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Christian Higher Education Faculty's Perceptions of Occupational Stress, Job Demands, and Job Resources as Predictors of Job Burnout

Michelle E. Shelton
George Fox University, sheltonm@georgefox.edu

CHRISTIAN HIGHER EDUCATION FACULTY'S PERCEPTIONS OF OCCUPATIONAL STRESS, JOB DEMANDS, AND JOB RESOURCES AS PREDICTORS OF JOB BURNOUT

by

Michelle E. Shelton

FACULTY RESEARCH COMMITTEE

Chair: Scot Headley, PhD

Member: Karen Buchanan, EdD

Member: Kathleen Gathercoal, PhD

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This dissertation has been approved and accepted by:

Committee Chair

Scot Headley
4.14.20

4/9/2020 Scot Headley, Ph.D. Professor of Education

Karen Buchanan
4.14.20

4/9/2020 Karen Buchanan, Ed.D. Professor of Education

Kathleen Gathercoal
4.14.20

4/9/2020 Kathleen Gathercoal, Ph.D. Professor of Psychology

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Abstract

The aim of this study was to explore the extent to which faculty perceptions of occupational stress, job demands, and job resources are predictors of job burnout for faculty at Christian universities, specifically at CCCU institutions. The desire was to gain an awareness of these variables as they relate to the well-being of Christian higher education faculty. The hope was that administrators and leaders in academe will consider making changes to provide an environment that is more supportive of faculty. This research study could help administrators and leaders at universities to take a critical look at what is being asked of their faculty, and how much they are being taxed, and their resources are being depleted in order to make changes that can benefit the individual faculty member, the university as a whole, and the students that the faculty member engages with.

The participants in this study (n = 98) were from two Christian universities that are part of the Council for Christian Colleges & Universities (CCCU). This research study was able to show significance of occupational stress as a predictor of exhaustion, one of the more salient components of job burnout. Each element of the Job Demands-Resources model (organizational support, workload, resources, advancement, job security) showed statistical significance to at least one component of job burnout. What was learned from this research study can not only help educate faculty in higher education about occupational stress, job demands and job resources, and the role they play in job burnout, but it can also be used to educate administrators in higher education settings.

Key words: occupational stress, exhaustion, cynicism, professional efficacy, job burnout

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Chapter One

Introduction

There was a time when an academic career would have been considered a low-stress occupation. Mark and Smith (2012) support the idea that academe had, at one time, been seen as an autonomous career, with a high level of control over working conditions. Increasing changes in academe such as greater demands for producing research, and increased expectations of faculty to provide quality education, often with limited resources, have been seen as "threatening the well-being of academics" (Sabagh, Hall, & Saroyan, 2018, p. 132). Over the years multiple research studies have pointed to a shift in what was once an autonomous, secure, fulfilling, and supportive career, that has now shifted to one of high-stress with added burdens and demands that are taxing faculty (Ablanedo-Rosas, Blevins, Gao, Teng, & White, 2011; Gillespie, Walsh, Winefield, Dua, & Stough, 2001; Poalses & Bezuidenhout, 2018; Sestili et al., 2018; Watts & Robertson, 2011; Winefield, Boyd, & Winefield, 2014). With the landscape of higher education changing dramatically those in the current academic climate are experiencing higher levels of distress that can lead to burnout. These burnout experiences lead to feelings of cynicism, as well as mental, physical, and psychological exhaustion (Sabagh, et al., 2018).

Problem

As the occupation of teaching has morphed and changed over the years, so has the level of stress in faculty. Gillespie et al. (2001, p. 54) go so far as to say that, "occupational stress in universities is alarmingly widespread and increasing." There is research to suggest that faculty in higher education could actually be more prone to occupational stress than other occupations (Poalses & Bezuidenhout, 2018). Mark and Smith (2012) suggest that compared to other institutional settings, stress levels at academic institutions are much higher. Poalses and

Bezuidenhout (2018) offer an interesting perspective on stress and higher education stating that, "universities have increasingly been exposed to the consequences of a changing environment, the changing world of work, and the concomitant, increased levels of occupational stress" (p.170).

Occupational stress, along with high job demands and limited resources have contributed to job burnout with faculty at higher education institutions (Sestili et al., 2018; Watts & Robertson, 2011; Winefield, et al., 2014). While there is an abundance of literature on occupational stress, job demands, job resources, and job burnout in general, very little is targeted specifically to faculty teaching in higher education in the United States. What literature there is predominantly focuses on faculty in countries outside of the United States, on administrative staff at universities, as well as students' stress, both in the United States, and outside of it. There is little to no research on occupational stress and job burnout in Christian higher education among faculty.

Job burnout can affect the organization, the individual, and also the people that the individual and the organization serves. In the case of higher education, if faculty face job burnout, it can negatively affect the students learning, the faculty member's well-being and performance, and faculty productivity (Sabagh, et al., 2018). Alarcon (2011) posits that job burnout can lead to an increased risk of anxiety, depression, lowering self-esteem, substance abuse, lower performance, and an increased risk of health problems.

Research done by Flynn and Ironside (2018) sought to quantify job burnout in an academic setting (with midlevel academic nursing leaders), and what the factors were that created job burnout in order to better recruit and retain academic faculty, and to better serve students. Therefore, the aim of this current research study is to bring this same awareness by measuring occupational stress perceptions, job demands and resources, and job burnout in

academic faculty at several Christian universities who are part of the Council for Christian Colleges & Universities (CCCU).

Christian Higher Education & the CCCU

Before discussing the rationale for this study, and significance, a better understanding of Christian higher education is essential in order to give a framework for the participants in this study. According to the CCCU there are over 1,000 religiously affiliated post-secondary institutions in the United States (CCCU, 2015). Religiously affiliated institutions of higher education account for approximately one-third of all private institutions in the United States, and about one-fourth of all degree-granting institutions in the United States (CCCU, 2015). The CCCU is comprised of over 180 colleges and universities, with over 520,000 students globally, 3,600,000 alumni globally, and consists of over 90,000 faculty and staff globally (CCCU, 2015). These global numbers represent a large population of those who are educating and impacting well over three million students, and growing.

For the purposes of this research study the focus was faculty at several Christian universities who are part of the CCCU. All of the institutions that are affiliated with the CCCU share three educational commitments. The first commitment is to, "integrate biblical truth not just into 'spiritual' aspects of the institution but throughout the academic enterprise" (CCCU, 2015, para. 11. Within this commitment is the idea that professors will pursue academic excellence because of their relationship to God (CCCU, 2015). The second commitment is to, "the moral and spiritual formation of students. Education that instructs the mind without deepening the soul is not true learning" (CCCU, 2015, para. 12). Within this commitment is the notion that faculty are working alongside students to develop in them the characteristics of wisdom, humility, love, and courage (CCCU, 2015). Finally, the third commitment at all of these

institutions is, "to graduat[e] students who make a difference for the common good as redemptive voices in the world" (CCCU, para. 13), thus doing good work for the public good.

Christian Higher Education Faculty

A student blogger, Kaitlin Meek, from North Central University, a Christian liberal arts university in Minnesota, wrote a blog entitled, "Why Your Education Will be Better at a Christian University." From a student's perspective she discusses some of the reasons why she believes a student will get a better education at a Christian university (Meek, 2017). There are five reasons listed, but two of the reasons pertain directly to the faculty teaching at these institutions. One reason given is that faculty members are expected to be "biblically grounded" and are often passionate about teaching (Meek, 2017, para. 5). Meek (2017) discusses the benefit of professors who will oftentimes engage with students outside of class time, such as participating or going to chapel alongside students, or going to events at the institution to further the mission of the university. The other reason that pertains to faculty, is that many times class sizes are small in order to better foster the student-teacher relationship (Meek, 2017). Meek goes on to discuss that oftentimes professors will offer support and resources both inside and outside of the classroom in order to better customize the education and experience for the student (2107). While both of these areas point to benefits for the students, they can also point to more time spent outside of teaching and research than in a secular institution.

Matthias (2019) in a recent literature review, looked at the importance and need of faculty development, specifically in Christian higher education institutions. Research that came out of this study was the impactful role of supporting faculty members, especially at Christian institutions where Christian identity and mission are paramount (Matthias, 2019). There is a juxtaposition between Christian higher education and the broader higher education landscape

with Christian faculty members finding themselves needing to meet the needs of the broader higher education arena, while having the additional demands of supporting a Christian mission and vision.

This student perspective, and the work of Matthias (2019), sheds light on the role of faculty at Christian higher education institutions. Their role can go beyond just teaching, researching, and administrative duties (and stresses). As discussed there is a greater responsibility for the Christian faculty member. The expectation is that they go over and beyond the role of teacher and researcher, and engage in activities, events, support, resources, relationships, and mission fulfillment that can impact stress, job demands, job resources, and potentially burnout, making them a very worthwhile population to study for this research.

Rationale for the Study

Occupational outcomes of having a stressed employee include low motivation, a decrease in morale, high turnover, low job satisfaction, and increased sick-leave (Mohajan, 2012). Job (occupational) stress alone is estimated to cost American organizations $300 billion a year in health costs, absenteeism, and lower performance (University of Massachusetts, Lowell [UMass Lowell], n.d.).

Paduraru (2014) found that occupational stress that is specific to professors in higher education can affect the quality of their teaching, and the state of their overall health. According to Paduraru it is not enough to just simply know what causes stress for faculty in higher education, but that at an organizational and management-level interventions are needed to address these stressors. Paduraru suggests that if administrators and managers in the higher education institutions strategically tried to improve the organizational climate that was leading to occupational stress in their universities, then employees' performances would improve, as would

the quality of teaching activities (Paduraru, 2014). Though suggested in the literature, there is very little research that has been done to look at the relationship between occupational stress, job demands, job resources, and burnout at U.S. universities, and very little research done specifically on Christian higher education faculty. This exploratory study could continue to bridge this gap of knowledge.

Employees in every field or occupation can be susceptible to job burnout. Empirical research has supported the claim that burnout occurs in every occupation (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). Early research on job burnout was designed to look at job burnout specifically in human service professions such as health care, education, and social work. What followed was additional support that job burnout occurs in all professions and occupational groups (Schaufeli, Salanova, Gonzalez-Roma, & Bakker, 2002). Teaching, in general, is an area that research has shown to be particularly susceptible to job burnout (Browers & Tomic, 2000; Sabagh et al., 2018; Watts & Robertson, 2011).

While there are many studies that look at job burnout in other organizations, there are few that look specifically at higher education, and only a handful that have looked specifically within the United States. According to a recent study by Sabagh et al. (2018), there is very little research that has been done in higher education that specifically looks at number of years teaching, and job burnout. Sabagh et al. (2018), only found two studies that have looked at this specifically, one in 1994 and the other in 2006. Neither of these studies looked at Christian universities.

Little is known about the extent or predictors of job burnout with faculty in Christian higher education. This research could be important for administrators, deans, and department chairs at both secular and Christian universities to know if occupational stress, an increase in job

demands, and a lowering of job resources are leading to job burnout. In turn this might allow them to make different decisions on faculty workload, resources, job demands, and organizational support.

Purpose Statement

The purpose of this study was to explore the extent to which faculty perceptions of occupational stress, job demands, and job resources are predictors of job burnout for faculty at Christian universities, specifically at CCCU institutions. Research has shown that when job demands outweigh the resources available to faculty, the occupational stress this causes can lead to an, "exhausted, disengaged workforce" (Poalses & Bezuidenhout, 2018, p. 169). Job burnout can occur as a culmination of chronic stress due to the increase of job demands and the limiting of job resources. Job burnout can have serious, negative consequences not only for the faculty member and their psychological and physical well-being, but can also affect the organization as a whole, and the students. According to Laursen and Rocque (2009) if faculty members are thriving, so too will the institution they serve. For the sake of the faculty members, institutions, and students, there is a need to study higher education faculty to see if there is a relationship between these variables. This study concentrated on Christian higher education institutions that are members of the CCCU, but could be replicated to other universities both public and private within the United States.

Research Questions

1. *To what extent are perceived levels of occupational stress a predictor of job burnout with faculty at Christian universities?*
2. *To what extent are perceived levels of job demands and job resources a predictor of job burnout with faculty at Christian universities?*

Significance of the Study

Every year the American Psychological Association (APA) conducts a Stress in America™ survey. For over a decade they have found that money and work have been at the top of the list of stressors facing Americans (APA, 2017). Of the over 3,000 Americans that were polled for this survey 61% reported that work was a stressor (APA, 2017). Excessive occupational stress has been found to cause serious physical and psychological issues. Workers who are under excessive stress and strain can suffer from alterations of brain chemistry which can change someone's mood or lead to depression, anxiety, or anger (Mohajan, 2012). Physical conditions that have been documented as a result of excessive occupational stress can be as mild as just an overall feeling of being tired and lacking energy to serious medical complications such as heart and cardiovascular problems, substance abuse, certain cancers, back pain, tense muscles, and infectious diseases (Mohajan, 2012). Occupational stress is significant to study for these reasons, as well as the occupational outcomes of having a stressed employee include such as low motivation, a decrease in morale, high turnover, low job satisfaction, and increased sick-leave (Mohajan, 2012). A case can be made that supports the position that teaching in higher education is an increasingly stressful occupation, therefore, there is a significant need to study this variable in higher education.

This study sought to explore a gap in the current research and understanding of occupational stress, job demands, job resources, and as predictors of job burnout with faculty in Christian higher education. This study focused on faculty at several Christian universities, but could shed light on these variables that can be used in future research studies in secular universities. By gaining an awareness of these variables as it relates to the well-being of Christian higher education faculty, the hope is that administrators and leaders in academe will

consider making changes to provide an environment that is more supportive of faculty. By exploring the extent of the variables of occupational stress, job demands, and job resources in predicating job burnout the hope is that administrators and leaders at universities will look critically at what is being asked of their faculty and how much they are being taxed, and their resources being depleted.

Key Terms

The following are key terms that will be the foundation for this study. The Literature Review will provide a greater understanding and definition of each of these terms.

Occupational stress. A broad definition of this term is, "the harmful physical and emotional responses that occur when the demands of the job exceed the capabilities, needs or resources of the worker" (Mohajan, 2012, p. 17). According to Paduraru (2014, p. 49) occupational stress is a pattern of "emotional, cognitive, behavioral and physiological reactions" in the context of the work environment, or organization (Paduraru, 2014, p. 49).

Job demands. The demands of a job can include anything from physical demands to the social, organizational, cognitive, and emotional effort of doing the job (Bakker & Demerouti, 2007; Poalses & Bezuidenhout, 2018). These demands require physical and/or psychological effort that is associated with physiological and/or psychological costs to the individual (Bakker & Demerouti, 2007).

Job resources. Job resources are the areas of support the organization gives the individual worker (Rothman, Mostert, & Styrdom, 2006). These areas of support can be physical, psychological, social, or organizational supports for actually doing the job, and/or to be able to keep up with the demands of the job (Rothman, et al., 2006).

Job burnout. According to Maslach and Leiter (2016, p. 103), "Burnout is a psychological syndrome emerging as a pro-longed response to chronic interpersonal stressors on the job." In this regard job burnout can be viewed as a result of occupational stress over time, in the workplace setting. Job burnout includes the components of exhaustion, cynicism (sometimes referred to as depersonalization in the literature), and personal accomplishment (also called efficacy).

Exhaustion. This first component of job burnout can include the following: the feeling of being worn out, depleted of energy, fatigued, a loss of feelings or concerns, and being emotionally depleted (Maslach, Leiter, & Schaufeli, 2008; Watts & Robertson, 2011).

Cynicism. This second component of job burnout can include the following: a negative approach to others, depersonalization, irritability, loss of idealism, and withdrawing behaviors from the organization (Maslach, et al., 2008; Watts & Robertson, 2011).

Professional efficacy. This final component of job burnout can have the following negative effects if accomplishments or efficacy are hindered: negative responses, depression, lowering of self-esteem, lowering of morale, productivity, and capabilities, and the inability to cope (Maslach, et al., 2008).

Limitations and Delimitations

This research study has several limitations and delimitations to report. The first limitation is that occupational stress, as will be mentioned in the Literature Review, is a difficult construct to universally define. The stress scale that was chosen, and will be discussed in greater detail later in this study, reflects the most widely used survey tool for quantitively measure someone's perceptions of stress, as they view the term "stress" to imply. This leads to a second limitation that perception of stress is subjective nature. Depending on the faculty member's current position

in academe, or at their current university, their perception of stress could be influenced based on their perceptions at this one moment in time.

A third limitation is that there may be other extraneous factors that can influence the faculty member's perception of occupational stress. Some of these factors could include work/life balance issues, other pressures outside of work such as time pressures, financial issues, conflict in relationships, medical issues, lack of support outside of work, moving and transitions, cultural or acculturation hardships, etc. There could be other reasons for the stress that an employee is feeling, however, the specific nature of occupational stress will be addressed in the survey.

There are a few delimitations of this research study. First, in this study the researcher only surveyed faculty members at Christian universities, which makes generalizability to secular institutions difficult. The researcher specifically chose this population to address a gap in the literature in regards to occupational stress, job demands, job resources, and job burnout at Christian institutions.

A second delimitation of this study was exclusion of demographic independent variables in the research questions. After a thorough review of the literature there is very little current literature to support significant difference of perceptions of stress and job burnout as it relates to gender, number of years teaching, or age. A 1986 study found that there were significant differences in perceived stress in the areas of tenure, rank, age, gender, and marital status, but no other studies have been replicated to currently support this (Gmelch, Wilke, & Lovrich, Jr.). There is anecdotal research that suggests that rank could be a predictor of "happiness" levels in academe with associate professors being the unhappiest group of faculty members (Carr, 2014;

Wilson, 2012). However, these studies did not connect happiness with stress (or lower levels of stress).

In a systematic literature review regarding burnout in university educators, Watts and Robertson found that some findings showed support for significant differences between males and females in terms of burnout, but that not all of the studies they investigated showed this (2011). Their conclusion was that "these findings [in regards to gender differences and burnout in academe] should be interpreted with caution, and that further research is required to establish if there are trends in this regard" (Watts & Robertson, 2011, p. 44). One recent study showed that there were no significant differences in stress levels in academic staff with regards to gender and age (Ablanedo-Rosas et al., 2011). Gender, rank, number of years teaching, discipline, tenure, and age will be collected as part of the demographic questions of this study, but not included as independent variables as the data is mixed on their significance.

Chapter Two

Literature Review

There are four themes in this literature review. The first theme, occupational stress, begins by exploring stress in general, then looks specifically at occupational stress. A brief history of stress, definition of stress and occupational stress, a theoretical underpinning of this variable, and an instrument to measure this variable are explored. The second theme consists of the variables of job demands and job resources. A theoretical understanding of the relationship between job demands and job resources is addressed, as well as a tool to measure these two variables. The third theme summarizes the dependent variable of job burnout, including the history of job burnout, a working definition, and the experience of job burnout as it is presently understood. A well-supported instrument to measure job burnout is discussed. The final theme synthesizes the variables to demonstrate their interrelatedness, and explores other considerations in the context of this study.

Criteria for Including/Excluding Articles

Peer-reviewed journal articles related to one of the following constructs within higher education were included in this literature review: occupational stress, job demands, job resources, and job burnout, as well as theories, inventories, or tools to conceptualize or measure these variables. Articles from outside of the United States were included since there are a limited number of articles that pertain to these constructs within U.S university contexts. Articles were chosen that were published between 2000-2018 to provide the most current research on these topics. Articles from the 1980s and 1990s, or earlier, were included only if they were relevant to the historical context of the constructs, set the theoretical framework for occupational stress, job

demands, job resources, and job burnout, or demonstrated a lack of literature in any of these themes as they relate to this current study.

For this literature review articles were excluded for a variety of reasons. Articles that did not directly pertain to the variables listed in the criteria were reviewed, but not included in this review. For example, articles that pertained to worry, emotional stress, risk of depression, anxiety, or another mental illness, while important, were not included in this review to maintain the focus of this study. The scale of this research is not large enough to include these other considerations.

Occupational Stress

This first theme discusses stress in general, defines and discusses occupational stress, as well as explores a well-validated tool to measure occupational stress. The historical context of stress is briefly explored, as well as a working definition of this variable. This provides a foundational support and understanding of the over-arching concept of stress before discussing the specific type of occupational stress in the workplace. Support for the need to research this variable in higher education is examined and discussed.

Historical Perspective and Foundations of Stress

Stress is not a new and unique idea. The idea of stress, and the negative consequences and adaptation that happens during a stressful event, is a concept that has been studied for generations. As far back as Charles Darwin in the late 1800s, the concept of stress has been introduced in our culture. Darwin is credited with considering that when the human species converged with the environment, including climate and geography, these were sources of stress which required resistance and adaptation (Bijlsma & Loeschcke, 2005). In the 1920s, Walter Cannon introduced the concept of "fight or flight" as a reaction to a threatening event or situation

(Preston, n.d.). Continuing the work of Cannon, Hans Selye (1955) created a three-stage theory of how humans deal with these threatening events or situations. Selye's theory included an alarm stage whereby the body prepares to fight the threat, the resistance stage where the body continues to fight, which leads to the final stage of exhaustion (Preston, n.d.). This final stage is important in that the body has depleted all of its resources and is now faced with exhaustion. This last stage will be important to consider in light of job demands and resource as they are explored later in this study. Also, as exhaustion is a hallmark of the experience of job burnout, Selye's groundwork theory will be important to consider in this context as well.

Defining Stress and Occupational Stress

While the overall concept of a stressful event and experience have been studied for generations, stress is not easy to define, as is mentioned in the literature on many occasions (Bijlsma & Loeschcke, 2005; Michie, 2002; Preston, n.d.; Watts & Robertson, 2011). One way to consider stress is the perception of an event or situation as being threatening (Kashyap, Kumar, & Byadwal, 2016). The impact of this stress is different for each person based on their interpretation of the event (Kashyap et al., 2016). These events, or situations, are known as stressors that precipitate the stressful experience (Catano et al., 2010). A certain amount of stress can be good, and the value of good stress should not be overlooked. Some stress can be seen as motivational, or inspiring, and allows for creativity and problem-solving. This constructive, or good stress (known as eustress), allows someone to more easily adapt to situations, even stressful ones (Poalses & Bezuidenhout, 2018). Stress becomes problematic, or seen as bad stress (called distress) when the person feels like they cannot cope with the situation, and/or they do not have adequate resources to deal with the stressful situations, or events (Poalses & Bezuidenhout, 2018).

In some regards occupational stress is just as difficult to define as stress itself. The literature refers to stress within the context of the workplace using several different terms such as "occupational stress," "work stress, or workplace stress," and "job stress." For the purposes of this study the term occupational stress will be defined and used. There was a time when occupational stress was being defined that a debate was occurring as to whether or not occupational stress should only be defined at the level of the person, or the environment, or both (Hart & Cooper, 2001). In other words, is it the environment that can cause the stress (as in the workplace), or does it reside in the individual person regardless of their environment? If it was purely at the individual level then the idea of occupational stress would be a moot point. Research that specifically looked at whether or not the occupational influences can cause stress has since been emerging. According to Hart and Cooper (2001) there is a connection between the employee and their thoughts, perceptions, and assumptions of their stress, and the environment in which they work. The individual characteristics and the organizational characteristics combine to form an employee's overall well-being (Hart & Cooper, 2001). Mohajan (2012) supports this position of occupational stress (which he refers to as workplace stress), as developing within the context of an interaction between the person and their workplace. This research has supported that both the individual and their working environment contribute to stress.

More broadly defined, occupational stress is, "the harmful physical and emotional responses that occur when the demands of the job exceed the capabilities, needs or resources of the worker" (Mohajan, 2012, p. 17). Another way of looking at occupational stress is that it is a pattern of "emotional, cognitive, behavioral and physiological reactions" in the context of the work environment, or organization (Paduraru, 2014, p. 49). Adding to the definition of occupational stress is the accumulation of stress outside of work that can affect the person's

work-life. These stressors can be as a result of family life, work-life balance, taking on a second job, as well as mental and/or health issues (Mohajan, 2012). General workplace stressors can include job demands, organizational factors, conflict with co-workers, problems with leadership styles, communication issues, psychological distress, lack of growth and support, and time pressures (Hart & Cooper, 2001; Mohajan, 2012).

Specific Need to Study Occupational Stress in Higher Education

There are universal characteristics of occupational stress such as being overwhelmed, feeling helpless, and having a lack of control. Some of the occupational stressors specific to academic faculty include: a shift away from academic freedom, the burden of adding administrative tasks to their workload, lack of work-life balance, less time to devote to academic passions, inadequacy of resources, bureaucracy, job insecurity, teaching a large number of students, poor communication, and a lack of organizational support (Kinman, 2001; Paduraru, 2014; Poalses & Bezuidenhout, 2018). Other factors that cause occupational stress in academic faculty are inadequate recognition, changing job roles, low salary, workloads increasing, poor levels of rewards, fluctuating roles, poor management, and limited resources and funding (Gillespie, et al., 2001; Mark & Smith, 2012). Byrne, Chughtai, Flood, Murphy, and Willis (2013) posit that faculty in higher education also face a role crisis that causes additional stress and strain on them. They discuss the stress of the traditional role of faculty to teach, research, and serve students, with the additional roles of entrepreneur and marketer being frequently added to their roles, without the tools to take on these additional duties (Bryne, et al., 2013).

Additional pressures in the classroom that lead to stress include students who are not motivated or who do not pay attention, and have limited interest in the courses they teach (Paduraru, 2014). Bryne et al. (2013) and Sabagh et al. (2018), in their research, also discuss the

more recent issue of cuts in tenure and tenure track positions as putting a great deal of stress on all faculty, including those core faculty who are left after cuts have been made.

Paduraru (2014) found that occupational stress that is specific to professors in higher education can affect the quality of their teaching, and the state of their overall health. There is research to suggest that stressed faculty are at a higher risk to spend less time on research and development, and to lower their teaching standards (Mark & Smith, 2012). Occupational stress in academe can also have a negative effect on faculty morale leaving some faculty to become, "angry, embittered, and feel devalued and abandoned" (Mark & Smith, 2012, p. 65). According to Paduraru (2014) it is not enough to just simply know what causes faculty in higher education stress, but that at an organizational and management level interventions are needed to address these stressors. The suggestion is that if administrators and managers in the higher education institutions strategically tried to improve the organizational climate that was leading to occupational stress in their universities then employee's performances would improve, including the quality of their teaching activities (Paduraru, 2014).

Perceived Stress Scale (PSS)

To measure faculty member's perceptions of occupational stress, The Perceived Stress Scale (PSS) will be included in this survey. The PSS is a 10-item questionnaire that is the most widely used instrument to measure someone's perception of stress since it was created in 1983 (Cohen, 1994). This instrument is designed to assess the degree to which the individual perceives life events as stressful (Cohen, 1994). This instrument has been validated, has a Chronbach alpha coefficient of 0.85 that demonstrates good reliability, and has been shown to have an "adequate internal and test-retest reliability" (Cohen, Kamarck, & Mermelstein, 1983, p. 392; University of Virginia Library, 2015; Yu, Wang, Zhai, Dai, & Yang, 2015). More recently Yu, et al. (2015)

used both the PSS and the Maslach Burnout Inventory in a correlational study of middle school teachers in China.

Job Demands and Job Resources

This second theme discusses the variables of job demands and job resources. Both variables are defined and explored as they relate to faculty at higher education institutions. A conceptual framework for understanding both of these variables as they relate to occupational stress, and ultimately to job burnout, is discussed. Finally, an instrument to measure both job demands and job resources is explored.

Defining Job Demands and Contextualization in Higher Education

The demands of a job can include anything from physical demands to the social, organizational, cognitive, and emotional effort of doing the job (Bakker & Demerouti, 2007; Poalses & Bezuidenhout, 2018). These demands require physical and/or psychological effort that is associated with physiological and/or psychological costs to the individual (Bakker & Demerouti, 2007). Physically specific tasks in higher education teaching include attending meetings, work-life balance, and health and well-being, just to name a few. Socially, the interaction with students, other faculty, department administrators, support staff, and members of the larger university can be considered part of job demands. Additionally, time pressures with these interactions, or lack of time to recover between these interactions, can also affect a faculty member. Cognitive pressures can include work overload, job insecurity, conflict, lack of personal growth and development opportunities as examples. Adding to these demands are time pressures, lack of role clarity, less time for research and high class sizes, unfavorable interactions with students, or working conditions, and the list can go on and on (Bakker & Demerouti, 2007; Poalses & Bezuidenhout, 2018). Over-arching job demands that are specific to higher education

include, but are not limited to, pressures to conduct research and publish, ethical committee and institutional research board issues, planning and preparing for the academic year, managing and teaching courses, and excessive workloads (Sisteli, et al., 2018). There are also the interpersonal dynamics and demands of interacting with other faculty, department chairs and deans, staff, and students.

As mentioned earlier, job autonomy was once considered a positive benefit to teaching in higher education. As job demands have increased, the level of autonomy and control has decreased (Winefield, et al., 2014). Job autonomy in the context of academic faculty in higher education refers to, "the amount of freedom, independence, and discretion that employees have over the scheduling of their work and the procedures used to carry it out" (Winefield, et al., 2014, p. 685).

Defining Job Resources

Job resources are the areas of support the organization gives the individual worker (Rothman, et al., 2006). These areas of support can be physical, psychological, social, or organizational supports for actually doing the job, and/or to be able to keep up with the demands of the job (Rothman, et al., 2006). Some examples of organizational support are job security, salary, appreciation, goal clarity, job challenge, safe and social work climate, and opportunities for career growth and advancement (Rothman, et al., 2006; Schaufeli & Taris, 2014). For the work itself, some examples of supportive resources are capacities like having decision-making capability, innovative work climate, performance feedback, role clarity, job control, task variety autonomy, etc. (Demerouti, et al., 2001; Rothman et al., 2006; Schaufeli & Taris, 2014).

The Job Demands-Resources (JD-R) Model

In exploring the literature on occupational stress, one theory stood out as the most frequently used framework for better understanding this phenomenon of occupational stress and the intersection with job demands and job resources—the Job Demands-Resources (JD-R) model. This model has several interpretations beginning with Demerouti, Bakker, Nachreiner, and Schaufeli in 2001. This model was first introduced by Demerouti, et al. (2001), to look at job demands and resources in the social work, healthcare, and teaching professions. Schaufeli and Bakker, two researcher participants in the original development of this model, revised the JD-R Model to include a positive state for the employee (Adil & Baig, 2018). The JD-R Model was further modified from the original JD-R Model to include advancement opportunities and rewards (Jackson & Rothmann, 2005; Jackson, Rothmann, & Van de Vijver, 2006; Rothmann & Joubert, 2007).

The JD-R Model comes at the pressure point of increased job demands in higher education and limited resources to cope, or handle these demands (Watts & Robertson, 2011; Winefield et al., 2014). In looking at this in context within higher education, a recent study looked at job demands in a university setting and conceptualized work pressure as an indicator of demands, and job autonomy was used as the indicator of job resources (Winefield, et al., 2014). Boyd et al. (2011) showed that high levels of work pressure is evident in the university setting. There is anecdotal evidence of declining autonomy in higher education, combined with research that shows higher levels of autonomy being a positive contributor to workplace commitment and performance (Winefield, et al., 2014). Not only has this theory been used in the context of higher education to provide a foundation for understanding these two constructs, but this theory has also been empirically supported in various cross-sectional studies (Boyd, et al., 2011). According to

Sabagh, et al. (2018), the JD-R Model is, "one of the leading models that predicts burnout antecedents" (p. 133).

At the heart of all of the JD-R Models is the assumption that there are specific occupational risk factors of stress that can be categorized according to job demands and job resources that contribute to job strain and motivation (Bakker & Demerouti, 2007). Sabagh et al. (2018) go so far as to mention that there is evidence to strongly support the variables of job demands and job resources having a strong role in predicting job burnout. Figure 1 shows the various demands that have been mentioned in context with their relationship to burnout, as well as to the employee's well-being (Adil & Baig, 2018). In this use of a JD-R Model the demands are conceptualized as workload, time pressure, autonomy, feedback, and work-life balance. Adil and Baig (2018) empirically tested the use of this JD-R model as it relates to burnout and well-being allowing this model to be considered for occupational stress, job demands, job resources, and job burnout.

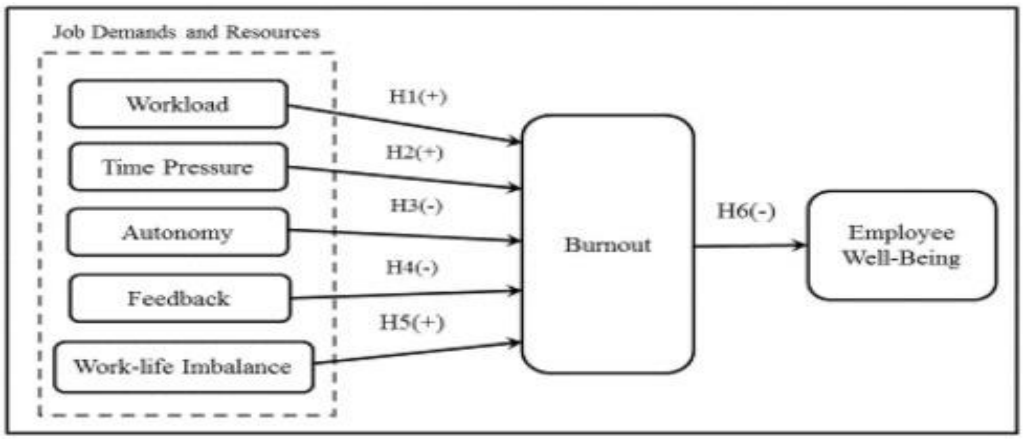

Figure 1. Conceptual framework of JD-R Model (Adil & Baig, 2018, p. 126).

JD-R Scale (JDRS)

JD-R is both a conceptual theory, or mode, bringing understanding of occupational stress, job demands, and job resources, and also an inventory designed to measure these variables. This

instrument has been validated and used in research studies since 1989 (Adil & Baig, 2018; Poalses & Bezuidenhout, 2018). This inventory measures stress levels, job demands, and job resources in the following areas: organizational support, growth opportunities, overload, job insecurity, relationship with colleagues, control, and rewards (Poalses & Bezuidenhout, 2018). Jackson and Rothmann (2005) tested the reliability of these seven factors and found the following: organizational support (α=. 88), growth opportunities (α= .80), overload (α= .75), job insecurity (α= .90), relationship with colleagues (α= .76), control (α= .71), and rewards (α= .78). Based on these Chrombach alpha scores, this is a reliable instrument. This instrument has been used for university employees, and most recently Poalses and Bezuidenhout (2018) used this instrument to measure occupational stress with faculty in an Open Distance Learning university in South Africa.

Job Burnout

This third theme presents the history of job burnout, defines job burnout, and considers a measurement tool for this variable. The experience of job burnout, the need to study job burnout in academe, and Maslach's Burnout Theory provide the framework for better understanding job burnout. The Maslach Burnout Inventory is discussed as the most prominent and supported tool to measure job burnout.

History of Job Burnout

The term "burnout" began to appear in articles in the mid-1970s predominantly in the United States as a social problem before turning into a scholarly construct (Schaufeli, Maslach, & Marek, 1993). By the time Farber (1983) wrote about this concept over 1,000 books, journal articles, and dissertations were written about the concept of burnout. In the seven years that followed another 1,5000 publications would be written about this concept.

While this concept was not researched and published until the 1970s there was anecdotal evidence of this phenomenon much earlier. The book, *Buddenbrooks*, written in 1922, includes a character that suffered from some of the hallmarks of burnout such as extreme fatigue, and the loss of passion and idealism about his job (Schaufeli, et al., 1993). In 1960 Graham Greene in his book, *A Burnt Out Case*, wrote about a character who is so tormented and disillusioned about his job that he quits, and withdraws into the African jungle (Schaufeli, et al., 1993).

The increased public attention of burnout came much later, in the 1970s, as a result of economic and social factors of the time within the social and human service profession. There had been a shift since World War II to move social services out of the communities and into a more professional and bureaucratized system (Schaufeli, et al., 1993). As needs (demands) and workloads increased, and resources and money decreased, what was once a highly sought after professional job in human services, that had high levels of job satisfaction and autonomy, led to disillusionment. This in turn set the stage for the evolution of what is now known as burnout (Schaufeli, et al., 1993). This is very similar to the discussion of faculty employment in higher education and the autonomy and satisfaction that were once characteristics of this profession, and have now changed with limited resources, and higher demands.

Defining Job Burnout

According to Maslach and Leiter (2016, p. 103), "Burnout is a psychological syndrome emerging as a pro-longed response to chronic interpersonal stressors on the job." In this regard job burnout can be viewed as a result of occupational stress over time, in the workplace setting. Burnout is considered to be more of a chronic, longer-term process that is a by-product of stress (Watts & Robertson, 2011). Job burnout has also been defined as a, "psychological phenomenon" that occurs as a result of prolonged exhaustion found in a work setting (Alarcon,

2011, p. 549). Literature on job burnout points to emotional exhaustion, a negative attitude towards work (also called depersonalization or cynicism in much of the literature), and work-related dissatisfaction (also called a reduced sense of professional efficacy) as characteristics, or hallmarks, of this construct (Alarcon, 2011; Flynn & Ironiside, 2018; Maslach & Jackson, 1981; Watts & Robertson, 2011). The physical symptoms of job burnout include fatigue, anxiety, and the feeling of being emotionally drained due to work pressures and demands (Flynn & Ironside, 2018).

Maslach's Burnout Theory

Early research studies on job burnout focused on a social science, qualitative, approach to understanding stress and burnout (Maslach & Leiter, 2016). This research was more of an exploration of the role of interpersonal relations, motivation, and emotions as they impacted job burnout (Maslach & Leiter, 2016). Much of the current research has been completed by researchers within the industrial-organizational psychology field who have more of a specialty in the areas of workplace studies (Maslach & Leiter, 2016). In the move to quantify the experience of job burnout, a new, more modern theory of burnout was introduced by Maslach and Leiter (2016). Titled Maslach's Burnout theory, this is a three-dimensional model used in understanding job burnout. It looks at the feelings of overwhelming exhaustion, cynicism, and detachment (reduced professional efficacy), as they relate to how someone feels about their job, and the feeling that they lack accomplishments (Flynn & Ironside, 2018; Maslach & Leiter, 2016; Watts & Robertson, 2011).

Flynn and Ironside (2018) also support Maslach's Burnout Theory in a research study they completed on job burnout as it pertains to midlevel academic nurse leaders in higher education. They considered this theory as the basis for conducting a research study looking

specifically at nursing faculty. Watts and Robertson (2011) referred to the Maslach model as a foundation in their literature review of burnout in university teaching staff as well.

Specific Need to Study Job Burnout in Higher Education

The need to study job burnout among university professors is supported by the negative effects of job burnout to the individual and to the organization. According to Flynn and Ironside (2018), job burnout is seen as one phenomenon that has been "repeatedly associated with job dissatisfaction and attrition" of those in the helping professions (p. 28). If teaching in higher education is considered a "helping profession" then there is a risk of burnout leading to job dissatisfaction and attrition. Leaders and administrators need to be aware of the potential to lose faculty members due to job burnout. In order to keep a workforce that is healthy, satisfied, and committed to the organization, the level of job burnout is necessary to explore in higher education.

As for the individual, job burnout has been shown to have serious physical and psychological implications and adverse reactions. Some of the physical adverse conditions that have been associated with job burnout are: heart disease, gastrointestinal disease, influenza, sleep disorders, hypertensions, and musculoskeletal disorders (Flynn & Ironside, 2018). Depression, anxiety, lower self-esteem, and substance abuse has also been shown to be psychological hazards associated with job burnout (Alarcon, 2011; Flynn & Ironside, 2018).

Job burnout can affect the organization, the individual, and also the people that the individual and the organization serves. In the case of higher education, if faculty face job burnout, it can negatively affect those they serve—their students. In the area of cynicism, especially, there is evidence to suggest that once an employee is cynical, they will begin to only do the bare minimum that is required of the job and withdraw (Maslach, 2003). Bryne et al.

(2013) posit that cynicism can cause negative feelings, thoughts, and attitudes towards the recipients of the employee's clients, namely students, in this regard. Another characteristic of job burnout, emotional exhaustion, has been shown to deplete the faculty member to the point that they cannot adequately give their attention to their students (Ghorpade, Lackritz, & Singh, 2007).

Maslach Burnout Inventory (MBI)

The first, and most widely used and prevalent instrument to measure job burnout, is the Maslach Burnout Inventory (MBI) (Alarcon, 2011; Maslach & Leiter, 2016). The original Maslach Burnout Inventory was designed in the 1970s to assess burnout in health care and human service professions (Bria, Spanu, Baban, & Dumitrascu, 2014; Maslach, Leiter, & Schaufeli, 2008). In 1986 the 16-item questionnaire, the Maslach Burnout Inventory—General Survey (MBI-GS), was introduced to be applicable to any occupation to measure job burnout (Bria, et at., 2014). The MBI-GS has since been validated for use regardless of occupations and nations, including academe (Alarcon, 2011; Bria et al., 2014; Schaufeli, et al., 2002).

Maslach and Jackson (1981), in their original assessment of this tool, tested the reliability and validity of this instrument using a sample that consisted of health and service workers, psychiatrists, teachers, nurses, social workers, psychologists, and police officers. Using this sample (*n=420),* tests yielded the following results: the reliability coefficient for the Emotional Exhaustion subscale was 0.89 (frequency) and 0.86 (intensity); for the Depersonalization (Cynicism) subscale it was 0.59 (frequency) and 0.57 (intensity); and for the Personal Accomplishment (reduced Professional Efficacy) subscale it was 0.77 (frequency) and 0.72 (intensity) (Maslach & Jackson, 1981). This indicates this instrument is reliable.

Data were then analyzed based on a test-retest reliability using graduate students in social welfare and administrators in a healthcare agency (*n=53).* The results showed the following: the

test-retest reliability coefficient for the Emotional Exhaustion subscale was 0.80 (frequency) and 0.68 (intensity); 0.64 (frequency) and 0.65 (intensity) for the Depersonalization (Cynicism) subscale; and 0.60 (frequency) and 0.69 (intensity) on the Personal Accomplishment (reduced Professional Efficacy) subscale (Maslach & Jackson, 1981). Based on this information all of the coefficients are significant beyond the 0.001 level (Maslach & Jackson, 1981). This further supports this instrument being a reliable measure.

In this original study the convergent validity was measured in three ways. First, the scores on the MBI were correlated with behavioral ratings made by someone who knew the participant (Maslach & Jackson, 1981). Second, the MBI scores were correlated with job characteristics that would indicate a burnout experience (Maslach & Jackson, 1981). Third, the MBI scores were correlated with other outcomes that were characteristics of the burnout experience (Maslach & Jackson, 1981). The combination of these three sets of correlations provided significant validity of the MBI (Maslach & Jackson, 1981).

Since the time of the original study, this instrument has been successfully used to operationalize the burnout syndrome based on the three-factor model of emotional exhaustion, depersonalization (also called cynicism), and lack of professional accomplishment (also called work-related dissatisfaction and professional efficacy in some literature) (Maslach & Leiter, 2016; Sestili, et al., 2018). This instrument has been validated and translated into many languages (Maslach & Leiter, 2016). In one recent study of burnout among physicians, the Maslach Burnout Inventory was called the gold standard in measuring burnout (Williamson, Lank, & Lowell, 2017).

Synthesis of Variables and Other Considerations

This final theme looks at the variables of occupational stress, job demands, job resources, and job burnout in a variety of ways. Support, through empirical research, is given that establishes a direct connection between these variables. Other considerations are included to show what other variables and instruments were excluded in this study, and why. Finally, concluding thoughts are discussed in light of the information in this literature review.

Occupational Stress, Job Demands, Job Resources, and Job Burnout Interrelation

According to Alarcon (2011), stressors and the perceptions of stress, play a pivotal role in the burnout process. In his study Alarcon discusses occupational stress as being a type of job demand that depletes resources. He posited that with a prolonged experience of high job demands (to include occupational stress), and a limited amount of resources, this leads to the experience of job burnout (Alarcon, 2011). In other words, the experiences that are at the very heart of the JD-R model of occupational stress and higher job demands with limited resources, are what can lead to someone experiencing job burnout. This study concluded that the relationship between higher demands and lower resources to job burnout is much stronger than in previous meta-analyses and that these variables were "significantly related" to all aspects of burnout (Alarcon, 2011, p. 555). Also giving credence to this assumption is the Bakker and Costa (2014) study that supports the theory that burnout is a syndrome whose structural causes in the workplace are high job demands and lowering of resources.

Going back to the work of the "founding father" of stress, Hans Selye's and his three phases of stress, the final phase of exhaustion is important to consider in job burnout. This phase comes at the end of a "prolonged exposure to stress" (Schaufeli, et al., 1993, p.10). This is the point at which the person's physiological resources are spent and depleted, and result is

exhaustion, one of the three elements of job burnout (Schaufeli, et al., 1993). Later, Brill (1984) added to Selye's phases, and an understanding of the connection of stress and burnout, when he conceptualized the adaptation phase (the second phase) as temporary mental and physical symptoms. He went on to say that burnout, then, is the exhaustion phase where there is chronic malfunctioning (Brill, 1984).

Demerouti et al. (2001) also supports the position that occupational stress plays a significant role in job burnout. In particular, another element of job burnout that was mentioned as part of the Maslach Burnout Theory, cynicism, is discussed as a negative coping mechanism to stress, which also leads to a lack of personal and professional efficacy, and in turn perpetuates the job burnout process (Alarcon, 2011).

The three elements of job burnout to include exhaustion, cynicism, and reduced personal accomplishment or professional efficacy, have been shown to relate to the variables of this study, namely occupational stress and job demands. Specifically, job demands related significantly to the burnout element of exhaustion (Alarcon, 2011; Demerouti, et al., 2001). Alarcon (2011) goes on to say that demands, including occupational stress, have a great impact on exhaustion. This feeling of exhaustion can lead to cynicism and reduced professional efficacy, all of which are factors associated with job burnout. Alcaron's research (2011) found that job resources had a fairly consistent relationship with the elements of exhaustion and cynicism, but found a stronger relationship with low job resources and reduced professional efficacy.

In the first three themes of this literature review occupational stress, job demands, and job resources were considered based on the theoretical position of the JD-R model. There is literature that supports a relationship between this model (including the variables of occupational stress, job demands, and job resources), and job burnout (Adil & Baig, 2018; Demerouti et al.,

2001). Using the JD-R model Demerouti et al. (2001) discussed how extreme job demands can lead to exhaustion (one of the hallmarks of job burnout), and that the interaction between these demands, and lack of resources, is what ultimately causes the development of burnout.

Howard and Johnson (2004) mentioned that at the time of their study on resiliency that there had been over 20 years of research looking at occupational stress and job burnout together. Their research study looked at these two entities as they relate to teachers and mentioned that occupational stress and job burnout, while being two distinct phenomena, are linked to one another (Howard & Johnson, 2004). This is further support that these variables, while separate, are connected and related to one another in research studies and literature. The literature points to job resources as being a buffer against the job demands and their effect on job burnout (Aro & Upadyaya, 2017).

In Figure 2 Schaufeli & Taris (2014) demonstrate an updated version of the JD-R model better showing the interconnectedness between job demands, job resources, and burnout (strain). To begin with, there is a relationships between job demands and job resources. In looking at job demands, when this area is high, there is a relationship to burnout. In turn, when job burnout is high, there is an increased risk for negative outcomes, health issues, etc. In viewing job resources, when this area is high, there is a stronger chance for a more positive well-being, and positive outcomes in terms of performance and motivation (Schaufeli & Taris, 2014).

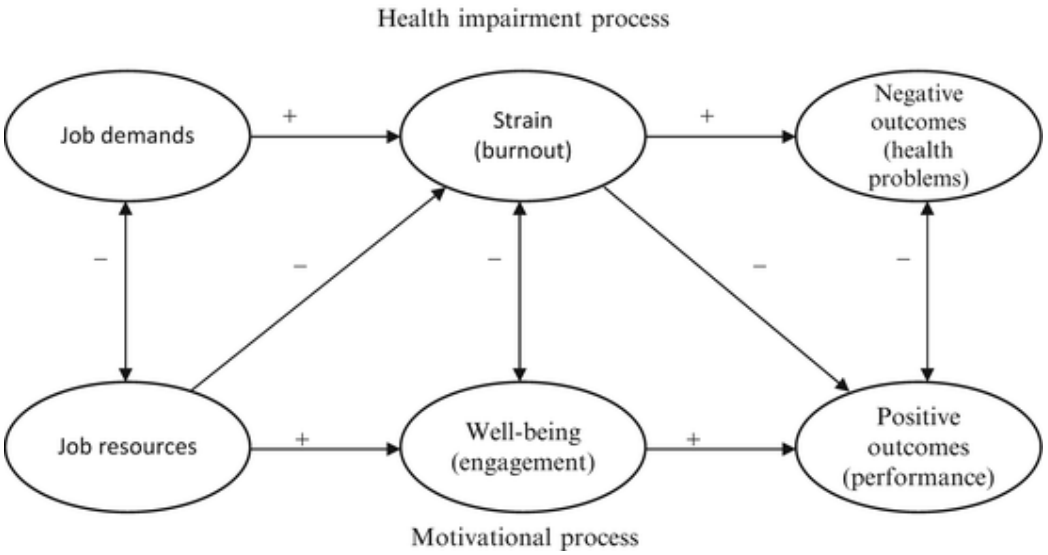

Figure 2. The dual process model (Schaufeli & Taris, 2014).

Considerations and Implications

The literature review established the groundwork for looking at the variables of occupational stress, job demands, job resources, as predictors of job burnout in the context of faculty in Christian higher education. Even though the need for this study has been established, and how these variables work together have been documented, there are other elements to consider that could affect the overall study.

In order to keep this research narrowed in scope, suggestions for improving reactions to stress were not discussed in any great detail, but could be an area of future study. As previously suggested the goal is not to eliminate stress, even occupational stress, altogether, but instead to learn how to manage it better. A key component to looking at occupational stress is to develop ways to cope and build resiliency within the employee in order to allow them to be healthy, more productive, and ultimately enjoy their life and careers more.

To measure burnout, the Maslach Burnout Inventory was ultimately chosen to measure this variable because it was the first and most widely used instrument in this regard, however it does have critiques that need to be considered. Those who critique the MBI suggest that the MBI

is useful in measuring emotional exhaustion, cynicism, and lack of personal fulfillment and accomplishment, but that there is a need to quantify the areas that are limitations of this inventory (Sestili et al., 2018). Another measurement tool, The Copenhagen Burnout Inventory (CBI), is designed to look at one of the constructs of the MBI, emotional exhaustion, more fully. With this inventory emotional exhaustion is broken down into physical and psychological exhaustion in light of three life areas, "the personal sphere, the overall work experience, and the specific area of work related to interaction with clients (in this case, students)" (Sestili, et al., 2018, p. 3).

There were two reasons why the Maslach Inventory was chosen over the Copenhagen Burnout Inventory and both of these reasons came from an article that was in support of using the CBI over the MBI. The first reason is that the MBI had been used in about 90% of the empirical studies on burnout in the world up until that time (Kristensen, Borritz, Villadsen, & Christensen, 2005). The study cast a negative light on what the authors considered a "monopoly status" and a dominant position in this field of study and measurement (Kristensen, et al., 2005, p. 193). The second critique of the MBI that I found to be a strength based on this article was that many of the questions on the MBI were considered, "very American" (Kristensen, et al., 2005, p. 195). Kristensen et al. (2005) were interested in a burnout inventory for a Dutch sample and felt that most of the questions on the MBI would apply better to an American sample, again supporting the position of using the MBI over the CBI. Maslach et al. (2008) said it best when they wrote that the MBI is, "reliable, valid, and easy to administer" (p. 5).

Concluding Thoughts

While being a faculty member in higher education has been perceived as a low stress, highly autonomous occupation with a high degree of personal control of time and job role,

research is showing this is no longer the case. With an increase in job demands that are plaguing faculty, and resources that are continually being limited, occupational stress is reaching boiling point levels in our faculty. Ultimately these faculty who are stressed, overloaded and overworked, and under resourced, are at a risk for a plethora of medical, mental, and physiological issues, not to mention the trickle-down effect this can have on students, and their success in the classroom. This career needs an exploration of the intersection of occupational stress, job demands, and job resources, and the ways it can ultimately lead to job burnout.

There is a need to study job burnout as it relates to higher education for both the individual, the organization, and for the students. As the literature review has shown job burnout comes at the end of exposure to chronic, ongoing occupational stress, a rise in job demands, and without the buffer of job resources. Again, much like occupational stress, job burnout takes a significant toll on the faculty member, those who work with the faculty member, their family and friends, the institution itself, and the students.

This research can add to the limited body of knowledge there is on the constructs of occupational stress, job demands, job resources, and job burnout with faculty in higher education in the United States. While this study specifically looks at Christian higher education institutions, the knowledge gained from this study could be duplicated at other universities.

Chapter Three

Methodology

This is an exploratory quantitative, non-experimental survey research study. It used a survey that includes the Perceived Stress Scale (PSS) (10 items), the Maslach Burnout Inventory General Survey (MBI-GS-16 items), the Job Demands-Resource Scale (48 items), and 6 demographic questions to include: gender, age, number of years teaching, rank, tenure status, and discipline of teaching. Two additional questions were added to this survey: "Others around me at work appear to be under a lot of stress," and, "How important is your faith to you?"

Research Questions

1. *To what extent are perceived levels of occupational stress a predictor of job burnout with faculty at Christian universities?*
2. *To what extent are perceived levels of job demands and job resources a predictor of job burnout with faculty at Christian universities?*

Design and Instrumentation

The Perceived Stress Scale (PSS) is a 10-item questionnaire that is the most widely used instrument to measure someone's perception of stress since it was created in 1983 (Cohen, 1994). This instrument is designed to assess the degree to which the individual perceives life events as stressful (Cohen, 1994). This instrument has been validated, and has been shown to have an "adequate internal and test-retest reliability" (Cohen, et al., 1983, p. 392).

The JD-R scale has been validated and used in research studies since 1989 (Adil & Baig, 2018; Poalses & Bezuidenhout, 2018; Rothman, et al., 2006). This inventory measures job demands and job resources in the following areas: organizational support, advancement (also called growth opportunities), workload, job security, and resources (Rothmann & Joubert, 2007).

Job demands are conceptualized in the workload category to include time pressures, emotional exhaustion, contact with others, and the physical work environment (Rothmann & Joubert, 2007). Job resources are measured based on organizational support, advancement, job security, and resources. This instrument uses a variety of occupational stress scales and has been customized for university employees in other research studies (Poalses & Bezuidenhout, 2018).

As previously mentioned, the first, and most widely used and prevalent instrument to measure job burnout, is the Maslach Burnout Inventory (MBI) (Alarcon, 2011; Maslach & Leiter, 2016). In 1986 the 16-item questionnaire, the Maslach Burnout Inventory—General Survey (MBI-GS), has been validated for use invariant of occupations and nations, including academe and will be included in this research study (Alarcon, 2011; Bria et al. 2014; Schaufeli, et al., 2002). This instrument has been validated and translated into many languages and is said to be reliable, valid, and easy to administer ((Maslach & Leiter, 2016; Maslach, et al., 2008, p. 5). This instrument measures the three components of job burnout: exhaustion, cynicism, and reduced professional efficacy (also called accomplishment in some of the literature) (Maslach, et al., 2008).

Instrument Procedures

This voluntary survey was piloted by six faculty members from CCCU institutions to determine feasibility, approximate time of test taking, and possible survey fatigue. Once piloted, the survey was adjusted for the following reasons: a. one duplicate question (question was replaced with the correct one), and b. missing one age category (was added). The survey was emailed to two university administrators at two different CCCU institutions. The administrator from each institution emailed the invitation and link to the Survey Monkey instrument to their

faculty distribution list. The survey was open from January 6-January 30, 2020.. Reminder emails were also sent during the three-week time period.

Variables

Each component of job burnout is a dependent variable in this study; exhaustion, cynicism, and reduced professional efficacy (also called accomplishment). The 16-item MBI-GS will measure perceptions of job burnout based on the three components of: exhaustion, cynicism, and reduced professional efficacy (also called accomplishment in the literature), as stated above. The independent variables are faculty's perceptions of occupational stress (as measured by the Perceived Stress Scale), job demands, job resources, and the remaining two components of job burnout that are not used as the dependent variable for the multiple regression analysis. The 10-item PSS will measure the faculty member's perceived level of occupational stress. The 48-item JD-R scale with measure the faculty member's perceptions of their job demands and job resources. Demographic data such as gender, age, number of years teaching, and discipline will be collected to determine if any of these variables show significance for the purposes of this study.

Sampling Plan

The criteria to take part in this study were that the participant was a full-time faculty member at a Christian university and that they have been at their current university for a minimum of two years. Since an aspect of this survey discusses job demands and job resources it is important for the faculty member to have enough experiences in the current position to attest to these variables. Faculty at several Christian universities that are a part of the CCCU were used for this study. The participants in this study were not chosen based on rank (tenure, non-tenure) etc., in order to gain an appropriate sample size.

Data Analysis

After the data were collected, SPSS statistical software will be used to analyze the results based on Table 1. *Overview of Data Analysis Plan* on the next page.

Table 1.
Overview of analysis of data

Variable(s)	Instrumentation	Statistical test/assumptions
DV: Exhaustion (job burnout) IV: Occupational stress (PSS score), cynicism, reduced professional efficacy, organizational support, workload, advancement, job security, rewards	Maslach Burnout Inventory General Survey (MBI-GS); 11 items pertaining to Exhaustion 10-item Perceived Stress Scale (PSS) 48-item JD-R Scale	Multiple Regression Assumptions: 1. DV of burnout will be measured on a continuous scale. 2. There are two or more IVs (in this case there are 3). 3. An independence of observation as measured by the Durbin-Watson statistic. 4. A linear relationship between the DV and each of the IVs. 5. The data needs to show homoscedasticity 6. Data must not show multicollinearity 7. No significant outliers 8. Residuals (errors) are approximately normally distributed (Laerd Statistics, 2018)
DV: Cynicism (job burnout) IV: Occupational stress (PSS score), exhaustion, reduced professional efficacy, organizational support, workload, advancement, job security, rewards	16-item Maslach Burnout Inventory General Survey (MBI-GS); 11 items pertaining to Cynicism 10-item Perceived Stress Scale (PSS) 48-item JD-R Scale	Multiple regression Assumptions (same as above)
DV: Professional efficacy (job burnout) IV: Occupational stress (PSS score), exhaustion, reduced professional efficacy, organizational support, workload, advancement, job security, rewards	16-item Maslach Burnout Inventory General Survey (MBI-GS); 10 items pertaining to Professional efficacy 10-item Perceived Stress Scale (PSS) 48-item JD-R Scale	Multiple regression Assumptions (same as above)

Research Ethics

This survey study used human participants, therefore, IRB approval from George Fox University was necessary. With that, in order to maintain the highest ethical rigor for this study, the following ethical considerations were taken into consideration, according to Laerd Statistics (2012):

- Minimize the risk of harm
- Obtain an informed consent from participants
- Protect the anonymity and confidentiality
- Do not engage in deceptive practices
- Allow for the right to withdraw

Minimize the risk of harm. This survey dealt with perceptions of stress, burnout, and the well-being of the participant, which could bring about additional feelings of stress. In order to reduce this risk of harm, a stress hotline phone number for support, as well as links to resources aimed at helping with stress and burnout was added to survey and approved by the IRB.

Obtaining an informed consent from participants. Participants received an email asking for them to voluntarily participate in this survey. The informed consent to participate in this survey included the following information:

- This survey is being used as part of a doctoral research study at George Fox University in the EdD in higher education program
- Participation in this survey is completely voluntary and the participant has the right to withdraw from this survey at any time. By completing this survey the participant is agreeing that they understand and consent to these terms.

- This survey should take approximately 25 minutes (Chudoba, n.d.)
- All responses are anonymous and confidential
- All data collected via this survey will be stored on a secured flash drive and kept in a locked office drawer in the researcher's office. After a period of five years the flash drive will be properly destroyed.
- The data in this survey may be used in future research studies for a period of up to five years after the completion of the survey.
- As an incentive to take this survey participants will be entered into a drawing for eight, $25 Amazon gift cards upon completion.

There were three statements to acknowledge confirming the above information and the participants willingness to take part in this survey. These statements were:

1. You are willing to take part in this survey.
2. You have read the information contained in the informed consent and understand that this survey is anonymous and voluntary.
3. You understand that your responses to this survey will be kept confidential and that you may withdraw from this survey at any time.

If the participant answered, "no" or did not accept the conditions of the above questions, then the survey took them to a page that thanked them for considering this survey, but that no data were collected.

Protecting the anonymity and confidentiality. Protecting the anonymity of the research participants was extremely important. Any information that would identify the participant was not be included in this survey (such as specific job titles with department/discipline information). Data will be stored in secure location and destroyed after five years.

Not engaging in deceptive practices. There were no deceptive or unethical practices used in this research study or survey. Any data that was collected will be used only for this doctoral research study, or additional future research done by this researcher (which was agreed to in the informed consent).

Allowing for the right to withdraw. The participant could withdraw from this survey at any time without any negative consequences.

The Role of the Researcher

The researcher was currently a professor at a Christian university, and this university was used for this study. As a faculty member I have experienced an increase in job demands, and a limiting of job resources. I have seen first-hand the toll physically and psychologically the increase of job demands and the reduction of job resources has taken on faculty in a Christian higher education setting. I have personally felt these pressures, stressors, and issues that are plaguing faculty.

Chapter Four

Results

The purpose of this study was to explore the extent to which faculty perceptions of occupational stress, job demands, and job resources are predictors of job burnout for faculty at Christian universities, specifically at CCCU institutions. Three instruments were used to access this information: The Perceived Stress Scale (PSS-as it related to their job), the Job-Demands Resources Scale (JDRS), and the Maslach Burnout Inventory (MBI). Each scale was included in a survey administered through Survey Monkey. This chapter includes the data that were collected from these instruments and from the demographic questions. Data from Survey Monkey were first imported into Excel, then uploaded into IBM SPSS Statistics for cleaning and statistical analysis.

Participants

The participants of this study consisted of permanent faculty members from two CCCU schools. The participating schools had similarities, as well as some differences between them. Both institutions were part of the CCCU (as mentioned throughout this study) and both opened in the late 1800s. Geographically these two institutions are located in different parts of the country, one on the west coast and the other on the east coast. One university has roughly 1,000 students comprised of traditional undergraduate students, and master's degree students. The other university has around 4,000 students comprised of traditional undergraduates, adult degree completion, master's degree, and doctoral students. Both institutions had low student to faculty rate of around 13:1. It is important to note that both institutions are ranked nationally according to *Forbes, U.S. News & World Report, Princeton Review*, and *The Washington Monthly.*

Administrators from each university sent an email out to faculty for voluntary inclusion in this research, as well as the Survey Monkey link. Reminder emails were also sent out. The survey was open from January 6th to January 30, 2020. The link to this survey was emailed to 350 faculty members from these institutions. 103 faculty members responded to the survey. In order to address any outliers, a Mahalanobis analysis was performed. Using this analysis 5 participants were over the critical value of 18.3. According Prabhakaran (2019) if the Mahalanobis distance exceeds 9.21 it is considered an extreme outlier. Because the critical value of these 5 participants were double the extreme level, they were excluded from this study. The remaining 98 participants were used for this research study (n=98).

Table 2 shows the breakdown of gender for this research study. The participants were fairly equally divided between men and women who participated in this study. One participant responded with, "other" for gender.

Table 2.

Frequency of gender

	Frequency	Percent
Female	52	53.1
Male	45	45.9
Other	1	1.0
Total	98	100.0

Table 3 shows the age of participants. 66.3% of the participants were between the ages of 35-60. Twelve (12.3%) of the participants were under this age while 21.4% were 60 and over.

Table 3.

Frequency for age

	Frequency	Percent
24 and under	1	1.1
25-34	11	11.2
35-48	36	36.7
49-60	29	29.6
60 and up	21	21.4
Total	98	100.0

Table 4 shows the number of years teaching in higher education for the participants. The participants were spread across the various number of years teaching. Over 40% had more than 15 years teaching experience.

Table 4.

Frequency for years teaching in higher education

	Frequency	Percent
4 years or less	1	1.0
5-9 years	23	23.5
10-14 years	17	17.3
15-19 years	18	18.4
20 or more	22	22.4
Total	98	100.0

Table 5 indicates the academic rank of the participants. The largest number of participants were at the Assistant Professor rank at 45.9%. The second largest number of participants were Full Professors (30.6%).

Table 5.

Frequency of academic rank

	Frequency	Percent
Full professor	30	30.6
Associate Professor	19	19.4
Assistant Professor	45	45.9
Other	2	2.0
Visiting Professor/Instructor	2	2.0
Total	98	100.0

Table 6 establishes whether or not the participant is tenured, non-tenured, or their university or position does not have tenure. 58.2% of the participants were non-tenured while 36.7% were tenured with only 5.1% teaching at a university or position that does not offer tenure.

Table 6.

Frequency for tenure status

	Frequency	Percent
Tenured	36	36.7
Non-tenured	57	58.2
University does not have tenure	5	5.1
Total	98	100.0

Table 7 shows the racial/ethnic demographic information with White/Caucasian making up 85.7% of the participants. Only eight participants identified themselves in another racial or ethnic category.

Table 7.

Frequency for race/ethnicity

	Frequency	Percent
White/Caucasian	84	85.7
Black or African Am	3	3.1
Hispanic or Latino/a	1	1.0
Asian or Pacific Islander	4	4.1
No response	6	6.1
Total	98	100.0

Independent and Dependent Variables

This study used the following independent variables: perceived stress, job resources, workload, job security, advancement opportunities, and organizational support. For each regression two of the three components of job burnout (exhaustion, cynicism, and professional efficacy) were included as independent variables when not used as the dependent variable. There were three dependent variables in this study which were comprised of the three components of Maslach's Burnout Theory; exhaustion, cynicism, and professional efficacy (Maslach et al., 2008).

Analysis

Multiple regression was used to determine how much of the variance of the three components of burnout could be attributed to the various independent variables. The eight assumptions for multiple regression, as previously mentioned in the Data Analysis Plan, according to Laerd Statistics (2018), were tested in order to validate the interpretation of this study (See Appendix D, Assumptions).

Assumption one. ***The dependent variable is measured on a continuous scale.*** The Maslach Burnout Inventory is measured using a Likert continuous scale with ratio data for each of the three components; exhaustion, cynicism, and professional efficacy.

Assumption two. ***There are two or more independent variables.*** In the case of this research study there are ten independent variables, not including demographic variables.

Assumption three. ***An independence of observation as measured by the Durbin-Watson statistic.*** The Durbin-Watson statistic was used in order to account for the independence for each dependent variable. The Durbin-Watson value for Exhaustion was 2.451, for Cynicism it was 1.850, and for Professional Efficacy it was 2.027. All values meet the assumption value criteria of between 1-3 which shows evidence of independence (See Appendix D).

Assumption four. ***There is a linear relationship between the DV and each of the IVs.*** Scatterplots and p-plots were inspected and confirmed to show a linear relationship between the DV and each of the IVs (See Appendix for Scatterplots and p-plots).

Assumption five. ***The data needs to show homoscedasticity.*** Using a visual inspection of scatterplots of standardized predicted value versus standardized residual two of the dependent variables, exhaustion and professional efficacy, demonstrated homoscedasticity. The other dependent variable, cynicism, showed a mild variance, but would still constitute homoscedasticity.

Assumption six. ***Data must not show multicollinearity.*** There was no collinearity among the various independent variables and dependent variables as seen in Appendix D.

Assumption seven. ***There are no significant outliers.*** As stated above a Mahalanobis' analysis was done and 5 participants were over the critical value of 18.3 and were excluded from this study as outliers.

Assumption eight. ***Residuals (errors) are approximately normally distributed***. Visual inspection of the scatterplots and p-plot for each dependent variable showed normal distribution (See Appendix D).

Research Question One—Assessed with Multiple Regression

Once the assumptions were met, multiple regression was used to determine to what extent occupational stress (as measured by the Perceived Stress Scale [PSS]) predicted job burnout. For this final analysis job burnout was assessed based on the three components of job burnout: exhaustion, cynicism, and professional efficacy, which each being a dependent variable. The total score of the PSS was one independent variable for this multiple regression and the other independent variables that were included were the following: organizational support (JDR), workload (JDR), resources (JDR), advancement (JDR), and job security (JDR). Also included as independent variables were the other two components of job burnout that were not the dependent variable for the regression.

A multiple regression model was used to determine if the PSS total was a predictor of the three components of job burnout. The PSS total was a statistically significant predictor of one component of job burnout; exhaustion ($p = .004$) (See Table 10). There was no statistical significance to support the PSS total as a predictor of the other two components of job burnout, cynicism and professional efficacy.

Research Question Two—Assessed with Multiple Regression

The same multiple regression model was used as research question one, to determine if job demands or resources could predict job burnout. As with research question one, job burnout was assessed with the three components of exhaustion, cynicism, and professional efficacy. The independent variables that were included were the following: organizational support (JDR),

workload (JDR), resources (JDR), advancement (JDR), job security (JDR), and the PSS total. Also included as independent variables were the other two components of job burnout that were not the dependent variable for the regression. A multiple regression model was used to determine to what extent organizational support, workload, resources, advancement, and job security could predict the three components of job burnout: exhaustion, cynicism, and professional efficacy.

Exhaustion. For the job burnout component of exhaustion workload was a statistically significant predictor (p = .000) (See Table 10). The other JDR variables showed no statistical significance with exhaustion.

Cynicism. With the job burnout component of cynicism, there were two variables from the JDR that showed statistical significance. Advancement (p = .000) and job security (p = .006) showed that they are statistically significant predictors of cynicism. All other variables had no statistical significance (See Table 9).

Professional efficacy. For the job burnout component of professional efficacy there were several variables that were found to have statistical significance. The variables that had statistical significance to predict professional efficacy were the following: organizational support (p = .000), workload (p = .001), resources (p = .011), and advancement (p = .007) (See Table 8). Only one variable, job security, had no statistical significance to predict professional efficacy.

Tables for Multiple Regression

Table 8 shows the dependent variable of the job burnout component of professional efficacy and the various independent variables that were used in the multiple regression. For Table 9 cynicism was the dependent variable. The independent variables used in this multiple

regression model are listed on this table. Table 10 used the dependent variable of exhaustion along with the independent variables listed in the table.

Table 8.

Multiple regression table for Professional Efficacy

Dependent Variable: Professional Efficacy	*B*	SE_B	ß	Sig.
(Constant)	1.068	.918		.248
Perceived Stress Scale Total	-.026	.018	-.155	.153
MBI. Exhaustion	-.289	.078	-.466	**.000**
MBI. Cynicism	.100	.071	.169	.163
JDR. Org Support (Mean)	.814	.200	.452	**.000**
JDR. Workload (Mean)	.658	.190	.355	**.001**
JDR. Resources (Mean)	-.435	.169	-.265	**.011**
JDR. Advancement (Mean)	.379	.139	.277	**.007**
JDR. Job Security (Mean)	-.040	.079	-.049	.617

Bolded indicates significance of less than .05 p-value.
Note: *B* = Unstandardized regression coefficient; SE_B = Standard error of the coefficient; ß = Standardized coefficient

Table 9.

Multiple regression table for Cynicism

Dependent Variable: Cynicism	*B*	SE_B	ß	Sig.
(Constant)	2.512	1.330		.062
Perceived Stress Scale Total	.032	.026	.114	.228
MBI. Exhaustion	.463	.113	.444	**.000**
MBI. Professional Efficacy	.216	.154	.129	.163
JDR. Org Support (Mean)	-.566	.314	-.187	.075
JDR. Workload (Mean)	-.341	.294	-.109	.250
JDR. Resources (Mean)	.279	.255	.101	.276
JDR. Advancement (Mean)	-.745	.196	-.324	**.000**
JDR. Job Security (Mean)	.316	.111	.231	**.006**

Bolded indicates significance of less than .05 p-value.
Note: *B* = Unstandardized regression coefficient; SE_B = Standard error of the coefficient; ß = Standardized coefficient

Table 10.

Multiple regression table for Exhaustion

Dependent Variable: Exhaustion	B	Std. Error	Beta	
(Constant)	-1.870	1.152		.108
Perceived Stress Scale Total	.064	.022	.241	**.004**
MBI. Professional Efficacy	-.462	.125	-.287	**.000**
MBI. Cynicism	.344	.084	.359	**.000**
JDR. Org Support (Mean)	.445	.272	.153	.105
JDR. Workload (Mean)	1.159	.224	.388	**.000**
JDR. Resources (Mean)	-.338	.218	-.128	.125
JDR. Advancement (Mean)	.342	.179	.155	.059
JDR. Job Security (Mean)	-.025	.100	-.019	.806

Bolded indicates significance of less than .05 p-value.

Note: *B* = Unstandardized regression coefficient; SE_B = Standard error of the coefficient; ß = Standardized coefficient

R-squared Findings

Table 11 shows the adjusted R-squared finding of .410 for the dependent variable of Professional Efficacy. Based on this information 41% of the variance for this dependent variable can be attributed to the independent variables of (MBI) exhaustion, (JDR) organizational support, (JDR) resources, (JDR) workload, and (JDR) advancement. In other words we can say with confidence that the dependent variable of Professional Efficacy is influenced by the five independent variables listed 41% of the time.

Table 11.

R-square table for Professional Efficacy

Dependent Variable: MBI Professional Efficacy	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.678[a]	.459	.410	.70428

Table 12 shows the adjusted R-squared finding of .552 for the dependent variable of Cynicism. Based on this information 55.2% of the variance for this dependent variable can be attributed to the independent variables of (MBI) exhaustion, (JDR) advancement and (JDR) job security. In other words we can say with confidence that the dependent variable of Cynicism is influenced by the three independent variables listed 55.2% (or roughly half) of the time.

Table 12.

R-square table for Cynicism

Dependent Variable: Cynicism	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.767[a]	.589	.552	1.03291

Table 13 shows the adjusted R-squared finding of .637 for the dependent variable of Exhaustion. Based on this information 63.7% of the variance for this dependent variable can be attributed to the independent variables of the Perceived Stress Scale total, (MBI) professional efficacy, (MBI) cynicism, and (JDR) workload. In other words we can say with confidence that the dependent variable of Exhaustion is influenced by the three independent variables listed 63.7% of the time and that only 36.3% of Exhaustion can be explained by elements other than these three independent variables.

Table 13.

R-square table for Exhaustion

Dependent Variable: Exhaustion	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.817[a]	.667	.637	.89042

Additional Findings

A multiple regression was done with the demographic independent variables of: tenure, age, gender, race/ethnicity, faith, academic rank, how many years teaching, and the additional question of, "Others around me at work appear to be under a lot of stress." This regression was done with each of the dependent variables of job burnout; professional efficacy, cynicism, and exhaustion.

Table 14 shows the one statistically significant predictor of cynicism; the question of, "Others around me at work appear to be under a lot of stress." All other demographic variables were not significant predictors of cynicism, including how important their faith was to them.

Table 14.

Demographic data and cynicism

Dependent Variable: MBI Cynicism	*B*	SE_B	ß	Sig.
(Constant)	.588	2.267		.796
Question: Others around me at work appear to be under a lot of stress	.685	.177	.382	**.000**

Bolded indicates significance of less than .05 p-value.
Note: *B* = Unstandardized regression coefficient; SE_B = Standard error of the coefficient; ß = Standardized coefficient

Table 15 shows the adjusted R-squared finding of .198 for the dependent variable of cynicism. Based on this information 19.8% of the variance for this dependent variable can be attributed to the independent variable of "Others around me at work appear to be under a lot of stress."

Table 15.

R-square table for Cynicism and demographic data

Dependent Variable: Cynicism	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.522[a]	.273	.198	1.38103

Table 16 shows the statistically significant predictors of exhaustion. With age and tenure status, as these variables go up, the dependent variable will go down. It is a negative relationship. There was no statistically significant predictors of the demographic variables to professional efficacy, including the importance of faith.

Table 16.

Demographic data and exhaustion

Dependent Variable: MBI Exhaustion	*B*	SE_B	ß	Sig.
(Constant)	.545	2.150		.800
Age	-.609	.186	-.391	**.002**
Tenure Status	-.695	.320	-.267	**.033**
Question: Others around me at work appear to be under a lot of stress	.499	.168	.290	**.004**

Bolded indicates significance of less than .05 p-value.
Note: *B* = Unstandardized regression coefficient; SE_B = Standard error of the coefficient; ß = Standardized coefficient

Table 17 shows the adjusted R-squared finding of .215 for the dependent variable of Exhaustion. Based on this information 21.5% of the variance for this dependent variable can be attributed to the independent variables of age, tenure status, and the question, "Others around me at work appear to be under a lot of stress.

Table 17.

R-square table for Exhaustion and demographic data

DV: Exhaustion	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.537[a]	.288	.215	1.30992

There were two additional findings that was interesting to note in terms of faculty members perceptions of their own stress, and their perception of those around them being stressed. Figure 3 shows the total scores on the Perceived Stress Scale that faculty reported.

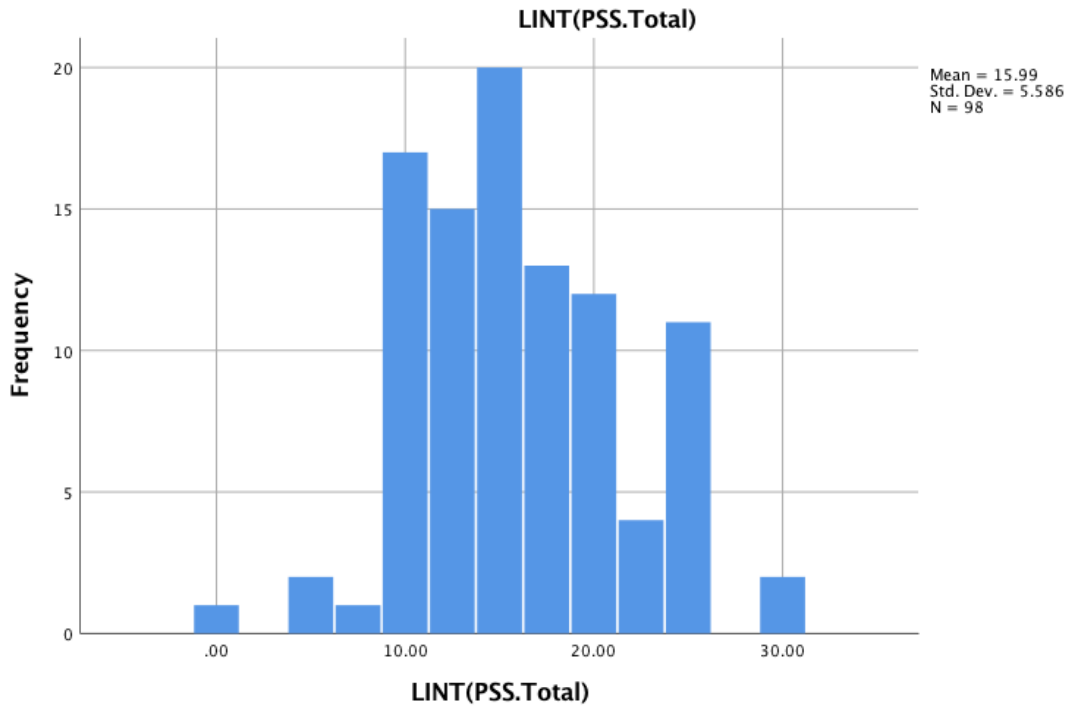

Figure 3. Perceived Stress Scale total

What is interesting to note in this histogram is that the mean score for the PSS is 15.99. Scores ranging from 14-26 are considered to be in the moderate stress level ("Perceived Stress Scale," n.d.). This indicates that, on average, the faculty members who participated in this study

are under at least a moderate amount of stress. Also interesting is that 60 of the 98 participants fell in this moderate stress range (about 61%) and 2 participants were in the high stress category.

The second interesting finding in this regard is when we look at the perceived stress level of faculty in the above figure in comparison to how the participants responded to the question of, "Others around me at work appear to be under a lot of stress." Figure 4 shows the frequency and mean in response to this prompt.

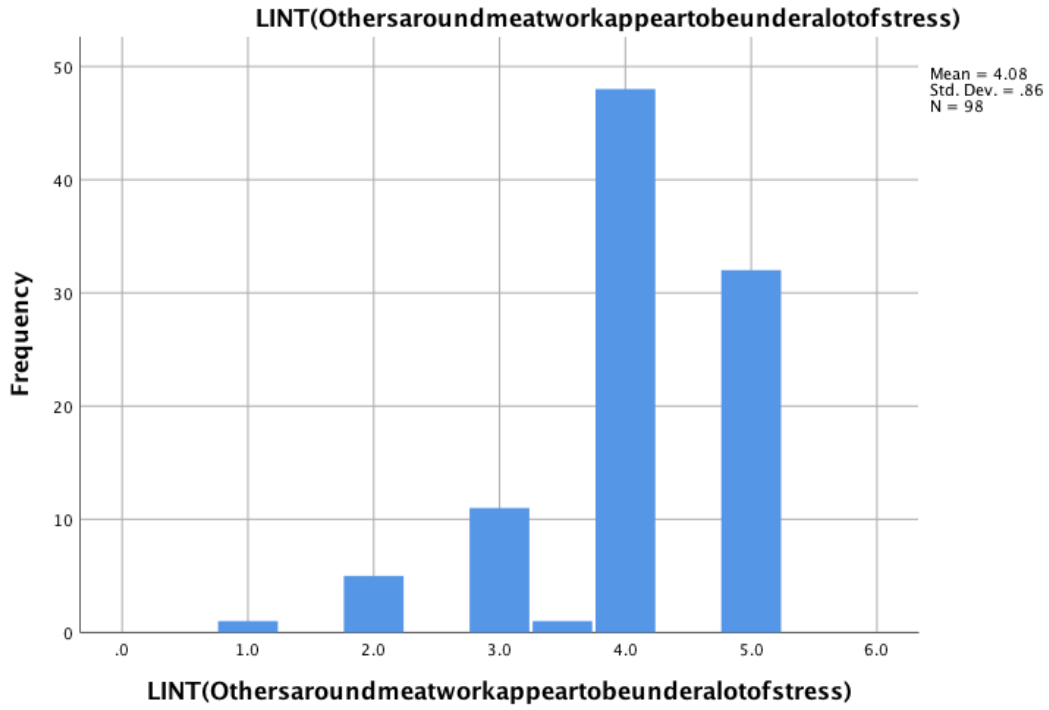

Figure 4. "Others around me at work appear to be stressed" frequency

For this Likert-type scale 1 was "disagree," 2 was, "somewhat disagree," 3 was, "neutral," 4 was, "somewhat agree," and 5 was, "strongly agree." The mean score for this question of others around them being under a lot of stress was 4.08, indicating they "somewhat agree" with this statement. Looking at the frequency for "4" there were 48 participants, for a "5" there were 32 of the participants. Of 98 participants, 80 said others around them they moderately

or strongly agreed were stressed (about 82%). These participants perceive their own stress at the moderate level, and others around them to be stressed.

Chapter Five

Discussion, Recommendations, and Conclusion

The aim of this study was twofold; to predict job burnout based on the independent variable of occupational stress, and to predict job burnout with the two independent variables of job resources and demands. For this research, job burnout can be broken into three distinct components; exhaustion, cynicism, and professional efficacy. This allows us to take a more granular examination of aspects of burnout and it's predictors. Bang and Reio (2017), in their research on job burnout, determined that the three components of job burnout are distinct and must be broken down into three parts because the consequences of each are so vastly different.

Job resources and demands were also broken down into the elements of organizational support, workload, resources, advancement, and job security. By understanding to what degree these independent variables can predict job burnout the hope is that universities, in this case Christian universities, can implement change in order to reduce the effects of stress, and job burnout in their faculty. The further aim is to retain faculty who are healthy and thriving in their positions, and in turn to best serve students and those around them.

Discussion of Findings

This next section discusses the findings from this study for each of the research questions.

Research Question 1

To what extent are perceived levels of occupational stress a predictor of job burnout with faculty at Christian universities?

Occupational stress, as measured by the Perceived Stress Scale, was found to be statistically significant in predicting one element of job burnout—exhaustion (p = .004). By

including the other two elements of job burnout, cynicism and professional efficacy, as well as workload (JDR), the study was able to predict exhaustion by 63.7%. This finding also supports the early work of Hans Selye's three phases of stress, and the final phase of exhaustion. Schaufeli, et al. (1993), as previously mentioned, believe that the phase of exhaustion comes at the end of "prolonged exposure to stress" (p. 10). Brill (1984) went on to say that this exhaustion phase is where you find chronic malfunctioning in the individual.

Emotional exhaustion can leave a person feeling, "emotionally drained, overwhelmed, and fatigued" (Leonard, 2018). According to Portoghese, Galletta, Coppola, Finco, and Campagna (2014, p.152), "exhaustion is mainly related to an individual's experience of stress, which is, in turn, related to a decline in emotional and physical resources." Because the Perceived Stress Scale is designed to assess the faculty member's perception of stress, the claim by Portoghese et al. (2014) becomes an important one for administrators at universities to consider. If exhaustion is related to the individual experience, or perception, of stress, then there is also a relationship to a decline in emotional and physical resources.

Another important area to consider with this research study is the effect of exhaustion on work relationships. Because there can be physical, emotional, and cognitive changes in a person who is experiencing emotional exhaustion, this has an impact on their work relationships and performance, as well as the trickle-down effect this can have on students. Specific negative consequences related to work are the following, according to Leonard (2018, point 5):

- increased rates of absence from work
- a lack of enthusiasm in work and personal life
- low self-esteem
- missed deadlines

- poor work performance

Research Question 2

To what extent are perceived levels of job demands and job resources a predictor of job burnout with faculty at Christian universities?

For the JDR variable of organizational support, there was a statistical significance with this variable and the component of professional efficacy (p = .000) in regards to job burnout. With the JDR variable of workload, there was statistical significance to two components of job burnout; professional efficacy (p = .001), and exhaustion (p = .000). For resources (JDR), there was statistical significance to one component of job burnout, professional efficacy (p = .011). Job resources were found to have a negative standardized coefficient which indicates that these two variables move in opposite directions. As job resources increased, professional efficacy decreased (ß = -.265). This seem counterintuitive in nature. Advancement (JDR) had statistical significance to two components of job burnout; professional efficacy (p = .007), and cynicism (p = .000). Job advancement also had a negative standardized coefficient with cynicism indicating that these two variables move in an opposite direction. When job advancement decreases, cynicism will increase (ß = -.324). The variable of job security was found to statistically predict the job burnout component of cynicism (p = .006). Each element of the Job Demands-Resources model (organizational support, workload, resources, advancement, job security) showed statistical significance to at least one component of job burnout.

As previously mentioned, 63.7 % of the variance, or movement, of the job burnout component of exhaustion, was explained by the Perceived Stress Scale, cynicism, professional efficacy, and one of the variables in the JDR—workload. This is supported by Portoghese et al. (2014, p.153) when they assert that mismatches in workload and control (or autonomy for

faculty), may "aggravate exhaustion." They go on to say that the opposite is also true. With a manageable workload, energy is sustained and contradicts the risk of burnout by the employee (Portoghese et al., 2014, p. 153). At the very heart of it, the more control, or autonomy, the employee has the more opportunity they have to manage their work environment and reduce their workload as needed (Portoghese et al., 2014).

For the job burnout component of cynicism 58.9% of the variance was explained by the independent variables of (MBI) exhaustion, (JDR) advancement and (JDR) job security. According to Bang and Reio (2017) cynicism is the most powerful of the three components of job burnout in determining turnover intention.

Finally, for professional efficacy, 45.9% of the variance were attributed to the independent variables of (MBI) exhaustion, (JDR) organizational support, (JDR) resources, and (JDR) advancement. Insufficient rewards, such as organizational support, resources, and advancement, have been found to increase an employee's vulnerability to job burnout, in general (Maslach & Leiter, 2016). Given this, it is not surprising that these variables contributed to the variance of professional efficacy.

Recommendations for Practice

Several recommendations for practice came from this study to highlight. The first recommendation comes from the information discovered about the faculty member's perception of their own stress and how they viewed other's stress level. The mean of the Perceived Stress Scale ($\bar{x}$ =15.99) does indicate that faculty at these institutions are in danger of a moderate level of stress. Knowing this is important for not only administrators at higher education institutions with the hope of making positive changes, but also for the faculty members to be aware of. There can be comfort in knowing that faculty are not alone in their stress and that others in higher

education are stressed as well. Part of managing stress is realizing that someone is stressed and having self-awareness (Brendel, 2015).

Along with faculty who participated in this study perceiving their level of stress to be moderate, they are perceiving others around them as having high levels of stress. Whether or not they are moderately stressed, or others are highly stressed, the bottom line is that faculty are experiencing stress. It has already been established throughout this paper that stress is detrimental to the individual and to the organization. Again, faculty need to be aware of this in order to make the adjustments they can in order to reduce stress, but administrators have a role in this as well. The hope is that change will come as a result of knowing this.

As previously stated, occupational stress was found to be a statistically significant predictor of the job burnout component of exhaustion, and in this case emotional exhaustion. It is important for universities to consider the negative consequences of this, and how it can affect the faculty member and students. If a faculty member experiences a decline in emotional and physical resources, an increase in absences, a lack of enthusiasm about their work (teaching), lower self-esteem, missing deadlines, and an increased risk of poor work performance, this has to take a toll on faculty, students, and those around them, both in and out of the classroom. Maslach and Leiter (2016) posit that a manageable workload has the positive effect of allowing the employee to refine their skills and become even more effective. Armed with this information change to workload can counteract the negative symptoms and elements of exhaustion.

As Bang and Reio (2017) mentioned, cynicism is the most powerful of the three components of job burnout in determining turnover intention. Therefore, it is imperative to consider cynicism at our universities. With advancement and job security being two of the contributors to the variance in cynicism, each variable should be looked at for improvement. By

providing opportunities for advancement, as well as providing job security, faculty's cynicism level could decrease.

Additionally, impact on professional efficacy must be considered in higher education. When there is a lack of support, diminished resources, and a lack of advancement, professional efficacy can be affected negatively. Again, universities can safeguard against this by offering additional support to faculty, increase resources, and promote and advance faculty.

Finally, based on these findings there are several specific suggestions that can be offered to department chairs, deans, administrators, and leaders at Christian higher education institutions. As for the stress levels of faculty, it is important to recognize that faculty members are under stress, at least at moderate levels. As mentioned earlier in this study not all stress is bad and not all stress needs to necessarily be eliminated. However, too much stress can be detrimental to the individual, the organization, and to the students as has been mentioned several times in this study. Acknowledging that stress exists, that faculty are stressed, and working on ways to support faculty in order to prevent the exhaustion associated with too much stress is essential.

As for job burnout it is important for chairs, deans, administrators, and leaders at Christian higher education institutions to realize that stress, workload, advancement, job security, resources, and organizational support were all found to be predictors of job burnout in some way. As for workload one suggestion is for transparent communications between faculty and their immediate supervisor on workload distribution. Advancement options should also be forthcoming and transparent in order to offer the faculty member an opportunity of moving forward or upward in their role. Job security is always an important consideration and in light of the current pandemic (COVID-19) it is even more important and vital for faculty members. According to an article just published in *The Wall Street Journal*, so called "white-collar

professionals" will be in danger of losing jobs in the coming months, including those in education (Morath, Torry, & Guilford, 2010). Lastly, resources and organizational support should be allocated and considered with faculty especially during a time of shortage such as this. Physical resources may be limited for a while, but some resources and support do not ultimately cost money. For example, providing social and/or emotional support to colleagues especially during a time such as the current crisis that is being faced in the United States and around the world can be done even with limited resources.

Limitations

While this research study produced significant results that can be added to the body of research, as with all research, this study had several limitations. One limitation was that there were only two institutions that took part in this study. Even though the response rate was approximately 28% (350 faculty were sent the survey, and the n = 98), there is still a limitation with only two schools participating.

This study also lacked a diverse sample of participants. Over 85% of the participants identifying as White or Caucasian. Although this can be considered a limitation, this statistic does, in some ways, mirror the racial and ethnic makeup of faculty in higher education. As of 2017, 76% of faculty members in higher education were White or Caucasian (Davis & Fry, 2019). Another limitation in regards to race and ethnicity is that Native American status was accidentally left out as an option for participants to choose. While there probably would not have been a significant number of Native American participants given the other racial and ethnic categories, it was an important oversight to note.

The survey required introspection and self-report which in and of itself can be considered a limitation. Faculty were asked questions that required their own reflection of their thoughts,

feelings, actions, and beliefs of certain areas of their work, their function, and those around them. As with any amount of introspection, it is not a precise science and can be considered a limitation.

A final limitation for this study is based on the original criteria to participate in this study. The criteria was for the participant to have been at their current university for a minimum of two years. Since there was not a question on the survey that addressed this, nor was this mentioned in the information consent as a criteria to participate, it is unknown how long each participant has been at their current university. Since 99% of the participants have taught in higher education for 5+ years it is safe to say that there is enough experience by most all of the participants to adequately assess their perceptions for this study.

Suggestions for Future Research

There are several suggestions that came from this research that can be applied to future research. First, while this study accomplished the goal of predicting job burnout in Christian higher education faculty, to increase generalizability this study could be replicated to public universities, or community colleges. It might also be worthwhile to do a comparative study between Christian university faculty members, and public university faculty members.

Another suggestion for future research would be to conduct a study that would be farther-reaching in terms of trying to gain participants from multi-cultural backgrounds. While this survey in some ways mirrored the racial and ethnic backgrounds of higher education faculty in general, as our faculty become more diverse, it will important to hear from faculty from diverse backgrounds.

While there was a question in the survey asking about the faculty member's teaching discipline, this information was ultimately not included in this final report. A future study could

look specifically at the relationship between teaching discipline and three components of job burnout. For this study there also was no significance found between gender, age, and job burnout. However, if a larger sample size is used, this could be another area to explore. It might be interesting to explore gender differences and the three components of job burnout, and/or age as well.

Finally, while the first research question focused on perceived occupational stress, future studies could look at ways to improve, or offer assistance and recommendations, in managing and coping with occupational stress. During the literature review for this research study, there were many research studies that discussed stress as it relates to coping and resiliency. Both areas would be interesting to study in terms of occupational stress and faculty in higher education settings.

Conclusion

This study began with looking at the change in the occupation of being a faculty member in higher education. Much of the research supported the position that faculty used to be much more autonomous, had better control over their time and workload, but shifted to a higher-stress, more demanding career choice (Ablanedo-Rosas, et al., 2011; Gillespie, et al., 2001; Poalses & Bezuidenhout, 2018; Sestili et al., 2018; Watts & Robertson, 2011; Winefield, et al., 2014). Higher education faculty at Christian institutions were chosen because of the additional demands placed on them in order to stay more "biblically grounded" and make relationships, connections, and walk with students on their faith journeys (Meek, 2017, para. 5). The purpose of this study was to explore the extent to which faculty perceptions of occupational stress, job demands, and job resources are predictors of job burnout for faculty at Christian universities, specifically at CCCU institutions.

The goal of this research was to support faculty, as well as to educate and make administrators aware of the potential of job burnout, and the antecedents of this. The need to study occupational stress, job demands and resources, and job burnout was made clear by the extensive research on this that was uncovered in the literature review and discussed in Chapter Two. Occupational stress can not only affect the individual faculty member's overall physical, mental, and social health, but it can have a detrimental effect on those in their work environment, especially students they come in contact with. As for job demands, they require physical and/or psychological effort that is associated with physiological and/or psychological costs to the individual (Bakker & Demerouti, 2007). To counter this, areas of support of faculty can be physical, psychological, social, or organizational supports for actually doing the job, and/or to be able to keep up with the demands of the job (Rothman, et al., 2006). In terms of the importance in looking at job burnout in higher education, this concept can affect the organization, the individual, and also the people that the individual and the organization serves.

Research Question 1 focused on the extent to which occupational stress (as measured by the Perceived Stress Scale), could predict the three components of job burnout; exhaustion, cynicism, and professional efficacy. This research study was able to show significance of occupational stress as a predictor of exhaustion, one of the more salient components of job burnout. Research Question 2 focused on the extent to which job demands and resources could predict the three components of job burnout; exhaustion, cynicism, and professional efficacy. Each element of the Job Demands-Resources model (organizational support, workload, resources, advancement, job security) showed statistical significance to at least one component of job burnout.

What was learned from this research study can not only help educate faculty in higher education about occupational stress, job demands and job resources, and the role they play in job burnout, but it can also be used to educate administrators in higher education settings. Faculty have an important job to do in educating those in our communities and society, but also to maintain their own health and well-being. If there are positive changes made to the work-life of a faculty member that can improve not only their health and well-being, but for those that they come in contact with, then this study has served a purpose.

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Appendix A

Survey Questions

General Demographic Questions:

Gender:

• Male • Female • Other

Age:

• 24 & under • 25-34 • 35-44 • 45-54 • 55-64 • 65 & older

Number of years teaching in higher education:

• 4 & under • 5-9 years • 10-14 years • 15-19 years • 20 + years

Academic rank:

• Full Professor • Associate Professor • Assistant Professor • Instructor/Visiting Professor
• Other

Tenure status:

• Tenured • Non-Tenured • My job/institution does not have tenure

Discipline of teaching (fill in the blank): _____

Perceived Stress Scale (PSS) Questions:

For these questions please consider your current working environment only when answering.

Questions:	Never	Almost never	Sometimes	Fairly often	Very often
	0	1	2	3	4
In the last month, how often have you been upset because of something that happened unexpectedly?					
In the last month, how often have you felt that you were unable to control the important things in your life?					

In the last month, how often have you felt nervous and stressed?					
In the last month, how often have you felt confident about your ability to handle your personal problems?					
In the last month, how often have you felt that things were going your way?					
In the last month, how often have you found that you could not cope with all the things that you had to do?					
In the last month, how often have you been able to control irritations in your life?					
In the last month, how often have you felt that you were on top of things?					
In the last month, how often have you been angered because of things that happened that were outside of your control?					
In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?					

JD-R Scale

Question	Never	Seldom	Sometimes	Often	Always
	1	2	3	4	5
Do you have too much work to do?					
Do you work under time pressure?					
Do you have to work extra hard in order to complete something?					
Do you have to be attentive to many things at the same time?					

Do you have to give continuous attention to your work?					
Do you have to remember many things in your work?					
Are you confronted in your work with things that affect you personally?					
Do you have contact with difficult people in your work?					
Does your work put you in emotionally upsetting situations?					
Does your work require creativity?					
Does your work make sufficient demands on all your skills and capacities?					
Do you have enough variety in your work?					
Does your job offer you opportunities for personal growth and development?					
Does your work give you the feeling that you can achieve something?					
Does your job offer you the possibility of independent thought and action?					
Do you have freedom in carrying out your work activities?					
Do you have influence in the planning of your work activities?					
Can you participate in the decision about when a piece of work must be completed?					
Can you count on your colleagues when you come across difficulties in your work?					
If necessary, can you ask your colleagues for help?					
Do you get on well with your colleagues?					
Can you count on your supervisor when you come across difficulties in your work?					
Do you get on well with your supervisor?					
In your work, do you feel appreciated by your supervisor?					
Do you know exactly what other people expect of you in your work?					

Do you know exactly for what you are responsible and which areas are not your responsibility?					
Do you know exactly what your direct supervisor thinks of your performance?					
Do you receive sufficient information on the purpose of your work?					
Do you receive sufficient information on the results of your work?					
Does your direct supervisor inform you about how well you are doing your work?					
Are you kept adequately up-to-date about important issues within your department/organization?					
Is the decision-making process of your department/organization clear to you?					
Is it clear to you whom you should address within the department/organization for specific problems?					
Can you discuss work problems with your direct supervisor?					
Can you participate in decisions about the nature of your work?					
Do you have a direct influence on your department/organization's decisions?					
Do you have contact with colleagues as part of your work?					
Can you have a chat with colleagues during working hours?					
Do you find that you have enough contact with colleagues during working hours?					
Do you need to be more secure that you will still be working in one year's time?					
Do you need to be more secure that you will keep your current job in the next year?					
Do you need to be more secure that next year you will keep the same function level as currently?					

Do you think that your organization pays good salaries?					
Can you live comfortably on your pay?					
Do you think you are paid enough for the work that you do?					
Does your job offer you the possibility to progress financially?					
Does your organization give you opportunities to follow training courses?					
Does your job give you the opportunity to be promoted?					

Maslach Burnout Inventory (MBI) Questions

Questions:	Never	A few times per year	Once a month	A few times per month	Once a week	A few times per week	Every day
	0	1	2	3	4	5	6
I feel emotionally drained by my work.							
I feel used up at the end of the workday.							
I feel tired when I get up in the morning and have to face another day on the job.							
Working all day is really a strain for me.							
I can effectively solve the problems that arise in my work.							
I feel burned out from my work.							
I feel I am making an effective contribution to what this organization does.							
I have become less interested in my							

work since I started this job.							
I have become less enthusiastic about my work.							
In my opinion, I am good at my job.							
I feel exhilarated when I accomplish something at work.							
I have accomplished many worthwhile things in this job.							
I just want to do my job and not be bothered.							
I have become more cynical about whether my work contributes anything.							
I doubt the significance of my work.							
At my work, I feel confident that I am effective at getting things done.							

Two Additional Questions:

	Disagree	Somewhat Disagree	Neutral	Somewhat agree	Strongly agree
	1	2	3	4	5
Others around me at work appear to be under a lot of stress.					
How important is your faith to you?"					

Appendix B

George Fox University IRB Proposal

Informed Consent

RESEARCH SUBJECT INFORMED CONSENT FORM

Prospective Research Subject: Read this consent form carefully and ask as many questions as you like before you decide whether you want to participate in this research study. You are free to ask questions at any time before, during, or after your participation in this research.

Project Information	
Project Title: Christian Higher Education Faculty's Perceptions of Occupational Stress, Job Demands, and Job Resources as Predictors of Job Burnout	Project Number:
Site IRB Number:	Sponsor: George Fox University's Doctor of Education program
Principal Investigator: Michelle Shelton, MA	Organization: George Fox University
Location: Newberg, OR	Phone: 503-200-7671
Other Investigators: Scot Headley, PhD (Chair)	Organization: George Fox University
Location: Newberg, OR	Phone: 503-554-2836

1. ***PURPOSE OF THIS RESEARCH STUDY***
    - The first purpose of this research is to explore to what extent perceived levels of occupational stress are a predictor of job burnout with faculty at Christian universities.
    - The second purpose it to explore to what extent are perceived levels of job demands and job resources are a predictor of job burnout with faculty at Christian universities.
2. ***PROCEDURES***
    - Participants will be asked to complete a survey that includes the Perceived Stress Scale (PSS) (10 items), the Maslach Burnout Inventory General Survey (MBI-GS-16 items), and the Job Demands-Resource (JD-R) Scale (48 items), and 6 demographic questions such as gender, years of teaching, tenure status, discipline, rank, and age. There will be 80 questions total.

- This is a voluntary, non-experimental survey.
- This survey should take approximately 25 minutes
- This survey will be emailed via Survey Monkey and surveys will be collected for the period of 3-4 weeks.

3. ***POSSIBLE RISKS OR DISCOMFORT***
   - There is a minimal risk of the loss of time in taking this survey.
   - Typical psychological burden from taking a survey of this kind that talks about stress and burnout.
   - A slight risk of increasing stress levels due to the topics addressed in the survey; but long-term risks should be minimal
4. ***OWNERSHIP AND DOCUMENTATION OF SPECIMENS***
   - All data collected via this survey will be stored on a secured flash drive and kept in a locked office drawer in the researcher's office. After a period of five years the flash drive will be properly destroyed.
   - The data in this survey may be used in future research studies for a period of up to five years after the completion of the survey.
5. ***POSSIBLE BENEFITS***
   - The benefits of acknowledging stress and burnout can lead to life outcomes that can reduce these two areas, which can greatly benefit the individual and the organization.
6. ***FINANCIAL CONSIDERATIONS***
   - There is no monetary cost associated with completing this survey. After successfully completing the survey participants will be entered into a random drawing for one of eight $25 Amazon e-gift cards by volunteering their email information.
7. ***AVAILABLE TREATMENT ALTERNATIVES***
   - N/A
8. ***AVAILABLE MEDICAL TREATMENT FOR ADVERSE EXPERIENCES***
   - This study does not involve a medical risk.
9. ***CONFIDENTIALITY***
   - The participant's identity in this study will be treated as confidential. The results of the study, may be published for scientific purposes but will not give your name or include any identifiable references to the participant.

     However, any records or data obtained as a result of your participation in this study may be inspected by the sponsor, by any relevant governmental agency (e.g., U.S. Department of Energy), by the(your site name) Institutional Review Board, or by the persons conducting this study, (provided that such inspectors are legally obligated to protect any identifiable information from public disclosure, except where disclosure is otherwise required by law or a court of competent jurisdiction. These records will be kept private in so far as permitted by law. No names will be attached to this survey.

10. ***TERMINATION OF RESEARCH STUDY***
    - Participants are free to choose whether or not to participate in this study. There will be no penalty or loss of benefits if they choose not to participate.

11. AVAILABLE SOURCES OF INFORMATION

- Any further questions you have about this study will be answered by the Principal Investigator: Michelle Shelton
  Phone Number: 503-200-7671

- Any questions you may have about your rights as a research subject will be answered by:

  Name: Michelle Shelton, MA
  Phone Number: 503-200-7671 or

  Name: Scot Headley, PhD (Chair)
  Phone: 503-554-2836 or

  Name: Chris Koch, PhD (IRB Chair)
  Phone: 503-554-2744

12. AUTHORIZATION

I have read and understand this consent form, and I volunteer to participate in this research study. I understand that I will receive a copy of this form. I voluntarily choose to participate, but I understand that my consent does not take away any legal rights in the case of negligence or other legal fault of anyone who is involved in this study. I further understand that nothing in this consent form is intended to replace any applicable Federal, state, or local laws.

Participant Name (Printed or Typed):
Date:

Participant Signature:
Date:

Principal Investigator Signature:
Date:

Signature of Person Obtaining Consent:
Date:

Appendix C

Informed Consent Form

Title of the Study: Christian Higher Education Faculty's Perceptions of Occupational Stress, Job Demands, and Job Resources as Predictors of Job Burnout

George Fox University IRB Approval Date: 12/4/2019 by Dr. Chris Koch, GFU.

Principle Researcher: Michelle E. Shelton, MA, sheltonm@georgefox.edu

Dissertation Chair/Other Investigator: Dr. Scot Headley, sheadley@georgefox.edu

Description of the Study: Michelle Shelton is a doctoral candidate who is completing this research study in partial fulfillment of the requirements for a Doctor of Education degree at George Fox University in Newberg, Oregon. The first purpose of this research is to explore to what extent perceived levels of occupational stress are a predictor of job burnout with faculty at Christian universities who are part of the Christian Council for Colleges and Universities (CCCU). The second purpose it to explore to what extent are perceived levels of job demands and job resources are a predictor of job burnout with faculty at Christian universities at CCCU schools.

If you agree to take part in this research study you will completing an online survey that should take approximately 25 minutes to complete. This survey will ask questions about your perceptions of your occupational stress and job burnout. A crisis line is provided should you need this resource, now or in the future: please call 1-800-273-TALK (8255) to talk with a trained counselor.

Your responses will be **anonymous.** Participating in this survey is completely voluntary, and you may withdraw from this survey at any time. This survey will not contain information that will identify you as a participant. The results of this survey will be stored on a flash drive in

a secure location where only the researcher can get to it. Results of this survey will only be used for scholarly purposes. This survey has been reviewed by the George Fox University Institutional Review board, and has been approved for this usage.

There is no monetary cost associated with completing this survey. After successfully completing the survey, if you volunteer your email information, you will be entered into a random drawing for one of eight $25 Amazon e-gift cards.

By clicking on the below link to start this survey you are agreeing to the following terms:

1. You are willing to take part in this survey.
2. You have read the information contained in the informed consent and understand that this survey is anonymous and voluntary.
3. You understand that your responses to this survey will be kept confidential and that you may withdraw from this survey at any time.

Survey Monkey link inserted here

Appendix D

Assumptions

Table D1.

Durbin-Watson Test for Independence (DV: MBI Exhaustion)

Model Summary[b]

	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
	.817[a]	.667	.637	.89042	2.451

a. Predictors (IVs): (Constant), (MBI.Cynicism), (JDR.Resources.mean), (MBI.Professional Efficacy), (JDR.Workload.mean), (JDR.Job Security.mean), (JDR.Advancement.mean), (Perceived Stress Scale.Total), (JDR.Organizational Support.mean)
b. Dependent Variable: (MBI.Exhaustion)

Table D2.

Durbin-Watson Test for Independence (DV: MBI Cynicism)

Model Summary[b]

	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.767[a]	.589	.552	1.03291	1.850

a. Predictors (IVs): (Constant), (MBI.Professional Efficacy), (JDR.Workload.mean), (JDR.Resources.mean), (JDR. Job Security.mean), (JDR.Advancement.mean), (Perceived Stress Scale.Total), (JDR.Organizational Support.mean), (MBI.Exhaustion)
b. Dependent Variable: (MBI.Cynicism)

Table D3.

Durbin-Watson Test for Independence (DV: Professional Efficacy)

Model Summary[b]

	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
	.678[a]	.459	.410	.70428	2.027

a. Predictors (IVs): (MBI.Cynicism), (JDR.Resources.mean), (JDR.Workload.mean), (JDR.Advancement.mean), (JDR. Job Security.mean), (Perceived Stress Scale.Total), (JDR.Organizational Support.mean), (MBI.Exhaustion)
b. Dependent Variable: (MBI.Professional Efficacy)

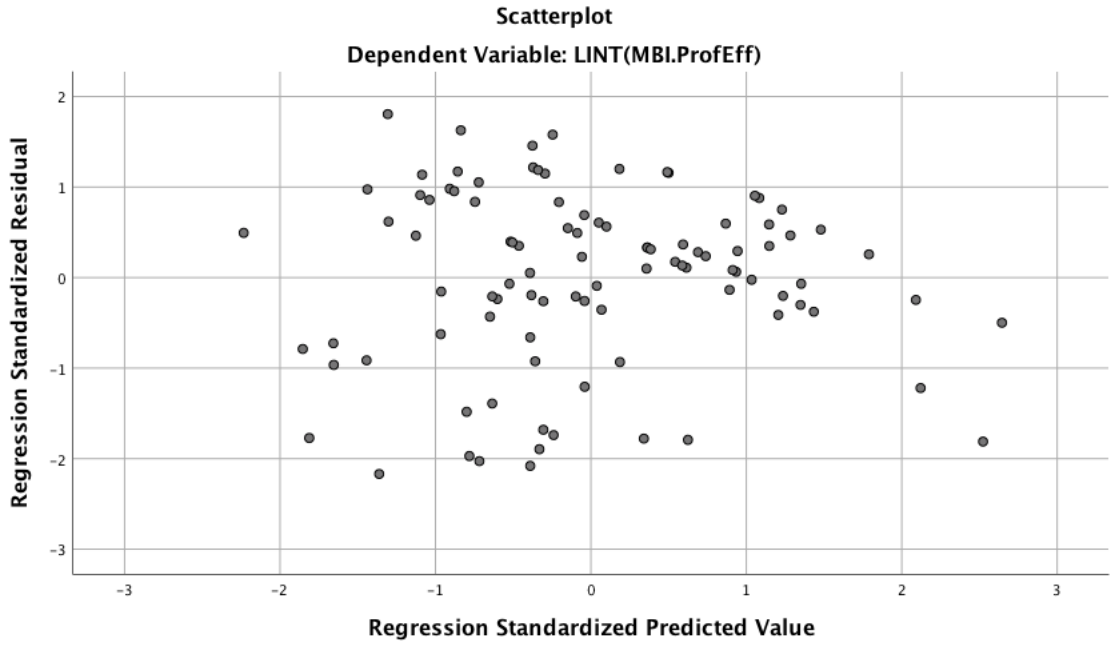

Figure D1. Homoscedasticity scatterplot for the dependent variable of MBI Professional Efficacy.

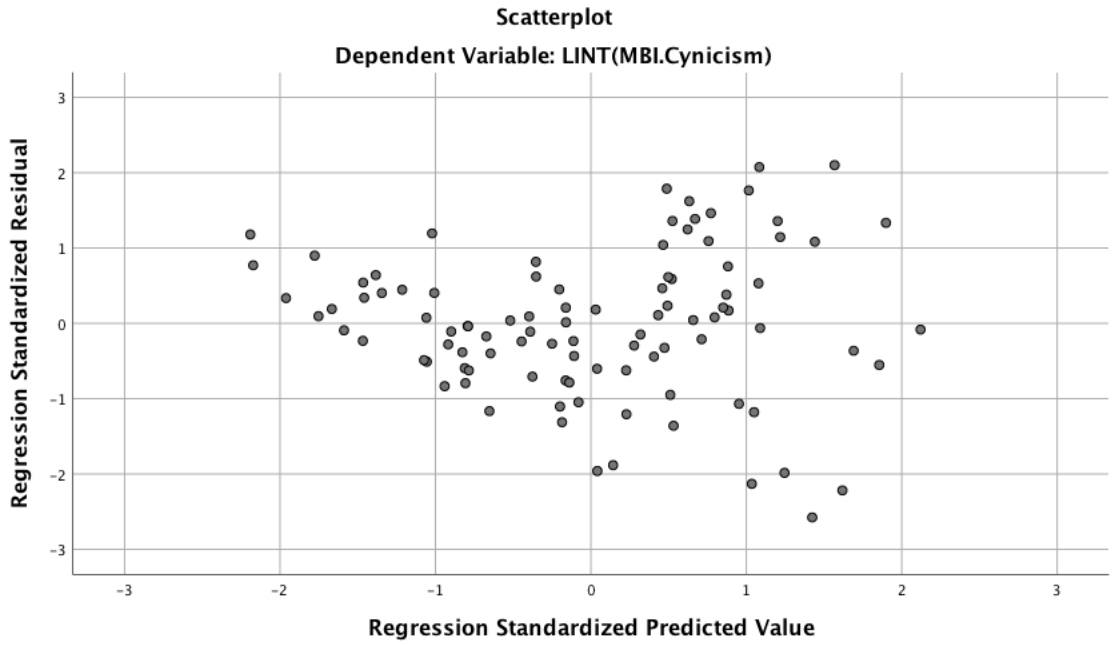

Figure D2. Homoscedasticity scatterplot for the dependent variable of MBI Cynicism.

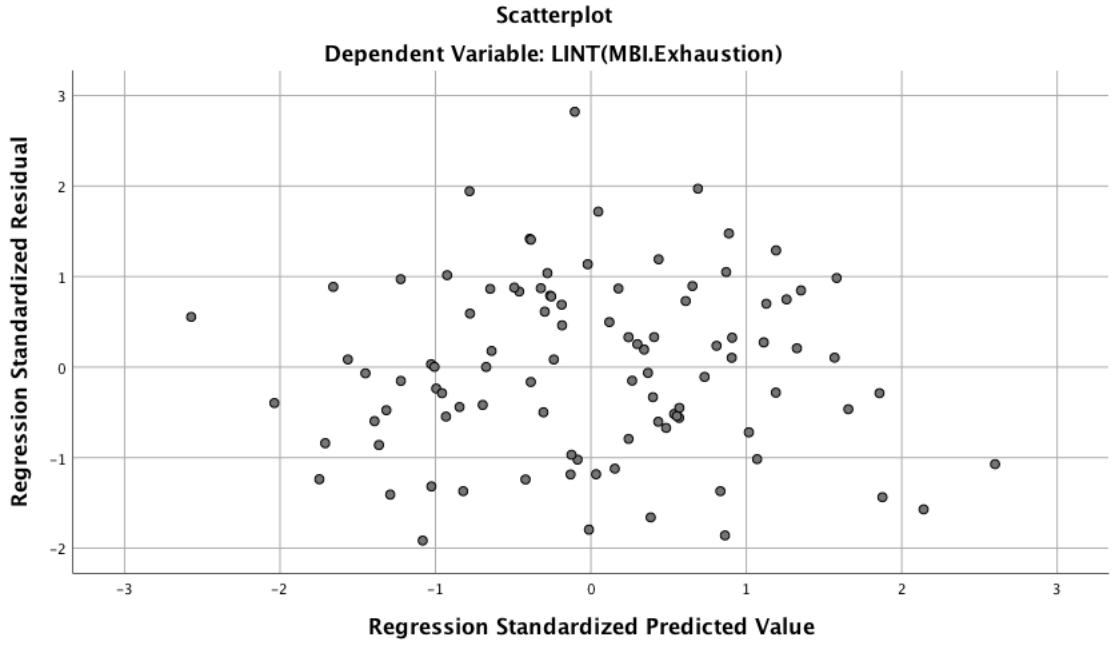

Figure D3. Homoscedasticity scatterplot for the dependent variable of MBI Exhaustion.

Table D4.

Test of Collinearity: DV Exhaustion

Dependent Variable: MBI Exhaustion	Collinearity Statistics	
	Tolerance	VIF
Perceived Stress Scale Total	.562	1.781
MBI. Professional Efficacy	.624	1.602
MBI. Cynicism	.489	2.043
JDR. Org Support (Mean)	.428	2.335
JDR. Workload (Mean)	.666	1.502
JDR. Resources (Mean)	.550	1.817
JDR. Advancement (Mean)	.570	1.756
JDR. Job Security (Mean)	.638	1.567

Table D5.

Test of Collinearity: DV Cynicism

Dependent Variable: MBI Cynicism	Collinearity Statistics	
	Tolerance	VIF
Perceived Stress Scale Total	.520	1.923
MBI. Professional Efficacy	.553	1.809
MBI. Exhaustion	.396	2.527
JDR. Org Support (Mean)	.431	2.320
JDR. Workload (Mean)	.520	1.925
JDR. Resources (Mean)	.543	1.842
JDR. Advancement (Mean)	.636	1.573
JDR. Job Security (Mean)	.695	1.438

Table D6.

Test of Collinearity: DV Professional Efficacy

Dependent Variable: MBI Professional Efficacy	Collinearity Statistics	
	Tolerance	VIF
Perceived Stress Scale Total	.523	1.911
MBI. Exhaustion	.384	2.604
MBI. Cynicism	.421	2.378
JDR. Org Support (Mean)	.493	2.028
JDR. Workload (Mean)	.581	1.721
JDR. Resources (Mean)	.576	1.736
JDR. Advancement (Mean)	.593	1.686
JDR. Job Security (Mean)	.640	1.564

Table D7.

Test of Collinearity: DV Perceived Stress Scale

Dependent Variable: Perceived Stress Scale Total	Collinearity Statistics	
	Tolerance	VIF
MBI. Exhaustion	.365	2.738
MBI. Cynicism	.418	2.391
MBI. Professional Efficacy	.554	1.807
JDR. Org Support (Mean)	.417	2.401
JDR. Workload (Mean)	.525	1.904
JDR. Resources (Mean)	.551	1.816
JDR. Advancement (Mean)	.549	1.820
JDR. Job Security (Mean)	.642	1.559

Table D8.

Test of Collinearity: DV Organizational Support

Dependent Variable: JDR Organizational Support	Collinearity Statistics	
	Tolerance	VIF
Perceived Stress Scale Total	.512	1.952
MBI. Exhaustion	.343	2.918
MBI. Cynicism	.426	2.345
MBI. Professional Efficacy	.641	1.559
JDR. Workload (Mean)	.523	1.913
JDR. Resources (Mean)	.748	1.336
JDR. Advancement (Mean)	.556	1.797
JDR. Job Security (Mean)	.640	1.562

Table D9.

Test of Collinearity: DV Workload

Dependent Variable: JDR Workload	Collinearity Statistics	
	Tolerance	VIF
Perceived Stress Scale Total	.525	1.905
MBI. Exhaustion	.433	2.311
MBI. Cynicism	.418	2.395
MBI. Professional Efficacy	.614	1.629
JDR. Org Support (Mean)	.425	2.354
JDR. Resources (Mean)	.566	1.766
JDR. Advancement (Mean)	.562	1.780
JDR. Job Security (Mean)	.673	1.487

Table D10.

Test of Collinearity: DV Resources

		Collinearity Statistics	
Dependent Variable: JDR Resources		Tolerance	VIF
	Perceived Stress Scale Total	.526	1.902
	MBI. Exhaustion	.342	2.927
	MBI. Cynicism	.417	2.399
	MBI. Professional Efficacy	.581	1.720
	JDR. Org Support (Mean)	.581	1.722
	JDR. Workload (Mean)	.541	1.849
	JDR. Advancement (Mean)	.574	1.743
	JDR. Job Security (Mean)	.640	1.562

Table D11.

Test of Collinearity: DV Advancement

		Collinearity Statistics	
Dependent Variable: JDR Advancement		Tolerance	VIF
	Perceived Stress Scale Total	.514	1.947
	MBI. Exhaustion	.346	2.887
	MBI. Cynicism	.478	2.092
	MBI. Professional Efficacy	.586	1.705
	JDR. Org Support (Mean)	.423	2.365
	JDR. Workload (Mean)	.526	1.902
	JDR. Resources (Mean)	.562	1.780
	JDR. Job Security (Mean)	.639	1.565

Table D12.

Test of Collinearity: DV Job Security

Dependent Variable: JDR Job Security	Collinearity Statistics Tolerance	VIF
Perceived Stress Scale Total	.515	1.943
MBI. Exhaustion	.333	3.004
MBI. Cynicism	.449	2.229
MBI. Professional Efficacy	.542	1.844
JDR. Org Support (Mean)	.417	2.396
JDR. Workload (Mean)	.540	1.852
JDR. Resources (Mean)	.538	1.859
JDR. Advancement (Mean)	.548	1.824

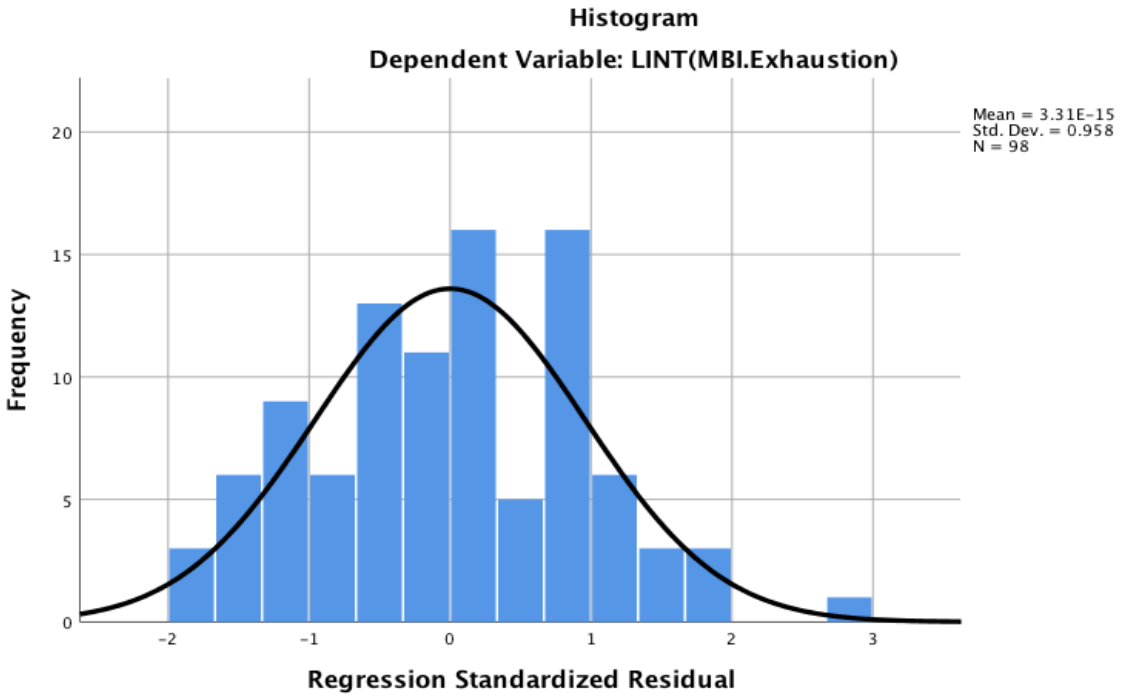

Figure D4: Histogram for DV Exhaustion

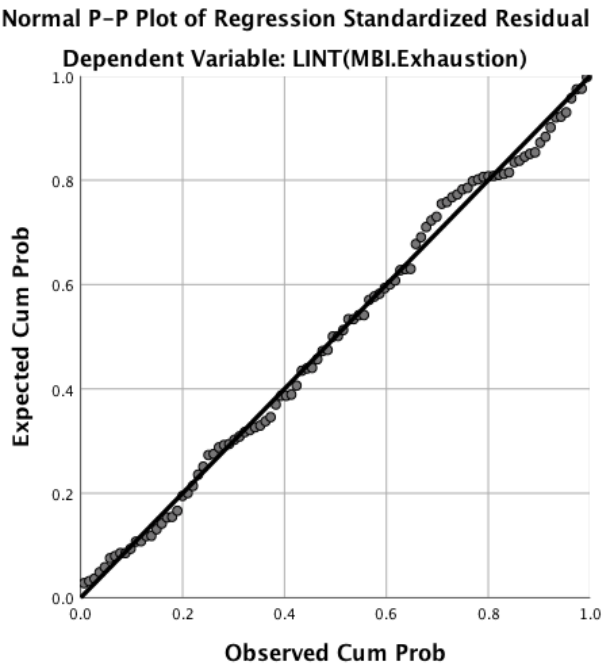

Figure D5: P-plot for DV Exhaustion

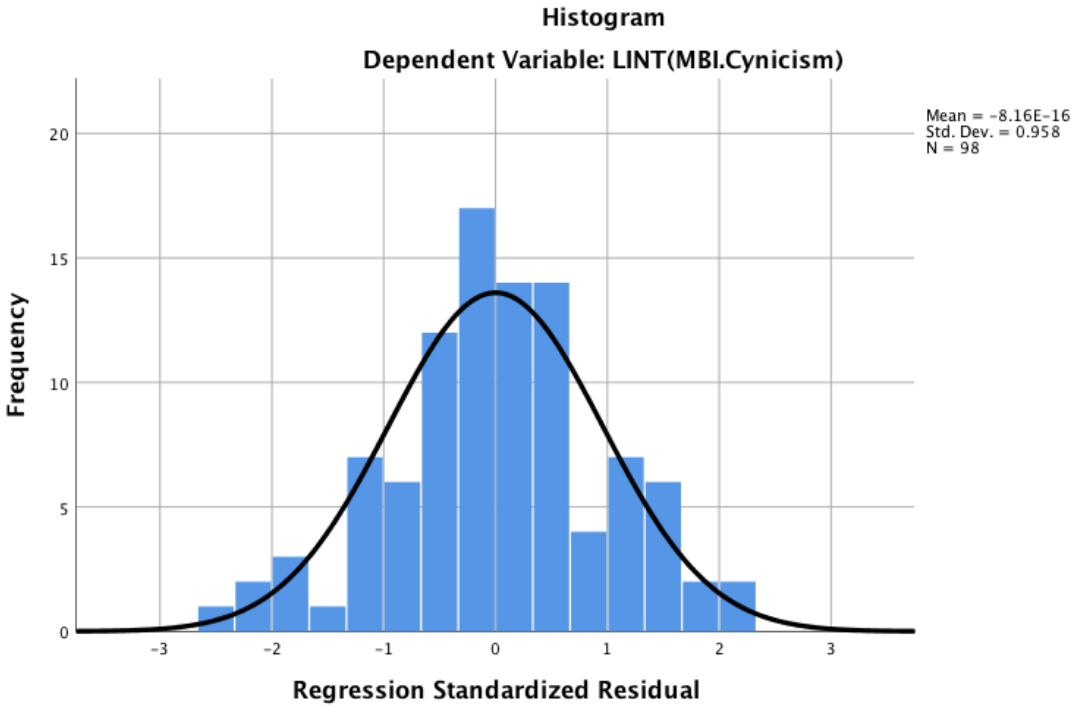

Figure D6: Histogram for DV Cynicism

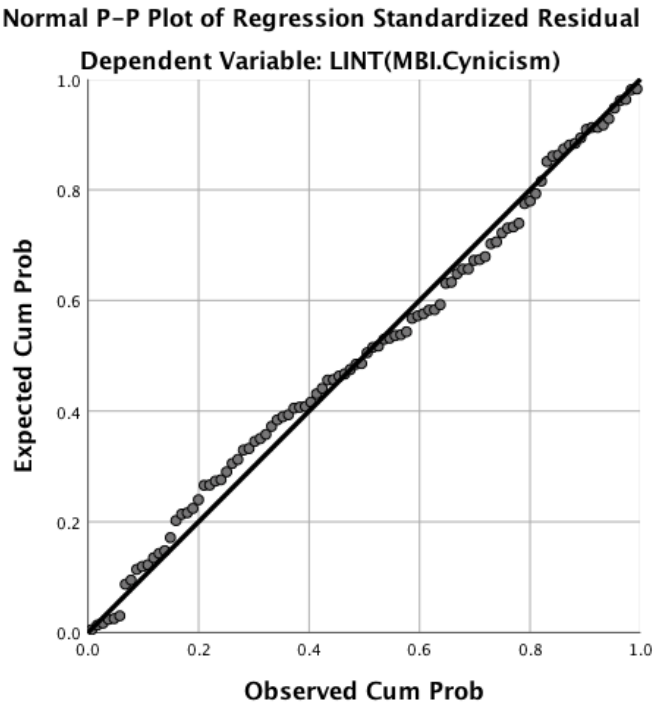

Figure D7: P-plot for DV Cynicism

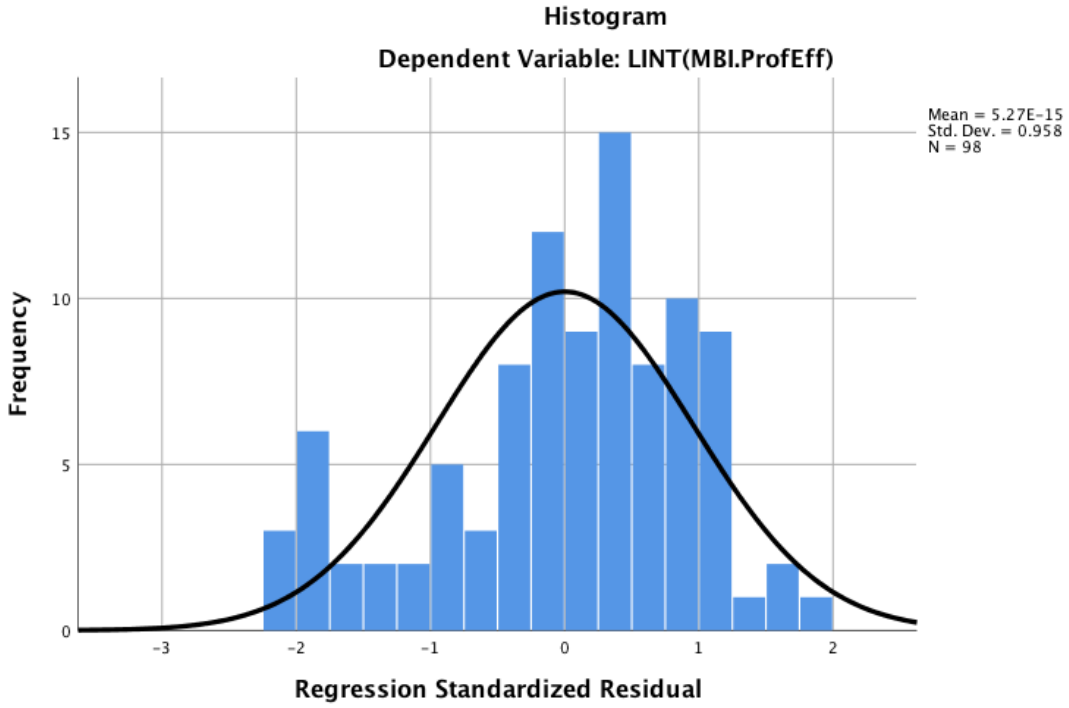

Figure D8: Histogram for DV Professional Efficacy

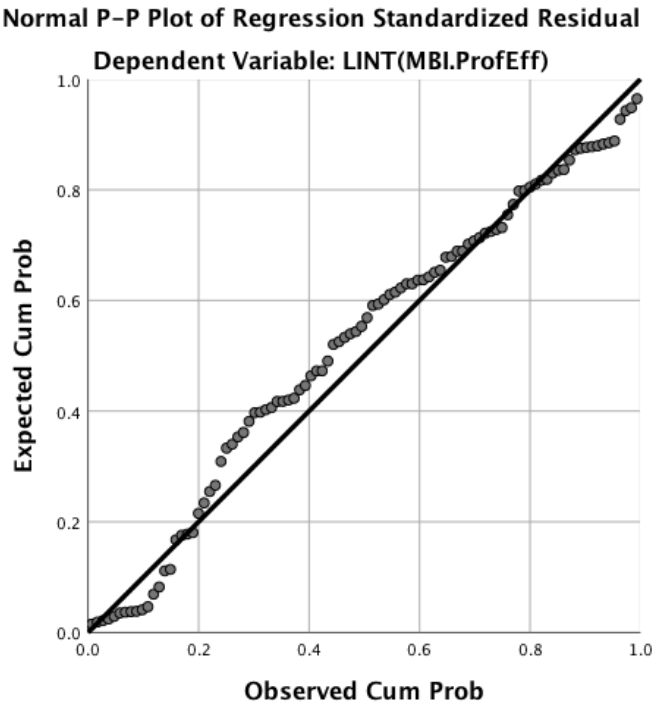

Figure D9: P-plot for DV Professional Efficacy