludag, 2019; Gabbe et al., 2018; Girod et al., 2017; Nausheen et al., 2018; Owen et al., 2018; Salyers et al., 2016; van den Berg et al., 2015). Departmental chairs at academic health centers have a supportive role in counteracting dissatisfaction and discontent among faculty while being faced with the task of maintaining their own job satisfaction.

Internal Factors

The decision to leave academic institutions by faculty and chairs has been correlated to multiple internal factors. Burnout, engagement, work/life balance, and subjective well-being are internal factors that affect job satisfaction and attrition. Subjective well-being is defined as one's overall happiness, life satisfaction, positive affect, and absence of a negative affect (Bowling et al., 2010). An individual's subjective well-being may represent one's general predisposition to experience certain emotions and, therefore, may influence his or her satisfaction regarding specific domains, such as work.

Subjective Well-being

Subjective well-being has a reciprocal relationship with job satisfaction (Berghlund et al., 2016). Job satisfaction has been positively related to subjective well-being, psychological empowerment, and work engagement (Bowling et al., 2010; Butt et al., 2018; Owen et al., 2018; Park & Johnson, 2019). Job satisfaction was assessed globally and on facets such as supervision,

co-workers, opportunities for advancement, pay, and satisfaction with work itself. Bowling et al. (2010) determined job satisfaction was positively related to subjective well-being, with a stronger relationship and effect size for global job satisfaction (mean $r = .38$) than job satisfaction facets: supervision (mean $r = .14$); co-workers (mean $r = .04$); opportunities for advancement (mean $r = .18$); pay (mean $r = .10$); and satisfaction with work itself (mean $r = .32$). The confidence interval (CI) was 95%. Researchers have determined there is a reciprocal relationship between subjective well-being and job satisfaction. Meta-analytic regression analyses tested the causal relationship between the two factors and determined subjective well-being was significantly related to subsequent job satisfaction ($\beta = .15, p < .01$) and job satisfaction was significantly related to subsequent subjective well-being ($\beta = .006, p < .01$). Individuals may have some aspects of the job that they are not fully satisfied with; however, the global or overall job satisfaction remains positive which yields a positive relationship with life satisfaction and happiness (Bowling et al., 2010). The positive relationship between job satisfaction and subjective well-being is important to understand as it can affect the decision of faculty and chairs to remain at academic health centers.

Intention to leave, work performance, organizational citizenship behavior, interaction with supervisors and colleagues have been link to one's subjective well-being in the workplace (Butt et al., 2018; Nausheen et al., 2018; van den Berg et al., 2015). Employees with higher subjective well-being tend to set higher standards for work performance, are more proactive, and are conscientious about their professional growth (Butt et al., 2018). Conscientiousness has an influence on an individual's success within an organization and subsequently impacts an employee's job satisfaction. Individual and organizational outcomes are impacted by subjective well-being as psychological and physical health improve employee work performance (Berglund

et al., 2016; Butt et al., 2018).

Leadership at academic health centers are significantly more satisfied in their careers than non-leaders (65% versus 36%, $p < .01$) within the field of dermatology with the achievement of balance in their personal and professional lives (Sadeghpour et al., 2020). Academic rank has been associated with improved perception of self-efficacy and influence within the academic community, which can serve as one explanation to why leadership within the department of dermatology at academic health centers across the United States are more satisfied with their careers than faculty in non-leadership positions (Pololi et al., 2012; Sadeghpour et al., 2020). Moral distress and low engagement of faculty at academic health centers have negative effects on job satisfaction and retention (Nausheen et al., 2018; Pololi et al., 2012; van den Berg et al., 2015). Workplace bullying is also associated with lower levels of subjective well-being in organizations (Annor & Amponsah-Tawiah, 2020). Annor and Amponsah-Tawiah (2020) reported exposure to workplace bullying had a significant negative relationship with subjective well-being of employees surveyed in various diverse organizations ($\beta = -.27, p < .001$). Resilience, or the ability of the employee to cope with continuous exposure to intense stressors and bullying while maintaining positive psychological function, had a significant positive relationship with subjective well-being ($\beta = .30, p < .001$) (Annor & Amponsah-Tawiah, 2020). Work/life balance, including the control of personal and family issues, spousal support, and self-efficacy are independent predictors of dissatisfaction, turnover, and burnout (Gabbe et al., 2018; Girod et al., 2017; Nausheen et al., 2018).

Burnout

Burnout is exemplified by a reduced sense of personal accomplishments in the workplace, skeptical attitudes, and emotional fatigue (Salyers et al., 2016). Effects of burnout

such as sleep disturbance, poor health behaviors, and activation of the sympathetic system were linked to increased risk of cardiovascular disease and define burnout syndrome (De Oliveira et al., 2011; Kim et al., 2011; Maslach et al., 2016). Kim et al. (2011) reported physical health problems were most severe and significantly higher among respondents with high burnout levels, individuals with high burnout levels had an overall physical health mean score of 47.8 out of 98 and individuals with low burnout levels had an overall physical health score of 31.7 out of 98. Healthcare professionals display a higher level of burnout compared to employees in other organizations (Atkinson et al., 2018). Burnout in healthcare professionals, clinically, is correlated with suboptimal patient care (Luken & Sammons, 2016; Willard-Grace et al., 2019).

Departmental chairs in healthcare academia are required to maintain clinical practice while fulfilling their academic duties of teaching and leadership, with the number of hours varying based on the department and academic health center. Amidst a global pandemic, with no known end in sight, health care professionals are facing new clinical challenges in the past year that may influence their ability to cope with job-related stress, increasing the risk of burnout. Coronavirus disease 2019 (COVID-19) is caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and has affected over 50 million individuals worldwide, leading to over one million deaths (Barton et al., 2020; Gemine et al., 2021). As the pathology of COVID-19 continues to be researched, health care professionals are faced with the challenge of treating patients with a wide array of symptoms. Many individuals infected are asymptomatic or experience mild symptoms, however, some patients deteriorate rapidly requiring medical care for symptoms related to diseases such as acute respiratory distress syndrome (Barton et al., 2020). Patients were admitted to health care facilities worldwide, including academic health centers, with little knowledge of the pathology of the disease and how it could be treated. Gemine et al.

(2021) surveyed a wide range of professionals, clinical and non-clinical, at a health care institution to assess burnout, stress, and factors impacting staff workload in relation to COVID-19. There was a meaningful change in work-related burnout associated with participants that had different COVID-19 roles ($p = .03$), participants that had concerns about attaining personal protective equipment ($p = .04$), and participants with differences in their ability to rest and recover during breaks ($p < .01$) (Gemine et al., 2021).

de Wit et al. (2020) completed a mixed-methods study to assess the psychological effects and burnout levels of physicians in multiple emergency healthcare settings. Although burnout levels did not significantly change over the ten-week period of the study (emotional exhaustion $p = .632$, and depersonalization $p = .155$), researchers determined frequent testing for COVID-19 (OR 11.5, 95% CI 3.1-42.5) and the number of shifts worked (OR 1.3, 95% CI 1.1-1.5 per additional shift) during the ten-week timeframe were associated with high emotional exhaustion (de Wit et al., 2020). Physician well-being was also impacted by academic and educational work, personal safety, personal protective equipment, work patterns, the workforce, and the work environment. The physician's psychological health was affected by contrasting positive and negative experiences and new financial realities (de Wit et al., 2020).

Chor et al. (2021) conducted a cross-sectional study amongst doctors and nurses from the emergency department of multiple regional health centers, including academic health centers, and urgent care centers to assess burnout among healthcare workers during the COVID-19 pandemic and their preferred method of coping. A significant number of respondents reported moderate-to-severe personal burnout (49.3%) after working the initial three months of the COVID-19 pandemic. Nurses had significantly higher mean personal burnout scores (51.3, SD 19.6, $p = .005$) than doctors (45.7, SD 16.2) (Chor et al., 2021). The effects of the COVID-19

pandemic with social isolation and prolonged use of personal protective equipment were listed as possible contributory factors for burnout. Chor et al. (2021) reported spending time with family and friends, the use of technological media, and acts of gratitude from the workplace and peers were preferred methods of coping for the healthcare workers surveyed during the COVID-19 pandemic.

Norful et al. (2021) further assessed contributory factors of burnout and the psychological and physical impact of high stress clinical environments in frontline multidisciplinary healthcare workers during the initial outbreak of COVID-19. The researchers completed in-person qualitative interviews with physicians, pharmacists, registered nurses, patient care technicians, and respiratory therapists, 50% of which worked in the emergency department or intensive care unit. Norful et al. (2021) reported three emerging themes: 1) fear of uncertainty due to the initial lack of knowledge about COVID-19 treatment and patient care, 2) exhibited psychological and physical stress, and 3) building resilience. Participants of the study reported rapidly changing protocols as a challenge for healthcare workers. The constant changing of guidelines was difficult for both frontline workers and leaders within the organization. The risk of infecting family members, friends, and others outside of the hospital also was a major concern for healthcare workers that participated in the study (Norful et al., 2021). Participants reported that stress related to working on the frontline in healthcare during the COVID-19 pandemic manifested more psychologically than physically (Norful et al., 2021). Norful et al. (2021) reported anxiety, exhaustion, increased emotional burnout, and trouble falling asleep as effects and psychological manifestations of the COVID-19 pandemic on the healthcare workforce that participated in the study.

Academic health centers are tasked with educating healthcare professionals. This

includes providing the opportunity for healthcare professional students and residents to work with patients in the clinical setting. Due to uncertainty and lack of disease knowledge during the initial outbreak of the COVID-19 pandemic multiple challenges arose at academic health centers that hindered the ability of clinical sites to provide adequate clinical experiences for healthcare professional students and residents, increasing stress and contributing to burnout in the clinical and academic settings (Chandratre, 2020; Coleman et al., 2020; Fong et al., 2020; Hueston & Petty, 2020). Limited clinical resources, such as personal protective equipment, led to students and residents not being permitted to participate in clinical evaluations of patients and surgical procedures, especially patients suspected of having COVID-19 (Chandratre, 2020; Coleman et al., 2020; Hueston & Petty, 2020). Seventy percent of residents reported a negative or extremely negative impact on mental health and 47% of residents reported a negative or extremely negative impact on physical health because of the COVID-19 pandemic during clinical training (Coleman et al., 2020). The retraction of students from the clinical setting during the initial COVID-19 outbreak, the limited number of slots for students and residents because of the pandemic, and the limitation of clinical rotations outside of the student's current school system resulted in increased stress and burnout of students, clinical coordinators, and departmental chairs of academic health centers (Chandratre, 2020; Coleman et al., 2020; Hueston & Petty, 2020).

The effects of COVID-19 at academic health centers were not limited to the clinical setting. Faculty at academic institutions for healthcare professionals were forced to transition to virtual teaching due to students no longer being permitted to travel to campus for in-person learning (Chandratre, 2020; Hueston & Petty, 2020). Faculty were tasked with teaching practical skills virtually with limited resources due to the sudden stay-at-home orders for non-clinical essential workers. As leaders within the department, departmental chairs at academic health

centers were exposed to increased stressors and an increased risk of burnout clinically and academically, as healthcare professionals and faculty.

Departmental chairs of academic health centers are not exempt from the recent clinical challenges exposed during the COVID-19 global pandemic; therefore, determining factors that may predict burnout can assist leadership with developing strategies to assist individuals within the position. Leadership at academic health centers can develop coping mechanisms and focus on understanding what motivates practitioners in the position to develop and sustain effective departmental chairs and clinical practitioners (Romanelli et al., 2020). Assessing burnout in both the clinical and academic setting is important when determining factors that contribute to decreased retention of departmental chairs at academic health centers as they have multifaceted roles within their position. Burnout and low engagement in clinical health professionals predicted clinician turnover in the healthcare setting (Willard-Grace et al., 2019).

The Maslach Burnout Index-Human Sciences Survey (MBI-HSS) was created to assess burnout in the workplace and has been utilized to assess the effects of burnout on departmental chairs in obstetrics and gynecology at an academic health center (Gabbe et al., 2018; Maslach et al., 2016). Further research assessing burnout and factors that influence burnout in academic departmental chairs across the various healthcare professions is lacking. Researchers have established negative relationships between self-efficacy, quality of care, safety of care, workload, and burnout in healthcare professionals and departmental chairs (Gabbe et al., 2018; Lee et al., 2019; Salyers et al., 2016). Gabbe et al. (2018) found negative correlations between burnout and self-efficacy scores ($r = -.532, p < .001$) as well as burnout and work-life balance ($r = -.386, p = .001$). Salyers et al. (2016) determined negative relationships between quality and safety, with small to medium effect sizes ($r = -.26$ and $r = -.23$ respectively with 95% confidence intervals).

The greater the burnout of healthcare providers the poorer the quality of care and the more reduction in safety was present.

Burnout of departmental chairs of academic health centers is also influenced by budget deficits, lack or loss of adequate or key faculty, and human resource issues (Gabbe et al., 2018; Kusano et al., 2014). Minimal burnout coupled with high levels of empowerment was a strong predictor of job satisfaction of faculty at an academic health center (Owen et al., 2018). Owen et al. (2018) determined that faculty job satisfaction was related to overall psychological empowerment ($r = .55, p = .001$), on all but one subscale, the meaning subscale. Job satisfaction was also correlated with empowerment ($r = .40, p = .026$). Both faculty and staff rated work engagement, global empowerment, psychological empowerment, and structural empowerment highly (Owen et al., 2018). Predicting and assessing burnout in departmental chairs and measuring their level of engagement and psychological empowerment can assist leadership at academic health centers evaluate job satisfaction within the position and intervene when necessary to increase retention.

Departmental chairs of academic health centers serve as educators, managers, and role models for both faculty and students alike (Tijdink et al., 2014). Academic health centers rely on faculty vitality for the success of their institution (Shah et al., 2018). Vital faculty are the individuals at the organization that actively engage in the intellectual life and governance of their academic institution and are profoundly involved in their professional disciplines (Shah et al., 2018). Vital faculty continuously seek personal and professional growth and remain curious and open to acquiring new skills and knowledge. Healthcare professionals, including faculty, that are engaged have a heightened sense of behavioral, emotional, and psychological connection with the organization (Swensen & Shanafelt, 2020). There are two main factors that contribute to

faculty vitality: personal factors and contextual factors (Shah et al., 2018). Personal factors are considered things as motivation, satisfaction, and self-efficacy. Contextual factors deal with the satisfaction of one's basic psychological needs in the workplace, such as the degree of autonomy and one's sense of competence (Shah et al., 2018). One of the greatest challenges to faculty vitality is professional burnout (Shah et al., 2018). Faculty in academic healthcare, including departmental chairs, have three contributing factors of stress within education: constant changes in the delivery and financing of healthcare, new models for future healthcare professionals, and increasing competition for research funding due to declining contributions from multiple sources in and out of healthcare.

Stress, lack of engagement, and increasing rates of burnout among faculty and departmental chairs at academic health centers are recognized by signs such as exhaustion, reduced work performance, and isolation (Shah et al., 2018). Prolonged stress or frustration, physical or emotional exhaustion, and overwork have been linked to burnout of faculty in academic medicine (Shah et al., 2018). Tjldink et al. (2014) studied the prevalence, severity, and possible determinants of burnout symptoms among medical faculty at multiple academic health centers. Emotional exhaustion is a core feature of burnout (Flynn & Ironside, 2018; Maslach et al., 2016; Tjldink et al., 2014). Emotional exhaustion is characterized by anxiety, fatigue, and feelings of being emotionally drained by one's workload (Flynn & Ironside, 2018; Maslach et al., 2016). Factors such as younger age, faculty with less years since appointment, and faculty that had children living at home were significantly associated with emotional exhaustion and with one or more other component scores of burnout (Tjldink et al., 2014). Based on the emotional exhaustion scale, Tjldink et al. (2014) reported 23.8% of medical faculty at eight academic health centers suffered from burnout.

Burnout affects leaders and managers differently from faculty and staff (Irinzi et al., 2019; Williams, 2018). Therefore, determining factors that may predict burnout in departmental chairs at academic health centers can assist in upper and senior management's ability to identify those at risk and employ interventions to prevent attrition. The multi-faceted role of departmental chairs at academic health centers requires negotiation skills, decision-making skills, delegation skills, and a keen understanding of the organization's mission, vision, and culture. Irinzi et al. (2019) reported top nurse managers experienced more burnout than middle managers or staff, and middle managers reported greater burnout than staff.

The recruitment and retention of middle or midlevel managers, such as departmental chairs, are important as they are promoted to vital roles within healthcare academia, including associate deans, and academic chief executives. Flynn and Ironside (2018) reported a recent shortage in midlevel academic nurse leaders. Dissatisfaction with workload ($\chi^2(1, n = 139) = 35.985, p = .000$), hours typically worked per week, and dissatisfaction with work-life balance ($\chi^2(1, n = 135) = 27.641, p = .000$) increased the odds of burnout in midlevel academic nurse leaders (Flynn & Ironside, 2018). Midlevel academic nurse leaders that were dissatisfied with their work-life balance were over six times more likely to experience burnout and those that experienced dissatisfaction with workload were almost eight times more likely to experience professional burnout (Flynn & Ironside, 2018). Increased burnout among the midlevel positions were associated with intent to leave academia. Departmental chairs at academic health centers are midlevel managers that may benefit from leadership development. Early implementation of leadership training for midlevel managers that focus on corporate culture by connecting the organization's purpose to its workforce produces greater employee satisfaction, lower attrition, and may lessen burnout within the health care system (Williams, 2018).

Leadership style also has an influence on burnout (Hildenbrand et al., 2018; Kelly & Hearld, 2020; King et al., 2019; Vullingsh et al., 2020). Leadership style includes characteristics and behavioral patterns displayed by individuals in positions of formal authority to motivate and influence others to achieve a common mission or goal (Kelly & Hearld, 2020). Passive leadership is characterized by the lack of leadership behavior and the lack of assigned responsibilities (Vullingsh et al., 2020). Passive leadership implies the absence of guidance and direction which can lead to subordinates feeling unclear of their duties or role within the organization. Passive leadership has been linked to poorer mental health, enhanced chronic work stress, higher levels of psychological work fatigue, and burnout (Vullingsh et al., 2020). Ethical leadership is defined as the use of personal actions and interpersonal relationships via two-way communication, decision-making, and reinforcement to demonstrate normatively proper conduct (Vullingsh et al., 2020). Ethical leaders are transparent, display model behavior, and reward and punish constituents with the goal of promoting ethical behavior in their followers. Vullingsh et al. (2020) found a significant negative relationship between follower burnout and ethical leadership ($\beta = -.31, p < .001$).

Transformational leadership is defined as a leadership style that promotes the follower to rise above self-interest by creating a shared vision and altering his or her ideals, interests, values, and spirit to achieve higher performance (Bush, 2018; Koh et al., 2019). Transformational leaders are committed to learning and encourage increased job performance, increased creativity, increased employee well-being, improved meaningfulness of work, self-efficacy, and increased trust in the leader (Harolds, 2020; Hildenbrand et al., 2018; Koh et al., 2019). Hildenbrand et al. (2018) explored the relationship between transformational leadership, employees thriving at work, employees' openness to experience, and burnout utilizing employees of a midsize

manufacturing company. Hildenbrand et al. (2018) concluded that employees that thrive at work mediated the link between transformational leadership and burnout. Transformational leadership was positively related to thriving ($B = .16, SE = .04, p < .001$) and thriving was negatively related to burnout ($B = -.14, SE = .05, p < .01$). Employees with medium ($B = .14, SE = .04, p < .01$) to high ($B = .24, SE = .05, p < .001$) levels of openness to experience showed increased thriving and subsequently reduced burnout when under the supervision of a transformational leader (Hildenbrand et al., 2018).

The high prevalence of burnout among the health care team and its potential impact on patient care requires leadership in health care to explore how their supervisory behaviors can affect employee burnout and professional satisfaction of the health care team. Dyrbye et al. (2020) reported leadership behaviors of immediate supervisors was associated with the odds of burnout and job dissatisfaction of physicians at an academic health center. Similarly, the perception of nurses of their leaders' support, managerial effectiveness, and authentic leadership style have been related to attrition rates, job satisfaction, and burnout (Dyrbye et al., 2020). Dyrbye et al. (2020) conducted a study surveying nonphysician health care employees on their immediate supervisors, perceived burnout, and job satisfaction. For every 1-point increase in composite leadership score the odds of burnout in health care team employees decreased by 7% (OR 0.93; 95% CI, 0.92-0.93; $p < .001$). Leadership has an integral role in reducing burnout, promoting job satisfaction, and happiness in the health care work environment.

Leaders at all levels at academic health centers and organizations assist in preventing burnout and promoting happiness (Harolds, 2020). Leadership characteristics and behaviors, such as being fair, having integrity, being a good role model, being an exceptional communicator, putting the well-being of others on the forefront, and encouraging new ideas, are

important for fostering joy in the workplace and decreasing burnout (Harolds, 2020). Good leaders assist their followers in achieving their full potential via mentorship, delegation of some decision-making tasks, and participation in appropriate projects and committees. Incorporating leadership training at all levels can improve the quality of leadership at academic health centers.

Leadership training at academic health centers have focused on improving skills, personal growth, scholarly productivity, efficacy, career advancement, and increasing knowledge (Rosenthal et al., 2019). Leadership training should also focus on promoting individual and organizational health as employees that have positive leadership ratings report lower levels of burnout and leaders that have undergone training in techniques that assist in decreasing burnout have reported lower levels of burnout (Rosenthal et al., 2019; Shanafelt & Noseworthy, 2017). Rosenthal et al. (2019) evaluated the relationship between leadership training and leaders' sense of burnout after a nine-month leadership training program for mid-level faculty leaders at an academic health center. Participants reported via open-ended responses that leadership training had a positive impact on engagement, energy, and personal accomplishment (Rosenthal et al., 2019). Participants reported peer mentoring throughout the leadership training aided in preventing burnout. Some participants also noted that continuous systemic challenges in the work environment, such as the constant shift in the clinical setting of academic health centers, can lead to decreased energy and an increase in burnout (Rosenthal et al., 2019). Overall, leadership training is associated with positive outcomes, reducing the risk of burnout, and enhancing wellness when senior leaders identify high-opportunity work units (Rosenthal et al., 2019; Shanafelt & Noseworthy, 2017).

External Factors

The decision to leave academic institutions by faculty and chairs has been correlated to

multiple external factors. The workplace is an environment that consists of multiple stakeholders performing specific duties to collectively achieve a common goal. Higher education institutions and academic health centers are complex organizations that depend on their constituents to uphold their mission and strive towards their vision. The culture and work environment created at these organizations have a profound effect on the ability of the stakeholders to complete their jobs. Lack of mentorship, lack of recognition, the level of responsibility or demand, financial considerations, spousal support, and role interactions are external factors that affect job satisfaction and turnover.

Mentorship

Lack of mentorship, low institutional support, or poor departmental leadership has been linked to dissatisfaction in the workplace (Bonilha, 2019; Nausheen et al., 2018; Pololi et al., 2012; Reed, 2006). Implementation and use of an institution-wide mentoring programs significantly improve the university faculty's satisfaction and career development (Bonilha et al., 2019; Nausheen et al., 2018; Reed, 2006). Bonilha et al. (2019) significantly determined 67.1% of faculty below the rank of full professor had mentors in 2017, in contrast to 45.3% in 2011, 84.7% were satisfied with their department's support of career in 2017 (75.6% in 2011), and 90% were familiar with promotion criteria in 2017 (81.7% in 2011). However, there was a significant increase in non-retiring faculty considering leaving the institution within the next two years from 18.8% in 2011 to 24.3% in 2017. Bonilha et al. (2019) concluded that implementation and use of an institution-wide mentoring program significantly improved the university faculty's metrics satisfaction and career development. However, the institution-wide mentoring program did not decrease the percentage of faculty considering leaving the institution within two years (Bonilha et al., 2019). Therefore, leadership should determine additional approaches to

increasing retention and decreasing attrition of faculty at academic health centers.

Rigorous faculty mentoring and review processes that include annual career counseling, monitored advancement to promotion, and goal-oriented academic careers contributed to higher faculty satisfaction and low attrition rates at an academic health center (Robboy & McLendon, 2017). Research has established the effectiveness of mentoring and departmental support on job satisfaction and career development. This portrays the importance of assessing factors that predict burnout in departmental chairs, contributing to turnover, in order to increase retention in the position over time to offer effective leadership (Bonilha, 2019; Nausheen et al., 2018; Reed, 2006). King et al. (2019) reported initiatives implemented by leadership of a department of pharmacy at an academic health center to assist in the mitigation and prevention of factors contributing to burnout. Initiatives such as the appropriate use of e-mails, instant messaging for short communications, and no-meeting zones utilized the regulation of technology to protect employee time for productivity, improve efficient communication throughout the workday, and demonstrated departmental support of job satisfaction.

Level of Responsibility and Recognition

Departmental and organizational demands, along with availability of resources, affect the well-being and ability of educators at academic health centers and universities to perform their duties, including teaching. The level of clear and consistent job responsibilities, demands of the structural position, and the amount of autonomy and clinical freedom affected productivity, retention, and job satisfaction at academic health centers and universities (Nausheen et al., 2018; Nedvědová et al., 2017; Reed 2006; van den Berg et al., 2015). Curran and Prottas (2017) found that if the professional is unsure of his or her role in the department or organization this will have a negative effect on his or her in-role and organizational citizenship behavior. One's in-role and

organization citizenship behaviors have a significant relationship with the level of work engagement (Curran & Prottas, 2017). Faculty and chairs also reported the lack of recognition for completing job responsibilities affected their job satisfaction and played a role in their decision to depart from their organizations (Girod et al., 2017; Nausheen et al., 2018; Reed, 2006). One form of recognition is the opportunity for career advancement and professional growth. Girod et al. (2017) reported 66% of respondents reported lack of advancement and professional reasons as the top factor for leaving their academic health center.

The presence of career development programs and a well-developed promotion process increased career satisfaction among 83% ($p < .01$) of academic leaders in dermatology at academic health centers across the United States (Sadeghpour et al., 2020). Career development programs significantly decreased the risk of faculty leaving academic health centers for up to eight years after appointment as assistant and associate professors ($p < 001$), with those attending more than one career development program leaving less than those that attended only one, longer retention mean interval of 5.3 years ($SD = 3.35$) (Chang et al., 2016). The risk of nontenure clinical track faculty, auxiliary, or associated faculty leaving their academic health center is greater than that of tenure track faculty (Brod et al., 2017). Clinical track faculty resigned after $4.0 \pm .2$ years, associated faculty resigned after $3.9 \pm .3$ years, and tenure track faculty resigned after $6.8 \pm .4$ years (Brod et al., 2017). Seventy-five percent of faculty reported higher academic rank a constant source of satisfaction at an academic health center (Nausheen et al., 2018). Therefore, establishing pathways for advancement in academia rank for faculty and chairs can increase retention as tenure may imply a mutual commitment between the institution and the faculty member or chair. Faculty and chairs reported the lack of opportunity for advancement and professional growth contributed to their decision to leave academic health centers (Bowling

et al, 2010; Girod et al., 2017; Nausheen et al., 2018; Reed, 2006).

Workplace Interactions

There are multiple forms of interaction in the workplace. Interactions between colleagues affects both job satisfaction and life satisfaction (Cerci & Duumludag, 2019; Nausheen et al., 2018). Seventy-five percent of faculty respondents ranked support from colleagues highly when considering job satisfaction (Nausheen et al., 2018). The quality of work life, fairness and equity at the workplace, and the climate and culture of the workplace also have an impact on job satisfaction (Mathur & Mehta, 2015). Work-life balance ($r = .68$), salary ($r = .63$), benefits ($r = .70$), equally distributed workload ($r = .78$), equally distributed responsibility ($r = .81$), supervisor support ($r = .72$), and support from individuals that have worked at the organization a longer period of time or seniors' support ($r = .71$) were major factors that had an impact on job satisfaction of employees at a higher education institution (Mathur & Mehta, 2015). Support from colleagues, respect from colleagues, and the degree of mobbing within the department and organization affect job satisfaction and faculty retention (Cerci & Duumludag, 2019; Mathur & Mehta, 2015; Nausheen et al., 2018; Reed, 2006).

Academic mobbing occurs when there is a combination of power imbalances, repetitive negative acts, and intentional actions performed to cause harm to the targeted individual(s). Respondents that experienced mobbing were significantly ($p < .01$) less satisfied at the job than those who did not experiencing mobbing with an estimated coefficient of -1.993 (Cerci & Duumludag, 2019). Respect and support from colleagues have positive correlations to job and life satisfaction, while mobbing has a negative correlation to job satisfaction leading to decreased retention. Academic mobbing or workplace bullying consists of actions or practices such as social isolation, suppression of information, repeated negative acts, excessive criticizing or

monitoring of one's work, deprivation of work responsibilities, public humiliation, physical aggression, and attacking of one's private life (Pheko, 2018).

Faculty at-risk for leaving their academic health institution reported supervisory relationships, the inability of the departmental chair to foster a climate of teaching, research, and service, and lack of growth opportunities as top concerns and factors for attrition rather than compensation or governance (Bucklin et al., 2014; Zimmerman et al., 2020). Growth opportunities (OR = .70, 95% CI [.66 - .76], $p < .001$) and relationship with supervisor (OR = .79, 95% CI [.74 - .86], $p < .001$) influenced faculty's intent to leave their position at medical schools (Zimmerman et al., 2020). Role interaction also influences job satisfaction and retention. van den Berg et al (2015) determined there were five main themes regarding what participants perceived as influencing their work as an educator and how the work environment affected their teaching role. The helpfulness or positive energy of the work environment and the demand related to being frustrated or costing energy affected the well-being of the participants in their roles as educators (van den Berg et al., 2015). Faculty and chairs at academic health centers have multiple roles at the organization which may lead to an increased sense of job security, subjective well-being, and job satisfaction, when controlled for work overload (Cerci & Dumludag, 2019; van den Berg et al., 2015).

Financial Factors

Academic faculty, clinical faculty, and departmental chairs are compensated for their work via salary. Dissatisfaction with salary influenced one's job satisfaction and contributed to their decision to leave academic health centers (Bowling et al., 2010; Girod et al., 2017; Nausheen et al., 2018; Nedvědová et al., 2017). Girod et al. (2017) reported concerns about salary was one of the top three factors for faculty to leave their academic health center, with 54%

rating concerns about salary as the second leading factor. Other financial considerations that affected one's perception of the ability to do their job were budget and hospital deficits (Gabbe et al., 2018; Kusano et al., 2014). Financial constraints that increase discontent and job dissatisfaction are dependent on many factors at academic health centers: public versus private institutions, the need to attain private funding for research due to decreasing governmental support, and the payor system for clinical care provided to patients (Bonilha et al., 2019; Johnston, 2019; Pololi et al., 2012).

Academic faculty perceptions of institutional, individual, relational, research-related, and funder-related factors affect academic engagement (Jessenia et al., 2018). Academic faculty are required to engage in scholarly activity, such as research, while maintaining their teaching and service duties. Appointments, promotions, and the financial incentive to complete all tasks, especially research, many times are incongruent with the level of engagement expected from academic faculty by leadership and decision-makers (Jessenia et al., 2018). Jessenia et al. (2018) conducted a study utilizing the largest school of public health globally, located in the United States, to collect data utilizing an interviewer administered survey. Majority of respondents (52%) concurred that academic incentives affected their level of engagement with decision-makers, with assistant professors reporting the lack of incentives for engagement as a barrier 27.9% more frequently than the overall sample faculty mean. Along with incentives, the most cited barrier to faculty engagement, reported by 43% of respondents, was the availability of dedicated time for engagement (Jessenia et al., 2018).

Spousal Support

Spousal support or the degree to which one's partner offers emotional and tangible assistance in his or her career is another external factor that affects job satisfaction, burnout, and

turnover (Bures et al., 1996; Gabbe et al., 2002, 2018). Higher levels of spousal support led to higher levels of overall job satisfaction (Bures, 2006; Carnes, 2017; Gabbe et al., 2002, 2018). Workers that received high levels of spousal support had average job satisfaction scores of .14, in comparison workers with low levels of spousal support had average job satisfaction scores of $-.17$ (Bures, 2006). Low levels of spousal support in both men and women result in high levels of stress, .12 and .15 respectively, however, with high levels of spousal support the stress levels of men decreased by .40 and the stress levels in women decreased by .17 (Bures, 2006). Time spent with family and friends was the most common approach chosen by 88.8% of respondents to deal with job-related stress (Gabbe et al., 2018). Forty-nine percent of departmental chairs in obstetrics and gynecology reported their spouses or partners were always willing to listen to worries about work-related challenges (Gabbe et al., 2018).

Stress, in and out of the workplace, refers to an emotional event that is correlated with tension, strain, and nervousness (Carnes, 2017). Workplace stressors such as role conflict and role overload have an impact on employee health, job performance, and burnout (Carnes, 2017; Nedvědová et al., 2017; van den Berg et al., 2015). Similarly, workplace stressors have a negative influence on the family domain (Carnes, 2017; Fetto & Nomaguchi, 2018). Role conflict occurs when the demands on the employee are not compatible among the employee's superiors, affecting job performance (Carnes, 2017). Role overload arises when an employee feels his or her job responsibilities are in excess of his or her available time, abilities, or resources resulting in the use of personal time to meet work demands, impinging on the home life and creating problems at home (Carnes, 2017). Role overload was positively correlated to family-to-work conflict in households without children (50.6%, $z = 2.15$, $p < .05$) and related to poor mental health of respondents' spouses (Fetto & Nomaguchi, 2018).

Research has also demonstrated the effects of spousal support on workplace stressors and job satisfaction. Spousal or partner support includes the willingness of the spouse or partner to listen to the concerns of his or her mate about work-related issues, understand the need of the spouse or partner to work extra hours, and encourage the spouse or partner to take advantage of professional opportunities (Gabbe et al., 2018). Spousal support may alleviate the negative effects of stress by increasing one's self-esteem and promoting effective coping strategies (Karapinar et al., 2019). Spousal support may also increase one's ability to experience role balance as the spouse or partner provides invaluable emotional and mental assistance to attain work and family goals, decrease workaholism, and avoid work-family conflict (Karapinar et al., 2019). Departmental chairs at academic health centers rely on spousal or partner support, along with stress management activities outside of the workplace, to ease workplace stress and burnout (Gabbe et al., 2002, 2018).

Summary

Burnout influences personal well-being, academic and clinical productivity in healthcare, affecting the number of publications in academia and the total relative value production clinically (Turner et al., 2017). Academic health centers have an important role in global health, health system reform, population health, and addressing health disparities (Edelman et al., 2018). Academic health centers are dependent on the ability of their constituents to provide optimal clinical care to patients and education to future healthcare professionals. Professional burnout is categorized as a complex, psychological syndrome comprised of multiple components, including emotional exhaustion, feelings of low personal accomplishment at work, and depersonalization (Darbishire et al., 2020; Kelly & Hearld, 2020). Burnout of the healthcare professional negatively effects patient experience and outcomes, team effectiveness, safety, organizational

effectiveness, and the brand of the organization (Swensen & Shanafelt, 2020). Personal consequences from burnout include alcohol and substance use, irritability, clinical depression, higher rates of relationship issues, and suicide (Swensen & Shanafelt, 2020).

Academic health centers exist to provide didactic and clinical education to healthcare professionals while providing essential and evidence-based care to patients (Allen, 2019; Bonilha et al., 2019). The multiple departments at academic health centers function independently to attain their departmental goals and as whole to achieve the mission and vision of the institution. Each department requires leadership that can create buy-in and a shared vision among its constituents to accomplish both the departmental goals and institutional goals. Departmental chairs at academic health centers serve as a bridge for institutional leadership and the faculty and staff within the department.

The ability of academic health centers to grow medically, economically, and in the field of research is dependent on their ability to improve and maintain job satisfaction, work engagement, and commitment among their stakeholders, especially leadership. The development of solid partnerships and professional fulfillment benefit the organization and the individual healthcare professional, improving the organization's ability to achieve its mission and goals (Swensen & Shanafelt, 2020). Departmental chairs of academic health centers have an integral role in the success of faculty and staff within their department and contribute to the overall ability of the academic health center to accomplish its mission, vision, and goals. Departmental chairs at academic health centers must utilize strategies to manage workplace stressors not only for those in their department but themselves.

Departmental chairs at academic health centers must balance their multifaceted roles as faculty, leaders, and clinical health practitioners to attain job satisfaction and prevent or decrease

burnout. Researchers have established negative relationships between self-efficacy, quality of care, safety of care, workload, and burnout in healthcare professionals and departmental chairs due to factors such as budget deficits, lack of key faculty retention and human resource issues (Gabbe et al., 2018; Kusano et al., 2014; Lee et al., 2019; Salyers et al., 2016). However, further research exploring whether burnout can be predicted from a linear combination of personal and cultural factors for departmental chairs at academic health centers is lacking and leaves a gap in the literature. Assessing variables such as spousal support, self-efficacy scores, and satisfaction of work-life balance in departmental chairs at academic health centers may establish a predictive relationship among the variables and burnout. Determining a predictive relationship between the variables can lead to improved training and support of departmental chairs from deans, vice presidents, and the president of the academic health center.

The role, expectations, workload, and demands of departmental chairs at academic health centers vary from those of faculty and therefore should be addressed independently to support departmental chairs in their ability to lead while performing all job duties. Investigating variables that may predict burnout in departmental chairs can assist in preventing burnout and turnover within the position at academic health centers. Gaining further knowledge of what variables may predict burnout will allow for better understanding of burnout in departmental chairs and may lead to the development of interventions, such as mindfulness training, that decrease burnout in departmental chairs, encourage career advancement, improve retention within the position throughout academic health centers, and positively augment the overall function of the academic department at health centers.

CHAPTER THREE: METHODS

Overview

Academic departmental chairs at academic health centers have multifaceted roles within their departments and the institution. Increasing burnout of departmental chairs at academic health centers and the lack of research focusing on determining the predictive relationship between burnout and predictor variables such as spousal support, self-efficacy scores, and satisfaction for work-life balance contribute to the problem of turnover within the position at academic health centers. Utilizing predictive correlational and cross-sectional designs and validated instruments to determine how accurately burnout can be predicted from a linear combination of personal and cultural factors of departmental chairs at academic health centers can lead to interventions that decrease burnout, improve retention, inspire professional growth, and boost the overall function of the academic department at health centers. The purpose of this quantitative, predictive, correlational study was to identify factors that contribute to burnout, turnover, and job dissatisfaction for academic departmental chairs to assist in the retention of leadership at academic health centers. Chapter three begins by introducing the design of the study, including full definitions of all variables. The research questions and null hypotheses follow. The participants and setting, instrumentation, procedures, and data analysis plans are presented in this chapter.

Design

The research design for this study was a quantitative predictive correlation. The quantitative research approach tests objective theories by investigating the relationship among variables (Creswell & Creswell, 2018). Variables are measured, via instruments, and transformed into numerical data that were analyzed utilizing statistical procedures. Quantitative research tests

theories deductively, protects against bias, controls for confounding factors and alternative explanations, and allows for replication of the study and generalizability of the findings (Creswell & Creswell, 2018). Quantitative research can be classified into experimental and nonexperimental designs (Gall et al., 2007). Nonexperimental designs study phenomena as they exist, without the research intervention that occurs in experimental designs. Quantitative research designs can also be classified by the purpose of the study.

The philosophical worldview that most closely aligns with quantitative research is postpositivism. Postpositivist researchers seek to explain a situation of concern or to describe an existing causal relationship of interest (Creswell & Creswell, 2018). There was a need to identify and assess the personal and cultural factors that predict burnout in departmental chairs of academic health centers as burnout influences attrition. A quantitative predictive correlational design was utilized to assess the predictive relationship between burnout and personal and cultural factors because it is a nonexperimental study that explores the extent to which a criterion can be predicted (Gall et al., 2007).

Correlational research aims to discover the relationship, positive or negative, between variables utilizing correlational statistics (Gall et al., 2007). Researchers utilize correlational designs to analyze the relationship among many variables in a single study to determine how they affect behavior patterns (Gall et al., 2007). Correlational research designs also provide researchers with information regarding the degree of the relationship between the variables in the study. The two major purposes of correlational research designs are to explore causal relationships between multiple variables and to predict data on one variable from participant scores obtained on other variables (Gall et al., 2007). The quality of correlational research design studies is based on depth of the theory utilized by the researcher and the likelihood of attaining

essential research findings from selecting variables previously studied and correlated with each other (Gall et al., 2007). The relationship or correlation between variables can be positive or negative. If there is no relationship between the variables, there is an absence of correlation.

Predictive correlational studies provide researchers with three types of information: the degree to which the complex behavior pattern being studied, criterion variable, can be predicted, data for establishing a theory about the complex behavior pattern, and evidence about the other, predictive, variables that were correlated with the criterion variable (Gall et al., 2007).

Researchers establish two different types of information when conducting predictive correlational studies. Researchers can choose to place emphasis on one complex behavior pattern and the multiple variables that are used to predict the behavior or choose to focus on the theoretical significance of the findings when correlating multiple predictive variables to a criterion (Gall et al., 2007). Predictive correlational design studies aim to maximize the relationship between the criterion and the predictor variables. It is important that researchers properly define the criterion of the study and employ appropriate instruments when conducting the study or the study may fail at establishing a predictive relationship.

The predictor variables for this study were spousal support, self-efficacy scores, and satisfaction for work-life balance as measured by the Gabbe et al. survey (2002, 2018). The predictor variables for this study, spousal support, self-efficacy scores, and satisfaction for work-life balance, were chosen based on their link to burnout found in previous studies (Gabbe et al., 2002, 2018; Lee et al., 2019; Nausheen et al., 2018; Salyers et al., 2016). Spousal support is conceptualized as the degree to which one partner offers emotional and tangible assistance in the other partner's career (Bures et al., 1996). Self-efficacy is an individual's beliefs about his or her own capability to demonstrate control over events that affect his or her life and the amount of

command over one's own level of functioning (Bandura, 1986). Work-life balance is measured by one's ability to balance professional duties and personal or leisure time in order to achieve harmony in emotional, physical, and spiritual health (Simmons, 2012). The criterion variable for this study was burnout as measured by the Maslach Burnout Index-Human Sciences Survey. Burnout is characterized by emotional fatigue, a reduced sense of personal accomplishments in the workplace, and skeptical attitudes (Salyers et al., 2016). This research design was most appropriate for this study because prediction studies are concerned with maximizing the correlation between the predictor variables and the criterion (Gall et al., 2007). Prediction studies may place emphasis on a particular criterion and the various measures that are utilized to predict this criterion. The variables that are deemed good predictors can be applied to practical problems (Gall et al., 2007). The purpose of this study was to identify factors that contribute to burnout for academic departmental chairs to assist in the retention of leadership at academic health centers. Burnout has been correlated to job dissatisfaction and turnover in academia and healthcare (Gabbe et al., 2018; Lee et al., 2019; Salyers et al., 2016). Therefore, determining the predictive relationship between the criterion variable of burnout and the predictor variables of spousal support, self-efficacy scores, and satisfaction for work-life balance can assist institutions with retention problems and allow for increased institutional support and training of departmental chairs of academic health centers. This study had a cross-sectional design as data was collected at one point in time from academic departmental chairs at multiple stages in their careers (Gall et al., 2007).

Research Question(s)

RQ: How accurately can burnout be predicted from a linear combination of personal and cultural factors for departmental chairs at academic health centers?

Hypothesis

The null hypothesis for this study was:

H₀: There will be no significant predictive relationship between the criterion variable (burnout) from a linear combination of predictor variables (spousal support, self-efficacy scores, and satisfaction for work-life balance) for departmental chairs at academic health centers.

Participants and Setting

Researchers must determine exactly what population they want to evaluate in order to choose the right sample for generalization. Researchers utilize sampling techniques that allow for valid generalization about a population (Check & Schutt, 2012). Samples are subsets of the population that participate in the study. Samples are used when researchers do not have resources to involve the entire population or if it is impossible to include the entire population. Samples are not utilized when the entire population is identical. The individual representatives of the population whose characteristics are being measured in the study are called the elements (Check & Schutt, 2012). An educational setting researcher may decide to use a sample of the entire population based on lists acquired from the administration's office, such as the principal or the board of education, or online resources, such as the university's official website. The elements, students, faculty, or staff that will participate in the study, are chosen from the list labeled the sampling frame (Check & Schutt, 2012).

Population

Academic departmental chairs at academic health centers were the target population for this study. Departments in the multiple fields of medicine, nursing, optometry, occupational therapy, physical therapy, physician assistant, public health, respiratory therapy, recreational

therapy, diagnostic medical imaging, medical informatics, and graduate studies will be utilized for this study. The participants for the study were drawn from a convenience sample of academic departmental chairs at academic health centers in the states of New York, New Jersey, Connecticut, and Philadelphia during the 2021-2022 academic school year. The sample, chosen via a convenient sampling method, consisted of 53 male academic departmental chairs and 43 female academic departmental chairs, with four departmental chairs preferring not to say or answer. The age range for the academic departmental chairs were 34 to 72 years old. The marital status of the academic departmental chairs were single, married, divorced, and widowed.

Participants

Each academic health center is comprised of multiple schools for medical and allied health professionals, as well as university hospitals, and are found in urban and suburban areas throughout the four states. For this study, 100 participants exceed the required minimum when assuming a medium effect size with statistical power of .7 and alpha level, $\alpha = .05$ (Gall et al., 2007, p. 145). There are five public, state, academic health centers in the state of New York that typically offer in-person programs but have adopted hybrid methods of learning for the 2020-2021 and 2021-2022 academic calendar years due to the global COVID-19 pandemic: University #1, University #2, University #3, University #4, and University #5. University #1 consists of a school of medicine and biomedical sciences with 26 departments, a university hospital, and multiple clinical and research partner sites located upstate New York. University #2 consists of five colleges and schools with 44 departments, a teaching hospital, and an expanding research and biotechnology complex in New York City. University #3 consists of one college with six departments and one of the largest eye-and-vision care clinics in the country, located in New York City. University #4 consists of two difference campuses, each with academic health

centers, and a total of 103 departments located in Long Island, New York. University #5 consists of four colleges with 52 departments, two university hospitals, and multiple outpatient clinics in upstate New York. There are an additional five private academic health centers in the state of New York. One academic health center from Connecticut, two academic health centers from New Jersey, and two academic health centers from Philadelphia, PA were also utilized for this research study. The instrument was deployed via email, utilizing a convenience sampling method, to academic departmental chairs, department heads, and program directors/leaders of the fifteen academic health centers, allowing participants to complete the questionnaire from any private and comfortable setting that has Internet access. Emails were obtained from the websites of the fifteen academic health centers that list the chairs, departmental heads, and program directors/leaders of each department. Results and data collected from the questionnaire were confidential and anonymous to protect the identities of all participants.

Instrumentation

Researchers can utilize standardized tests, self-report measures, or questionnaires to assess the criterion and the predictive variables of quantitative prediction studies (Gall et al., 2007). A survey design can be utilized for predictive correlational research as it allows researchers to assess for associations among variables of a population by analyzing a sample of that population (Creswell & Creswell, 2018). The use of a survey allows for descriptive analysis, answers to questions about the correlation between multiple variables, and answers to questions about the predictive relationships between multiple variables over time (Creswell & Creswell, 2018). Multiple factors affect the generalizability of a study, including diversity of the sample and response rate when utilizing a survey. The generalizability of a survey may be limited as nonrespondents are likely to differ systemically from the sample of individuals that willingly

participated in the study, especially if the desired number of participants are not met post power analysis (Check & Schutt, 2012, Creswell & Creswell, 2018). By surveying departmental chairs from multiple departments within academic health centers the diversity of the sample will increase, improving generalizability to the population.

Assessment of the Criterion Variable: Burnout

The Maslach Burnout Index-Human Sciences Survey (MBI-HSS) was created to assess burnout in the workplace (Maslach et al., 2016). Abbreviated versions of the MBI-HSS have been utilized to assess the effects of burnout on departmental chairs of obstetrics and gynecology in academic health centers (Gabbe et al., 2002, 2018). The MBI-HSS instrument that was utilized in this study to measure the criterion variable burnout is a 22-item survey created by Maslach et al. (2016). The instrument utilizes a seven-point Likert-scale, ranging from 0 (never) to 6 (every day). Possible answers include: 0- never, 1- a few times a year or less, 2- once a month or less, 3- a few times a month, 4- once a week, 5- a few times a week, and 6- ever day. The MBI-HSS has three subscales: emotional exhaustion (9 questions), depersonalization (5 questions), and personal accomplishment (8 questions). A subscale score is generated from the three components or subscales; there is no total score attained by adding the subscale scores. Higher scores on the emotional exhaustion and depersonalization subscales indicate higher degrees of burnout, while lower scores on the personal accomplishment subscale indicate higher degrees of burnout. The MBI-HSS takes 10 to 15 minutes for participants to complete (Maslach et al., 2016). There are no special qualifications or procedures required to administer the MBI-HSS.

The MBI-HSS was assessed for reliability and content validity, and both was found to be reliable and valid. The MBI-HSS subscales yielded a Cronbach's coefficient alpha value of .90 for emotional exhaustion, .79 for depersonalization, and .71 for personal accomplishment for

internal reliability (Maslach et al., 2016). The MBI-HSS coefficients for test-retest reliability ranged from low to moderately high and were significant beyond the .001 level: .82 for emotional exhaustion, .60 for depersonalization, and .80 for personal accomplishment. Convergent validity for the MBI-HSS has been demonstrated in multiple ways by correlating scale scores with the observations of others, as well as job conditions that were hypothesized to be related with burnout, and by relating burnout to personal attitudes, personal reactions, and various longer-term outcomes (Gabbe et al., 2002; Maslach et al., 2016). Overall, the MBI-HSS yields reliable and valid scores to appropriately investigate burnout in the workplace.

The MBI-HSS has been utilized in various studies to assess burnout in the workplace, including academic health centers and medical facilities (De Oliveira et al., 2011; Gabbe et al., 2002, 2018; Kusano et al., 2014; Saleh et al., 2009; Willard-Grace et al., 2019). Willard-Grace et al. (2019) assessed burnout and work engagement as factors for turnover in health care workers in the primary care setting. Participants of the study included physicians, physician assistants, nurse practitioners, medical assistants, registered nurses, and administrative personnel. In contrast, De Oliveira et al. (2011), Gabbe et al. (2002, 2018), Kusano et al. (2014), and Saleh et al. (2009) focused on utilizing data collected from departmental chairs in anesthesiology, obstetrics and gynecology, radiation oncology, and orthopedics, respectively. Willard-Grace et al. (2019), Gabbe et al. (2002, 2018), and De Oliveira et al. (2011) opted to use shortened versions of the MBI-HSS by utilizing some of the questions from two or more of the three subscales to provide data for their studies. Kusano et al. (2014) and Saleh et al. (2009) utilized the 22 question MBI-HSS in its entirety for data collection.

Questions regarding demographic data, departmental information, perceived job satisfaction, and marital status were also assessed utilizing questions from a survey created by

Gabbe et al. (2002, 2018). Demographic information, the first portion of the survey, is obtained via open-ended and close-ended questions. The second portion of the questionnaire requires participants to select from a list of 11 potential stressors and rank them using a five-point Likert-scale, ranging from 1 (not at all) to 5 (extreme amount). Possible answers include: 1- strongly disagree, 2- disagree, 3-neutral, 4- agree, and 5-strongly agree.

Assessment of the Predictor Variable: Satisfaction for Work-life Balance

Current job satisfaction, satisfaction one year ago, and satisfaction five years ago were assessed by the survey using a five-point Likert scale from “very satisfied” to “very dissatisfied” (Gabbe et al., 2002, 2018). Departmental chairs were also asked to quantify the likelihood that they would step down as chair within the next 1 to 2 years via a five-point Likert scale ranging from “not likely at all” to “extremely likely.” The satisfaction of the departmental chair of his or her work-life balance is assessed in the Gabbe et al. (2002, 2018) survey and is rated via a five-point Likert scale from “very satisfied” to “very dissatisfied.” The departmental chairs were also asked to list, write in, three methods utilized to deal with stress, these data were utilized in the discussion as options for future departmental chairs.

Assessment of the Predictor Variables: Self-efficacy and Spousal Support

The third portion of the Gabbe et al. (2002, 2018) instrument measured the predictor variable self-efficacy utilizing a modified self-efficacy scale ranging from a low score of six to a maximum score of 30 to measure the departmental chair’s appraisal of his or her professional life. Self-perceived effectiveness was also rated on a scale of 0 (least effective) to 100 (most effective). The fourth portion of the instrument was utilized to measure the predictor variable spousal support. The fourth portion included two major questions with three individual responses that assess the departmental chair’s support from and interaction with his or her spouse or

significant and family using a five-point Likert scale from 1 (never) to 5 (always). The questions from the fourth portion of the instrument have been used in numerous studies (Spanier, 1976; Pearlin & Schooler, 1978; Penkower et al., 1988; Phelan et al., 1991). A spouse/significant other support score is calculated based on the chair's responses and ranges from a low of six to a maximum of 30 (Gabbe et al., 2002, 2018). The final portion of the instrument allowed participants to add any other comments that may assist the researchers. See Appendix A for permission to use instruments.

Procedures

The Institutional Review Board (IRB) of Liberty University was contacted and all required documents was submitted in a timely manner to secure approval of this study. Once IRB approval was received, an email with a consent form and body containing information regarding the purpose of the study, the confidentiality of the study, and anonymity of the study was generated with a link to the instrument. See Appendix C for the email body and consent form. There is a digital form of the MBI-HSS that could be used on various online platforms that was purchased for use in this study. An email was utilized to establish trust, introduce the purpose of the study, and encourage the participants to complete the survey. Emails of the academic departmental chairs of the fifteen academic health centers in New York, New Jersey, Connecticut, and Philadelphia were obtained via the school websites. The online platform that was utilized for this study was Qualtrics. Informed consent was not a requirement of this study design as submission of the survey constitutes participant consent. Therefore, participants were directed that clicking the link to the survey will indicate that they have read the consent document attached to the email and would like to take part in the survey. To assure an ample response rate, email reminders were sent bi-weekly, to all participants as reminders to those who

had not yet submitted surveys in the fifteen-week period the survey was open. Qualtrics scored, analyzed, and coded the data, utilizing the scoring methods recommended by the survey creators, and additional data analysis was completed utilizing IBM SPSS software (Version 27).

Data Analysis

Multiple regression was utilized in this study. Data was analyzed with software (IBM SPSS, Version 27). Descriptive statistics is reported as frequency, valid percentage, or mean \pm SD (Check & Schutt, 2012). Correlation of scores on each predictor measure with the criterion scores is the primary method of data analysis for predictive correlational studies (Gall et al., 2007). Multiple statistical techniques can be utilized to improve predictions from participants' scores on the predictor variables. Bivariate correlational statistics, multiple regression, and moderator analysis are examples of procedures for improving the predictability of a criterion variable (Gall et al., 2007). Multiple regression is the primary technique employed by researchers to use individuals' scores on two or more predictor variables to predict their performance on the criterion variable (Gall et al., 2007). A regression analysis that includes multiple predictor variables can provide answers to several different kinds of questions (Warner, 2013). Multiple regression was utilized to determine the strength and direction of the predictive correlation between burnout and the predictor variables due to its versatility and the information that was provided from the test about the relationships among the variables (Gall et al., 2007).

The first step in a multiple regression analysis is the computation of the multiple correlation coefficient (R), the correlation between the criterion variable and the greatest single predictor variable (Gall et al., 2007). Predictor variables are then added based on their ability to improve upon the prediction achieved by the first variable. Therefore, R , increases with the addition of each variable in the multiple regression and becomes the extent of the relationship

between criterion variable and some combination of predictor variables (Gall et al., 2007). The value of R ranges from .00 to 1.00. A multiple regression requires that assumption of multivariate normal distribution, assumption of linearity, assumption of bivariate outliers, and assumption regarding the absence of multicollinearity among the predictor variables are met.

To assess the assumption of bivariate outliers scatter plots were created plotting the intersections between the predictor variables and criterion variable, as well as the predictor variables with each other. The scatter plots were examined for extreme outliers. A bivariate outlier can have a disproportionate impact on the value of the Pearson Product-Moment correlation coefficient (r) and the regression analysis when compared with other scores, the amount of impact depends on its location in the scatter plot (Warner, 2013). The results of the scatter plot will determine if the assumption of bivariate outliers is tenable. The assumption of linearity was assessed via a line of fit added to scatter plots implemented between the predictor variables and criterion variable, as well as the predictor variables with each other. The results of the scatter plot with the line of fit demonstrated if the assumption of linearity is met. Violations in the assumption of linearity may result in bias and increase the risk of Type I and Type II errors as the results of the data analysis will underestimate the actual relationship between the criterion and predictor variables (Warner, 2013).

The assumption of multivariate normal distribution was assessed by plotting a scatter plot for each pair of predictor variables (x, x) and between the predictor variables (x) and the criterion variable (y) (Warner, 2013). If the variables are not linearly related, the power of the test is reduced. When analyzing the scatter plots the researcher looks for the classic cigar shape. To assess the assumption regarding the absence of multicollinearity among the predictor variables a Variance Inflation Factor (VIF) test was performed (Warner, 2013). If predictor

variables are highly correlated with each other, they essentially provide the same information about the criterion variable and the estimated coefficients are confounded with each other (Warner, 2013; Young, 2017). When there is a lack of multicollinearity among the predictor variables, the effects of each predictor variable can be projected independently of each other (Young, 2017). A value greater than ten on a VIF test demonstrates the researcher has multicollinearity and the assumption is violated (Warner, 2013). Acceptable values of VIF are between one and five. The null hypothesis was rejected at the 95% confidence level.

CHAPTER FOUR: FINDINGS

Overview

The purpose of this quantitative predictive correlational design study was to determine how accurately burnout can be predicted from a linear combination of personal and cultural factors for departmental chairs at academic health centers to assist in the retention of leadership at academic health centers. Chapter Four states the research question and the null hypothesis. Chapter Four also includes the descriptive statistics and the results of this study.

Research Question

The following research question was addressed in this study:

RQ1: How accurately can burnout be predicted from a linear combination of personal and cultural factors for departmental chairs at academic health centers?

Null Hypothesis

The following null hypothesis was tested in this study

H₀: There will be no significant predictive relationship between the criterion variable (burnout) from a linear combination of predictor variables (spousal support, self-efficacy scores, and satisfaction for work-life balance) for departmental chairs at academic health centers.

Descriptive Statistics

Academic departmental chairs at academic health centers were the target population for this study. The participants for the study were drawn from a convenience sample of academic departmental chairs at academic health centers in the states of New York, New Jersey, Connecticut, and Philadelphia, Pennsylvania during the 2021-2022 academic school year. The survey instrument was deployed via email, utilizing a convenience sampling method, to academic departmental chairs, department heads, and program directors/leaders of the fifteen

academic health centers, allowing participants to complete the questionnaire from any private and comfortable setting that has Internet access. Emails were obtained from the websites of the fifteen academic health centers that list the chairs, departmental heads, and program directors/leaders of each department. Results and data collected from the questionnaire were downloaded as an SPSS dataset.

There were $N = 100$ respondents that took part in the study which included 53 (53%) females and 43 (43%) males. Three (3%) participants preferred not to say and one (1%) person did not provide any response (Table 1).

Table 1

Gender

	Frequency	Percent
Female	53	53.0
Male	43	43.0
Prefer not to say	3	3.0
No response	1	1.0
Total	100	100.0

The ages of participants ranged from 34 to 72 with the mean age of $M = 54.92$ ($SD = 9.58$). Regarding the number of years of employment, years ranged from one to 39 years ($M = 8.97$, $SD = 8.42$). The number of hours per week worked ranged from six to 90 ($M = 50.87$, $SD = 18.66$). Table 2 provides this information.

Table 2

Age Years Worked at Job, and Hours Worked Per Week

	Minimum	Maximum	M	SD
Age	34	72	54.92	9.58
Years at job	1	39	8.97	8.42
Hours per week	6	90	50.87	18.66

When asked to specify the percent of the time spent performing academic duties, teaching patient care, research, or other activities, on average administrative duties was the greatest ($M = 42.66\%$). This was followed by teaching ($M = 17.77\%$, $SD = 15.59$), patient care ($M = 17.09$, $SD = 22.29$), research ($M = 11.35$, $SD = 15.21$), and some other activity ($M = 4.36$, $SD = 5.88$).

Table 3 provides this information.

Table 3

Percentage of Tasks Performed

	Minimum	Maximum	<i>M</i>	<i>SD</i>
%- Administrative duties	0	100	42.66	25.05
%-- Teaching	0	65	17.77	15.59
%-- Patient care	0	85	17.09	22.29
%-- Research	0	70	11.35	15.21
%- Other activities	0	25	4.36	5.88

Participants were asked about various stressors they experience at their job and the level of stress from 1 = Not at all to 5 = Extreme/large amount. The greatest stressor was department budget cuts ($M = 3.55$, $SD = 1.42$). This was followed by loss of faculty ($M = 3.27$, $SD = 1.33$). The least stress experienced was malpractice cases ($M = 1.39$, $SD = 0.87$). Other stressors are provided in Table 4.

Table 4*Level of Stressors Experiences at the Workplace*

	<i>M</i>	<i>SD</i>
Dept Budget	3.55	1.42
Loss Faculty	3.27	1.33
Hospital Budget	2.58	1.49
Staff Dismissal	2.24	1.33
Faculty Dismiss	2.02	1.23
Dean Dispute	1.97	1.26
Promotion Dispute	1.97	1.23
Union Dispute	1.87	1.07
Medicare/Medicaid Audits	1.66	.97
Credentialing Dispute	1.53	.91
Malpractice Case	1.39	.87
Valid N (listwise)		

When participants were asked about their current job satisfaction on a scale from 1 = very dissatisfied to 5 = very satisfied, the mean response was $M = 3.85$ ($SD = 1.16$). One year ago, the mean response was a bit less ($M = 3.71$, $SD = 1.19$). Five years ago, job satisfaction was the greatest ($M = 4.00$, $SD = 1.13$). Regarding satisfaction with their work-life balance, the average response was somewhat neutral ($M = 3.14$, $SD = 1.29$). Table 5 provides this information.

Table 5*Job Satisfaction Levels*

	<i>M</i>	<i>SD</i>
Current job satisfaction	3.85	1.16
Job satisfaction 1 year ago	3.71	1.19
Job satisfaction 5 years ago	4.00	1.13
Satisfied with life-work balance	3.14	1.29

Participants were asked about various levels of spousal support ranging from a scale from 1 = Never to 5 = frequently. The greatest mean occurrence was understating when their spouse

had to work extra hours ($M = 4.20$, $SD = 0.96$). This was followed by willingness to listen about work-related problems ($M = 4.00$, $SD = 1.08$); encouraging to take advantage of professional opportunities ($M = 3.57$, $SD = 1.26$); being withdrawn/ quiet when preoccupied with work ($M = 3.39$, $SD = 1.09$); irritable when preoccupied with work ($M = 3.06$, $SD = 0.99$); and disagreeing with spouse about the amount of time spent at work ($M = 2.77$, $SD = 1.07$). Table 6 provides this information.

Table 6

Spousal Support

	<i>M</i>	<i>SD</i>
How often is your spouse/significant other understanding when you have to work "extra hours?"	4.20	.96
In regards to your chairmanship, how often is your spouse or significant other willing to listen to you talk about work-related problems?	4.00	1.08
How often does your spouse/significant other encourage you to take advantage of professional opportunities?	3.57	1.26
How often are you withdrawn and quiet with your spouse, significant other, or other family members when you are preoccupied with work matters?	3.39	1.09
How often are you irritable with your spouse, significant other, or other family members when you are preoccupied with work matters?	3.06	.99
How often do you disagree with your spouse, significant other, or other family members about the amount of time you spend on work?	2.77	1.07

Self-perceived effectiveness was rated on a scale of 0 (least effective) to 100 (most effective).

The responses ranged from 40 to 100 ($M = 83.54$, $SD = 10.27$). Additionally, participants were asked about other measures of self-efficacy. These responses could range from 1 "none at all" to 5 "Total amount 100%". The greatest amount of self-efficacy was measured in response to the item "How much control do you have over your professional life?" ($M = 3.42$, $SD = 0.76$). The least self-efficacy score was in response to the item "How likely is your professional life to

worsen over the next several years based on your feelings rather than judgment?” ($M = 2.23$, $SD = 1.13$). When asked to rate the likelihood of stepping down as department chair within the next one to two years on a scale from 1 “not likely” to 5 “extremely likely”, the mean response was $M = 2.10$ ($SD = 1.35$).

Lastly, the dependent variable of burnout was measured by calculating the mean response of 22 items from The Maslach Burnout Index-Human Sciences Survey (MBI-HSS) that were scored on a scale from 0 to 6. Possible answers include 0- never, 1- a few times a year or less, 2- once a month or less, 3- a few times a month, 4- once a week, 5- a few times a week, and 6- ever day. Seven items were reverse coded so that higher values of a response corresponding to higher burnout. The reliability of this measure was assessed by conducting Cronbach's alpha. A generally accepted rule is that α of 0.6-0.7 indicates an acceptable level of reliability, and 0.8 or greater is a very good level (Serbetar et al., 2016). Nunnally (1978) recommends a minimum level of .7. The burnout measure was considered reliable, with a Cronbach's alpha of .899. Burnout scores ranged from 1.14 to 4.23 ($M = 2.62$, $SD = 0.87$).

Results

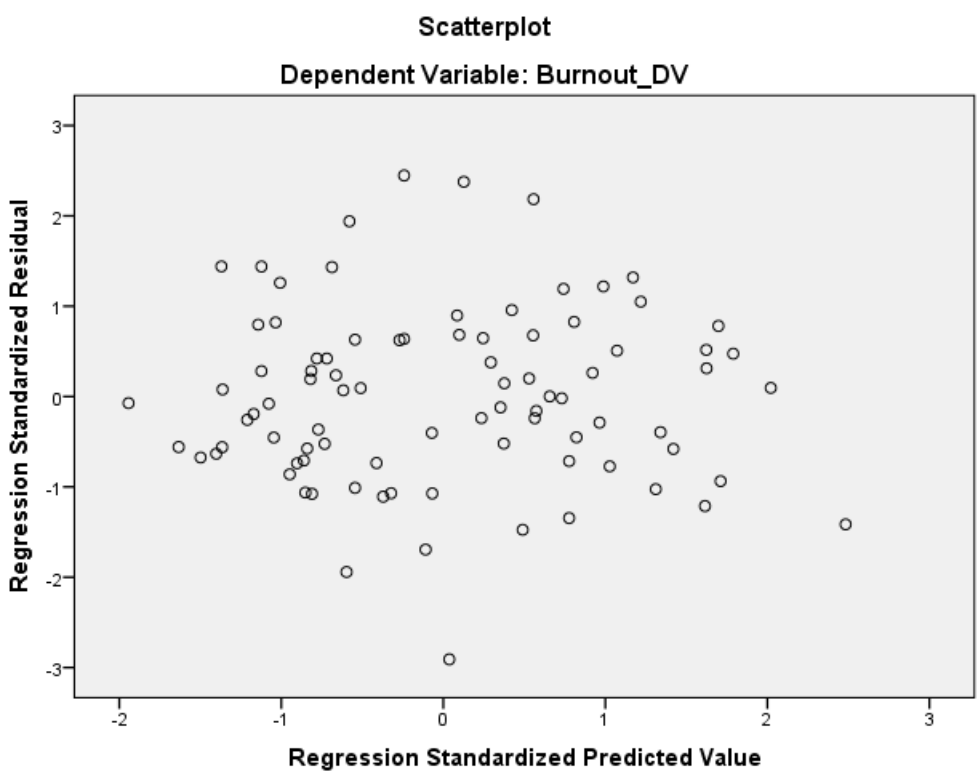
Assumption Testing

Multiple regression was conducted to answer the previously mentioned research question. Prior to conducting multiple regression, the parametric assumptions were first tested. Parametric assumptions are statistical tests conducted to determine when normality or homogeneity of variance assumptions are met or satisfied (Field, 2018). Field (2018) said that multiple regression analysis includes linearity, normality, homoscedasticity, and multicollinearity. Plots of the standardized residuals and the standardized predicted values were examined to assess linearity

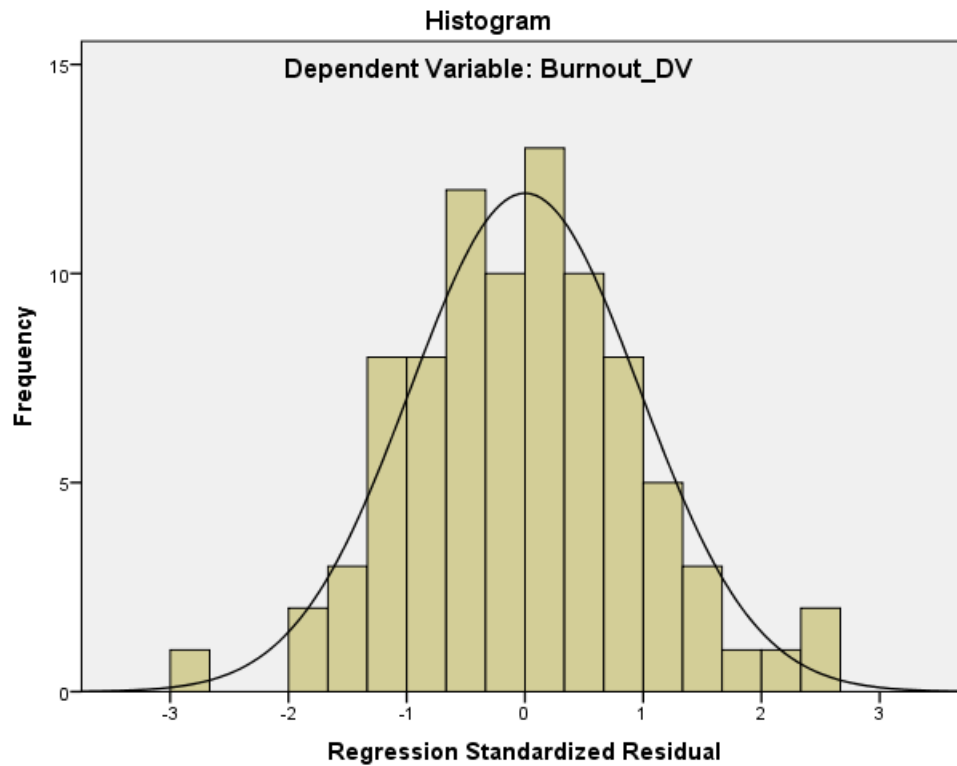
and homoscedasticity. The plot was not curvilinear and formed a rectangular pattern, there was no violation of the assumption of linearity and homoscedasticity (Figure 1).

Figure 1.

Scatter Plot of Regression Predicted Standardized Versus Regression Residuals



Kurtosis and skewness statistics for the regression residuals were generated to assess normality. The results suggested the deviation of data from normality was not severe as the value of skewness (0.115) and kurtosis (0.465) index were below 3 and 10 respectively (Kline, 2011). Additionally, visual inspection of a histogram (Figure 2) also indicated the approximate normality of residuals.

Figure 2.*Histogram of Regression Residuals*

There was the independence of residuals, as assessed by a Durbin-Watson statistic of 2.217. Values between 1.5 and 2.5 indicate no violation of the assumption (Field, 2018). The variable inflation factor (VIF) was calculated for each variable to determine if there was a violation in multicollinearity between any two variables. There were no VIF scores that fell below 10, thus, there was no violation of the assumption of multicollinearity (Field, 2018). Lastly, there were no standardized residuals greater than ± 3 standard deviations, no leverage values greater than 0.2, and values for Cook's distance above 1, thus no outliers.

Hypothesis

H₀: There will be no significant predictive relationship between the criterion variable (burnout) from a linear combination of predictor variables (spousal support, self-efficacy scores, and satisfaction for work-life balance) for departmental chairs at academic health centers.

Multiple regression with a forward selection was conducted with SPSS. Forward selection is a type of stepwise regression which begins with an empty model (no variables) and adds in variables one by one. In each forward step, the one variable that gives the single best improvement to the model is added. This selection process is continued until the final model results in the best fit. The overall model was significant, $F(5, 86) = 42.300, p < .001$. The predictors explained 70.6% of the variation in burnout. The model with the best fit consisted of five significant predictors: Satisfaction with life-work balance ($B = -0.277, p < .001$), irritability with spouse when busy with work ($B = 0.262, p < .001$); current job satisfaction ($B = -0.013, p = .009$); Self-perceived effectiveness ($B = -0.013, p = .019$); and likelihood professional life will improve over the next several years ($B = -0.100, p = .047$). Increases in satisfaction with life-work balance, current job satisfaction, self-perceived effectiveness, and the likelihood of professional life improving all resulted in significant decreases in burnout. An increase in irritability with one's spouse, however, resulted in a significant increase in burnout. The predictor that was most influential in burnout was satisfaction with life-work balance, as this predictor had the greatest standardized coefficient ($\beta = -0.411$). This information is depicted in Table 8.

Table 8*Regression Coefficients of Final Regression Model (Forward Selection)*

	Unstandardized Coefficients		Standardized Coefficients β	t	p	Collinearity Statistics VIF
	B	SE				
(Constant)	4.616	.488		9.463	<.001	
Satisfaction with life-work balance	-.277	.056	-.411	-4.979	<.001	1.991
Irritability with spouse	.262	.056	.301	4.721	<.001	1.191
Current job satisfaction	-.159	.060	-.217	-2.671	.009	1.939
Perceived effectiveness professional life improving	-.013	.005	-.151	-2.395	.019	1.170
	-.100	.050	-.123	-2.015	.047	1.085

a. Dependent Variable: Burnout

The null hypothesis is rejected, and it is concluded that there is a significant predictive relationship between the criterion variable (burnout) from a linear combination of predictor variables (spousal support, self-efficacy scores, and satisfaction for work-life balance) for departmental chairs at academic health centers.

Summary

The purpose of this quantitative predictive correlational design study was to determine how accurately burnout can be predicted from a linear combination of personal and cultural factors for departmental chairs at academic health centers to assist in the retention of leadership at academic health centers. The following research question and null hypothesis were addressed:

RQ1: How accurately can burnout be predicted from a linear combination of personal and cultural factors for departmental chairs at academic health centers?

H₀: There will be no significant predictive relationship between the criterion variable (burnout) from a linear combination of predictor variables (spousal support, self-efficacy scores, and satisfaction for work-life balance) for departmental chairs at academic health centers.

Results of multiple regression with a forward selection method resulted in a significant regression model with the best fit. The model included satisfaction with life-work balance, irritability with spouse when busy with work, current job satisfaction, self-perceived effectiveness, and likelihood professional life will improve over the next several years. Increases in satisfaction with life-work balance, current job satisfaction, self-perceived effectiveness, and the likelihood of professional life improving all resulted in significant decreases in burnout. An increase in irritability with one's spouse, however, resulted in a significant increase in burnout. The predictor that was most influential in burnout was satisfaction with life-work balance. What follows in Chapter Five is a discussion as to how the results of this study are interpreted in the context of the theoretical framework. Limitations and results are also discussed in Chapter Five.

CHAPTER FIVE: CONCLUSIONS

Overview

This research study purposed to empirically identify factors that contribute to burnout, turnover, and job dissatisfaction for academic departmental chairs to assist in the retention of leadership at academic health centers. The results revealed increases in satisfaction with life-work balance, current job satisfaction, self-perceived effectiveness, and the likelihood of professional life improving all resulted in significant decreases in burnout while an increase in irritability with one's spouse, resulted in a significant increase in burnout. The predictor that was most influential in burnout was satisfaction with life-work balance. This research study was significant as it addressed a gap in the literature determining factors that contribute to burnout, turnover, and job dissatisfaction for academic departmental chairs at academic health centers. Chapter Five is organized into several sections. The sections include discussion and interpretation of the study findings, implications of the study results, limitations, and recommendations for future research.

Discussion

The purpose of this quantitative predictive correlational design study was to identify factors that contribute to burnout, turnover, and job dissatisfaction for academic departmental chairs to assist in the retention of leadership at academic health centers. The overarching research question for this study was: How accurately can burnout be predicted from a linear combination of personal and cultural factors for departmental chairs at academic health centers? The null hypothesis for this study was: **H₀**: There will be no significant predictive relationship between the criterion variable (burnout) from a linear combination of predictor variables (spousal support, self-efficacy scores, and satisfaction for work-life balance) for departmental chairs at

academic health centers. Quantitative data were analyzed using multiple regression analysis with IBM SPSS, Version 27 software.

In summary, concerning the research question, results of multiple regression with a forward selection method resulted in a significant regression model with the best fit. The model included satisfaction with life-work balance, irritability with spouse when busy with work, current job satisfaction, self-perceived effectiveness, and likelihood professional life will improve over the next several years. Increases in satisfaction with life-work balance, current job satisfaction, self-perceived effectiveness, and the likelihood of professional life improving resulted in significant decreases in burnout. However, an increase in irritability with one's spouse resulted in a significant increase in burnout. The predictor that was most influential in burnout was satisfaction with life-work balance.

Research Question:

RQ: How accurately can burnout be predicted from a linear combination of personal and cultural factors for departmental chairs at academic health centers?

The research question sought to investigate the factors that contribute to burnout, turnover, and job dissatisfaction for academic departmental chairs to assist in retaining leadership at academic health centers. Surveys were used to collect data on the factors contributing to burnout, turnover, and job dissatisfaction. Multiple regression analysis with IBM SPSS, Version 27 software was used to analyze data. Data collection was conducted using questionnaires. The results of the multiple regression were significant with the best fit, rejecting the null hypothesis that there was no significant predictive relationship between the criterion variable (burnout) from a linear combination of predictor variables (spousal support, self-efficacy scores, and satisfaction for work-life balance) for departmental chairs at academic health

centers. Regarding satisfaction with work-life balance ($B = -0.277, p < .001$), the multiple regressions model was significant, showing that an increase in satisfaction with work-life balance resulted in a significant decrease in burnout.

The findings suggested that burnout was decreased with a significant increase in the work-life balance satisfaction among the departmental chairs. In this regard, the surveyed departmental chairs, departmental heads, and program directors concurred that their level of burnout reduced when they were satisfied with the work-life balance. The current study expands on the previous study conducted by Gemine et al. (2021), that initially examined a wide range of clinical and non-clinical professionals at a health care institution to assess burnout, stress, and factors impacting staff workload concerning COVID-19. The results of this study are consistent with the current literature. For instance, Bowling et al. (2010) conducted a quantitative study. They reported that the decision to leave academic institutions by faculty and chairs, as a result, had been correlated to multiple internal factors. Burnout, engagement, work/life balance, and subjective well-being are internal factors that affect job satisfaction and attrition. An increase in these factors contributed to a significant decrease in burnout among chairs. These results reported by Bowling et al. (2010) concurs with the current study findings that increased satisfaction with work-life balance led to a significant reduction in burnout.

Similarly, Mathur and Mehta (2015) also found that work-life balance, salary, benefits, equally distributed workload, equally distributed responsibility, supervisor support, and support from individuals that have worked at the organization a more extended period or seniors' support were major factors that had an impact on job satisfaction of employees at a higher education institution, which contributed to reduced burnout. Bandura (2018) also noted that achieving a work-life balance may increase job engagement and job satisfaction, decreasing burnout and

increasing retention. Comparable findings were reported by Chor et al. (2021), who conducted a cross-sectional study amongst doctors and nurses from the emergency department of multiple regional health centers, including academic health centers, and urgent care centers, to assess burnout among healthcare workers during the COVID-19 pandemic and their preferred method of coping. In their findings, Chor et al. (2021) reported spending time with family and friends or work-life balance. The use of technological media and acts of gratitude from the workplace and peers were preferred coping methods for the healthcare workers surveyed during the COVID-19 pandemic, which decreased burnout.

The study results under satisfaction with work-life balance have several interpretations. First, the study results imply that satisfaction with work-life balance meant less workload among department chairs, eliminating the stress that may lead to burnout; thus, an increase in satisfaction with work-life balance led to a decrease in burnout among the department chairs. Secondly, the study results also imply that a reduction in satisfaction with work-life balance leads to a significant increase in burnout among department chairs.

The current study findings contribute to the existing literature in several ways. For instance, the study findings add to the current literature regarding factors that contribute to burnout, turnover, and job dissatisfaction for academic departmental chairs to assist in the retention of leadership at academic health centers (Bowling et al., 2010). The literature review revealed inadequately addressed factors contributing to burnout among departmental chairs. In particular, the study addressed the first factor by revealing that increased satisfaction with work-life balance resulted in a significant decrease in burnout. In the following subsequent sections, a discussion on study findings regarding the second factor causing burnout is presented.

Regarding current job satisfaction, self-perceived effectiveness, and the likelihood of professional life-improving, multiple regressions models were significant, showing that an increase in current job satisfaction, self-perceived effectiveness, and the likelihood of professional life improving resulted in a significant decrease in burnout among the department chairs of health institutions. However, the results showed that increased irritability with spouses resulted in a significant increase in burnout among department chairs of health institutions. The results suggested that burnout was decreased with a significant increase in the current job satisfaction, self-perceived effectiveness, and the likelihood of professional life improving among the department chairs of health institutions. In this regard, the surveyed department chairs and directors concurred that when they were satisfied with the work-life balance, their level of burnout reduced

The results above are consistent with the current empirical literature. For example, in a quantitative study conducted by Gabbe et al. (2018) assessing burnout and factors that influence burnout in academic departmental chairs across the various healthcare professions, the investigators found negative correlations between burnout and self-efficacy scores, work-life balance, job satisfaction, self-perceived effectiveness, and the likelihood of professional life-improving, such that a decrease in these factors led to negative correlation to burnout which increases significantly. Comparable results were also reported by Owen et al. (2018), who noted that minimal burnout coupled with high levels of empowerment was a strong predictor of job satisfaction of faculty at an academic health center, which led to reduced burnout and increased retention (Owen et al., 2018). Comparable findings were also noted in a study conducted by Dyrbye et al. (2020), who reported that immediate supervisors' leadership behaviors were associated with the odds of burnout and job dissatisfaction of physicians at an academic health

center. However, nurses' perception of their leaders' support, managerial effectiveness, and authentic leadership style has been related to attrition rates, job satisfaction, and burnout (Dyrbye et al., 2020).

Further, Dyrbye et al. (2020) conducted a study surveying non-physician health care employees on their immediate supervisors, perceived burnout, and job satisfaction. For every 1-point increase in composite leadership score, the odds of burnout in health care team employees decreased by 7%. Leadership has an integral role in reducing burnout through promoting job satisfaction and happiness in the health care work environment, self-perceived effectiveness, and improving the professional life of employees (Dyrbye et al., 2020). Additionally, Shah et al. (2018) also established that personal factors reducing burnout included things such as motivation, satisfaction, and self-efficacy, and contextual factors that deal with the satisfaction of one's basic psychological needs in the workplace, such as the degree of autonomy and one's sense of competence (Shah et al., 2018). One of the most significant challenges to faculty vitality is professional burnout, which can be decreased through increasing self-efficacy scores, work-life balance, job satisfaction, self-perceived effectiveness, and the likelihood of professional life-improving (Shah et al., 2018).

There are several interpretations of the study findings under satisfaction with work-life balance, current job satisfaction, self-perceived effectiveness, and the likelihood of professional life improving. First, the study results imply that increased current job satisfaction, self-perceived effectiveness, and the possibility of professional life improving meant less stress and depression among department chairs, which may eliminate may lead to reduced burnout among departmental chairs, thus an increase in current job satisfaction, self-perceived effectiveness, and the likelihood of professional life improving led to a significant decrease in burnout among the

department chairs. Secondly, the study results also imply that a reduction of current job satisfaction, self-perceived effectiveness, and the likelihood of professional life improvement leads to a significant increase in burnout among department chairs, resulting in high turnover among the departmental chairs.

The current study findings contribute to the existing literature in several ways. For instance, the study findings add to the current literature regarding factors that contribute to burnout, turnover, and job dissatisfaction for academic departmental chairs to assist in the retention of leadership at academic health centers (Bowling et al., 2010). The literature review revealed the previous literature had inadequately addressed factors contributing to burnout among departmental chairs. In particular, the study result addressed these factors by revealing that an increase in current job satisfaction, self-perceived effectiveness, and the likelihood of professional life improving resulted in a significant decrease in burnout. In the following subsequent sections, a discussion of limitations, recommendations, implications and conclusion is presented.

This current study results have answered the research question by highlighting the factors that contribute to burnout, turnover, and job dissatisfaction for academic departmental chairs to assist in the retention of leadership at academic health centers, while rejecting the null hypothesis that there will be no significant predictive relationship between the criterion variable (burnout) from a linear combination of predictor variables (spousal support, self-efficacy scores, and satisfaction for work-life balance) for departmental chairs at academic health centers. The factors highlighted by the current study included satisfaction with work-life balance, current job satisfaction, self-perceived effectiveness, and the likelihood of professional life improvement. In this regard, a significant reduction in these factors contributes to an increase in burnout among

departmental chairs.

Bandura's social cognitive theory informed the study. According to Bandura, individuals utilize self-reflection to evaluate and control their experiences and thought processes (Bandura, 1986). Self-reflection and evaluation influence self-efficacy and can determine an individual's behavior. An individual's belief about their capability to manage and implement necessary actions to navigate prospective situations can affect performance in the academic setting. Exploring the internal and external factors that influence dissatisfaction and turnover in departmental chairs and employing interventions that counter the increasing demands of the position may assist in the departmental chair's ability to utilize the three components of argentic perspective: forethought, self-reactiveness, and self-reflectiveness. The three components of the argentic perspective may be used to balance the effects of the departmental chair's behavior, personal factors, and the academic institution (Bandura, 2018). Bandura (2018) reported that personal, environmental, and behavioral determinants interplay to generate human functioning. The study contributed to Bandura's social cognitive theory by establishing that factors such as satisfaction with work-life balance, current job satisfaction, self-perceived effectiveness, and the likelihood of professional life improving were because of self-reflection to evaluate and control their experiences and the processes of thought within the study period.

Implications

The current study findings have several practical and policy implications, which will be discussed in this section. The current study extended on previous findings of the factors that contribute to burnout, turnover, and job dissatisfaction for academic departmental chairs to assist in retaining leadership at academic health centers. This study sought to determine if burnout can

be predicted from a linear combination of predictor variables (spousal support, self-efficacy scores, and satisfaction for work-life balance) for departmental chairs at academic health centers.

Possible policy implications of the study findings include stakeholders in the academic health centers recommending regular evaluation of factors that may cause burnout among departmental chairs in academic health centers. This can offer leaders, higher education administration, at academic health centers, such as deans, a wide range of strategies and guidelines on reducing burnout and increasing retention of departmental chairs in the academic health centers. The study results may also create a positive social change in society. Departmental chairs' self-efficacy directly impacts their social interaction with workmates and those they lead. If departmental chairs have low self-efficacy relating their skills and how they respond to factors contributing to burnout, they are likely to be limited in offering the right directions regarding factors influencing burnout and retention. Departmental chairs at academic health centers have a supportive role in counteracting dissatisfaction and discontent among faculty while maintaining their job satisfaction. The research implies that academic departmental chairs must balance their roles as faculty, leaders, and clinical health practitioners to attain job satisfaction. Both faculty and staff rated work engagement, global empowerment, psychological empowerment, and structural empowerment highly when assessing job satisfaction (Owen et al., 2018). Another implication was that the demands of departmental chairs at academic health centers vary from those of faculty and, therefore, should be addressed independently.

Limitations

This study has several limitations. First, the study results were limited to one geographical location, the Northeast region that included New York, New Jersey, Connecticut, and Philadelphia, PA. This may hamper the generalizability of the study results. In addition, the

study results may not be transferred to other geographical areas that may not have been as heavily impacted by stressors such as the COVID-19 pandemic. Another limitation of this study was the sample size used in this study. Although the number of participants exceeds the required statistical minimum, the study results from this small sample size may limit generalization of the study findings and the transferability of results to other locations. This study was also limited by the mode of data collection, where the researcher used questionnaires distributed to the participants for responses via email. In this regard, there was no guarantee for genuine reactions among the participants. This study utilized a nonexperimental quantitative predictive correlational design; therefore, the researcher cannot conclusively identify a causal relationship among the variables as this is a limitation of correlational research.

Recommendations for Future Research

The researcher for this study highlighted several recommendations. The first recommendation that the researcher advanced was that future studies should be conducted to examine factors influencing burnout and retention among departmental chairs at academic health centers using a large sample size for generalizability of the study results. Secondly, the researcher advocated for additional studies to be conducted using different geographical locations to enable the generalizability and transferability of the study results. Assessing different geographical locations can further assess the effects of stressors, such as COVID-19, on burnout as the pandemic had different effects in different parts of the United States, hospitalizations and outbursts. Another recommendation suggested by the researcher was that future studies should be conducted through interviews for data collection to enhance transparency in the provision of responses among the participants.

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APPENDIX A

Date: 2-26-2022

IRB #: IRB-FY21-22-47

Title: PREDICTED BURNOUT FROM A LINEAR COMBINATION OF PERSONAL AND CULTURAL FACTORS FOR DEPARTMENTAL CHAIRS AT ACADEMIC HEALTH CENTERS

Creation Date: 7-12-2021

End Date:

Status: **Approved**

Principal Investigator: Loraine Antoine

Review Board: Research Ethics Office

Sponsor:

Study History

Submission Type	Initial	Review Type	Exempt	Decision	Exempt
Submission Type	Modification	Review Type	Exempt	Decision	Exempt

Key Study Contacts

Member	Shanna Akers	Role	Co-Principal Investigator	Contact
Member	Loraine Antoine	Role	Principal Investigator	Contact
Member	Loraine Antoine	Role	Primary Contact	Contact

APPENDIX B

For use by Loraine Antoine only. Received from Mind Garden, Inc. on August 26, 2021

**Permission for Loraine Antoine to reproduce 150 copies
within three years of August 26, 2021**

Maslach Burnout Inventory™

Instruments and Scoring Keys

Includes MBI Forms:

Human Services - MBI-HSS

Medical Personnel - MBI-HSS (MP)

Educators - MBI-ES

General - MBI-GS

Students - MBI-GS (S)

Christina Maslach
Susan E. Jackson
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Wilmar B. Schaufeli
Richard L. Schwab

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The first author, Steven Gabbe, MD, of Gabbe et al. (2002, 2018) was successfully contacted via email and reported the survey questions created and utilized in their studies could be reproduced from the study and utilized.

[EXTERNAL] Re: Research Question

Gabbe, Steven

Mon 9/28/2020 2:00 PM

To:

- Loraine Antoine
- Cc: Gabbe, Steven

External email

Do not click links, open attachments or provide your User ID or Password if the sender is unknown.

Thank you for your interest.

The questionnaire we used to assess burnout was primarily based on the Maslach-Burnout inventory.

The questionnaire is copyrighted by Mind Garden Inc., so we cannot share it.

They do charge a fee to use the questionnaire based on the number of people you send it to.

So, I would inquire with Mind Garden.

The other questions were about demographics, and I think you can see what we asked by the data in the papers.

I hope this helps.

Steve Gabbe

Sent from my iPad

From: Gabbe, Steven

Sent: Monday, July 19, 2021 7:13 AM

To: Loraine Antoine

Cc: Gabbe, Steven

Subject: [EXTERNAL] Self-efficacy and Spousal Support Questions

External email

Do not click links, open attachments or provide your User ID or Password if the sender is unknown.

Loraine,

I hope you had a relaxing weekend.

I've attached the questions from our questionnaire about self-efficacy and spousal support.
I note that there are 7 self-efficacy questions not 6.
I believe we did not use the 7th question in our analysis because we asked a separate question:
How satisfied are you with the balance between your personal and professional life:
1 very satisfied, 2 somewhat satisfied, 3 neutral, 4 somewhat dissatisfied, 5 very dissatisfied.
I hope this helps.
Stay well,
Steve Gabbe

APPENDIX C

EMAIL AND CONSENT

Dear Potential Participant:

As a graduate in the School of Education at Liberty University, I am conducting research as part of the requirements for a PhD degree. The purpose of my research is to identify factors that contribute to and may predict burnout, turnover, and job dissatisfaction for academic departmental chairs to assist in the retention of leadership at academic health centers, and I am writing to invite eligible participants to join my study.

Participants must be 30 years of age or older and an academic departmental chair, departmental head, or program director/leader at an academic health center in New York, New Jersey, Connecticut, and/or Philadelphia, PA. Participants, if willing, will be asked to complete an online survey. It should take approximately 5-10 minutes to complete the procedure listed. Participation will be completely anonymous, and no personal, identifying information will be collected.

To participate, please click here: _____

A consent document is attached to this email. The consent document contains additional information about my research. After you have read the consent form, please click the link to proceed to the survey. Doing so will indicate that you have read the consent information and would like to take part in the survey.

Sincerely,

Loraine Antoine, PT, DPT
PhD Candidate, Liberty University Online, Principal Investigator

Consent

Title of the Project: Predicted Burnout From a Linear Combination of Personal and Cultural Factors For Departmental Chairs at Academic Health Centers

Principal Investigator: Loraine Antoine, PT, DPT, PhD Candidate, Liberty University

Invitation to be Part of a Research Study

You are invited to participate in a research study. To participate, you must be 30 years of age or older and either an academic departmental chair, departmental head, or program leader at an academic health center in New York, New Jersey, Connecticut, and/or Philadelphia, PA. Taking part in this research project is voluntary.

Please take time to read this entire form and ask questions before deciding whether to take part in this research.

What is the study about and why is it being done?

The purpose of the study is to identify factors that contribute to and may predict burnout, turnover, and job dissatisfaction for academic departmental chairs in order to assist in the retention of leadership at academic health centers. Understanding the personal and cultural factors that may affect job satisfaction in academic departmental chairs can assist in preventing burnout and turnover within the position at academic health centers.

What will happen if you take part in this study?

If you agree to be in this study, I will ask you to do the following:

1. Complete an anonymous online survey. It should take approximately 5-10 minutes to complete.

How could you or others benefit from this study?

Participants should not expect to receive a direct benefit from taking part in this study.

Possible benefits to society are increased public knowledge on the topic and the possible development of interventions to assist in the retention of academic departmental chairs at academic health centers.

What risks might you experience from being in this study?

The risks involved in this study are minimal, which means they are equal to the risks you would encounter in everyday life.

How will personal information be protected?

The records of this study will be kept private. Research records will be stored securely, and only the researcher will have access to the records.

- Participant responses will be anonymous.
- Data will be stored on a password-locked computer and may be used in future presentations. After three years, all electronic records will be deleted.

Is study participation voluntary?

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Liberty University. If you decide to participate, you are free to not answer any question or withdraw at any time prior to submitting the survey without affecting those relationships.

What should you do if you decide to withdraw from the study?

If you choose to withdraw from the study, please exit the survey and close your internet browser. Your responses will not be recorded or included in the study.

Whom do you contact if you have questions or concerns about the study?

The researcher conducting this study is Loraine Antoine, PT, DPT. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact her at _____. You may also contact the researcher's faculty sponsor, Dr. Shanna Akers, at _____.

Whom do you contact if you have questions about your rights as a research participant?

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the Institutional Review Board, _____.

Disclaimer: The Institutional Review Board (IRB) is tasked with ensuring that human subjects research will be conducted in an ethical manner as defined and required by federal regulations. The topics covered and viewpoints expressed or alluded to by student and faculty researchers are those of the researchers and do not necessarily reflect the official policies or positions of Liberty University.

Your Consent

Before agreeing to be part of the research, please be sure that you understand what the study is about. You can print a copy of this document for your records. If you have any questions about the study later, you can contact the researcher using the information provided above.