2015

Effect of Burnout and Organizational Commitment on the Turnover Intention of Clinical Laboratory Employees in Florida

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2015

Abstract

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MA, Ashford University, 2011

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Dissertation Submitted in Partial Fulfillment

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Doctor of Philosophy

Health Services

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Abstract

The field of clinical laboratory science is experiencing a critical shortage of qualified professionals. Because health care practitioners depend on the results of laboratory tests to help diagnosis and treat patients, it is important to address the current and future shortage in the laboratory workforce. There is limited research on factors affecting the turnover intentions of clinical laboratory employees. Accordingly, the research questions for this study examined the effect of burnout (BO) and organizational commitment (OC) on the turnover intention of laboratory employees in Florida. A cross-sectional survey design was used to examine the relationship between BO and OC on turnover intentions. Data were collected from licensed clinical laboratory directors, supervisors, technologists, and technicians using the following scales: demographic questionnaire, Maslach Burnout Inventory – General Survey, and Organizational Commitment Questionnaire. Linear regression and ANOVA were used to examine the relationships between these variables. The response rate was 18.4% (N = 184). Among clinical laboratory employees in Florida, the findings revealed significant predictive relationships between BO and turnover intention, OC and turnover intention, age and BO, and work shift and OC among clinical laboratory employees in Florida. Potential implications for positive social change from this study include reducing turnover among laboratory employees by allowing laboratory managers to create strategies that will reduce BO and increase OC, and thus decrease turnover intention.

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Dedication

I would like to dedicate my dissertation to my family. To my Grandparents, Rosa Hilton and the late Ezekiel Hilton, you are both my greatest inspiration. To my mother Sharon, father Mike, my brother DeVonte, and aunts, Carrie and Zella, thank you all for your continued love and support.

Acknowledgments

Completing my doctoral degree has always been a dream of mine and accomplishing this goal would not have been possible without the help of many people along the way. First, I would like to thank God for blessing me with this opportunity and giving me the strength and courage to do something that most people only dream about. I would like to thank my family and friends for their support and encouragement throughout this process.

I would like to say a special thank you to my dissertation committee chair, Dr. Jeff Snodgrass. Thank you for being a coach and mentor throughout my dissertation journey. Thank you for your guidance and support. I would also like to thank my committee members, Dr. Kourtney Nieves and Dr. Mehdi Agha, for all of their support, feedback, and guidance to help me get to this point. I would like to say a special thank you to everyone who was involved in helping to make this accomplishment possible. Thank you!

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Chapter 1: Introduction to the Study

Introduction

Health care is one of the fasting growing industries today (Moore, Eyestone, & Coddington, 2014). With the continuous advancements in medicine and technology (Reig, Valverde, & Reig, 2015), the health care industry is constantly changing and it requires talented personnel to carry out organizations' mission and vision. Health care professionals play a significant role in providing specialized medical care and treatment to patients. The overall success of medical facilities greatly depends on employees; and a lack of adequate health care staff to operate both efficiently and effectively produces many challenges for health care organizations. Unfortunately, the effects of staffing shortages are being felt by hospitals and other health care organizations all across the world (Christmas & Hart, 2007; Dorman et al., 2009; Scheffler, Liu, Kinfu, & Dal Poz, 2008).

The World Health Organization (WHO, 2013) reported that the world is currently short of 7.2 million health care workers and it is predicted that by the year 2035, this shortage is expected to grow to a deficit of 12.9 million health care workers. Here in the United States, the workforce shortages among health care workers are only expected to get worse in the years to come. According to a study conducted for the Association of American Medical Colleges, the physician shortage in the United States is expected to be between 46,000 and 90,000 physicians by the year 2025 (AAMC, 2015). Models forecast that the shortages among registered nurses in the United States could reach up to 1 million by the year 2020 (Juraschek, Zhang, Ranganathan, & Lin, 2012). The

workforce shortages are not limited to just certain health professions; health care as a whole is experiencing a crisis in the shortage of qualified personnel to fill positions, and the shortage is expected to intensify in the future.

Workforce shortages can be seen at hospitals, clinics, and other medical facilities across the United States. The growing workforce shortage is a major challenge that the healthcare industry is facing and will continue to face in the near future. Inadequate staffing can potentially have a negative effect on current employees as well as patient care. A contributing factor to the current health care workforce shortage is that many employees are leaving their current positions (Mosadeghrad, 2013). When an employee decides to leave his or her job, this is also known as voluntary turnover (Mosadeghrad, 2013). This type of turnover leaves health organization leaders spending a lot of time focusing on ways to recruit and retain talented, qualified employees. It is well-known that the total cost of employee turnover is high (Turpin, 2008). When employees leave an organization, there are many financial costs associated with this event. According to Waldman, Kelly, Arora, and Smith (2004), turnover cost includes hiring, training, and productivity loss costs. Therefore, an organization that has a high turnover rate can be affected by these high cost. It is less expensive for organizations to prevent staff turnover (Turpin, 2008).

There are also nonfinancial costs associated with organizations and departments that have a high turnover of employees. An example is the work-related stress suffered by current employees having to work while being understaffed. Being under-staffed can put a lot of work-related stress and pressure on the employees who remain and can have

many negative effects. Some of these negative effects could include stressful working environments, possible restrictions on taking time off due to staffing shortage, and/or employees having to work overtime in order to fill in where needed. Therefore, knowing if employees are considering leaving their current positions and the reasons why they might be leaving their current positions is important in addressing the shortages that are being felt across the health care industry.

Considerable research focused on the shortages that are affecting the nursing field (Goodin, 2003; Laschinger & Finegan, 2005; Martin, 2015; Yedidia, 2014). Addressing the nursing shortage is very important, as nurses make up the majority of hospital staff. However, staffing shortages are affecting other health care professions as well, and the shortages in these areas tend to be less publicized. Specifically, many are unaware of the shortages affecting the clinical laboratory and the reasons behind this shortage. The effects of the shortage of workers in the clinical laboratory department not only affect those working within these departments, but also affect those working in other departments within health care as well, having potentially fatal effects. The clinical laboratory provides approximately 80% of the information that health care practitioners use to make decisions regarding patient care and treatment (Browning, 2004). According to Browning (2004), "a shortage of labor affects a laboratory's ability to meet physician demands for accurate test results, which can affect patient safety and in turn result in an increased patient length of stay-all to the detriment of a hospital's bottom line" (p.24). Therefore, the issue of shortages in clinical laboratories is important and warrants further investigation given the lack of recent research in this area. Thus, this study was needed

to further examine why laboratory personnel are leaving their jobs. This study has the potential to positively affect social change by addressing turnover rates of clinical laboratory employees by allowing laboratory leaders to better understand the underlying issues in order to implement strategies that will improve the lab's work environment by decreasing job burnout and increasing organizational commitment, thus decreasing turnover intentions among these employees.

Chapter 1 includes a discussion of the background of the problem and details the current shortage in laboratory workers, followed by a statement of the problem. Next, the purpose of the study, research questions and hypotheses, and the theoretical framework are presented. Also, included in this chapter is a discussion on the nature of the study, assumptions, delimitations, limitations, and definition of terms. Lastly, the significance of the study will be addressed.

Background of the Problem

The growing workforce shortage can be seen in allied health professions as well (Chisholm, Russell, & Humphreys, 2011). Allied health professionals are health care providers who are not nurses or physicians, who have received specialized training, and "provide a broad range of services in acute care, aged care, rehabilitation, diagnosis, health promotion, early intervention, oral health, and mental health" (Keane, Smith, Lincoln, & Fisher, 2011, p.38). The allied health field includes those who work in the clinical laboratory department. There are many dimensions to this shortage, and understanding the reasons for it is essential to formulating an effective strategy to alleviate it (Hilbourne, 2008).

Clinical laboratory technologists and technicians are allied health care professionals who play a very important role in the health care community. Clinical laboratory technologists are also known as medical technologists and medical laboratory scientists and clinical laboratory technicians are also known as medical laboratory technicians. Clinical laboratory technologists and technicians are highly skilled individuals who have received specialized academic and clinical training in the field of laboratory science and these individuals work in the clinical laboratory department of health care organizations and perform a wide range of complex testing on tissue, blood, and other body fluids in areas such as hematology, clinical chemistry, microbiology, immunohematology, immunology, and flow cytometry (Cortelyou-Ward, Ramirez, & Rotarius, 2011). These individuals provide critical information to medical staff that is needed for diagnosis, prognosis, and management of disease. Clinical laboratory directors and supervisors play a key role in providing leadership, strategic direction, and monitoring and controlling the daily operations of laboratory departments (Cortelyou-Ward, Ramirez, & Rotarius, 2011).

The clinical laboratory has been referred to as a hidden profession, because laboratory employees often work behind the scene in health care with little to no patient contact and thus are not commonly viewed by the public (Beckering & Brunner, 2003). However, the laboratory is a critical component of patient care and as physicians and nurses become more reliant on diagnostic testing to make medical decisions, the lack of qualified laboratory personnel poses a significant risk to accurate patient diagnosis and timely patient care.

Several factors contribute to the shortage of qualified laboratory workers. One contributing factor to the laboratory workforce shortage has been the decline in the number of laboratory science training programs in the country over the past decades. According to the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) 2013 annual report, the number of medical laboratory technologist training programs across the nation has dropped from 709 programs in 1975 to 229 programs in 2013. Another contributing factor to this shortage is that over the past years, the numbers of students that are enrolling in laboratory science training programs are down; thus, forcing many colleges and even hospital-based training programs to close their doors. There are not enough new graduates being produced to keep up with the demand. Therefore, retaining those individuals who are currently employed is critical to dealing with the shortage. Another issue is that many laboratories are continuing to see an increase in the turnover rate of employees as individuals are leaving their current positions for various reasons. Thus, uncovering the reasons why people intend to leave their jobs in the laboratory is important in helping laboratory and hospital administrators develop ways to tackle this issue.

Turnover intention, organizational commitment, and job burnout have been studied across various occupations, but have not been studied recently among clinical laboratory workers. Therefore, in an effort to alleviate workforce shortages, this research study was needed to further examine organizational commitment and job burnout to determine what role they play in the turnover among clinical laboratory workers.

Statement of the Problem

According to the U.S. Bureau of Labor and Statistics (2014), employment of medical and clinical laboratory technologists and technicians is expected to grow by 22% between 2012 and 2022. This growth is considered to be much faster than the average growth rate of 11% for all occupations. With the average laboratory worker nearing retirement age (Cortelyou-Ward, 2011), it is important for laboratory directors and hospital administrators to retain current employees as well as recruit and retain new employees in order to replace those who will soon be retiring and also to fill newly created positions.

As the demand for laboratory professionals continues to grow, it is important to understand why clinical laboratory employees might leave their job. Recently, researchers have identified job burnout and organizational commitment as important factors affecting the turnover intentions of various health care workers including occupational therapists, nurses, and physicians (Scanlan & Still, 2013; Zhang & Feng, 2011; Al-Hussami, Darawad, Saleh, & Hayajneh, 2014). However, there is a lack of research on the factors that affect turnover intentions among clinical laboratory workers. For example, Bamberg, Akroyd, & Moore (2008) looked at factors that impact clinical laboratory scientists' commitment to their organization, but did not correlate organizational commitment with the turnover intention of these employees. In an article on burnout, Dr. Michael Astion mentioned that "while more than 200 published studies describe burnout in medical professionals such as nurses, physicians, and medical students, to my knowledge, there are no peer-reviewed studies of clinical laboratory

workers" (Astion, 2013). Therefore, this study sought to fill this gap in the literature by addressing the research problem of whether job burnout and organizational commitment impact the turnover intentions of clinical laboratory workers in the state of Florida. Understanding the influence that job burnout and organizational commitment have on the laboratory employee's decision to leave or stay in an organization is important in helping to address the workforce shortage issue.

Purpose of the Study

The purpose of this quantitative research study was to investigate the influence of burnout and organizational commitment on the turnover intentions of clinical laboratory employees in Florida. Research was needed to explore whether job burnout relates to the high turnover rate among clinical laboratory employees and what effect does organizational commitment has on the intent to stay of these employees. Therefore, this study focused on exploring and examining the influence of the independent variables, job burnout and organizational commitment, as they pertain to the dependent variable, turnover intention, of clinical laboratory employees within an organization. Also, this study was designed to determine the influence that demographic variables have on job burnout, organizational commitment, and turnover intention of clinical laboratory employees. For this cross-sectional study, turnover intention was assessed using the measures of the Maslach Burnout Inventory-General Survey (MBI-GS), the Organizational Commitment Questionnaire (OCQ), and a demographics survey to test the hypotheses.

Research Questions and Hypotheses

This study was guided by the following research questions and hypotheses:

Research Question 1: What effect does job burnout have on the turnover intentions of clinical laboratory employees in Florida?

Null Hypothesis 1: Job burnout, as measured by the MBI-GS, will have no relationship with the turnover intentions, as measured by the demographics survey, of clinical laboratory employees in Florida.

Alternative Hypothesis 1: Job burnout, as measured by the MBI-GS, will have a significant relationship with the turnover intentions, as measured by the demographic survey, of clinical laboratory employees in Florida.

Research Question 2: What effect does organizational commitment have on the turnover intentions of clinical laboratory employees in Florida?

Null Hypothesis 2: Organizational commitment, as measured by the OCQ, will have no relationship with the turnover intentions, as measured by the demographics survey, of clinical laboratory employees in Florida.

Alternative Hypothesis 2: Organizational commitment, as measured by the OCQ, will have a significant relationship with the turnover intentions, as measured by the demographics survey, of clinical laboratory employees in Florida.

Research Question 3: What effect do demographic variables have on burnout, organizational commitment, and turnover intentions?

Null Hypothesis 3: Demographic variables, as measured by the demographics survey, will not influence burnout and organizational commitment, as measured by the MBI-GS and OCQ, and turnover intentions, as measured by the demographics survey.

Alternative Hypothesis 3: Demographic variables, as measured by the demographics questionnaire, will influence burnout and organizational commitment, as measured by the MBI-GS and OCQ, and turnover intentions, as measured by the demographics survey.

Theoretical Framework

The theoretical framework used in this study integrated three major concepts: Maslach's burnout theory, the organizational commitment theory by Porter, Steers, Mowday, and Boulian, and Mobley's theory of turnover. These three theories have been used by researchers to explore the variables related to this study: job burnout, organizational commitment, and turnover intention.

Job Burnout

In this research study, I examined job burnout among clinical laboratory employees from the perspective of Maslach and Jackson's (1981) burnout theory which claims that negative attitudes and feelings about one's job and job performance can occur when exposed to emotional stressors on the job for a long period of time. Burnout is comprised of three different aspects: emotional exhaustion, depersonalization/cynicism, and personal accomplishment/professional efficacy (Maslach & Jackson, 1981; Morgan, de Bruin, & de Bruin, 2014). Emotional exhaustion refers to feelings of being depleted of emotional resources and feelings of being emotionally overextended (Maslach &

Florian, 1988; Maslach & Jackson, 1981). It is likely the first phase of burnout (Leiter & Maslach, 1988). Depersonalization/cynicism refers to a negative attitude about oneself, clients, and others with whom one works (Maslach & Florian, 1988; Maslach & Jackson, 1981; Morgan et al., 2014). Reduced personal accomplishment/professional efficacy refers to the tendency to evaluate one's own work negatively and to feel unsatisfied with job accomplishments (Maslach & Jackson, 1981; Morgan et al., 2014). All three dimensions of burnout were examined in this study.

Organizational Commitment

The theory of organizational commitment used in this study originated from research conducted by Porter, Steers, Mowday & Boulian (1974). According to Porter et al. (1974), an employee's attitude towards the organization may have a much greater influence on their decision to remain employed with the organization than their attitude towards the job itself. They suggested there were three factors that contributed to organizational commitment: (a) a strong belief in and acceptance of the organization's goals and values; (b) a willingness to exert considerable effort on behalf of the organization; and (c) a strong desire to remain with the organization (Porter et al., 1974).

Turnover Intention

The theoretical framework for turnover intention used in this study was adopted from Mobley (1977). Mobley's (1977) model of the voluntary employee turnover process explains how job dissatisfaction can eventually lead to actual turnover. This model proposed that an employee will go through a sequence of steps from becoming dissatisfied with their current job to leaving their job:

1. Employees will begin thinking about leaving their current job.
2. Employees will eventually begin searching for alternatives to their current job.
3. Employees will eventually develop intentions to quit and then actually quit their current job.

Mobley's (1977) model is important, because it suggests that the step preceding actual turnover is turnover intention. This study measured turnover intentions among clinical laboratory employees in Florida.

Nature of the Study

The nature of this study was correlational, quantitative, cross-sectional survey. The focus of this study was to determine if a relationship exists between the independent variables (job burnout and organizational commitment) and the dependent variable (turnover intention) and to also determine what influence demographic variables have on job burnout, organizational commitment, and turnover intention. A correlational quantitative research design was used as the approach to address the research questions. Data were collected from licensed clinical laboratory employees in the state of Florida using survey questionnaires. The surveys used included the MBI-GS, Organizational Commitment Questionnaire (OCQ), and a demographic survey. Data were analyzed using regression analysis and ANOVA. Further explanation about the research design and methodology used in this study will be presented in Chapter 3.

Definition of Terms

For the purpose of this study, the following definitions were utilized:

Attitudinal commitment: When an employee identifies with a particular organization and its goals and wishes to maintain membership in order to facilitate these goals (Mowday, Steers, & Porter, 1979).

Clinical Laboratory Technicians (also known as Medical Technicians and Medical Laboratory Technicians): Those who have an Associate degree and completed an accredited clinical laboratory science training program.

Clinical Laboratory Technologists (also known as Medical Technologists and Medical Laboratory Scientist): Those who have a Bachelor degree and completed an accredited clinical laboratory science training program.

Job burnout: A type of job stress that occurs as a result of prolonged exposure to chronic emotional and interpersonal stressors on the job (Maslach, Schaufeli, & Leiter, 2001; Taddei & Contena, 2010).

Job stress: The tension and anxiety that is felt by employees as a result of their job (Gill, Flaschner, & Shachar, 2006).

Organizational commitment: The degree of an employee's identification with and involvement in a particular organization (Porter et al., 1974).

Turnover intention: the intention of an employee to leave their job or leave their organization; sometimes called intent to quit or intent to leave.

Assumptions

Several assumptions were made when conducting this study:

1. It was assumed that the sample population's willingness to participate in this particular study would not bias their survey responses.

2. It was assumed that all participants would complete all questionnaires in their entirety and answer all of the questions truthfully and to the best of their ability.

3. It was assumed that the survey instruments (questionnaires) that were used in this study were valid and reliable for measuring the variables in this particular population.

4. It was assumed that the data obtained from the clinical laboratory directors, supervisors, technologists, and technicians who participated in this study was accurate and valid.

5. It was assumed that this study is generalizable and could be repeated in different geographic locations and among different populations.

Delimitations

There were also delimitations to this research study. This study focused on one geographic location, the state of Florida. Another delimitation is that there are many professions that work within the clinical laboratory department; however, the population for this study was limited to only those persons who are licensed by the Florida Department of Health as clinical laboratory directors, supervisors, technologists, and technicians. Thus, this study excluded other professionals that also work within the clinical laboratory department including pathologists, phlebotomists, client

services/outreach personnel, medical laboratory assistants, and other support staff who also work in the clinical laboratory department as well.

Limitations

This study had several limitations. This study includes the use of a survey instrument. Survey designs could be limited by low response rates and surveys that are returned incomplete. Research was based on self-reported measures which could include response bias. Another limitation is that this study used a cross-sectional method in which data were collected at one point in time, rather than using a longitudinal design in which data is collected by following participants over time in order to track changes. To help minimize these limitations, a large number of participants were recruited to obtain an adequate sample size and this study used survey instruments that are valid and reliable.

Significance of the Study

This study is expected to be important, because without adequate staff to fill clinical laboratory director, supervisor, technologist, and technician positions, there are many negative effects that could occur as a result. Employees working in this type of environment could experience work related stress. Lack of adequate laboratory staff to perform patient testing could result in increased turn-around time for laboratory testing and reporting of results. The fact that physicians and care givers could have to wait longer to receive important test results that are needed to make accurate medical decisions could lead to prolonged diagnosis and treatment of patients. In health care organizations, providing the best possible quality of care and service to patients and

customers is always the goal. A patients' perception of the quality of care and service they have received will influence how satisfied they were and how likely they will continue to seek care at that facility. Therefore, it is important to have professionals working in the health care industry who are committed to carrying out the mission of their respective organization. Employees who are committed to their organizations are less likely to leave their organization (Dixit & Bhati, 2012). Committed employees are known to perform better and to put forth more effort towards the success of the organization than employees who are not committed to their organization (Dixit & Bhati, 2012). Therefore, understanding how factors such as burnout and organizational commitment could lead to the turnover of clinical laboratory employees is crucial in the efforts to alleviate current and future shortages.

This study has the potential implications for social change because its results and conclusions may help hospital administrators and laboratory leaders to better understand the relationship between job burnout and organizational commitment and the role they play in the intent to leave of clinical laboratory professionals. Retaining valuable employees is important for organizations. By better understanding the factors that could lead employees to leave their current jobs, hospital administrators and laboratory leaders can then develop and create strategies to address these issues in order to reduce turnover rates. Also, this study expanded on job burnout and organizational commitment theories by applying them to the clinical laboratory employee.

Summary and Transitions

Chapter 1 has provided an introduction to this research study. This chapter has presented an overview of the study including the background of the study, a statement of the problem, presentation of the research questions and hypotheses, and definitions of key terms that will be use throughout the study. This study added to the existing literature of scholarly studies by addressing a very important gap in the literature regarding the importance of the factors of job burnout and organizational commitment as they pertain to retaining clinical laboratory employees in Florida.

Chapter 2 of this dissertation provides a comprehensive review of the literature on job burnout, organizational commitment, and turnover intention. Previous research in these areas are examined and used to support the rationale for this study. This chapter also discusses theories related to these variables.

Chapter 3 covers the study's methodology including the approach that was used to address the research questions. This chapter provides a rationale for the selected research design approach. It includes a description of the research design, target population, sampling procedure, participants, instrumentation that was used for data collection, a description of methods for data analysis, and ethical considerations.

The results of this research study are presented in Chapter 4 which includes a brief overview of the data collection process used in this study and the demographic information for the study sample. The results of the data analysis are presented in which the data and findings are organized according to research questions and/or hypotheses are

also presented. Chapter 4 concludes with a summary of the findings from this research study.

Chapter 5 presents a discussion of major findings of this study. The findings from this study are interpreted and summarized. The limitations of the study are discussed, as well as implications for social change. Recommendations for action and recommendations for future research studies are also discussed.

Chapter 2: Literature Review

Introduction

The purpose of this research study was to (a) examine the relationship between burnout and turnover intention among clinical laboratory employees in Florida, (b) examine the relationship between organizational commitment and turnover intention among clinical laboratory employees in Florida, and (c) to determine whether demographic variables influence burnout, organizational commitment, and turnover intention.

Chapter 1 provided an introduction to this study by discussing the background of the problem, significance of the study, and also presented the research questions. Chapter 2 provides a literature review that could serve as the foundation for the development of this study. This literature review was used to help to justify the importance of this study and why addressing the problem and research questions are necessary. The literature related to the variables in this study is organized into four major categories in this chapter: (a) theoretical framework, (b) turnover intention, (c) burnout, and (d) organizational commitment.

The healthcare sector has and will continue to undergo many changes. As more people continue to seek medical care and treatment at healthcare facilities, the demand for healthcare workers will continue to rise. The health care workforce shortage has continued to gain much attention among researchers in recent years (Kinfu, Dal Poz, Mercer, & Evans, 2009; Morgan, Strand de Oliveira, & Short, 2011; Vogel, 2014). While, the relationship between burnout and organizational commitment on employee

turnover intentions has been examined in various occupations, including health care, the factors driving the turnover of clinical laboratory employees remain unexplored. Therefore, this study will attempt to address this gap by examining turnover intention among laboratory professionals.

Literature Search Strategy

The research articles retrieved for this study were all found using the following databases: CINAHL, MEDLINE, SAGE, EBSCO, Academic Search Complete, and ProQuest. These databases provided access to journal articles in the fields of health care, health sciences, nursing, and allied health. The following keywords and phrases were used: *burnout, job burnout, organizational commitment, turnover, turnover intention, and intent to stay*. Additionally, relevant articles were identified from reference lists of related peer-reviewed journal articles. Only articles that were available in English were selected for this study.

Theoretical Foundation

This study used several theoretical frameworks to address the research questions in this study. The frameworks used in this research study consisted of the Mobley (1977) turnover model, Maslach's (1981) burnout theory, and the organizational commitment theory of Mowday, Steers, and Porter (1979). Each has been used throughout the literature to study these variables.

The theoretical framework for turnover intention is adopted from Mobley (1977) turnover model. According to Mobley (1977), the process of employee turnover includes several steps. The employee will begin to have thoughts about quitting, this will

eventually lead to the process of searching for as well as evaluating other job alternatives, and eventually the employee will develop intentions to quit or leave their job. According to Maslach and Jackson's (1981) burnout theory, prolonged exposure to chronic stressors related to the job can lead to job burnout. Schaufeli, Leiter, Maslach, and Jackson (1996) operationalized burnout in a general capacity and describes it as a multidimensional construct that includes exhaustion, cynicism, and professional efficacy that could arise when employees feel emotionally overextended at work, have feelings of negativity about their jobs, and have feelings of a lack of competence about their work.

Turnover Intention

Employee Turnover

Turnover has been defined various ways by different people over the years. Macy & Mirvis (1976) defined it as any "departure beyond organizational boundaries" (p. 224). Price (1977) described turnover as "the degree of individual movement across the membership boundary of a social system" (p. 4). Mobley (1982) defined employee turnover as "the cessation of membership in an organization by an individual who received monetary compensation from the organization" (p.10). Price (1999) defined turnover in terms of stayers (those who remain employed with the organization) or leavers (those who terminate their employment with the organization). Turnover is essentially the process by which employees leave their current jobs with an organization and the organization then replaces the employee with a new employee.

Turnover can be conceptualized as being either voluntary or involuntary (Goodman & Boss, 2002; Greyling & Stanz, 2010). Involuntary employee turnover is

when the process of termination is initiated by the employer/organization, whereas, voluntary turnover is when the process of termination is initiated by the employee/individual (Greyling & Stanz, 2010; Hom, Mitchell, Lee, & Griffeth, 2012). Involuntary turnover occurs when the employer ask the employee to leave the organization. Involuntary turnover can occur for various reasons including layoffs or downsizing due to budget cuts within the organization, poor job performance by the employee, or if the employee develops a disability issue that may prevent them from doing their job (Park, Boyle, Bergquist-Beringer, Staggs, & Dunton, 2014). Death is even classified under involuntary turnover. Unlike involuntary turnover, with voluntary turnover (quitting), employees decide to leave the organization on their own. One group of researchers describe voluntary turnover in terms of a push-pull concept in which organizational factors from one organization push an individual away while the opportunities and offers from other organizations pull that individual to the organization (Feeley, Moon, Kozey, & Slowe, 2010). In other words, voluntary turnover usually occurs when an employee perceives another job opportunity to be a much better opportunity than the current job that they are in.

Some suggest that there are benefits to employee turnover to include getting rid of employees who are less competent and maintaining a good balance of older, more experienced employees and new employees that may bring new and fresh ideas to the organization (Feeley, Moon, Kozey, & Slowe, 2010). Turnover can be problematic to organizations because of the negative effects that it can cause for an organization (Kessler, 2014). There are financial costs (sometimes referred to as human resource cost)

associated with employee turnover such as the cost of recruiting and training new employees (Kochanski & Sorensen, 2008; Nowak, Holmes, & Murrow, 2010; Park & Shaw, 2013). There are also non-financial cost that organizations can potentially incur when an employee decides to voluntarily leave the organization such as loss of productivity (Kochanski & Sorensen, 2008) and diminished quality of care (Angermeier, Dunford, Boss, & Boss, 2009). Likewise, Grisson, Nicholson-Crotty, and Keiser (2012) argued that organizations that are experiencing increased levels of turnover among their employees can incur significant costs and that "cost related to turnover can take the form of money spent to recruit for and fill vacant positions, resources devoted to training, and perhaps most importantly, lost human capital" (p. 649).

Most of the research on turnover focuses on voluntary and avoidable turnover since this type of turnover can be controlled by management (Price, 1977). Research regarding voluntary employee turnover has been ongoing for decades and turnover still continues to be of interest to researchers across various occupations in the present literature (Christian & Ellis, 2014; Ertürk, 2014; Osborne, 2014). It is well known that individuals who are satisfied with their jobs are less likely to leave that job and more likely to remain with the organization (Linhartová, 2012). If an organization has a high turnover rate and employees are leaving the organization on their own, this could be indicative of some underlying issues within the organization. Therefore, it is important for organizations to recognize and understand factors that contribute to employee turnover and develop strategies to address these issues. It can be difficult to measure actual turnover; so many researchers rely on employee turnover intention as proxy for

actual turnover (Park et al., 2014). Researchers have suggested that since there is such a broad range of studies regarding turnover, "this is indicative of the significance and complexity of the issue" (Choi & Perumal, 2014, p.111). Choi and Perumal (2014) suggest that the concept of turnover has attracted the attention of many because of its psychological and economic dimensions along with its significance to the organization. Though there is a large amount of research in the literature regarding employee turnover and turnover intentions (Choi & Dickson, 2010), there is relatively little recent research regarding factors that are affecting the turnover of clinical laboratory employees, specifically, organizational commitment and job burnout.

Turnover Intention

In a sequence of stages in the withdrawal process including withdrawal cognitions and job-search behaviors, the stage that precedes actual turnover is turnover intention (or intent to leave) (Siddiqi, 2013). Turnover intention is known to be a strong predictor of actual turnover (Bryant & Allen, 2013). Therefore, turnover intention can be described as the probability that an individual will leave their current job and thus will lead to actual turnover. Many research studies have focused on turnover intention as a dependent/outcome variable. There are many different causes of turnover intention among professionals, yet the focus of this present study is to examine organizational commitment and burnout as an antecedent to turnover intentions among clinical laboratory employees in Florida.

Turnover Process Models

Turnover process models have been appearing in the literature since the 1950s. In turnover models, researchers tend to focus on voluntary turnover as this unexpected event is perceived as a greater threat to organizations. These models focus on how people quit and the process leading to the decision to change jobs. Three studies that have contributed significantly to research regarding turnover are March and Simon (1958), Porter and Steers (1973), and Mobley (1977) will be discussed next.

March and Simon (1958). March and Simon (1958) introduced the earliest turnover process model (Hom, Mitchell, Lee, & Griffeth, 2012). This work focused on voluntary turnover (Direnzo & Greenhaus, 2011). In their book, *Organizations*, March and Simon (1958) used the Bernard-Simon theory of organizational equilibrium as a foundation for their model of employee turnover. This theory basically means in order to ensure organization survival, the organization provides what are termed payments to the employee to motivate them and keep them working for the organization (March & Simon, 1958). March and Simon (1958) emphasize that there must be a balance between inducements and contributions and states that employees receive inducements from the organization and in return, the employee makes contributions to the organization. Employees will remain with the organization and continue to make contributions as long as the inducements that they are receiving from the organization are perceived to be equal or greater than the contributions that they are making (March & Simon, 1958).

March and Simon (1958) identified two factors that would disrupt the inducement-contribution balance and these two factors are perceived ease of movement

and perceived desirability of movement. According to their model, these two factors are the drivers for employee turnover. According to March and Simon (1958), the more satisfied an individual is with their job, the less the perceived desirability of movement and the greater the number of perceived extraorganizational alternatives, the greater the perceived ease of movement (March and Simon, 1958). Many subsequent models and theories of employee turnover have been built on this model by March and Simon (Joseph, Kok-Yee, Koh, & Soon, 2007).

Porter and Steers (1973) Building on the turnover model of March and Simon, another group of researchers introduced the met expectations theory (Joseph et al., 2007). In a study regarding employee turnover and absenteeism, Porter and Steers (1973) introduced a model of turnover based on employee met expectations. In their model, job satisfaction was a significant factor in withdrawal and was based on an employee's met expectations. Porter and Steers (1973) describes the concept of met expectations as being the discrepancy between what an employee expects to encounter on the job and what they employee actually encounters on the job. These researchers suggest that met expectations played a key role in the withdrawal behavior. Porter and Steers (1973) predicted that when an employee's expectations were not being met, their intent to withdraw would increase.

Porter and Steers (1973) proposed four general categories within an organization in which factors could be found that affected withdrawal/turnover. The four general categories are organization-wide factors, immediate work environment factors, job content factors, and personal factors (Porter & Steers, 1973). Organization-wide factors

were those variables that are determined by external persons or events not in the immediate work group and included pay, promotion, and also the size of the organization (Porter & Steers, 1973). The size of the unit and the leadership style of the supervisor are classified as immediate work environment factors while job content factors are those things that are essential to an individual's job performance and include job requirements, responsibility, job content, and role clarity (Porter & Steers, 1973). Factors that are unique to an individual are known as personal factors and include age, tenure, and family (Porter & Steers, 1973). Porter and Steers (1973) conclude that the major root causes of turnover are wide-spread across these various facets of the organization. Based on this met expectations theory, when an employee becomes dissatisfied because their expectations are not being met, turnover is likely to occur (Joseph et al., 2007).

Mobley's Model (1977) While Porter and Steers (1973) suggested that in the withdrawal process, once an employee becomes dissatisfied, the next step is expressed intention to leave, Mobley (1977) introduced a model of the employee turnover process that suggest that there are several intermediate steps that occur between dissatisfaction and intention to leave. Direnzo & Greenhaus (2011) describes Mobley's (1977) model as being a linear path from job dissatisfaction to enacting a turnover decision. In the employee turnover (withdrawal) process proposed by Mobley (1977), the researcher considered both cognitive and behavioral processes that mediated the relationship between how satisfied or dissatisfied an employee was with their job and turnover (Spencer, Steers, & Mowday, 1983).

The withdrawal process by Mobley (1977) consists of ten steps. At the first step, the employee evaluates their existing job. Next, feelings of job dissatisfaction occur, followed by having thoughts of quitting the job. The next step in Mobley's (1977) withdrawal process is the evaluation of the expected utility of search and evaluation of what would be lost if one was to quit (cost of quitting). Next, the employee develops the behavioral intention to search for an alternative job followed by actually searching for another job. If during the search process alternative jobs are found, the next step is to evaluate the alternative (Mobley 1977; Spencer et al., 1983). A comparison is then made between the current job and the alternative job and if the alternative job is more favorable than the current job, the individual will develop intentions to quit, followed by the last step, actually quitting (Mobley, 1977). This particular model of the employee withdrawal process suggest that the "immediate precursor of actually quitting is intention to quit" (Mobley, Horner, & Hollingsworth, 1978, p.408). Therefore, the Mobley (1977) model was used in this study as a basis for studying the turnover intention among clinical laboratory employees in Florida.

Burnout

Burnout can be described as a particular reaction to stress (Cherniss, 1988). For over four decades, interest in burnout has dramatically increased as we have begun to better understand the concept of burnout and the negative effects that burnout has on employees (Fradelos et al., 2014). The literature of burnout includes several models of burnout that have contributed to the understanding of burnout and have served as a foundation and basis for research throughout the literature.

Freudenberger's Burnout Theory

During the early 1970's came the introduction of the term burnout. One of the first introductions of this term came from psychologist Herbert J. Freudenberger (Freudenberger, 1974; Moreno et al., 2010). Freudenberger (1974) is claimed to be the pioneer of the term burnout and presented the first description of the phenomenon. In his work, Freudenberger (1974) did not discretely define the term burnout, rather, he presented the term based on his own experiences along with the experiences of volunteers whom he worked with during his time at a free clinic. Freudenberger noticed that after about a year of working at the clinic, he and some of the volunteers began to experience feelings of emotional depletion along with other symptoms of what we now refer to as burnout syndrome. These experiences prompted Freudenberger to then begin thinking about questions such as what was burnout and what type of person could experience burnout (Freudenberger, 1974).

Freudenberger (1974) outlines the physical and behavioral aspects of burnout (Al-Turki et al., 2010; Morgan, de Bruin, & de Bruin, 2014). The physical signs of burnout is described as "a feeling of exhaustion and fatigue, being unable to shake a lingering cold, suffering from frequent headaches and gastrointestinal disturbances, sleeplessness and shortness of breath" (Freudenberger, 1974, p.160). Freudenberger (1974) also describes the behavioral signs of burnout as employees who become angry and irritated easily, cries easily, and develops a very suspicious attitude along with feelings that they are being victimized. Similarly, Montero-Marin (2012) explains the psychosocial risk posed by burnout along with the negative physical and mental effects of this syndrome to include

"psychosomatic disorders such as cardio-respiratory alterations, severe headaches, gastritis, ulcers, insomia, dizziness, etc., or psychopathological disorders such as anxiety, obsession-compulsion, interpersonal sensitivity, depression, hostility, paranoid ideation, alcoholism and addictions" (p.2).

Interestingly, Freudenberger (1974) states that employees who are dedicated and committed to their jobs are more likely to experience burnout than employees who are not dedicated and who are not committed to their jobs. Committed individuals tend to feel internal and external pressures to help others and these individuals give of their services regardless if that means working too much or working extended hours to the point where eventually exhaustion is reached (Freudenberger, 1974). Since Herbert Freudenberger coined burnout in 1974, the term has since been mostly conceptualized as being a multi-component construct.

Cherniss's Burnout Theory

Just like Freudenberger (1974), Cherniss (1980) suggest that burnout is a process that develops over time, usually within a year. However, unlike the burnout theory described by Freudenberger (1974), Cherniss (1980) describes burnout as a process in which there is a negative change in attitudes and behaviors that occurs as a response to chronic job stress and strain. Both researchers agree that burnout can be associated with individuals who are less committed and that as a result, individuals may show physical signs of burnout including headaches, stomach problems, and frequent colds (Cherniss, 1980; Freudenberger, 1974). Cherniss also states that individuals who are experiencing burnout become less invested in their jobs and develop a wide range of other symptoms

such as “increasing discouragement, pessimism, and fatalism about one’s work; apathy; negativism; frequent irritability and anger with clients and colleagues; preoccupation with one’s own comfort and welfare on the job; a tendency to rationalize failure by blaming the clients or “the system”; and resistance to change, growing rigidity, and loss of creativity” (Cherniss, 1980, p.6).

Cherniss (1980) explains that burnout is not the same as strain or fatigue and strain and fatique are seen as precursors to burnout. According to Cherniss (1980), burnout is different from socialization and acculturation, since in burnout, negative changes that occur are a direct result of stress cause by the job. In his work, Cherniss (1980) identifies diminished enthusiasm as one of the negative effects of burnout on employee’s performance. Cherniss (1980) presented a much broader definition of burnout that has served as a foundation for many research studies (Firth, McIntee, McKeown, & Britton, 1986).

Edelwich and Brodsky’s Burnout Theory

Around the same time burnout was being studied by Cherniss (1980), Edelwich and Brodsky (1980) were proposing their own theory of burnout. Similar to Freudenberger (1974) and Cherniss (1980), Edelwich and Brodsky (1980) have contributed to the understanding of the burnout process. Edelwich and Brodsky (1980) define burnout as “a progressive loss of idealism, energy, and purpose experienced by people in the helping professions as a result of the conditions of their work” (p.14). According to Edelwich and Brodsky (1980), work conditions such as inadequate training, low salaries, and increased work hours can lead to burnout. Just like Freudenberger

(1974) and Cherniss (1980), Edelwich and Brodsky (1980) also agree that there are physical symptoms that accompany burnout. However, Edelwich and Brodsky (1980) further explain that burnout can occur among any individual regardless of age, sex, or their level of training.

In their work, Edelwich and Brodsky (1980) focus on the multiple component process of burnout in which they refer to this as the process of disillusionment. Edelwich and Brodsky (1980) attempted to characterize burnout as consisting of a 5-stage system. The development of these stages were based on interviews and observations conducted by the researchers among individuals who were in the human services profession. The five stages of the process of disillusionment are enthusiasm, stagnation, frustration, apathy, and intervention (Edelwich & Brodsky, 1908). The first stage is enthusiasm and this is the initial job phase in which the individual is excited and enthusiastic about their new job. In this stage, they have high hopes and high expectations for their job and since this is the beginning stage, individuals also have unrealistic expectations about their new jobs. The next stage is stagnation and in this stage the realities of the job become evident and thus, the level of enthusiasm diminishes and though the individual is still on the job and performing the duties of the job, they are now focusing more on meeting their own personal needs. Frustration is the next stage and symptoms and signs of emotional, behavioral, and physical symptoms can develop as the individual begins to question the value of the job. During the frustration stage, the individual becomes less satisfied with their job. The fourth stage is apathy. By this stage, the individual becomes frustrated because they need the job in order to live and survive, but the individual begins to

withdraw from the job and begins to only perform the minimum duties that are required. After experiencing the four stages mentioned above, the closing stage is intervention and at this point the cycle is broken as the individual either leaves the organization, changes jobs, adjust job duties, etc (Edelwich & Brodsky, 1980).

Maslach Burnout Theory

Maslach and Jackson (1981) defined burnout as "a syndrome of emotional exhaustion and cynicism that occurs frequently among individuals who do people-work of some kind" (p.99). Leiter and Maslach (1988) suggest that the burnout syndrome occurs as a response to interpersonal stressors that occur on the job. Burnout is described as consisting of three aspects: emotional exhaustion, depersonalization, and reduced personal accomplishment (Maslach & Jackson, 1981; Sharhriari, Shamali, & Yazdannik, 2014). The first aspect of burnout is feelings of emotional exhaustion that develop as employees begin to feel as if they are no longer able to completely give of themselves psychologically (Maslach & Jackson, 1981). When working in a job in which one must make contact with other people, individuals begin to feel overextended and emotionally drain (Leiter & Maslach, 1988). The second aspect of burnout is having a cynical/negative attitude about the recipients of one's services (Maslach & Jackson, 1981). This aspect, known as depersonalization, refers to an "unfeeling and callous response towards people" (Leiter & Maslach, 1988, p. 297). Truzzi et al. (2012) describes these feelings as impersonal and indifferent. The third aspect is reduced personal accomplishment and refers to feelings of negativity, being unhappy, and feeling dissatisfied about one's own accomplishments on their job (Maslach & Jackson, 1981).

Leiter and Maslach (1988) describe this as a decline in one's feelings of competence and successful achievements on the job.

Many validated instruments have been developed to assess burnout in a population; however, the most popular instrument among researchers is the Maslach Burnout Inventory (MBI) (Gerber et al., 2013). The Maslach and Jackson (1981) developed the Maslach Burnout Inventory – Human Services Survey (MBI-HSS) to measure and assess burnout syndrome in a variety of professionals working in the human services field. The original MBI-HSS consisted of a set of questions that measures the three dimensions of burnout: emotional exhaustion, personal accomplishment and depersonalization (Maslach & Jackson, 1981). Burnout was originally described as a syndrome that developed among professionals who worked in jobs where they have constant, direct contact with other people (Amigo, Asensio, Menendez, Redondo, & Ledesma, 2014), however, since other professionals are prone to experience burnout as well, two other versions of the MBI were developed to be used to assess burnout in other professions other than human services. The Maslach Burnout Inventory – Educators Survey (MBI-ES) was developed to measure burnout among educators and the Maslach Burnout Inventory – General Survey (MBI-GS) was developed to measure burnout among individuals working in other occupations.

Previous Studies on Burnout

Freudenberger (1974) may have been the first time that the term burnout had been used by health care providers (Fradelos et al., 2014), however, since then, a great deal of research has been done to study the prevalence of burnout syndrome in health care

workers as well as the relationship between burnout and turnover intention among health care workers. Due to the nature of their work, healthcare professionals are at risk of developing burnout syndrome (Du Plessis, Visagie, & Mji, 2014; Ribeiro et al., 2014). The three key dimensions of the burnout syndrome are having overwhelming feelings of exhaustion, cynicism and detachment from the job, and feelings of inefficacy or lack of accomplishment on the job (Leiter and Maslach, 2009). The recent literature regarding the prevalence of burnout syndrome among human service professionals is extensive (Fradelos et al., 2014).

Narainsamy and Van Der Westhuizen (2013) conducted a survey to investigate qualities of work-related well-being among medical laboratory employees in regard to job satisfaction, occupational stress, work engagement, and burnout. Using a cross-sectional survey design, Narainsamy and Van Der Westhuizen (2013) surveyed a convenience sample of 202 medical laboratory staff members from two prominent private laboratories. Burnout was measured using the Maslach Burnout Inventory – General Survey (Maslach & Jackson, 1981). The results of the study indicated that both burnout and occupational stress had a negative correlation with work-related well-being. However, this study did not correlate burnout with turnover or turnover intentions.

Burnout has been identified and studied among other health care occupations who have similar working conditions as clinical laboratory employees. Leiter and Maslach (2009) conducted a study to determine whether the mediation model of burnout could predict the turnover of nurses. This study also investigated what areas of worklife predicted burnout. The areas of worklife studied were workload, control, reward,

community, fairness, and values (Leiter and Maslach, 2009). The Maslach Burnout Inventory-General Survey was used to measure burnout. Leiter and Maslach (2009) surveyed 667 nurses and the results of the study showed the predicted relationships among the three aspects of burnout as it was found that exhaustion predicted cynicism and cynicism predicted inefficacy. This study also showed a direct relationship between burnout and several areas of worklife. Specifically, they found that nurse's workload was directly related to just exhaustion, while the area of values predicted all three dimensions of burnout. It was also found that burnout was a predictor of nurse turnover intention and also that burnout mediated the outcome of effects of workplace factors on turnover intentions (Leiter and Maslach, 2009). Leiter and Maslach (2009) also found that when it came to the mediating effects of burnout dimensions on turnover intention, cynicism had the most effect and carried the most weight. Leiter and Maslach (2009) suggested that the results of their study could provide nurse management with areas to target for interventions to reduce turnover among nurses.

Like Leiter and Maslach (2009), Ohue, Moriyama, and Nakaya (2011) also focused on measuring burnout syndrome among nurses in their study to establish a cognitive model of burnout, stress, and intention to resign for nurses. Using the Maslach Burnout Inventory to access burnout, Ohue et al. (2011) surveyed 336 nurses from eight hospitals. The results of this study indicated that higher levels of emotional exhaustion were seen among female nurses than male nurses and participants who were in their 20s had higher levels of emotional exhaustion than those who were in their 30s. The results of this study also indicated that depersonalization was higher among nurses with less

experience. Both Leiter and Maslach (2009) and Ohue et al., (2011) showed positive correlations with nurse's workload. However, Ohue et al. (2011) also showed that depersonalization was also positively correlated with workload as well and that personal accomplishment was negatively correlated with workload. The analysis of the relationship between burnout and nurse turnover intention showed that for nurses who indicated that they wanted to quit the profession, this was positively correlated with emotional exhaustion and depersonalization and negatively correlated with personal accomplishment. For those nurses who indicated that they wanted to leave their current organization or department, this was positively correlated with emotional exhaustion. Those nurses who indicated that they wanted to continue working as a nurse, this had negative correlations with emotional exhaustion and depersonalization and a positive correlation with personal accomplishment. Therefore, based on their results, (Ohue et al., 2011) concluded that those who had hoped to leave their current job might have the burnout syndrome and suggested that prevention of burnout is necessary to reduce turnover.

Harwood, Ridley, Wilson, and Laschinger (2010) conducted a study among nephrology nurses to determine the effect of burnout on nurse's mental and physical health outcomes and job retention. The Maslach Burnout Inventory was used to access burnout among 121 nurses. The results indicated that 42% of the nurses reported experiencing severe emotional exhaustion and 23% reported experiencing severe cynicism (Harwood et al., 2010). These results indicated a high level of burnout among the sample. The results also indicated that two of three dimensions of burnout, emotional

exhaustion and cynicism, were significantly associated with the turnover intentions of nurses working in nephrology (Harwood et al., 2010). Both emotional exhaustion and cynicism were shown to increase mental health symptoms, while physical symptoms were only affected by emotional exhaustion (Harwood et al., 2010).

Similar to Ohue et al. (2011), Leiter, Jackson, and Shaughnessy (2009) found that younger professionals experienced higher levels of burnout compared to older professionals. Leiter et al. (2009) surveyed 448 nurses, 255 from Generation X and 193 Baby Boomers, in a study to contrast burnout, turnover intention, control, value congruence, and knowledge sharing between these two generations. Using the Maslach Burnout Inventory - General Scale to access burnout, Leiter et al. (2009) found that Generation X nurses experienced more symptoms of burnout syndrome and had higher turnover intentions than nurses from the Baby Boomer generation.

Researchers continue to identify the burnout syndrome among workers of various healthcare related occupations. Scanlan and Still (2013) conducted a study among staff at a large metropolitan public mental health services organization. This group of researchers investigated job satisfaction, burnout, and turnover intention among occupational therapists working in the field of mental health. Of 1100 employees who were employed with this organization, approximately 60 of them are occupational therapists. Of the total participants in this study, 34 were occupational therapists, giving a 60% response rate. Burnout was accessed using the Oldenburg Burnout Inventory which focuses on two dimensions, exhaustion and disengagement (Scanlan & Still, 2013). Scanlan and Still (2013) reported a higher level of burnout among females.

Burnout was also associated with lower levels of job satisfaction (Scanlan & Still, 2013). Similar to Scanlan and Still (2013), Green, Miller, and Aarons (2013) conducted a study to examine the relationships between emotional exhaustion, turnover, and ntransformational leadership among public sector mental health providers. Emotional exhaustion was found to be positively related to turnover intention (Green et al., 2013).

Jacobs, Nawaz, Hood, and Bae (2012) conducted a study to measure burnout among workers at a regional pediatric health care facility and determine whether the level of burnout in workers of a pediatric healthcare system are different from data that has been previously published regarding health service workers. This study surveyed 400 workers at this organization across various occupations including physicians, nurses, allied health professionals, administrative staff, and professional support services staff (Jacobs et al., 2012). Jacob et al. (2012) used both the Maslach Burnout Inventory – Human Services Survey (MBI-HSS) and the Copenhagen Burnout Inventory (CBI) to measure burnout among these individuals. Jacobs et al. (2012) reported that the results obtained from the MBI-HSS and CBI's client-related section showed lower levels of burnout as compared to standardized data for health service workers. However, results of work-related burnout, as measured by the CBI, were significantly higher than normal.

In a study by Suzuki et al. (2010), researchers conducted a follow up study from a cohort of 762 novice nurses to determine the factors that lead novice nurses to quit their jobs within the 10^{th} and 15^{th} month of their employment with a hospital. The participants in this study were selected from twenty university hospitals in Japan with 400 or more beds (Suzuki et al., 2010). This group of researchers used the Japanese version of the

Maslach Burnout Inventory to access the three dimensions of burnout among this group of nurses. The results of this study showed that burnout was the most important factor affecting the turnover of novice nurses (Suzuki et al., 2010).

Recent studies continue to indicate that burnout is a significant factor in the turnover of healthcare professionals. Sawatzky and Enns (2012) conducted a study to explore factors that predict the retention of nurses that are working in the emergency department. Researchers looked at the influencing factors and intermediary factors on nurse's intention to leave their current position and their intention to permanently leave the nursing profession (Sawatzky & Enns, 2012). This study consisted of a sample of 261 registered nurses from an emergency department and found that higher burnout was one of the influencing factors of intention to leave (Sawatzky & Enns, 2012).

Organizational Commitment

Early Operational Definitions

When the goals of an individual and an organization become integrated, this is known as commitment (Hall, Schneider, & Nygren, 1970). Similarly, Allen and Meyer (1990) viewed commitment as a psychological state which binds an individual and an organization together. Commitment seeks to explain consistencies related to attitudes, beliefs, as well as behavior (Eslami & Gharakhani, 2012). Organizational commitment is a very important variable in organizational theory that has been widely reviewed throughout the literature and research regarding organizational commitment has been of interest for over 60 years (Singh, Gupta, & Venugopal, 2008). Throughout the literature, there have been numerous definitions, constructs, meanings, and perspectives for

organizational commitment (Singh, Gupta, & Venugopal, 2008). Different researchers have defined organizational commitment based on their particular model; however, no consensus on a standard definition has been reached (Rusu, 2013).

One of the earliest investigations of organizational commitment was by Sheldon (1971) in which organizational commitment was defined as "an attitude or an orientation toward the organization which links or attaches the identity of the person to the organization" (p. 143). According to this researcher, organizational commitment was seen as an affective orientation and is a positive evaluation of the organization itself and having intentions to achieve the goals of the organization (Sheldon, 1971). Similar to Sheldon (1971), Buchanan (1974) also relates commitment to the overall goals and values of the organization and defines organizational commitment as an affective attachment to both the goals and values of the organization. However, in a study to assess organizational commitment among business and government managers, Buchanan (1974) further views commitment as methodically consisting of three components: identification, involvement, and loyalty. According to Buchanan (1974), first one must identify with the organization by adopting the goals and values of the organization as their own. Second, one must be psychologically involved with their current role and third, one must have a sense of loyalty, attachment, as well as affection to their organization (Buchanan, 1974).

Although there have been numerous differences among researchers regarding the way in which organizational commitment has been conceptualized and also the way in which organizational commitment has been measured, one central theme that continues to

appear is the psychological attachment between the employee and the organization (O'Reilly & Chatman, 1986). O'Reilly and Chatman (1986), focusing on the underlying dimensions of psychological attachment, also adopted this theme and defined organizational commitment as the psychological attachment that is felt by the employee towards their organization and is reflected by how the individual adopts the characteristics of the organization.

Many of the earlier definitions and views of organizational commitment have focused on an individual's affective attachment to the organization (Eslami & Gharakhani, 2012). Thus, these early researchers viewed organizational commitment as being unidimensional. Other groups of researchers began to view and define organizational commitment as being multidimensional. Bateman and Strasser (1984) operationally defined organizational commitment as being multidimensional and involves (a) an employee's loyalty to the organization, (b) an employee's willingness to exert effort on behalf of the organization, (c) the degree of goal and value congruency with the organization, and (d) the desire to maintain membership with the organization. Organizational commitment is a very complex concept and though many models of organizational commitment have been developed throughout the years, Meyer and Allen's model has received the most support among researchers as it divides organizational commitment into different types (Borhani, Jalali, Abbaszaden, & Haghdoost, 2014). This widely used multidimensional model of organizational commitment introduced by Meyer and Allen (1984) initially viewed organizational commitment as consisting of two dimensions, continuance commitment and affective

commitment. A third dimension of organizational commitment known as normative commitment was later added (Allen & Meyer, 1997). This became known as the Three-Component Model of organizational commitment, which has gained substantial popularity over the years. Each of the three forms of organizational commitment have different consequences in the workplace, however, each has shown to bind employees to their organization in some way as well as affect their intentions to leave the organization (Rusu, 2013). Allen and Meyer (1990) suggest that since each of the three components of organizational commitment are conceptually different, they should be viewed independently.

Affective Commitment

The most discussed type of commitment in the literature is affective commitment (Sirin, Bilir, & Karademir, 2013). Affective commitment is seen as an emotional or affective orientation to the organization where the employee was affectively committed to the organization for its own sake (Meyer & Allen, 1984). When the values of the employee align with those of the organization, affective commitment arises (Rusu, 2013). Kantar (1968) described this type of commitment as cohesion commitment and defined it as "involving the attaching of an individual's fund of affectivity and emotion to the group" (p. 507). One of the most influential studies regarding organizational commitment was the conceptual framework of Mowday, Porter, and Steers (1982). Mowday, Porter, and Steers (1982) discuss attitudinal or affective commitment as being three-fold in nature and consisting of: a) a strong belief in the value and the goals of the organization and acceptance of these goals and values, b) support for the organization,

and c) a strong need and desire to maintain employed with the organization. In this study, organizational commitment was assessed using the view point of Mowday et al., 1982. Strong affective commitment means that the employee accepts the overall goals of the organization and wants to remain with the organization (Bakan, Buyukbese, & Ersahan, 2011). Having a high level of affective commitment means that individuals have "feelings of belonging, pride, and loyalty" (Rousseau & Aube, 2010, p. 323). Therefore, employees who are affectively committed to their organization will continue service with the organization because they want to. Liuzhong-Ming (2013) and Hurnung and Glaser (2010) label affective commitment as commitment that develops based on noneconomic exchange relationships.

Continuance Commitment

Authors have described commitment as being continuance and continuance commitment describes the commitment to continue a certain line of action (Meyer & Allen, 1984). Continuance commitment reflects an employee's desire to remain with an organization due to the threat of loss of investments that the employee has with the organization (Meyer & Allen, 1984). Allen and Meyer (1990) suggested that continuance commitment "develops on the basis of two factors: the magnitude and/or number of investments (or side-bets) individuals make and a perceived lack of alternatives" (p.4). Several researchers have viewed continuance commitment as a cost-benefit analysis (Becker, 1960; Rusu, 2013). Similarly, Ruso (2013) describes this type of commitment as a process in which the employee must calculate their investments in the organization and consider what investments would be lost if they were to leave the organization versus

the cost of staying with the organization. Continuance commitment differs from affective and normative commitment because employees who exhibit continuance commitment towards an organization will remain employed at the organization mostly out of need. The cost of leaving the organization is high and these costs could include loss of income, benefits, career status, or even losing retirement investments. Liuzhong-Ming (2013) describes continuance commitment as one that arises from noneconomic exchange relationship. Just as Meyer and Allen (1997) viewed the construct of organizational commitment as being multidimensional, Taing, Granger, Groff, Jackson, and Johnson (2011) further expanded the multidimensional concept by viewing continuance commitment as being multidimensional in nature and suggested that continuance commitment involved commitment due to a lack of alternative opportunities for another job and as how individuals perceived the sacrifice of investments that may be associated with leaving their current organization. Similarly, Gonzalez and Guillen (2008) divided continuance commitment into two dimensions just as Taing et al. (2011), but called these two dimensions high sacrifice and low alternatives.

Normative Commitment

The third component of organizational commitment presented by Meyer and Allen (1997) is normative commitment. Normative commitment differs from the other two types of organizational commitment because it arises among employees who feel that they are obligated to remain at the organization (Meyer and Allen, 1997). Sirin, Bilir, and Karademir (2013) further expands on Meyer and Allen's (1997) definition by referring to this type of commitment as not only feeling obliged to stay, but also feeling

that one has a responsibility to the organization and liability to the organization as well. With normative commitment, obligation does not depend on organization related interests (Sirin et al., 2013). Allen and Meyer (1990) suggest that normative commitment is influenced by the experiences of an individual both before and after entering the organization. Another group of researchers describes this type of commitment as having a sense of duty to stay with the organization (Borhani et al., 2014).

Previous Studies on Organizational Commitment

Researchers have studied organizational commitment among various health care workers. Lee, Kim, and Yoon (2011) conducted a quantitative study to examine the discriminating factors of the turnover intentions of Korean nurses among internal marketing, organizational commitment, and job stress. In a sample of 210 nurses from 6 hospitals, the results of the study indicated that the nurses who had higher scores for turnover intention also had lower scores for organizational commitment and higher levels of job stress (Lee et al., 2011). Organizational commitment was the most important discriminating factor for the turnover intention of Korean nurses. Kim and Hwang (2011) also studied organizational commitment among Korean nurses. In their study, Kim and Hwang (2011) explored factors associated with the intent to stay among Korean nurses working in quality improvement. In this quantitative, cross-sectional study, 123 nurses were surveyed across 123 hospitals. In this study, researchers found that only 32.8% of nurses had intentions to stay in their current job (Kim & Hwang, 2011). Results indicated that nurses had weak continuance commitment of a below-average level and that one of the significant factors influencing the intent to stay of nurses was

affective commitment, as affective commitment was positively associated with intent to stay (Kim & Hwang, 2011). The researchers suggest that these findings indicated the need for the development of retention strategies (Kim & Hwang, 2011).

Unlike Lee et al. (2011), in a study to examine factors that determine the turnover intentions of registered nurses, Osuji, Uzoka, Aladi, and El-Hussein (2014) surveyed 193 registered nurses from five major hospitals in Canada and found that organizational commitment will not play a major role in reducing job turnover. However, the researchers suggested that this may be related to the fact that the Canadian health industry is publicly managed and therefore is the predominant employer for registered nurses (Osuji et al., 2014). However, in a quantitative study by Mosadeghrad, Ferlie, and Rosenberg (2008) that surveyed 629 employees from six hospitals to examine the relationship between job satisfaction, organizational commitment, and turnover intentions, the study showed a positive correlation between employees' job satisfaction and organizational commitment. These researchers found that job satisfaction and organizational commitment were predictors of turnover intention; however, it was suggested that moderating factors such as individual characteristics and cultural characteristics play a significant role in both turnover intention and actual turnover (Mosadeghrad et al., 2008). In addition, the researchers found that factors that may influence the level of organizational commitment among hospital employees included age, gender, years of work experience, and education (Mosadeghrad et al., 2008).

Demir, Sahin, Teke, Ucar, and Kursun (2009) conducted a study that surveyed 644 physicians working in two of the major hospitals in Turkey in an effort to examine

organizational commitment among military physicians. Using structural equation modeling, Demir et al. (2009) studied the relationship between organization commitment and both organization variables and demographic variables. The study showed no significant relationship between commitment and demographic variables; however, they found that higher levels of professional commitment and incentives increased organizational commitment among physicians (Demir et al., 2009).

Chao-Sung, Pey-Lan, and Ing-Chung (2006) surveyed 330 nurses in a study to investigate the relationship between the commitment of nurses to their profession and to their organization and their intention to leave. These researchers used Meyer, Allen, and Smith's Questionnaire (Meyer et al., 1993) to access organizational commitment of nurses. This questionnaire measures all three dimensions of organizational commitment: affective, continuous, and normative. The results of the study were statistically significant and showed that each of the three components of organizational commitment were negatively correlated with nurse's turnover intention (Chao-Sung et al., 2006). The highest correlation with nurses intention to leave their current hospital was seen with normative commitment, followed by affective commitment, then continuous commitment (Chao-Sung et al., 2006).

Unlike Chao-Sung et al. (2006), Jiunn-Horng, Hsing-Yi, Hsiu-Yueh, and Hung-Da (2007) reported a different outcome. Jiunn-Horng et al. (2007) conducted a cross-sectional, quantitative study to examine the relationships between demographic variables and the dimensions of organizational commitment, role stress, and turnover intentions among male nurses. Using Pearson correlation, this group of researchers found no

correlation between turnover and organizational commitment among this group of male nurses (Jiunn-Horng et al., 2007).

Summary

Every health care professional is a very important part of the health care system and when there is a shortage of these individuals in any area, this creates many problems. Turnover intention among health care employees has been widely reviewed in the literature (Dane & Brummel, 2014; Scanlan & Still, 2013). However, further investigation needs to be done regarding the turnover and retention of health care laboratory workers because there is little to no current research regarding the factors affecting the turnover intentions of clinical laboratory directors, clinical laboratory supervisors, clinical laboratory technologists, and clinical laboratory technicians. These groups of health care professionals are experiencing similar shortages as those seen among nursing and physicians (Bennett, 2013; Hinkley, 2013; McMenamin, 2014). In an effort to address the laboratory workforce shortage, it is important to understand the factors that may lead to the turnover of clinical laboratory employees.

Within this chapter, I discussed the theoretical foundation of burnout, organizational commitment, and turnover intention along with literature related to each of these variables. Researchers have found that both burnout and organizational commitment have a significant effect on both turnover intentions of employees across various occupations, including the health care profession. Researchers have found that burnout can increase turnover and could also affect the quality of patient care (Shahriari, 2014). Researchers have also linked organizational commitment with turnover and

suggest that employees who are committed to their organization are less likely to leave (Allen & Meyer, 1990).

Burnout, organizational commitment, and turnover intention have been studied among various healthcare professionals such as nurses, physicians, and mental health workers; however, there seems to be a lack of studies regarding clinical laboratory employees. Clinical laboratory employees work under similar conditions as other health care professionals, and thus, since organizational commitment and burnout have been found to affect turnover among other healthcare professionals, it is important to explore these factors among workers of the clinical laboratory. Therefore, the purpose of this research study was to investigate the relationship between job burnout and organizational commitment on turnover intentions of clinical laboratory employees in the state of Florida. The study also examined the influence of demographic variables on organizational commitment, burnout, and turnover intention. Chapter 3 describes the research methodology that was used in this study to address the research questions and test the hypotheses.

Chapter 3: Research Method

Introduction

The purpose of this study was to explore the relationship between job burnout and organizational commitment as they pertain to the turnover intentions of clinical laboratory employees in Florida and to determine what influence demographic variables have on burnout, organizational commitment, and turnover intention. Chapter 1 provided an overview of this research study and also provided rationale for why this particular study is important and why further research of this problem was needed. Chapter 2 presented a literature review regarding burnout, organizational commitment, and employee turnover intentions. In Chapter 3, the following topics are covered: the research design, its ability to address the research questions, the sample and setting, the participants, the procedures for data collection, the instruments used for data collection, the methods used for data analysis, and ethical considerations

Research Design and Approach

The objective of this study was threefold: to determine whether there is a relationship (a) between job burnout and turnover intention of clinical laboratory employees in Florida, (b) between organizational commitment and turnover intention of clinical laboratory employees in Florida, and (c) to examine whether demographic variables influence job burnout, organizational commitment, and turnover intentions among clinical laboratory employees in Florida. It was hypothesized that job burnout and organizational commitment would have a significant relationship with turnover intention and that demographic variables would influence job burnout, organizational commitment,

and turnover intentions among clinical laboratory employees in Florida. To answer the research questions, this study used a non-experimental, quantitative, correlational, cross-sectional survey approach.

A quantitative approach was chosen for this study because the overall goal of this research study was to determine whether or not a relationship existed between the dependent variable and independent variables and thus a quantitative approach can be used to accomplish this (Ingham-Broomfield, 2014). Quantitative research is also well suited for testing hypotheses and can be used to produce data that may be generalized to a larger population (Verhoef & Casebeer, 1997). Using a quantitative approach allowed me to establish an association between the variables in this study and to describe this relationship using statistical analysis. In this study, the main dependent variable was turnover intention and the main independent variables were burnout and organizational commitment.

For this study, burnout was defined as a syndrome consisting of three dimensions: emotional exhaustion, cynicism, and professional efficacy (Maslach, Jackson, & Leiter, 1996). Organizational commitment was defined as how an employee identifies with an organization (Mowday, Steers, & Porter, 1979). Turnover intention was defined as an employee's desire or intention to voluntarily leave their current job (Nazim, 2008).

Determining whether a relationship exists between job burnout and turnover intention, organizational commitment and turnover intention, and the influence of demographic variables on these variables was the focus of this study. A correlational design was chosen because it is most effective in determining the association between the

variables in question. A correlational approach was used to determine the strength and direction of the relationship between these variables. This research study employed the use of regression analysis. Regression analysis was used to analyze the relationship between the dependent variable (turnover intention) and the independent predictor variables (job burnout and organizational commitment). Correlation and regression are commonly used approaches for determining the association and strength of relationship among and between variables (Crawford, 2006).

Survey research was used to gather data in this study. "Survey research provides a quantitative or numeric description of trends, attitudes, or opinions of a population by studying a sample of that population" (Creswell, 2009, p.12). The survey method was chosen for this study because of its advantages. This method allows the researcher to obtain a large amount of information from large populations and also offers the researcher a lot of flexibility when it comes to the structure, content, and design of the survey (Keough & Tanabe, 2011). Other advantages of using surveys for data collection include the fairly low cost that is associated with this particular method and using surveys also allows data to be collected in a standardized form (Kelly, Clark, Brown, & Sitza, 2003). Surveys have been widely used in research studies involving health care professionals including physicians, nurses, and allied health professionals such as radiology technicians (Keough & Tanabe, 2011; Leahy et al., 2008).

Setting and Sample

Participants

The target population for this study was clinical laboratory employees in Florida. The participants of this study consisted of a random sample of clinical laboratory professionals who were licensed in the state of Florida as clinical laboratory directors, clinical laboratory supervisors, clinical laboratory technologists, and clinical laboratory technicians. To participate in this research study, these individuals were required to have a license that was in an active status at the time of the study. As mentioned in Chapter 1, clinical laboratory supervisors play a key role in managing laboratory staff and overseeing the daily operations of the clinical laboratory. Clinical laboratory technicians and technologists are health care professionals who perform medical testing on blood, tissue, and other body fluids that are sent to the laboratory by medical practitioners. The requested testing is performed and results are communicated back to the medical practitioner to aid in diagnosis, prognosis, and treatment of diseases. Florida is one of several states that require laboratory personnel to obtain a license from the state. In the state of Florida, persons wishing to work in the clinical laboratory field as a clinical laboratory technician or technologist and those pursing employment as a clinical laboratory supervisor or director, must apply for licensure with the Florida Department of Health.

To obtain a license to work in Florida, some of the requirements may include submitting a completed application to the required agency, showing proof of a national laboratory certification, completing a clinical laboratory training program, and

completing a required number of continuing education courses. Once Florida state licensure is obtained, it must be renewed every two years. Participants were randomly selected from a list of over 10,000 licensed clinical laboratory personnel which included clinical laboratory directors, clinical laboratory technicians, clinical laboratory technologists, and clinical laboratory supervisors that was obtained from the Florida Department of Health.

Procedures

This study involved clinical laboratory professionals in Florida who were asked to voluntarily participate in this research study. In order to prepare for this study there were four important factors that needed to be considered. These four factors are sample size, effect size, statistical power, and significance level (α). The sample size is the number of participants needed in order to achieve the desired power of the study. The effect size is a measure of how variables are associated or the magnitude of the association between variables (Cohen, 1992; Fergusen, 2009). The statistical power is the probability of committing a type II error (Cohen, 1992). A type II error is failure to reject a false null hypothesis (Rothman, 2010). Therefore, the statistical power is the probability that one will find a statistically significant difference when a difference actually exists. Statistical power is typically set to 0.80 or higher. This means that there is an 80% chance that one will find a statistically significant difference when one exist (Suresh & Chandrashekara, 2012). The significance level (α) is the probability of committing a type I error (Cohen, 1992). A type I error is rejecting a null hypothesis that is correct (Rothman, 2010).

Before this study could be conducted, the sample size needed to be determined. Selecting the appropriate sample size is one of the most important parts of the research design (Beck, 2013). In order to determine the appropriate minimum sample size needed for this study, a statistical power analysis was performed. Specifically, an apriori power analysis was done to determine sample size since power can be controlled before conducting the study (Faul, Erdfelder, Lang, & Buchner, 2007). GPower3.1.9.2 software was used to conduct a statistical power analysis to determine the sample size for this study. "GPower was designed as a general stand-alone power analysis program for statistical tests commonly used in social and behavioral research (Faul et al., 2007)." When at least three of the four factors (sample size, effect size, statistical power, alpha) are known, the fourth factor can be calculated. For this study, a statistical significance level (α) of .05 and an effect size of 0.15 were used. Composite scores for the three categories of burnout were computed and one composite score for organizational commitment was computed. With a total of 4 predictors, in order to achieve a statistical power of 0.95, the minimum sample size required for this study was 129 (Figure 1).

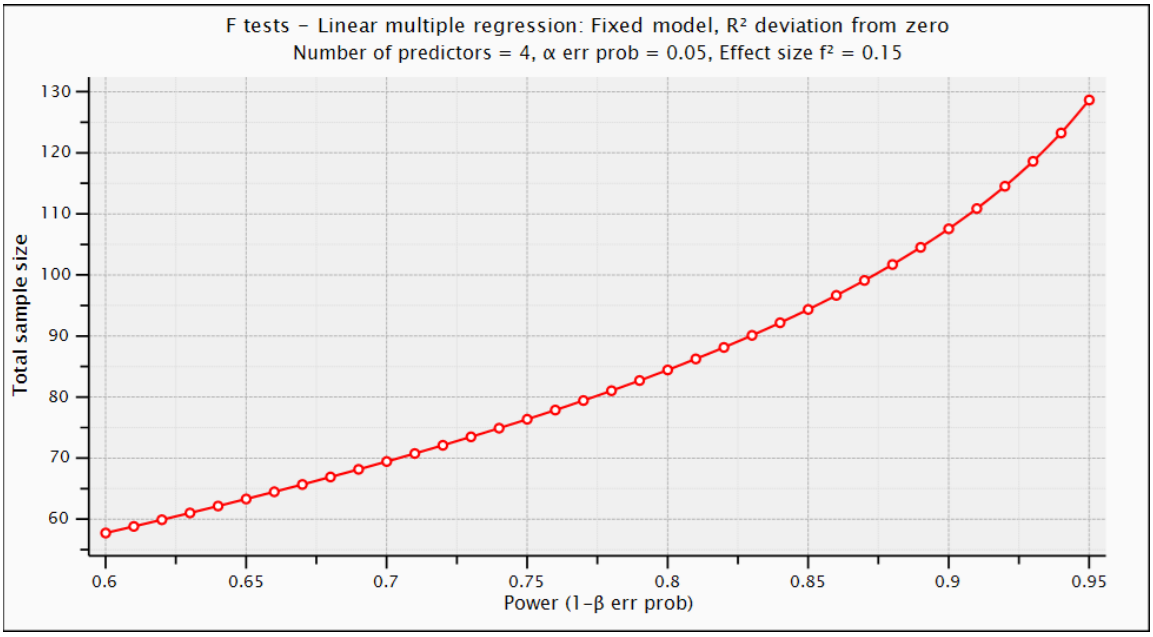

Figure 1. Power analysis to determine sample size.

Based on the results of the apriori power analysis, a minimum sample size of 129 participants is needed. A list of all licensed clinical laboratory personnel in Florida was obtained from the Florida Department of Health Division of Medical Quality Assurance online Health Care Practitioner Data Portal. Since this is a public online database, permission was not needed to use the email addresses on file to recruit participants for this study. The complete list of all licensed clinical laboratory personnel was filtered to only include those individuals who had an email address on file and an active license as a clinical laboratory director, supervisor, technician, or technologist. Emails were sent to 1,000 randomly selected licensed clinical laboratory personnel from the list in order to acquire the minimum sample size needed for this study. The email invited participants to voluntarily participate in the study and provided a brief overview of the study and its intended purpose so that participants understood why this research was being conducted.

Consent procedures were included in the email and explained how the identity of the participants was protected. This study did not use a signed consent form; instead, implied consent was obtained through the submission of the online survey. I also included my email address and contact information for the Walden University Representative in case the participants had any questions or concerns. The email contained a link for participants to access the online survey. The participants were asked to complete the online survey before the two week deadline. I sent reminder emails to all participants who had not yet responded to the survey at various times during the collection period reminding them to complete the survey if they have not done so by that time. If the optimal sample size was not obtained after the two weeks period, a request to extend the survey time frame would have been submitted.

Instrumentation and Materials

Data for this research study was collected from self-administered surveys that measured burnout, organizational commitment, and turnover intention. To carry out this study, I utilized three instruments and a demographic questionnaire. Job burnout was measured using the Maslach Burnout Inventory-General Survey (1996). Organizational commitment was measured using the Organizational Commitment Questionnaire developed by Mowday, Steers, & Porter (1979). Turnover intention was measured using three items adapted from the Michigan Organizational Assessment Questionnaire (MOAQ). A demographics questionnaire was also included to collect general information about the sample population. The three items relating to turnover intentions

from the MOAQ were included on the demographics questionnaire. A summary of the instruments can be found in Table 1.

Demographic Variables

Demographic information about each participant in this study was collected using a Demographic Questionnaire. Participants was asked to provide information regarding their gender, age, education level, current job role, years of service at current organization, current work shift, and years of experience working as a clinical laboratory professional. Gender was recorded as female (1), male (2) and other (3). Age was recorded in seven ranges; (1) 19-24, (2) 25-30, (3) 31-35, (4) 36-40, (5) 41-50, (6) 51-55, (7) 56 and older. Level of education was measured using four categories; (1) associate's or two-year degree, (2) bachelor's or four-year degree, (3) master's degree, (4) doctoral degree. The primary difference between clinical laboratory technicians and technologists is level of education or degree type. Their job duties are typically the same, therefore, for the purpose of describing job roles, I chose to group clinical laboratory technician and technologist into one category. Thus, job role was measured using two categories; (1) clinical laboratory technician or technologist, (2) clinical laboratory supervisor/manager. Years of service at current organization was measured in seven categories; (1) 0-1 year, (2) 1-5 years, (3) 5-10 years, (4) 10-15 years, (5) 15-20 years, (6) 20-29 years, (7) 30 or more years. Current work shift was measured using three categories; (1) first shift/day shift, (2) second shift/evening shift, (3) third shift/night shift. Years of experience as a clinical laboratory professional was measured in seven categories; (1) 0-5 years, (2) 5-10

years, (3) 10-15 years, (4) 15-20 years, (5) 20-25 years, (6) 25-29 years, (7) 30 or more years.

Turnover Intention

The main dependent variable in this study was turnover intention. Turnover intention was measured using a three items scale that was adapted from the Michigan Organizational Assessment Questionnaire (MOAQ) (Cammann, Fichman, Jenkins, & Klesh, 1983). This scale is used to assess an employee's desire to leave their current place of employment and also assesses an employee's job seeking behavior. The three items are rated on a 7-point Likert scale from (1) strongly agree to (7) strongly disagree. A sample item is "I often think about leaving the organization" (Cammann et al., 1983). The mean of the three items is obtained to get a composite score. Transforming Likert scale data into composite scores for purposes of data analysis is standard practice and does not introduce substantial study bias (Nunnally & Bernstein, 1994). Higher turnover intention is indicated by a higher composite score. Lower turnover intention is indicated by a lower composite score. The three items relating to employee turnover intention were included in the demographics questionnaire. These three items are frequently used to measure employee turnover intention and has shown good reliability. Recent studies using these three items have shown good reliability with reported Cronbach's alpha values of .92 (Saleem & Gul, 2013), .91 (Jafari, Moradi, & Ahanchi, 2013), .86 (Jonathan, Thibeli & Darroux, 2013), and .85 (Kumar & Eng, 2012). The Michigan Organizational Assessment Questionnaire and subsets of this instrument have

demonstrated validity as evidenced through repeated use. Before conducting this study, permission to use a portion of the MOAQ was obtained.

Maslach Burnout Inventory

The Maslach Burnout Inventory (MBI) was used to measure burnout syndrome among clinical laboratory employees in Florida. The MBI was developed by Maslach and Jackson (1981). The Maslach Burnout Inventory is the most widely used instrument that researchers use to measure and assess burnout (Poghosyan, Aiken, & Sloan, 2009). There are three versions of the Maslach Burnout Inventory. The Maslach Burnout Inventory – Human Services Survey (MBI-HSS) is the original version of the MBI that was developed for professionals in the human services field. The Maslach Burnout Inventory – Educators Survey (MBI-ES) is used for research studies involving educators and the Maslach Burnout Inventory – General Survey (MBI-GS) is used for other occupations. Although clinical laboratory employees are allied health care professionals, most clinical laboratory technologists and technicians do not work directly with patients/people, therefore the MBI-HSS was not used for this study. Instead, this research study utilized the general version of the MBI. The MBI-GS is appropriate because it can be used for occupations that do not have direct, personal contact with service recipients (Maslach et al., 1996).

The MBI-GS contains a total of 16 items and consists of three subscales. Each of the 16 items are measured on a 7-point frequency rating scale from 0 to 6 in which 0 = never, 1 = a few times a year or less, 2 = once a month or less, 3 = a few times a month, 4 = once a week, 5 = a few times a week, and 6 = everyday. A sample item from the MBI

is “I feel burnout from my work” (Maslach & Jackson, 1986). The three subscales are Exhaustion, Cynicism, and Professional Efficacy. The Exhaustion subscale consists of 5 items and describes feelings of being exhausted and feeling fatigues from one’s work. The Cynicism subscale consists of 5 items. The 5 items describes indifference or a distant attitude regarding one’s work (Maslach et al., 1996). The Professional Efficacy subscale contains 6 items that describe general feelings of success, accomplishment, and competence in one’s work. The three subscale scores on the MBI are separate and distinct from one another and cannot be added to form an overall scored of burnout. Therefore, each participate had three scores, one for each of the three subscales. Lower Professional Efficacy scores along with high Exhaustion and Cynicism scores indicate higher degrees of burnout (Amigo, Asensio, Menendez, Redondo, & Ledesma, 2014). Low scores on Exhaustion and Cynicism along with higher Professional Efficacy scores indicates lower degrees of burnout.

The MBI has been used to measure burnout among various health care occupations (Dyrbe et al., 2013; Gallavan & Newman, 2013; Khanna & Khanna, 2013; Nelson, Johnson, & Bebbington, 2009). Maslach and Jackson (1981) reports that Cronbach’s coefficient alpha was used to measure the internal consistency reliability for each of the three scales of the MBI survey and is reported as .90 for emotional exhaustion, .79 for depersonalization, and .71 for personal accomplishment. The MBI-GS has shown good internal consistency with Cronbach’s alpha values of .87 for Exhaustion, .85 for Cynicism, and .78 for Professional Efficacy (Amigo, Asensio, Menendez, Redondo, & Ledesma, 2014). Studies surveying burnout using the MBI

across various occupational settings provide additional evidence of high internal, external, and construct validity (Richardsen & Martinussen, 2004; Shirom & Melamed, 2006). Before conducting this study, permission and licensure to use the Maslach Burnout Inventory was obtained.

Organizational Commitment Questionnaire

The Organizational Commitment Questionnaire (OCQ) developed by Mowday et al. (1979) was used to measure organizational commitment among clinical laboratory employees in Florida. This design of this questionnaire focused on assessing and measuring three aspects of organizational commitment including (1) accepting and believing in the goals of the organization, (2) employee's willingness to put in the work and effort in support of the organization, and (3) the employee's desire to remain with the organization (Mowday et al., 1979). These researchers developed the OCQ to measure attitudinal commitment. "Attitudinal commitment is a state in which an individual identifies with a particular organization and its goals and wishes to maintain membership in order to facilitate these goals (Mowday et al., 1979, p. 225)."

The OCQ scale consists of 15 items that are used to measure how attached and committed employees are to their current organization. These 15 items evaluate two dimensions of organizational commitment. These two dimensions are continuance commitment and affective commitment. Of the 15 items on the OCQ, 9 items (Item 1,2,4,5,6,8,10,13, & 14) are used to measure affective commitment and 6 items (Item 3,7,9,11,12, & 15) are used to measure continuance commitment (Chein-Hung & Wen-Cheng, 2012). Employees rate each item on the survey based on a 7-point Likert scale

from (1) strongly agree to (7) strongly disagree. There are several items (Item 3,7,9,11, & 12) that are negatively phrased and these items were reverse-coded for analysis. These items were intentionally phrased negatively by the authors in an effort to reduce response bias (Mowday et al., 1979). A sample OCQ item is "I am extremely glad that I chose this organization to work for over others I was considering at the time I joined" (Mowday et al., 1979). The 15 items are summed to receive a total score that represents the level or degree of organizational commitment for that employee. This instrument was appropriate for this study because the focus of this study is to determine whether a relationship exists between employee organizational commitment and turnover, and this instrument can is used to assess how committed an employee is to their current organization.

Mowday et al. (1979) found that based on a series of studies across several organizations, the OCQ consistently showed high coefficient alpha values, ranging from 0.82 to 0.93. Khasawneh, Omari, & Abu-Tineh (2012) reported that previous research using the OCQ have shown coefficient alpha internal consistency reliability ranging from 0.84 to 0.91. A recent study among employees in the public sector reported a Cronbach's alpha value of 0.70 (Suma & Lesha, 2013). A study by Yin-Fah, Foon, Chee-Leong, & Osman (2010) reported the internal consistency reliability (Cronbach'a alpha) of 0.81. Mowday et al. (1979) used a variety of measures to assess the predictive, convergent, and discriminant validity of the OCQ. Researchers reported acceptable levels of predictive, convergent, and discriminant validity for the OCQ that were suggested by results that showed correlation between organizational commitment and other similar attitude constructs and relatively consistent relationships in the predicted direction between

organizational commitment and turnover, absenteeism, and tenure in the job (Mowday et al., 1979). Before conducting this study, permission and consent to use the Organizational Commitment Questionnaire was obtained. However, this instrument is not copyrighted, thus permission was not needed.

Table 1

Summary of the Instruments Used in this Study

Scales	Measures	Total Items in Survey
Maslach Burnout Inventory General Survey (MBI-GS)	Job burnout	
Exhaustion		5
Cynicism		5
Professional Efficacy		6
(Maslach et al., 1996)		
Organizational Commitment Questionnaire (Mowday et al., 1979)	Organizational commitment	15
Michigan Organizational Assessment Questionnaire (Cammann et al., 1983)	Turnover intention	3

Data Collection and Analysis

This study used a quantitative, correlational design. Once approval by Walden University's Institutional Review Board (IRB) was obtained, data for this study was collected using a survey inclusive of three instruments to include the Maslach Burnout Inventory, the Organizational Commitment Questionnaire, and also a demographics questionnaire. This inclusive survey was used to measure burnout, organizational commitment, and turnover intention among clinical laboratory employees in the state of Florida. Participants were contacted via email and instructed to complete the online survey.

All data were reviewed for completeness. Surveys that were not entirely completed were not used in the study. The data were analyzed using Statistical Package of Social Science (SPSS) version 21. All data and information was entered into SPSS manually by me, the researcher. Both descriptive statistics and inferential statistics were used to analyze the data obtained in this study. Descriptive statistics are used to describe a set of data. Inferential statistics are used to test hypotheses and draw conclusions about a population from a sample. Based on the nature of the research question, appropriate statistical analysis was performed.

For research question 1, the goal was to determine whether or not a relationship exists between the independent variable burnout and the dependent variable turnover intention, therefore, linear regression and multiple stepwise linear regression were used to see how each of the three dimensions of burnout (exhaustion, cynicism, and professional efficacy) correlated with turnover intention. For research question 2, the goal was to

determine whether or not a relationship exists between the independent variable organizational commitment and the dependent variable turnover intention. A linear regression and multiple stepwise linear regression were conducted. For research question 3, the goal was to determine what influence does demographics have on burnout, organizational commitment, and turnover intention. The demographic variables age, years of experience, and shift worked were examined as independent variables to determine whether or not these three variables have a confounding effect on the dependent variables burnout, organizational commitment, and turnover intention. A one way analysis of variance (ANOVA) was used to address this research question. ANOVA was appropriate to use since it can tell whether there are significant differences between the means of three or more groups. Each of the demographic variables that were used to examined as independent variables in research question 3 all have three or more groups. Table 2 shows variables along with coding for the items for the independent variable organizational commitment, the demographic variables, and the dependent variable turnover intention. Since a copyrighted survey is being used to measure independent variable of burnout, the actual survey items are not listed. The three research questions and methods of analysis are shown in Table 3. The reliabilities (Cronbach's alpha) of each of the survey instruments used in this study were also calculated.

Research Questions

Research Question 1

Research Question 1 (RQ1): What effect does job burnout have on the turnover intentions of clinical laboratory employees in Florida?

Null Hypothesis 1 (H_01): Job burnout, as measured by the MBI-GS, will have no relationship with the turnover intentions, as measured by the demographics questionnaire, of clinical laboratory employees in Florida.

Alternative Hypothesis 1(H_11): Job burnout, as measured by the MBI-GS, will have a significant relationship with the turnover intentions, as measured by the demographics questionnaire, of clinical laboratory employees in Florida.

Independent Variable: Burnout

Dependent Variable: Turnover Intention

Descriptive Statistics: Mean, frequency, standard deviation

Inferential Statistics: Linear regression, multiple stepwise linear regression

Research Question 2

Research Question 2 (RQ2): What effect does organizational commitment, as measured by the OCQ, have on the turnover intentions, as measured by the demographics questionnaire, of clinical laboratory employees in Florida?

Null Hypothesis 2 (H_02): Organizational commitment, as measured by the OCQ, will have no relationship with the turnover intentions, as measured by the demographics questionnaire, of clinical laboratory employees in Florida.

Alternative Hypothesis 2 (H_12): Organizational commitment, as measured by the OCQ, will have a significant relationship with the turnover intentions, as measured by the demographics questionnaire, of clinical laboratory employees in Florida.

Independent Variable: Organizational Commitment

Dependent Variable: Turnover Intention

Descriptive Statistics: Mean, frequency, standard deviation

Inferential Statistics: Multiple Linear Regression, Multiple Stepwise Linear Regression

Research Question 3

Research Question 3 (RQ3): What effect do demographic variables have on burnout, organizational commitment, and turnover intentions?

Null Hypothesis 3 ($H_0 3$): Demographic variables, as measured by the demographics questionnaire, will not influence burnout and organizational commitment, as measured by the OCQ and MBI-GS, and turnover intentions, as measured by the demographics questionnaire.

Alternative Hypothesis 3 ($H_1 3$): Demographic variables, as measured by the demographics questionnaire, will influence burnout and organizational commitment, as measured by the OCQ and MBI-GS, and turnover intentions, as measured by the demographics questionnaire.

Independent Variable: Demographic Variables (Age, Shift Worked, Years of Experience)

Dependent Variable: Burnout, Organizational Commitment, Turnover Intention

Descriptive Statistics: Mean, frequency, standard deviation

Inferential Statistics: ANOVA

Table 2

Variable Description, Operationalization of Variables and Coding

Variable Category	Variable	Level of Measurement	Description	Code
Independent Variable Organizational Commitment	I am willing to put in a great deal of effort beyond that normally expected in order to help this organization be successful.	Interval	[a]Likert scale 1 = *strongly disagree* 2 = *moderately disagree* 3 = *slightly disagree* 4 = *neither agree or disagree* 5 = *slightly agree* 6 = *moderately agree* 7 = *strongly agree*	OC1
	I talk up this organization to my friends as a great organization to work for.	Interval	[a]Likert scale	OC2
	I feel very little loyalty to this organization.	Interval	[a]Likert scale	OC3
	I would accept almost any type of job assignment in order to keep working for this organization.	Interval	[a]Likert scale	OC4

Variable Category	Variable	Level of Measurement	Description	Code
	I find that my values and the organization's values are similar.	Interval	[a]Likert scale	OC5
	I am proud to tell others that I am part of this organization.	Interval	[a]Likert scale	OC6
	I could just as well be working for a different organization as long as the type of work was similar.	Interval	[a]Likert scale	OC7
	This organization really inspires the very best in me in the way of job performance.	Interval	[a]Likert scale	OC8
	It would take very little change in my present circumstances to cause me to leave this organization	Interval	[a]Likert scale	OC9

Variable Category	Variable	Level of Measurement	Description	Code
	I am extremely glad that I chose this organization to work for over others I was considering at the time I joined.	Interval	[a]Likert scale	OC10
	There's not too much to be gained by sticking with this organization indefinitely.	Interval	[a]Likert scale	OC11
	Often I find it difficult to agree with this organization's policies on important matters relating to its employees.	Interval	[a]Likert scale	OC12
	I really care about the fate of this organization.	Interval	[a]Likert scale	OC13
	For me this is the best of all possible organizations for which to work.	Interval	[a]Likert scale	OC14

Variable Category	Variable	Level of Measurement	Description	Code
	Deciding to work for this organization was a definite mistake on my part.	Interval	[a]Likert scale	OC15
Burnout	Items 1 – Items 16	Interval	[b]Likert scale 0 = never 1 = a few times a year or less 2 = once a month 3 = a few times a month 4 = once a week 5 = a few times a week 6 = everyday	BO1 – BO16
Demographics				
Gender	Gender of Participant	Interval	1 = female, 2 = male 3 = other	Dem1
Age	Age in Years	Interval	1 = 19-24, 2 = 25-30 3 = 31-35, 4 = 36-40 5 = 41-50, 6 = 51-55 7 = 56 and older	Dem2
Education	Highest Level of Education	Interval	1 = Diploma 2 = Associates 3 = Bachelors 4 = Masters 5= Doctoral	Dem3

Variable Category	Variable	Level of Measurement	Description	Code
Job	Job Role	Interval	1 = Clinical Laboratory Technician/Technologist 2 = Clinical Laboratory Supervisor/Director	Dem4
Years	Years of Service	Interval	1 = 0-1 2 = 1-5 3 = 5-10 4 = 10-15 5 = 15-20 6 = 20-30 7 = over 30	Dem5
Shift	Current Work Shift	Interval	1 = First/day shift 2 = Second/evening Shift 3 = Third/night Shift	Dem6
Experience	Years of Experience	Interval	1 = 0-5 2 = 5-10 3 = 10-15 4 = 15-20 5 = 20-25 6 = 25-30 7 = over 30	Dem7

Variable Category	Variable	Level of Measurement	Description	Code
Dependent Variable				
Turnover Intention	I will likely actively look for a new job in the next year.	Interval	*Likert scale	Dem8
	I often think about quitting.	Interval	*Likert scale	Dem9
	I will probably look for a new job in the next year.	Interval	*Likert scale	Dem10

(Table continued)

[a]Likert scale 1=strongly disagree, 2=moderately disagree, 3=slightly disagree, 4=neither agree or disagree,5=slightly agree, 6=moderately agree, 7=strongly agree
[b]Likert scale 0=never, 1=a few times a year or less, 2=once a month, 3=a few times a month, 4=once a month, 5=a few times a week, 6=everyday

Table 3

Statistical procedures by research question and corresponding hypothesis

Research Question	Hypothesis	Statistical Procedures
RQ1: What effect does job burnout have on the turnover intentions of clinical laboratory employees in Florida?	$H_0$1: JobBurnout, as measured by the MBI-HSS, will have no relationship with the turnover intentions, as measured by the demographics questionnaire, of clinical laboratory employees in Florida.	Linear regression and multiple linear stepwise regression to analyze the relationship between burnout and turnover intention.
RQ2: What effect does organizational commitment have on the turnover intentions of clinical laboratory employees in Florida?	$H_0$2: Organizational commitment, as measured by the OCQ, will have no relationship with the turnover intentions, as measured by the demographics questionnaire, of clinical laboratory employees in Florida.	Multiple linear regression and multiple stepwise linear regression were used to analyze the relationship between organizational commitment and turnover intention
RQ 3: What effect do demographic variables have on burnout, organizational commitment, and turnover intention?	$H_0$3: Demographic variables, as measured by the demographic questionnaire, will not influence burnout and organizational commitment, as measured by the MBI-HSS and OCQ, and turnover intention, as measured by the demographics questionnaire.	ANOVA to analyze the difference between more than two groups as well as identifying cofounders.

Threats to Validity

Validity is the extent to which a research instrument measures what is intended to measure and performs as it was designed to perform. External validity refers to generalization and is the extent to which results of the study can be generalized from the sample to the population. Steckler and McLeroy (2008) defines external validity as "whether causal relationships can be generalized two different measures, persons, settings, and times" (p. 9).

For this study, instruments that have well established records of validity and reliability were used to measure burnout, organizational commitment, and turnover intention. These instruments have been well validated and have shown to measure what they intend to measure. Since this study was only looking to determine whether or not a relationship exists between the independent variables and the dependent variable and not looking for causal relationships, internal validity was not an issue.

Ethical Procedures

Before conducting this study, it is important to address ethical considerations involved in this study. Institutional Review Board (IRB) approval (Approval # 03-17-15-0302288) was obtained for this study. No data were collected and/or analyzed prior to IRB approval from Walden University. Participants received a letter of invitation via email. The email included consent procedures and informed participants that participation in this study was completely voluntary. The invitation email also discussed the confidentiality of the study along with the risks and benefits of participating in the

study. Participants were informed that only myself and my committee members would have access to the data.

Summary

This chapter discussed the research methodology that was used to obtain and analyze data to examine the possible relationship between job burnout, organizational commitment, and intent to leave of laboratory employees in Florida. Regression analysis and ANOVA were used to determine these relationships. This chapter included an overview of the sample, setting, survey instruments, ethical considerations, and methods of data analysis.

Chapter 4 presents the results of the study and includes interpretation of the findings and a summary of the findings.

Chapter 4: Results

Introduction

Results are presented in this chapter. Chapter 4 is organized into four sections. Section one describes the purpose of the study and presents the research questions and hypotheses. Section two provides a brief overview of the data collection process used in this study and presents demographic information for the study sample. Section three provides data analysis in which the presentation of data and findings is organized according to research questions and/or hypotheses. Chapter 4 concludes with section four which provides a summary of the findings from this research study.

Purpose of the Study

The purpose of this quantitative, correlational, cross-sectional study was three-fold. This study was designed (a) to examine the relationship between burnout and turnover intention among clinical laboratory employees in Florida, (b) to examine the relationship between organizational commitment and turnover intention among clinical laboratory employees in Florida, and (c) to determine what influence demographic variables had on burnout, organizational commitment, and turnover intention. The research questions and hypotheses that were addressed in this study were:

RQ1: What effect does job burnout have on the turnover intentions of clinical laboratory employees in Florida?

$H_0$1: Burnout, as measured by the MBI-GS, will have no relationship with the turnover intentions, as measured by the demographics questionnaire, of clinical laboratory employees in Florida.

$H_1$1: Burnout, as measured by the MBI-GS, will have a significant relationship with the turnover intentions, as measured by the demographics questionnaire, of clinical laboratory employees in Florida.

RQ2: What effect does organizational commitment have on the turnover intentions of clinical laboratory employees in Florida?

$H_0$2: Organizational commitment, as measured by the OCQ, will have no relationship with the turnover intentions, as measured by the demographics questionnaire, of clinical laboratory employees in Florida.

$H_1$2: Organizational commitment, as measured by the OCQ, will have a significant relationship with the turnover intentions, as measured by the demographics questionnaire, of clinical laboratory employees in Florida.

RQ3: What effect do demographic variables have on burnout, organizational commitment, and turnover intentions?

$H_0$3: Demographic variables, as measured by the demographics questionnaire, will not influence burnout and organizational commitment, as measured by the OCQ and MBI-GS, and turnover intentions, as measured by the demographics questionnaire.

$H_1$3: Demographic variables, as measured by the demographics questionnaire, will influence burnout and organizational commitment, as measured by the OCQ and MBI-GS, and turnover intentions, as measured by the demographics questionnaire.

It was hypothesized that job burnout and organizational commitment would have a significant relationship with turnover intention. It was also hypothesized that demographic variables would influence job burnout, organizational commitment, and

turnover intentions of clinical laboratory employees in Florida. For this study, linear regression, multiple stepwise linear regression, and analysis of variance (ANOVA) were used to examine the research questions and hypotheses. Linear regression and multiple step-wise linear regression were used to analyze the relationship between burnout and turnover intention. Linear regression and multiple stepwise linear regression were utilized to analyze the relationship between organizational commitment and turnover intention. ANOVA was also utilized to analyze the difference between the groups of demographic variables as well as identifying cofounders. All data analysis was conducted using Statistical Package for Social Sciences (SPSS), version 21.

Data Collection Overview

The sample for this study was clinical laboratory personnel in Florida. These laboratory professionals currently held an active license from the Florida Department of Health as a clinical laboratory director, clinical laboratory supervisor, clinical laboratory technologist, or clinical laboratory technician during the time period of data collection. To identify potential participants, a list of all licensed clinical laboratory personnel in the state of Florida was obtained from the Florida Department of Health Division of Medical Quality Assurance online Health Care Practitioner Data Portal. A random sample of 1,000 clinical laboratory professionals who met the inclusion criteria of holding an active license from Florida Department of Health as a clinical laboratory director, supervisor, technologist, or technician was obtained from a list of all licensed clinical laboratory personnel in the state of Florida. Approval to conduct this research study was sought and obtained from the Walden University Institutional Review Board (Approval # 03-17-15-

0302288). The 1,000 licensed clinical laboratory professionals were invited to participate in this research study by email. Invitations to participate were emailed to the clinical laboratory professionals on March 18, 2015. Follow-up reminder e-mails were sent on March 20, 2015, March 23, 2015, March 29, 2015, and April 2, 2015 to all non-respondents. The online survey was closed to participants on April 3, 2015 at 11:59PM EST.

Discussion of Results

From the 1,000 licensed clinical laboratory professionals invited to participate in this research study, there were a total of 237 respondents that opened and started the online survey. From the 237 respondents, 53 were excluded because their surveys were not fully completed. A total of 184 surveys were completed, yielding a response rate of usable surveys of 18.4%.

The demographic questionnaire was used to gather descriptive data of the participants. The data collected included gender, age, highest level of education achieved, current job role, years of service at current organization, current work shift, and total years of experience working in the clinical laboratory. The demographic questionnaire also included three questions regarding employee turnover intentions that measured employee's attitudes about leaving their current job. Data were obtained on how likely the participant was to actively look for a new job in the next year, thinking about quitting, and will probably look for a new job in the next year. Demographic data collected on gender, age, education, and shift of respondents are displayed in Table 4. Demographic data collected on job role, years of service, and experience of respondents

are displayed in Table 5. Descriptive statistical analysis conducted on the data provided by the 184 respondents showed that 132 (71.7%) respondents were female and 52 (28.3%) respondents were male. There were no respondents in the gender category of other (n = 0; 0%).

The 184 respondent's ages ranged from 25 to 56 years and older. The respondent's ages were stratified into seven categories. The largest number of respondents were in the 56 years of age and older category (n = 101; 54.9%). The next largest age category was 51 – 55 years of age (n = 45; 24.5%), followed by 41-50 years of age (n = 29; 15.8%). The smallest number of respondents were from ages 36-40 years of age (n = 6; 3.3%), 31-35 years of age (n = 2; 1.1%), and 25-30 years of age (n = 1; 0.5%). There were no respondents in the category of 19-24 years of age (n = 0; 0%).

Data were also obtained on the highest level of education of respondents. The highest level of education achieved for the 184 respondents ranged from an associates degree to a doctoral degree. The results of highest level of education achieved were: Associates degree [N_A=34(18.5%)], Bachelors degree [N_B=114 (62.0%)], Masters degree [N_M=35(19.0%)], and Doctoral degree [N_D=1(0.5%)].

Data were obtained on the current job role of each participant. Two categories were used to describe job role. Of the 184 respondents, 115 (62.5%) were clinical laboratory technologists or technicians and 69 (37.5%) were clinical laboratory supervisors or directors.

Data obtained on years of service at current organization was stratified into seven categories and based on 184 respondents revealed that the largest number of respondents

worked for their current organization from 5-10 years (*n* = 41; 22.3%). The next largest category was 20-30 years (*n* = 33; 17.9%), followed by 10-15 years (*n* = 32; 17.4%), over 30 years (*n* = 25; 13.6%), 15-20 years (*n* = 24; 13.0%), and 1-5 years (*n* = 22; 12.0%). The lowest number of respondents have worked for their current organization for 0-1 year (*n* = 7; 3.8%).

Data obtained on the current shift of respondents revealed that the largest number of respondents currently worked first/day shift (*n* = 140; 76.1%). The number of respondents working second/evening shift was 28 (15.2%). The least amount of respondents were currently working third/night shift (*n* = 16; 8.7%).

Data obtained on the number of years the respondents worked in the clinical laboratory field was stratified into seven categories. The largest number of respondents have worked in the clinical laboratory for over 30 years (*n* = 94; 51.1%). The next largest category was 25-30 years (*n* = 32; 17.4%), followed by 20-25 years (*n* = 25; 13.6%). Equals numbers (*n* = 14; 7.6%) were revealed in 15-20 years and 10-15 years. The next smallest number of respondents have worked in the clinical laboratory 5-10 years (*n* = 5; 2.7%) and there were no respondents in the 0-5 years category (*n* = 0; 0%).

The demographic data reported in this research study are consistent with demographic results reported in the 2015 Medical Laboratory Observer (MLO) Annual Salary Survey among clinical laboratory professionals. The MLO 2015 survey reported that the highest percentage of laboratory employees were in the age group 56 and older, the highest percentage in the highest education level category was bachelor's degree, and

the majority of laboratory employees have been working in the laboratory for over 20 years.

Table 4

Demographics of Gender, Age, Education, and Shift of Respondents

Descriptive Statistics	Frequency	Percent
Gender		
Female	132	71.7
Male	52	28.3
Other	0	0
Total	184	100
Age		
19-24	0	0
25-30	1	0.5
31-35	2	1.1
36-40	6	3.3
41-50	29	15.8
51-55	45	24.5
56 and older	101	54.9
Total	184	100
Education		
Associates degree	34	18.5
Bachelor degree	114	62.0
Master’s degree	35	19.0
Doctoral degree	1	0.5
Total	184	100
Shift		
First/day shift	140	76.1
Second/evening	28	15.2
Third/night shift	16	8.7
Total	184	100

Table 5

Demographics of Job Role, Years of Service, and Experience of Respondents

Descriptive Statistics	Frequency	Percent
Job		
Technologist/Technician	115	62.5
Supervisor/Director	69	37.5
Total	184	100
Years of Service		
0-1	7	3.8
1-5	22	12.0
5-10	41	22.3
10-15	32	17.4
15-20	24	13.0
20-30	33	17.9
Over 30	25	13.6
Total	184	100
Years of Experience		
1-5	0	0
5-10	5	2.7
10-15	14	7.6
15-20	14	7.6
20-25	25	13.6
25-30	32	17.4
Over 30	94	51.1
Total	184	100

The last three items on the demographic questionnaire were associated with the dependent variable turnover intention and measure employee's attitudes about leaving their current job. Data were obtained on how likely the participant was to actively look for a new job in the next year, thinking about quitting, and will probably look for a new job in the next year. Responses were categorized on a 7-point Likert scale from strongly disagree to strongly agree. A summary of frequency distribution on how participants will likely actively look for a new job in the next year is provided in Table 6. Data obtained on respondents likely to actively look for a new job in the next year revealed that the largest number of respondents was strongly disagree (n = 84; 45.7%) followed by neither agree or disagree (n = 26; 14.1%), moderately disagree (n = 19; 10.3%), strongly agree (n = 18; 9.8%), moderately agree (n = 17; 9.2%), and slightly agree (n = 13; 7.1%). The smallest number of respondents was slightly disagree (n = 7; 3.8%).

Table 6

Frequency Distribution for "Looking for a New Job"

Actively Looking	Frequency	%	Valid %	Cumulative %
Strongly disagree	84	45.7	45.7	45.7
Moderately disagree	19	10.3	10.3	56.0
Slightly disagree	7	3.8	3.8	59.8
Neither agree or disagree	26	14.1	14.1	73.9
Slightly agree	13	7.1	7.1	81.0
Moderately agree	17	9.2	9.2	90.2
Strongly agree	18	9.8	9.8	100
Total	184	100.0	100.0	

A summary of the frequency distribution on often thinking about quitting is displayed in Table 7. Data obtained on "I often think about quitting" revealed that the largest number of respondents was strongly disagree (*n* = 47; 25.5%) followed by slightly agree (*n* = 33; 17.9%) , moderately agree (*n* = 26; 14.4%), and moderately disagree (*n* = 22; 12.0%). Equal numbers (*n* = 21; 11.4%) were revealed in strongly agree and neither agree or disagree. The smallest number of respondents were slightly disagree (*n* = 14; 7.6%).

Table 7

Frequency Distribution for "I Often Think About Quitting."

Thinking about quitting	Frequency	%	Valid %	Cumulative %
Strongly disagree	47	25.5	25.5	25.5
Moderately disagree	22	12.0	12.0	37.5
Slightly disagree	14	7.6	7.6	45.1
Neither agree or disagree	21	11.4	11.4	56.5
Slightly agree	33	17.9	17.9	74.5
Moderately agree	26	14.4	14.1	88.6
Strongly agree	21	11.4	11.4	100
Total	184	100.0	100.0	

A summary of the frequency distribution for will probably look for a new job in the next year is provided in Table 8. The data revealed that the largest number of respondents was strongly disagree (*n* = 80; 43.5%) followed by moderately disagree (*n* = 23; 12.5%), both slightly agree and neither agree or disagree had equal numbers (*n* = 19;

10.3%), strongly agree (*n* = 17; 9.2%), and moderately agree (*n* = 16; 8.7%). The smallest number of respondents was slightly disagree (*n* = 10; 5.4%).

Table 8

Frequency Distribution for "Probably Look for a New Job"

Actively Looking	Frequency	%	Valid %	Cumulative %
Strongly disagree	80	43.5	43.5	43.5
Moderately disagree	23	12.5	12.5	56.0
Slightly disagree	10	5.4	5.4	61.4
Neither agree or disagree	19	10.3	10.3	71.7
Slightly agree	19	10.3	10.3	82.1
Moderately agree	16	8.7	8.7	90.8
Strongly agree	17	9.2	9.2	100.0
Total	184	100.0	100.0	

Data Analysis

Research Question 1

Research Question 1: What effect does job burnout have on the turnover intentions of clinical laboratory employees in Florida?

Null Hypothesis 1: Job burnout, as measured by the MBI-GS, will have no relationship with the turnover intentions, as measured by the demographics survey, of clinical laboratory employees in Florida.

Alternative Hypothesis 1: Job burnout, as measured by the MBI-GS, will have a significant relationship with the turnover intentions, as measured by the demographic survey, of clinical laboratory employees in Florida.

The instrument MBI-GS was used to measure burnout. This instrument measured burnout across three subscales: emotional exhaustion, professional efficacy, and cynicism. The emotional exhaustion subscale measured feelings associated with stress and exhaustion as a result of employee's work. The professional efficacy subscale measured employee's feelings regarding accomplishments and competence in one's work. The cynicism subscale measured employee's indifferent or distant attitude towards their work. Scoring of the MBI-GS survey involved calculating the average rating on a frequency scale of 0-6 across the items within each of the three subscales of burnout. Thus, these three subscales of burnout each have its own score. Note: these scores are not added together to form a total burnout score. A higher score on the exhaustion and cynicism subscales indicates a higher level of burnout being experienced, whereas, higher scores on professional efficacy subscale indicate a lower level of experienced burnout. Collectively, the three subscales of the MBI-GS survey provide a three-dimensional analysis of burnout. Cronbach's alpha for the MBI-GS was .797.

The range of experienced burnout for each of the three subscales of burnout is presented in Table 9. The ranges are classified as low, average, and high. The respondents (N = 184) were experiencing exhaustion (m = 3.00) at an average level, cynicism (m = 2.25) at a high level, and professional efficacy (m = 5.12) at a high level.

Descriptive statistics conducted to further examine the factors associated with the three dimensions of burnout and to determine the extent to which the 184 respondents were experiencing burnout is presented in Table 10. The respondent's scores on the exhaustion subscale indicated that respondents moderately felt used up at the end of their work day (*m* = 3.53; *S.D.* = 1.92). The respondent's mean cynicism scores ranged from 1.10-3.78 and indicated that a high percentage of respondents just wanted to do their job and not be bothered. The respondent's mean professional efficacy scores ranged from 4.42-5.80 indicating that most of the respondents felt that they are efficient at their job.

Table 9

Experience of Burnout Across Subscales

Subscales	Low (lower third)	Average (middle third)	High (upper third)	Respondents' Mean Score
Exhaustion	≤2.00	2.01-3.19	≥3.20	3.00
Cynicism	≤1.00	1.01-2.19	≥2.20	2.25
Professional Efficacy	≤4.00	4.01-4.99	≥5.00	5.12

Table 10

Mean and S.D. Scores for Factors Associated with Burnout

Factors	Mean	S.D.
Feel emotionally drained	3.14	1.94
Feel used up	3.53	1.92
Feel tired before work	3.02	1.99
Strainful workday	2.62	1.99
Effectively solves problem	5.45	1.06
I feel burned out from my work	2.68	2.02
Make effective contribution to Org.	5.05	1.61
Become less interested in work	1.84	2.00
Become less enthusiastic	2.48	1.91
I am good at my job	5.80	0.66
Feel exhilarated with accomplishment	4.42	1.77
Accomplished worthwhile work	4.64	1.60
Do job; not bothered	3.78	2.13
Cynical about work contributions	2.03	2.10
I doubt the significance of my work	1.10	1.77
Confident I am effectively working	5.33	1.18

N = 184

To examine the relationship between burnout and turnover intention, the independent variables consisted of the three dimensions of burnout: exhaustion, professional efficacy, and cynicism. The dependent variable for this analysis was the turnover intention composite score (TIScore). TIScore was obtained by finding the mean of questions 8, 9, and 10 on the demographic questionnaire. These three questions were selected to measure employee's attitude about leaving their job, turnover intention. Cronbach's alpha for the MOAQ turnover intention scale was .878. A linear regression analysis and a multiple stepwise linear regression analysis were conducted to determine the association between burnout and turnover intention. The statistical analysis was conducted using SPSS version 21. The level of significance was .05.

The results of the linear regression analysis of exhaustion (Exhaustion) and turnover intention (TIScore) are presented in Tables 11, 12, and 13. As shown in Table 11, the adjusted R^2 is .358 indicating that 35.8% of the variance in turnover intention is explained by the predictor variable exhaustion. The results of the linear regression analysis presented in Table 12 indicates that the relationship between exhaustion and turnover intention was statistically significant, $F(1,182) = 103.215$, $p < .001$. Therefore, exhaustion has a positive relationship with turnover intention (*beta* = .602, $p < .001$) (see Table 13).

The results of the linear regression analysis of professional efficacy (ProfEfficacy) and turnover intention (TIScore) are presented in Tables 14, 15, and 16. As shown in Table 14, the adjusted R^2 is .044 indicating that 4.4% of the variance in turnover intention is explained by the predictor variable professional efficacy. The

results of the linear regression analysis indicates that the relationship between professional efficacy and turnover intention was statistically significant, $F(1,182) = 9.513$, $p = .002$ (see Table 15). Therefore, professional efficacy has an inverse relationship with turnover intention (*beta* = -.223, $p = .002$) (see Table 16).

Table 17, 18, and 19 presents the results of the linear regression analysis of cynicism (Cynicism) and turnover intention (TIScore). As shown in Table 17, the adjusted R^2 is .211 indicating that 21.1% of the variance in turnover intention was explained by the predictor variable cynicism. The results of the linear regression analysis presented in Table 18 indicate that the relationship between cynicism and turnover intention was statistically significant, $F(1,182) = 49.877$, $p < .001$. Therefore, cynicism has a positive relationship with turnover intention (*beta* = .464, $p = <.001$) (see Table 19).

A multiple stepwise linear regression analysis was conducted (with probability of F to enter ≤ 0.05 and probability of F to remove ≥ 0.10) to determine which combination of burnout predictor variables (exhaustion, professional efficacy, and cynicism) would best predict turnover intention. The results of the multiple linear stepwise regression analysis between independent variables exhaustion, professional efficacy, and cynicism and dependent variable turnover intention are presented in Tables 20, 21, and 22. As shown in Table 20, this prediction model was statistically significant, $F(2,181) = 57.623$, $p < .001$, and with an adjusted R^2 of .382 (see Table 21), accounted for 38.2% variance in turnover intention. The model included exhaustion and professional efficacy. In this model, Table 22 depicts that exhaustion has a positive relationship with turnover intention (*beta* = .585, $p = <.001$) and professional efficacy has an inverse relationship

with turnover intention (*beta* = -.166, *p* =.005). Therefore, the null hypothesis for RQ1 was rejected. Cynicism was not a significant predictor of turnover intention and was excluded from the model.

Table 11:

RQ1 Linear Regression Model Summary for Exhaustion

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.602[a]	.362	.358	1.55213

a. Predictors: (Constant), Exhaustion

Table 12:

RQ1 Linear Regression ANOVA Model Summary for Exhaustion

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	248.657	1	248.657	103.215	.000[b]
	Residual	438.459	182	2.409		
	Total	687.115	183			

a. Dependent Variable: TISCORE

b. Predictors: (Constant), Exhaustion

Table 13:

RQ1 Linear Regression Coefficients Model Summary for Exhaustion

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.231	.225		5.466	.000
	Exhaustion	.657	.065	.602	10.159	.000

a. Dependent Variable: TISCORE

Table 14

RQ1 Linear Regression Model Summary for PE

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.223[a]	.050	.044	1.89416

a. Predictors: (Constant), ProfEfficacy

Table 15

RQ1 Linear Regression ANOVA Model Summary for PE

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	34.130	1	34.130	9.513	.002[b]
	Residual	652.985	182	3.588		
	Total	687.115	183			

a. Dependent Variable: TISCORE

b. Predictors: (Constant), ProfEfficacy

Table 16

RQ1 Linear Regression Coefficients Model Summary for PE

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.760	.841		6.846	.000
	ProfEfficacy	-.500	.162	-.223	-3.084	.002

a. Dependent Variable: TISCORE

Table 17

RQ1 Linear Regression Model Summary for Cynicism

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.464[a]	.215	.211	1.72142

a. Predictors: (Constant), Cynicism

Table 18

RQ1 Linear Regression ANOVA Model Summary for Cynicism

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	147.798	1	147.798	49.877	.000[b]
	Residual	539.317	182	2.963		
	Total	687.115	183			

a. Dependent Variable: TISCORE

b. Predictors: (Constant), Cynicism

Table 19

RQ1 Linear Regression Coefficients Model Summary for Cynicism

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.839	.231		7.968	.000
	Cynicism	.606	.086	.464	7.062	.000

a. Dependent Variable: TISCORE

Table 20

RQ1 Multiple Stepwise Linear Regression Model Summary for Burnout

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.602[a]	.362	.358	1.55213
2	.624[b]	.389	.382	1.52296

a. Predictors: (Constant), Exhaustion

b. Predictors: (Constant), Exhaustion, ProfEfficacy

Table 21

RQ1 Multiple Stepwise Linear Regression ANOVA Model Summary for Burnout

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	248.657	1	248.657	103.215	.000[b]
	Residual	438.459	182	2.409		
	Total	687.115	183			
2	Regression	267.303	2	133.651	57.623	.000[c]
	Residual	419.813	181	2.319		
	Total	687.115	183			

a. Dependent Variable: TISCORE

b. Predictors: (Constant), Exhaustion

c. Predictors: (Constant), Exhaustion, ProfEfficacy

Table 22

RQ1 Multiple Stepwise Linear Regression Coefficient Model Summary for Burnout

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.231	.225		5.466	.000
	Exhaustion	.657	.065	.602	10.159	.000
2	(Constant)	3.185	.724		4.401	.000
	Exhaustion	.640	.064	.585	10.027	.000
	ProfEfficacy	-.371	.131	-.166	-2.835	.005

a. Dependent Variable: TISCORE

Research Question 2

Research Question 2: What effect does organizational commitment have on the turnover intentions of clinical laboratory employees in Florida?

Null Hypothesis 2: Organizational commitment, as measured by the OCQ, will have no relationship with the turnover intentions, as measured by the demographics survey, of clinical laboratory employees in Florida.

Alternative Hypothesis 2: Organizational commitment, as measured by the OCQ, will have a significant relationship with the turnover intentions, as measured by the demographics survey, of clinical laboratory employees in Florida.

The independent variable consists of all fifteen items on the OCQ. The dependent variable for this analysis was the turnover intention composite score (TIScore). TIScore was obtained by finding the mean of questions 8, 9, and 10 on the demographic questionnaire. These three questions were selected to measure employee's attitude about leaving their job, turnover intention. A multiple linear regression analysis and a multiple step-wise linear regression analysis were conducted to determine the association between organizational commitment and turnover intention. The statistical analysis was conducted using SPSS version 21. The level of significance was .05. The results of the analyses between organizational commitment and turnover intention are summarized in Tables 23, 24, 25, 26, 27, and 28. Cronbach's alpha for the OCQ was .915.

As shown in Table 23, the adjusted R^2 is .301 indicating that 30.1% of the variance in turnover intention was explained by the 15 predictor variables in the OCQ. The results of the multiple linear regression analysis indicates that the overall regression

model with all fifteen predictor variables was statistically significant, $F(15, 168) = 6.253$, $p < .001$ (see Table 24). The results of the multiple linear regression analysis of organizational commitment and turnover intention (see Table 25). As shown in Table 25, there were only two variables that were statistically significant, little change to leave ($p = .000$) and not much too be gained ($p = .048$). Both had an inverse relationship with turnover intention.

The standard multiple linear regression analysis revealed that the linear combination of all 15 items of the OCQ was statistically related to turnover intentions. A multiple stepwise linear regression analysis was conducted (with probability of F to enter ≤ 0.05 and probability of F to remove ≥ 0.10) to determine what combination of independent (predictor) variables (OCQ) would best predict the dependent variable turnover intention. As shown in Table 27, this prediction model was statistically significant, $F(3, 180) = 28.421$, $p < .001$, and with an adjusted R^2 of .310 (see Table 26), accounted for 31.0% of the variance in turnover intention. This model included not much to gain ($p = .011$), little change to leave ($p < .001$), and best of all organization to work for ($p = .004$) (see Table 28). The variables great effort beyond normal, talk up organization, little loyalty, accept any job, similar values, proud to tell others, just as well work for different, inspires the best in me, glad I choose current organization, difficult to agree with policies, care about fate to organization, and mistake to work for organization were not significant predictors of turnover intention and were excluded from the model. Therefore, the null hypothesis for RQ2 was rejected.

Table 23

RQ2 Multiple Linear Regression Model Summary for OCQ

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.599[a]	.358	.301	1.62006

a. Predictors: (Constant), Mistake to work here, Great effort beyond norm, Accept any job, Work for any organization, Little change to leave, Difficult to agree with policies, Very little loyalty, Care about fate of organization, Similar values, Not much to gain, Inspires me, Glad I this organization, Talk up this organization, Best organization to work for, Proud to tell others

Table 24

RQ2 Multiple Linear Regression ANOVA Model Summary for OCQ

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	246.181	15	16.412	6.253	.000[b]
	Residual	440.934	168	2.625		
	Total	687.115	183			

a. Dependent Variable: TISCORE

b. Predictors: (Constant), Mistake to work here, Great effort beyond norm, Accept any job, Work for any organization, Little change to leave, Difficult to agree with policies, Very little loyalty, Care about fate of organization, Similar values, Not much to gain, Inspires me, Glad I this organization, Talk up this organization, Best organization to work for, Proud to tell others

Table 25

Multiple Regression Analysis Summary for OCQ predicting TI

	B	Std err	Beta	*t*	Sig
Constant	6.097	.659		9.246	.000
Great effort beyond normal	.107	.100	.083	1.069	.286
Talk up organization	.059	.121	.058	.489	.625
Little loyalty	-.025	.077	-.026	-.319	.750
Accept any job	-.082	.072	-.083	-1.132	.259
Similar values	.001	.102	.001	.015	.988
Proud to tell others	.032	.139	.029	.231	.818
Just as well work for different	.089	.076	.088	1.179	.240
Inspires the best in me	-.101	.116	-.092	-.869	.386
Little change to leave	-.304	.076	-.312	-3.979	.000
Glad I choose current organ.	-.102	.127	-.081	-.801	.424
Not much to be gained	-.172	.086	-.177	-1.992	.048
Difficult to agree with policies	-.088	.089	-.085	-.987	.325
Care about fate to organ.	.120	.111	.097	1.089	.278
Best of all organ. to work for	-.206	.120	-.195	-1.721	.087
Mistake to work for organ.	-.039	.119	-.033	-.326	.745

a. Dependent Variable

Table 26

RQ2 Multiple Stepwise Linear Regression Model Summary for OCQ

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.476[a]	.227	.222	1.70864
2	.538[b]	.289	.281	1.64282
3	.567[c]	.321	.310	1.60945

a. Predictors: (Constant), Not much to gain

b. Predictors: (Constant), Not much to gain, Little change to leave

c. Predictors: (Constant), Not much to gain, Little change to leave, Best organization to work for

Table 27

RQ2 Multiple Stepwise Linear Regression Anova Model for OCQ

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	155.773	1	155.773	53.357	.000[b]
	Residual	531.342	182	2.919		
	Total	687.115	183			
2	Regression	198.620	2	99.310	36.797	.000[c]
	Residual	488.495	181	2.699		
	Total	687.115	183			
3	Regression	220.857	3	73.619	28.421	.000[d]
	Residual	466.259	180	2.590		
	Total	687.115	183			

a. Dependent Variable: TISCORE

b. Predictors: (Constant), Not much to gain

c. Predictors: (Constant), Not much to gain, Little change to leave

d. Predictors: (Constant), Not much to gain, Little change to leave, Best organization to work for

Table 28

RQ2 Multiple Stepwise Linear Regression Coefficient Model for OCQ

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.204	.302		17.247	.000
	Not much to gain	-.462	.063	-.476	-7.305	.000
2	(Constant)	5.890	.337		17.457	.000
	Not much to gain	-.317	.071	-.327	-4.469	.000
	Little change to leave	-.284	.071	-.291	-3.984	.000
3	(Constant)	6.318	.361		17.484	.000
	Not much to gain	-.204	.080	-.210	-2.563	.011
	Little change to leave	-.274	.070	-.281	-3.923	.000
	Best organization to work for	-.229	.078	-.217	-2.930	.004

a. Dependent Variable: TISCORE

Research Question 3

Research Question 3: What effect do demographic variables have on burnout, organizational commitment, and turnover intentions?

Null Hypothesis 3: Demographic variables, as measured by the demographics survey, will not influence burnout and organizational commitment, as measured by the MBI-GS and OCQ, and turnover intentions, as measured by the demographics survey.

Alternative Hypothesis 3: Demographic variables, as measured by the demographics questionnaire, will influence burnout and organizational commitment, as measured by the MBI-GS and OCQ, and turnover intentions, as measured by the demographics survey.

The independent variables consists of three demographics variables that were selected to examine their influence on the dependent variables. The three independent variables are age (Age), current work shift (Shift), and years of experience working in the clinical laboratory (Experience). There were five dependent variables in this study. The first dependent variable was turnover intention (TIScore). TIScore was obtained by finding the mean of questions 8, 9, and 10 on the demographic questionnaire. These three questions were selected to measure employee's attitude about leaving their job, turnover intention. The second dependent variable for this analysis was the organizational commitment composite score (OCQAGG). OCGAGG was obtained by taking the mean of all fifteen items on the OCQ. Each of the three dimensions of burnout (exhaustion, professional efficacy, and cynicism) were also dependent variables. Using a significance level of .05, a series of ANOVA analyses were conducted using SPSS to

determine the association between the independent variables (Age, Shift, Experience) and the dependent variables (turnover intention, organizational commitment, and burnout).

The results of the ANOVA analyses conducted between the independent variable age and each dependent variable are presented in Table 29. The result between age and turnover intention were not statistically significant, $F(5,178) = 1.610$, $p = .160$. The result between age and organizational commitment were not statistically significant, $F(5,178) = 2.266$, $p = .050$. The results between age and exhaustion were not statistically significant, $F(5,178) = 1.116$, $p = .355$. The results between age and professional efficacy was statistically significant, $F(5,178) = 3.077$, $p = .011$. A post hoc test could not be performed because at least one of the subgroups of age has fewer than two cases. The results between age and cynicism was not statistically significant, $F(5,178) = 1.768$, $p = .122$.

The results of the ANOVA analyses conducted between the independent variable current work shift (Shift) and each dependent variable are presented in Table 30. The results between shift and turnover intention was not statistically significant, $F(2,181) = 1.361$, $p = .259$. The results of shift and organizational commitment (OCQAGG) was statistically significant, $F(2,181) = 6.071$, $p = .003$. A Scheffe post hoc test revealed a statistically significant ($p = .008$) difference between first/day shift ($m = 4.74$) and second/evening shift ($m = 3.95$) (see Table 31). Though the mean for first/day shift was higher than third/night shift ($m = 4.15$), the post hoc analysis revealed that the difference was not statistically significant ($p = .181$). The results of shift and exhaustion was not statistically significant, $F(2,181) = .546$, $p = .580$. The results between shift and

professional efficacy was not statistically significant, $F(2,181) = .943$, $p = .391$. The result between shift and cynicism was not statistically significant, $F(2,181) = 1.809$, $p = .167$.

The results of the ANOVA analyses conducted between years of experience (Experience) and each dependent variable are presented in Table 32. The results between years and turnover intention were not statistically significant, $F(5,178) = 1.402$, $p = .226$. The results between experience and organizational commitment was not statistically significant, $F(5,178) = 1.623$, $p = .156$. The results between experience and exhaustion were not statistically significant, $F(5, 178) = 1.624$, $p = .156$. The results of experience and professional efficacy was not statistically significant, $F(5,178) = 1.302$, $p = .265$. The results of experience and cynicism was not statistically significant, $F(5,178) = .708$, $p = .618$

Table 29

ANOVA for Age with TIScore, OC, EX, PE, and CY

		Sum of Squares	df	Mean Square	F	Sig.
TISCORE	Between Groups	29.735	5	5.947	1.610	.160
	Within Groups	657.380	178	3.693		
	Total	687.115	183			
OCQAGG	Between Groups	16.486	5	3.297	2.266	.050
	Within Groups	259.024	178	1.455		
	Total	275.511	183			
Exhaustion	Between Groups	17.448	5	3.490	1.113	.355
	Within Groups	558.231	178	3.136		
	Total	575.679	183			
ProfEfficacy	Between Groups	10.852	5	2.170	3.077	.011
	Within Groups	125.564	178	.705		
	Total	136.415	183			
Cynicism	Between Groups	19.054	5	3.811	1.768	.122
	Within Groups	383.645	178	2.155		
	Total	402.699	183			

Table 30

ANOVA for Shift with TIScore, OC, EX, PE, and CY

		Sum of Squares	df	Mean Square	F	Sig.
TISCORE	Between Groups	10.178	2	5.089	1.361	.259
	Within Groups	676.938	181	3.740		
	Total	687.115	183			
OCQAGG	Between Groups	17.321	2	8.661	6.071	.003
	Within Groups	258.189	181	1.426		
	Total	275.511	183			
Exhaustion	Between Groups	3.453	2	1.727	.546	.580
	Within Groups	572.226	181	3.161		
	Total	575.679	183			
ProfEfficacy	Between Groups	1.407	2	.704	.943	.391
	Within Groups	135.008	181	.746		
	Total	136.415	183			
Cynicism	Between Groups	7.892	2	3.946	1.809	.167
	Within Groups	394.807	181	2.181		
	Total	402.699	183			

Table 31

Scheffe Post Hoc Test for Shift and PE

(I) What is your current work shift?	(J) What is your current work shift?	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
First/day shift	Second /evening shift	.78286*	.24725	.008	.1726	1.3931
	Third / night shift	.58524	.31519	.181	-.1927	1.3632
Second/evening shift	First / day shift	-.78286*	.24725	.008	-1.3931	-.1726
	Third / night shift	-.19762	.37430	.870	-1.1214	.7262
Third/night shift	First / day shift	-.58524	.31519	.181	-1.3632	.1927
	Second / evening shift	.19762	.37430	.870	-.7262	1.1214

*. The mean difference is significant at the 0.05 level.

Table 32

ANOVA for Years of Experience with TIScore, OC, EX, PE, and CY

		Sum of Squares	df	Mean Square	F	Sig.
TISCORE	Between Groups	26.041	5	5.208	1.402	.226
	Within Groups	661.075	178	3.714		
	Total	687.115	183			
OCQAGG	Between Groups	12.013	5	2.403	1.623	.156
	Within Groups	263.497	178	1.480		
	Total	275.511	183			
Exhaustion	Between Groups	25.123	5	5.025	1.624	.156
	Within Groups	550.557	178	3.093		
	Total	575.679	183			
ProfEfficacy	Between Groups	4.813	5	.963	1.302	.265
	Within Groups	131.603	178	.739		
	Total	136.415	183			
Cynicism	Between Groups	7.854	5	1.571	.708	.618
	Within Groups	394.845	178	2.218		
	Total	402.699	183			

Summary

There were a total of 237 respondents to the online survey. 53 were excluded because their surveys were not fully completed. A total of 184 surveys were completed, yielding a response rate of usable surveys of 18.4%. Data analysis was performed using SPSS. The first research question looked at the relationship between burnout and clinical laboratory employee's turnover intention. Linear regression and multiple step-wise linear regression were used to address this research question. This study found that all three dimensions of the burnout had statistically significantly relationships with turnover intention. Exhaustion ($p < .001$) and cynicism ($p < .001$) both had a positive relationship with turnover intention. Professional efficacy ($p = .002$) had an inverse relationship with turnover intention. In addition, multiple stepwise linear regression revealed that exhaustion and professional efficacy were the best predictors of turnover intention. Therefore, the null hypothesis for RQ1 was rejected.

The second research question examined the relationship between organizational commitment and turnover intention. This study found that the regression model was significant with 30.1% of the variance for turnover intention explained by the fifteen item OCQ. In addition, a multiple stepwise linear regression revealed an inverse relationship between turnover intention and not much to gain from working here, it would take little change to leave organization, and best organization to work. These three items accounted for 31.0% of the variance in turnover intention. Therefore, the null hypothesis for RQ2 was rejected.

The third and final research question examined the influence of demographic variables on burnout, organizational commitment, and turnover intention. A one-way analysis of variance (ANOVA) was used in RQ3 to determine the relationship between the independent demographic variables (age, shift, and experience) and the dependent variables (burnout, organizational commitment, and turnover intention). This study found that between age and professional efficacy, there was a statistically significant difference between groups ($p = 0.11$). A statistically significant difference was also found between groups regarding shift worked and organizational commitment ($p = .003$). Years of experience had no relationship between any of the variables. Therefore, the null hypothesis for RQ3 was rejected.

Chapter 5 presents a discussion of major findings of this study. The limitations of the study are discussed, as well as implications for social change. Recommendations for action and recommendations for future research studies are also discussed.

Chapter 5: Summary of Findings

Introduction

Chapter 5 provides a summary of this research study among clinical laboratory professionals in Florida. The results and conclusions from this study are discussed. This chapter will proceed with an overview of the study. The outcome of the three research questions and hypotheses have been presented in Chapter 4. According to the study results, burnout and organizational commitment had a statistically significant effect on turnover intentions, which resulted in Null Hypothesis 1 and Null Hypothesis 2 being rejected. Also, the results revealed that some of the demographic variables had a statistically significant relationship with burnout and organizational commitment, which resulted in the rejection of Null Hypothesis 3. Chapter 5 will include interpretation of the research findings and summary of the research findings. Each of the research questions are addressed, along with supportive findings from the literature. Implications for social change and recommendations for action are also discussed. Lastly, the limitations of the study and recommendations for future studies are presented.

Study Overview

Researchers have indicated that turnover is an ongoing issue among healthcare professionals (Ramoo, Abdullah, & Piaw, 2013). Numerous researchers have also indicated that both burnout and organizational commitment play a key role in the turnover of professionals across various healthcare related occupations (Harwood et al., 2010; Lee et al., 2011; Mosadeghrad et al., 2008; Suzuk et al., 2010). However, currently, there are limited research studies pertaining to burnout, organizational

commitment, and turnover intention among clinical laboratory employees. This study examined the turnover intentions of clinical laboratory professionals by exploring the concepts of burnout and organizational commitment as it pertains to clinical laboratory employee's intentions to leave or stay at their current organization.

This research study is expected to be important because it is projected that the shortage of healthcare workers across the world will reach a deficit of 12.9 million by 2035 (WHO; 2013) and here in the United States, employment of clinical laboratory technicians and technologists is expected to grow by 22% between 2012 and 2022 (BLS; 2014). Yet, the clinical laboratory field is already dealing with a workforce shortage and many laboratory workers are nearing retirement age and will increase the shortage. The demand for laboratory professionals far outweighs the supply available. This makes reducing voluntary turnover that more important. Therefore, a study of this nature is important in helping to understand how factors such as burnout and organizational commitment impact clinical laboratory employees' decision to leave their current jobs. The theoretical framework used in this study integrated three major concepts: Maslach's burnout theory, the organizational commitment theory by Porter, Steers, Mowday, and Boulian, and Mobley's theory of turnover.

Interpretation of the Findings

Burnout, also referred to as work stress, is a syndrome of emotional exhaustion, professional efficacy, and cynicism. Emotional exhaustion results in employees feeling over extended, fatigued, and drained from their work. Professional efficacy describes feelings of achievement in one's work and when burnout is being experienced,

employees begin having a decline in feelings of job competence and success. Cynicism arises when employees feel detached, or feel cynical and have an impersonal or distant attitude towards co-workers or clients at work. Burnout is said to be present when employees have high levels of emotional exhaustion, high levels of cynicism, and low levels of professional efficacy. Organizational commitment is characterized as employee's having a strong belief in as well as accepting the goals and values of the organization, willing to exert considerable effort on behalf of the organization, and having a strong desire to remain with the organization. Employees who are committed to their organization are less likely to leave that organization (Borhani, Jalali, Abbaszaden, & Haghdoost, 2014; Urbonas, Kubiliene, Kubilius, & Urboniene, 2015). Turnover intentions can be described as the desire of an employee to leave their current job or organization.

The first objective of this research study was to determine the effect of job burnout on the turnover intentions of clinical laboratory employees in Florida. The second objective of this study was to determine the relationship between organizational commitment and turnover intentions of clinical laboratory employees in Florida. The third objective of this study was to determine the influence that demographic variables had on burnout, organizational commitment, and turnover intention.

Research Question 1

RQ1: What effect does job burnout have on the turnover intention of clinical laboratory employees in Florida?

The findings from this study revealed that overall, the respondents were experiencing an average level of emotional exhaustion (m = 3.00), a high level of cynicism (m = 2.25), and a high level professional efficacy (m = 5.12). Based on regression analysis, the findings revealed that each of the three dimensions of burnout had a statistically significant ($p < .05$) predictive relationship with turnover intention. Emotional exhaustion had a statistically significant ($F(1, 182) = 103.215$, $p < .001$) positive relationship with turnover intention (beta = .602). Professional efficacy was found to have a statistically significant ($F(1, 182) = 9.513$, $p = .002$) inverse relationship with turnover intention (beta = -.223). Cynicism was found to have a statistically significant ($F(1, 182) = 49.877$, $p < .001$) positive relationship with turnover intention (beta = .464). A multiple stepwise linear regression analysis revealed a statistically significant ($F(2, 181) = 57.623$, $p < .001$) prediction model of turnover intention that included emotional exhaustion and professional efficacy, excluding cynicism.

The burnout studies reviewed in the literature also provided similar findings to this study. The results of this study are consistent with findings by Scanlan and Still (2013) who reported high correlations between burnout and turnover intentions among occupational therapists working in mental health. Their study reported that exhaustion was associated with higher turnover intention (Scanlan & Still, 2013), further confirming the importance of burnout in relation to workforce outcomes. Similiarly, these results are also consistent with findings by Lv, Xu, and Ji (2012) who noted that emotional exhaustion positively predicted turnover intentions between management and non-management employees. Likewise, in a study among physicians, Zhang and Feng (2011)

reported that among the three dimensions of the burnout syndrome, turnover intention showed the highest correlation with emotional exhaustion in their study among physicians.

Huang, Chi-Hsun, and Hao-Chieh (2003) found that exhaustion and cynicism were significantly and positively related to turnover intentions. This particular study implied that feeling emotionally exhausted can lead to stronger turnover intentions among employees and that when employees begin to feel indifferent with their work and begin showing a distant attitude towards their job, it is not surprising that these individuals would consider leaving their job. Just like the present study, Huang et al., (2003) indicated that exhaustion was a better predictor of turnover intention than cynicism.

The importance of the results from this study regarding the relationship between job burnout and turnover intentions among clinical laboratory employees is evidence in a study by Goodman and Boss (2002) in which the findings proved that employees who actually turnover have significantly higher burnout scores than those who remain with the organization. Therefore, based on the results of this study, it adds to the existing body of knowledge by showing the significance and importance of job burnout on the turnover intentions of clinical laboratory employees in Florida.

Research Question 2

RQ2: What effect does organizational commitment have on the turnover intention of clinical laboratory employees in Florida?

Based on the regression analysis results of this study, organizational commitment was found to have a statistically significant ($p < .05$) predictive relationship with turnover intention. Specifically, participants with higher organizational commitment scores tended to have lower turnover intention scores. Linear regression analysis revealed an inverse relationship with little change to leave (beta = -.304, p = <.001) and not much to be gained (beta = -.172, p = .048). In addition, the prediction model obtained from the multiple stepwise linear regression analysis revealed a statistically significant relationship ($F(3, 180) = 28.421$, $p < .001$) between turnover intentions and three of the OCQ predictor variables including not much to be gained ($p = .011$), little change to leave ($p < .001$), and best organization to work for ($p = .004$). The other 12 variables of OCQ were excluded from this model as they were not statistically significant.

These statistically significant results suggest that employees who strongly believe in the goals and values of their organization will be willing to exert considerable effort on behalf of the organization and will desire to remain employed with the organization. Studies on the relationship between organizational commitment and employee turnover intentions report consistent negative correlations. Thus, based on prior research, I predicted that organizational commitment would be predictive of turnover intention among clinical laboratory employees. The findings from this study are consistent with findings published by Chao-Sun et al. (2006) who found that organizational commitment correlated negatively with turnover intention. Likewise, the results are also consistent with findings by De Gieter, Hofmans, and Pepermans (2011) who noted that organizational commitment was a significant predictor of turnover intentions and that the

more employees felt satisfied with their job and committed to their organization, the smaller the turnover intention possibility.

Researchers have studied organizational commitment and turnover intention for many and continue to note the importance and significance of this relationship. This results of the present study are consistent with findings from a study by Lam and Liu (2014) in which it was indicated that affective organizational commitment was negatively related to employee turnover intention and suggested that employers should try to increase employee's affective commitment towards the organization in order to minimize turnover intention. The results of this study are also similar to findings by Wasti (2013) who also indicated that affective organizational commitment was a strong predictor of turnover intentions. Likewise, Harris and Cameron (2005) also found affective components of organizational commitment to be negatively associated with employee turnover intention. Therefore, this study adds to the body of knowledge by showing the significance and importance of organizational commitment on the intent to leave among clinical laboratory employees in Florida.

Research Question 3

RQ3: What effect do demographic variables have on burnout, organizational commitment, and turnover intention?

Based on the ANOVA analysis results of this study, the demographic variable age was a significant predictor of professional efficacy ($F(5,178) = 3.077$, $p = .011$). I was unable to determine which of the age categories were different from each other because a post hoc analysis could not be conducted since at least one subgroup had fewer than two

cases. Based on the ANOVA results, demographic variable current work shift was a significant predictor of organizational commitment ($F(2,181) = 6.071$, $p = .003$). A Scheffe post hoc test conducted to identify differences between the subgroups revealed statistically significant ($p = .008$) differences between employees who worked first/day shift ($m = 4.74$) and employees who worked second/evening shift ($m = 3.95$). Though the mean for first/day shift was higher than third/night shift ($m = 4.15$), the post hoc analysis revealed that the difference was not statistically significant ($p = .181$).

Previous research studies have indicated significant relationships between age and likely to experience burnout. Though in this study I was unable to determine which age groups were statistically significantly different from each other, the findings from this study agree with other researchers who have established that in general, age does play a role in the level of burnout experienced by employees (Garner, Knight, & Simpson, 2007; James, McKechnie, & Swanberg, 2011). The results of this study are consistent with findings by Stanetic and Tesanovia (2013) who also used the Maslach Burnout Inventory to access burnout and found that age had a significant influence on the level of stress and burnout syndrome. Similar findings were reported by Hunsaker, Chen, Maughan, and Heaston (2015) who found a correlation between age and burnout and noted that older employees had lower levels of burnout among a group of nurses. The findings from this study are also similar to findings from Randall (2007) who indicated a statistically significant relationship between age and burnout. Specifically, this researcher found that younger employees were more prone to burnout across two of the three MBI subscales, emotional exhaustion and depersonalization/professional efficacy (Randall, 2007). This

study adds to the existing body of knowledge by showing how demographic variables affect burnout, organizational commitment, and turnover intention among laboratory employees; thus, providing a basis for further investigation.

Summary of the Findings

This study suggests that both job burnout and organizational commitment have a direct impact on turnover intentions of clinical laboratory employees in Florida. Burnout and organizational commitment showed a predictive relationship with turnover intentions. This study also suggests that demographic variables age and current work shift are predictors of burnout (professional efficacy) and organizational commitment, respectively.

The results of this research study suggest that clinical laboratory employees in Florida are experiencing burnout. In addition, the study supports the relationship that as burned out clinical laboratory employees begin to feel emotionally exhausted and depleted, they will start to look for solutions to reduce exhaustion which may include the possibly of leaving their job. Burned out employees may also experience increased cynicism in which their attitude towards the job becomes increasingly more distant and lackadaisical, and thus, their desire to the stay at their current job diminishes, increasing turnover intention. Though the results of this study revealed increased levels of professional efficacy among laboratory employees, as burnout increases, burned out clinical laboratory employees may experience decreased professional efficacy in which they feel less competent and successful about their job, leading to increased turnover intentions.

This study suggests that organizational commitment decreases among employees who feel that they don't have much to gain by remaining with their current organization and employees who don't think that their current organization is the best to work for, therefore, this result in increased intentions to leave the job/organization. Also, this study suggest that organizational commitment decreases and turnover intentions increase when employees feel that it would take very little change in their present circumstances to cause them to leave their job.

This study also suggests that age of clinical laboratory employees impact the level of burnout experienced and the shift in which laboratory employees work impact their level of organizational commitment. Also, employees who work first/day shift are more committed to the organization than those who work second and third shifts.

Implications for Social Change

This study addressed an important gap in the literature and adds to the limited knowledge regarding clinical laboratory employee's turnover intentions. Without adequate staffing, clinical laboratory departments cannot operate to their full potential and this could compromise patient safety and lead to stressful and unsafe work environments. Therefore, reducing voluntary turnover is essential. The potential implication for social change contributed by the study's outcome was the knowledge of factors that are affecting the turnover of clinical laboratory employees in Florida. The findings from this study can be utilized to help laboratory leaders and hospital administrators to better understand the impact that job burnout and organizational commitment have on the intent to leave of clinical laboratory professionals.

Retaining valuable employees is important for organizations and by better understanding what factors could lead to employees leaving their current jobs, hospital administrators and the laboratory leadership team can then work towards developing and creating strategies to address these issues in an effort to reduce turnover rates. The results of this study revealed that both burnout and organizational commitment influence the turnover intentions of clinical laboratory employees in Florida. Therefore, the information gathered from this study can be used in developing ways to increase organizational commitment and decrease burnout within clinical laboratory departments, thus, decreasing employee turnover intentions.

Recommendations for Action

This study identified statistically significant relationships between job burnout and turnover intention, organizational commitment and turnover intention, age and burnout, and work shift and organizational commitment. The findings from this research study has implications for healthcare organizations, researchers, educators, and practitioners.

Healthcare Organizations

The turnover of clinical laboratory employees adversely affects organizations in several ways and jeopardizes the quality of patient care. There are both direct and indirect costs of turnover for healthcare organizations. Therefore, retaining talented clinical laboratory employees is imperative for ensuring efficient and effective delivery of laboratory services. The results of this study provide management with specific areas of opportunity to decrease turnover among clinical laboratory employees. Based on the

findings of this study, it is recommended that laboratory leaders create a work environment that is conducive to productivity by reducing burnout and increasing organizational commitment.

By focusing on the three dimensions of burnout and affective organizational commitment, strategies for improvement and retention can be developed. It is recommended that burnout be reduced and prevented in the clinical laboratory by providing adequate training programs for new employees as well as veteran employees. Healthcare leaders must watch for early signs of job burnout among employees in order to improve employee retention and increase employee morale. Additional efforts to reduce burnout in the clinical laboratory department include ensuring workers have adequate resources to perform their job, adequate staffing, educating employees on burnout, and also creating a supportive culture. These recommendations can possibly decrease emotional exhaustion and cynicism, and increase professional efficacy among clinical laboratory employees.

Based on the results of this study, health care organizations can also establish policies, procedures, and incentives to retain valued employees by understanding the effect that lack of organizational commitment has on an individual's intent to leave their current organization. Healthcare leaders can address affective organizational commitment by focusing attention on improving the culture of the organization, providing opportunities for growth and advancement, and focusing on job design.

Researchers

Results of this research study may be of interest to other researchers. Turnover intention is said to be the strongest predictor of actual turnover (Mobley, 1977). Thus, it is important to understand what factors may lead to increased turnover intentions among clinical laboratory employees in order to address the issue. In this study, significant correlations exist between burnout and turnover intention, and organizational commitment and turnover intention. Each of the three dimensions of burnout (emotional exhaustion, cynicism, and professional efficacy) were found to influence turnover intention among clinical laboratory employees. However, the model including emotional exhaustion and professional efficacy was the best prediction of turnover intention. Also, organizational commitment was also found to influence turnover intentions among clinical laboratory employees. Because turnover is disruptive and expensive, future researchers should focus more attention and further examine these variables. In addition, the demographic variable age significantly correlated with burnout and the demographic variable work shift significantly correlated with organizational commitment. It is also important for future researchers to focus more attention on these two demographic variables and further examine.

Educators

Colleges and universities that are aimed at training clinical laboratory professionals must create long-term strategies designed to increase the number of qualified clinical laboratory professionals to meet the high demand. This includes increasing the number of educators qualified to train these individuals so that they can

increase the number of students enrolled in these programs. More colleges and universities need to establish and offer laboratory science training programs, producing more degreed, qualified laboratory professionals. Also, more hospital-based laboratory science training programs need to be developed. These programs can be designed as post-baccalaureate fast track one year programs targeting individuals who already have a degree in the sciences. This will help by producing additional qualified laboratory personnel in a shorter period of time. Hospitals and healthcare organizations can partner with local colleges and universities to provide scholarships or reduced tuition in return for service after graduation.

Clinical Laboratory Professionals

It is no secret that healthcare workers are prone to suffer from work-related stress or burnout. Clinical laboratory employees must be able to recognize the signs of burnout and know when they are experiencing it. These employees need to manage stressors that contribute to burnout. When clinical laboratory employees begin to feel cynical at work, they must adjust their attitudes and consider ways to improve their outlook. Employees can also motivate coworkers by recognizing co-workers for their valuable contribution to the team and a job well done. This will help to decrease cynicism and will also help to increase not only morale, but individual self-confidence towards their work. When clinical laboratory employees become burnt out, they should meet with their supervisor or manager to discuss the issue and discuss possible solutions to deal with the issue. Also, taking time off from work to relax and refresh can also be a solution for employees experiencing any level of burnout.

Limitations of the Study

Several limitations were identified throughout the course of the study. The first limitation was that a quantitative cross-sectional study was chosen as the research design to obtain a larger sampling of clinical laboratory employees in Florida. The limitation for using a cross-sectional study was that the data were collected from the sample population at one single point in time instead of following the participants over an extended period of time. Thus, this does not represent any changes that occur in the population over time. Also, a cross-sectional research design cannot establish causality, only association. The correlational design of this study was also a limitation. Although the correlational design potentially limits generalizability of the findings, the relationships found were strong and there is valuable information in the data.

The voluntary nature of this study was also a limitation. This study included participates that agreed to voluntarily participate in this research study. Clinical laboratory employees who did not participated in this study may have displayed different behaviors from those who did complete the survey. An additional limitation of this study was the use of a self-reported survey. Self-reported survey data can potentially result in participant bias. Some of the participants may have thought that the survey was too long and tedious to complete. However, while this is a limitation, survey questionnaires are a commonly used research methodology.

Another limitation of this study was the number of incomplete responses to the survey. A large number of the surveys were incomplete and could not be used. The total number of respondents was 237 and the total number of completed, usable surveys was

184. However, although the incomplete surveys were excluded from the study, the desired sample size of 129 was achieved and thus this did not affect the study results. Another limitation was that in this study, age was measured on an ordinal scale in which participants selected a category which best described their age. Therefore, because I was not able to determine participants exact age, I was not able to calculate the mean and standard deviation. In addition, this study was limited in that the demographic questionnaire did not ask for ethnic background information. This information would be useful to examine whether there were any trends based on ethnicity.

Recommendation for Future Study

Based on the findings from this research study and the limitations that were encountered, several suggestions for future research studies are offered. First, in future research studies, I would recommend incorporating additional demographic characteristics about the sample by collecting data on race and ethnicity. It would be interesting to know how demographic variables such as race and ethnicity impact the relationship between the variables of this study. Another recommendation for future research would be to replicate the study using a larger sample. Using a larger sample would include a greater proportion of ages, gender, ethnic, and racially diverse clinical laboratory employees.

Another recommendation for future research would be to collect data using qualitative interviews. I would also recommend conducting a study in which a longitudinal study design is used to collect data from the sample participants to explore any changes in burnout and organizational commitment over time among these

participants. This study only looked at one dimension of organizational commitment and that was affective organizational commitment. Since organizational commitment has been defined as being multidimensional and consisting of three different types (affective commitment, normative commitment, and continuance commitment), I would recommend conducting a study examining the other two types of organizational commitment to see what impact they have on the turnover intentions among clinical laboratory employees. Lastly, this study might also be repeated using employees within a single organization or using different populations.

Conclusion

This study investigated the relationship between a) job burnout and turnover intention and b) organizational commitment and turnover intention among clinical laboratory employees in Florida. This study also examined the influence that demographic variables had on burnout, organizational commitment, and turnover intention. The research questions in this study were guided by a gap in the literature regarding clinical laboratory employees. This study utilized a cross-sectional survey design.

The results of 184 surveys from clinical laboratory professionals were the statistical basis for this study. Findings from this study indicated statistically significant relationships between job burnout and organizational commitment on turnover intentions of clinical laboratory employees. The results of this study are consistent with previous studies in that increased levels of experienced burnout and low levels of organizational commitment increase employee's turnover intentions. Further, this study found that

demographic variables age and work shift correlated with burnout and organizational commitment, respectively.

As a results of the findings from this study, the following can be concluded. The three theories, Maslach's burnout theory, the organizational commitment theory, and Mobley's turnover intention theory were relevant and served as the basis for this study and each of the three null hypotheses were rejected. Moving forward, the relationships found in this study should serve as a starting point for future research studies looking to explore ways to reduce the turnover rate among clinical laboratory employees by creating working environments that will decrease job burnout and increase organizational commitment among clinical laboratory employees.

References

Al-Hussami, M., Darawad, M., Saleh, A., & Hayajneh, F. (2014). Predicting nurses' turnover intentions by demographic characteristics, perception of health, quality of work attitude. *International Journal of Nursing*, *20*(1), 79-88. doi:10.1111/ijn.12124

Allen, N. J. & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal of Occupational Psychology*, *63*(1), 1-18. doi:10.1111/j.2044-8325.1990.tb00506.x

Al-Turki, H. A., Al-Turki, R. A., Al-Dardas, H. A., Al-Gazal, M. R., Al-Maghrabi, G. H., Al-Enizi, N. H., & Ghareeb, B. A. (2010). Burnout syndrome among multinational nurses working in Saudi Arabia. *Annals of African Medicine*, *9*(4), 226-229. doi:10.4103/1596-3519.70960

Amigo, I., Asensio, E., Menéndez, I., Redondo, S., & Ledesma, J. (2014). Working in direct contact with the public as a predictor of burnout in the banking sector. *Psicothema*, *26*(2), 222-226. doi:10.7334/psicothema2013.282

Angermeier, I., Dunford, B. B., Boss, A. D., & Boss, R. (2009). The impact of participative management perceptions on customer service, medical errors, burnout, and turnover intentions. *Journal of Healthcare Management*, *54*(2), 127-141. Retrieved from http://www.ache.org/PUBS/jhmsub.cfm

Association of American Medical Colleges. (n.d.). GME funding: How to fix the doctor shortage. Retrieved 5/17/2015, from https://www.aamc.org/newsroom/keyissues/physician_workforce/

Astion, M, (2013). Burnout. *Clinical Laboratory News, 39*(10). Retrieved from https://www.aacc.org/publications/cln

Bakan, I., Buyukbese, T., & Ersahan, B. (2011). An investigation of organizational commitment and education level among employees. *International Journal of Emerging Sciences, 1*(3), 231-245. Retrieved from https://www.ebscohost.com/

Bamberg, R., Akroyd, D., & Moore, T.M. (2008). Factors that impact clinical laboratory scientists' commitment to their work organizations. *Clinical Laboratory Science, 21*(3), 167-177. Retrieved from http://www.ascls.org

Bateman, T. S., & Strasser, S. (1984). A longitudinal analysis of the antecedents of organizational commitment. *Academy of Management Journal, 27*(1), 95-112. doi:10.2307/255959

Beck, T. (2013). The importance of a priori sample size estimation in strength and conditioning research. *Journal of Strength And Conditioning Research / National Strength & Conditioning Association, 27*(8), 2323-2337. doi:10.1519/JSC.0b013e318278eea0

Becker, H. S. (1960). Notes on the concept of commitment. *American Journal of Sociology, 66*(1), 32-40. Retrieved from http://www.jstor.org/page/journal/amerjsoci/about.html

Beckering, R., & Brunner, R. (2003). The lab shortage crisis: a practical approach. *MLO*: *Medical Laboratory Observer, 35*(6), 48-50. Retrieved from http://www.mlo-online.com/

Bennett, W. (2013). In the rural Southeast, doc shortage does exist. *Modern Healthcare,*

43(48), 36. Retrieved from http://www.modernhealthcare.com

Borhani, F., Jalali, T., Abbaszadeh, A., & Haghdoost, A. (2014). Nurses' perception of ethical climate and organizational commitment. *Nursing Ethics*, *21*(3), 278-288. doi:10.1177/0969733013493215

Browning, R.A. (2004). The labor shortage, patient safety, and length of stay: New era of change agents prompts process improvements through lab automation. *Journal of Laboratory Automation*. 9(1), 24-27. doi:10.1016/S1535-5535-03-00106-0

Bryant, P. & Allen, G. (2013). Compensation, benefits and employee turnover: HR strategies for retaining top talent. *Compensation & Benefits Review*, *45*(3), 171-175. doi:10.1177/0886368713494342

Buchanan II, B. (1974). Building organizational commitment: The socialization of managers in work organizations. *Administrative Science Quarterly*, *19*(4), 533-546. doi:10.2307/2391809

Bureau of Labor and Statistics, U.S. Department of Labor (2014). Medical and Clinical Laboratory Technologists and Technicians. *Occupational Outlook Handbook,* 2014-2015 edition. Retrieved from http://www.bls.gov/ooh/healthcare/medical-and-clinical-laboratory-technologists-and-technicians.htm

Cammann, C., Fichman, M., Jenkins, G. D., & Klesh, J. R. (1983). Assessing the attitudes and perceptions of organizational members. In S. E. Seashore, E.E. Lawler, P.H. Mirvis, & C. Cammann (Eds.). *Assessing Organizational Change: A Guide to Methods, Measures, and Practices,* 71-138. New York: Wiley.

Chao-Sung, C., Pey-Lan, D., & Ing-Chung, H. (2006). Nurses' perceptions of severe

acute respiratory syndrome: relationship between commitment and intention to leave nursing. *Journal of Advanced Nursing*, *54*(2), 171-179. doi:10.1111/j.1365-2648.2006.03796.x

Cherniss, C. (1980). *Professional burnout in human service organizations.* New York: Praeger.

Cherniss, C. (1988). Observed supervisory behavior and teacher burnout in special education. *Exceptional Children*, *54*(5), 449-454. Retrieved from http://ecx.sagepub.com/

Chien-Hung, L. & Wen-Cheng, W. (2012). The relationship between affective and continuance organizational commitment. *Journal of Asian Business Strategy*, *2*(5), 89-94. Retrieved from http://www.aessweb.com/journals/5006

Chisholm, M., Russell, D., & Humphreys, J. (2011). Measuring rural allied health workforce turnover and retention: What are the patterns, determinants and costs? *Australian Journal of Rural Health*, *19*(2), 81-88. doi:10.1111/j.1440-1584.2011.01188.x

Choi, S.L & Perumal , P (2014). Examining the Impact of Human Resource Management Practices on Employees' Turnover Intention. *International Journal of Business and Society*, *15*(1), 111-126. Retrieved from http://www.ijbs.unimas.my/

Choi, Y., & Dickson, D. R. (2010). A case study into the benefits of management training programs: Impacts on hotel employee turnover and satisfaction level. *Journal of Human Resources In Hospitality & Tourism*, *9*(1), 103-116.

doi:10.1080/15332840903336499

Christian, J., & Ellis, A. (2014). The crucial role of turnover intentions in transforming moral disengagement into deviant behavior at work. *Journal of Business Ethics*, *119*(2), 193-208. doi:10.1007/s10551-013-1631-4

Christmas, K., & Hart, K. A. (2007). Workforce shortages are a global issue. *Nursing Economic$*, *25*(3), 175-177. Retrieved from www.nursingeconomics.net

Cohen, J. (1992). A power primer. *Psychological Bulletin*, *112*(1) 155-159. doi:10.1037/0033-2909.112.1.155

Cortelyou-Ward, K., Ramirez, B., & Rotarius, T. (2011). The laboratory workforce shortage: A managerial perspective. *Health Care Manager*, *30*(2), 148-155. doi:10.1097/HCM.0b013e318216f5df

Crawford, S.L. (2006). Correlation and regression. *Circulation*. 114, 2083-2088. doi:10.1161/CIRCULATIONAHA.105.586495

Creswell, J. W. (2009). Research design: Qualitative, quantitative, and mixed methods approaches. Los Angeles: Sage.

Dane, E., & Brummel, B. (2014). Examining workplace mindfulness and its relations to job performance and turnover intention. *Human Relations*, *67*(1), 105-128. doi:10.1177/0018726713487753

De Gieter, S., Hofmans, J., & Pepermans, R. (2011). Revisiting the impact of job satisfaction and organizational commitment on nurse turnover intention: An individual differences analysis. *International Journal of Nursing Studies*, *48* (12), 1562-1569. doi:10.1016/j.ijnurstu.2011.06.007

Demir, C., Sahin, B., Teke, K., Ucar, M., & Kursun, O. (2009). Organizational commitment of military physicians. *Military Medicine, 174*(9), 929-935. Retrieved from http://publications.amsus.org/

Direnzo, M. S., & Greenhaus, J. H. (2011). Job search and voluntary turnover in a boundary less world: A control theory perspective. *The Academy of Management Review*, *36*(3), 567-589. doi:10.5465/AMR.2011.61031812.

Dixit, V. & Bhati, M. (2012). A study about employee commitment and its impact on sustained productivity in Indian auto-component industry. *European Journal of Business and Social Sciences, 1*(6), 34-51. Retrieved from http://www.ejbss.com/

Dorman, K., Satterthwaite, L., Howard, A., Woodrow, S., Derbew, M., Reznick, R., & Dubrowski, A. (2009). Addressing the severe shortage of health care providers in Ethiopia: bench model teaching of technical skills. *Medical Education, 43*(7), 621-627. doi:10.1111/j.1365-2923.2009.03381.x

Du Plessis, T., Visagie, S., & Mji, G. (2014). The prevalence of burnout amongst therapists working in private physical rehabilitation centers in South Africa: a descriptive study. *South African Journal of Occupational Therapy*, *44*(2), 11-16. Retrieved from http://www.sajot.co.za/index.php/sajot/index

Dyrbye, L., Varkey, P., Boone, S., Satele, D., Sloan, J., & Shanafelt, T. (2013). Physician satisfaction and burnout at different career stages. *Mayo Clinic Proceedings*, *88*(12), 1358-1367. doi:10.1016/j.mayocp.2013.07.016

Edelwich, J. & Brodsky, A. (1980). *Burnout: Stages of disillusionment in the helping professions.* New York: Human Sciences Press.

Ertürk, A. (2014). Influences of HR practices, social exchange, and trust on turnover intentions of public IT professionals. *Public Personnel Management*, *43*(1), 140-175. doi:10.1177/0091026013517875

Eslami, J. & Gharakhani, D. (2012) Organizational commitment and job satisfaction. *ARPN Journal of Science and Technology*, 2, 85-91. Retrieved from http://www.ejournalofscience.org/

Faul, F., Erdfelder, E., Albert-Georg Lang, & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods, 39*(2), 175-91. Retrieved from http://www.psychonomic.org/behavior-research-methods

Feeley, T., Moon, S., Kozey, R. S., & Slowe, A. (2010). An erosion model of employee turnover based on network centrality. *Journal of Applied Communication Research*, *38*(2), 167-188. doi:10.1080/009098810036

Ferguson, C.J. (2009). An effect size primer: A guide for clinicians and researchers. *Professional Psychology: Research and Practice*, *40*(5), 532-538. doi:10.1037/a0015808

Firth, H., McIntee, J., McKeown, P., & Britton, P. (1986). Burnout and professional depression: related concepts?. *Journal of Advanced Nursing*, *11*(6), 633-641. doi:10.1111/1365-2648.ep13117201

Fradelos, E., Mpelegrinos, S., Mparo, C., Vassilopoulou, C., Argyrou, P., Tsironi, M... Theofilou, P. (2014). Burnout syndrome impacts on quality of life in nursing professionals: The contribution of perceived social support. *Progress in Health*

Sciences, 4(1), 102-109. Retrieved from http://progress.umb.edu.pl/

Fralick, M., & Flegel, K. (2014). Physician burnout: Who will protect us from ourselves?. *CMAJ: Canadian Medical Association Journal*, *186*(10), 731. doi:10.1503/cmaj.140588

Freudenberger, H. J. (1974). Staff burn-out. *Journal of Social Issues*, *30*(1), 159-165. doi:10.1111/j.1540-4560.1974.tb00706.x

Gallavan, D., & Newman, J. (2013). Predictors of burnout among correctional mental health professionals. *Psychological Services*, *10*(1), 115-122. doi:10.1037/a0031341

Garner, B. R., Knight, K., & Simpson, D. D. (2007). Burnout among corrections-based drug treatment staff: Impact of individual and organizational factors. International *Journal of Offender Therapy and Comparative Criminology*, *51*(5), 510–522. doi:10.1177/0306624X06298708

Gerber, M., Brand, S., Elliot, C., Holsboer-Trachsler, E., Pühse, U., & Beck, J. (2013). Aerobic exercise training and burnout: a pilot study with male participants suffering from burnout. *BMC Research Notes*, *6*(1), 1-9. doi:10.1186/1756-0500-6-78

Gill, A., Flaschner, A., & Shachar, M. (2006). Mitigating stress and burnout by implementing transformational-leadership. *International Journal of Contemporary Hospitality Management*, *18*(6), 469-481. doi:10.1108/09596110610681511

González, T., & Guillén, M. (2008). Organizational commitment: A proposal for a wider

ethical conceptualization of ‘Normative Commitment’. *Journal of Business Ethics*, *78*(3), 401-414. doi:10.1007/s10551-006-9333-9

Goodin, H. (2003). The nursing shortage in the United States of America: An integrative review of the literature. *Journal of Advanced Nursing. 4*(43), 335-343. doi:10.1046/j.1365-2648.2003.02722_1.x

Goodman, E. A., & Boss, R. W. (2002). The phase model of burnout and employee turnover. *Journal of Health & Human Services Administration*, *25*(1/2), 33-47. Retrieved from http://www.spaef.com/jhhsa.php

Green, A. E., Miller, E.A., and Aarons, G.A. (2013). Transformational leadership moderates the relationship between emotional exhaustion and turnover intention among community mental health providers. *Community Mental Health Journal*, *49*(4), 373-379. doi:10.1007/s10597-011-9463-0

Greyling, J., & Stanz, K. (2010). Turnover of nursing employees in a Gauteng Hospital Group. *SAJIP: South African Journal of Industrial Psychology*, *36*(1), 1-11. doi:10.4102/sajip.v36i1.850

Grissom, J. A., Nicholson-Crotty, J., & Keiser, L. (2012). Does my boss's gender matter? Explaining job satisfaction and employee turnover in the public sector. *Journal of Public Administration Research & Theory*, *22*(4), 649-673. Retrieved from http://jpart.oxfordjournals.org/

Hall, D. T., & Schneider, B. (1972). Correlates of organizational identification as a function of career pattern and organizational type. *Administrative Science Quarterly*, *17*(3), 340-350. Retrieved from

http://www.johnson.cornell.edu/publications/asq/

Harris, G. E., & Cameron, J. E. (2005). Multiple dimensions of organizational identification and commitment as predictors of turnover intentions and psychological well-being. *Canadian Journal of Behavioural Science*, *37*(3), 159-169. Retrieved from http://www.cpa.ca

Harwood, L., Ridley, J., Wilson, B., & Laschinger, H. (2010). Occupational burnout, retention, and health outcomes in nephrology nurses. *Canadian Association of Nephrology Nurses and Technologist Journal*, *20*(4), 18-23. Retrieved from http://www.cannt.ca/en/cannt_journal/index.html

Hilbourne, L. (2008). The other big workforce shortage. *Modern Healthcare*. *38*(22), 23. Retreived from http://www.modernhealthcare.com/

Hinkley, K. (2013). Rx for doctor shortage? *State Legislatures*, *39*(8), 30-31. Retrieved from http://www.ncsl.org/programs/pubs/00slmag.htm

Hom, P. W., Mitchell, T. R., Lee, T. W., & Griffeth, R. W. (2012). Reviewing employee turnover: Focusing on proximal withdrawal states and an expanded criterion. *Psychological Bulletin*, *138*(5), 831-858. doi:0.1037/a0027983

Huang, I., Chi-Hsun Jason Chuang, J., & Hao-Chieh Lin, J. (2003). The role of burnout in the relationship between perceptions of organizational politics and turnover intentions. *Public Personnel Management*, *32*(4), 519-531. Retrieved from http://ppm.sagepub.com/

Hunsaker, S., Chen, H., Maughan, D., & Heaston, S. (2015). Factors that influence the development of compassion fatigue, burnout, and compassion satisfaction in

emergency department nurses. *Journal of Nursing Scholarship, 47*(2), 186-194. doi:10.1111/jnu.12122

Ingham-Broomfield, R. (. (2014). A nurses' guide to Quantitative Research. *Australian Journal Of Advanced Nursing*, *32*(2), 32-38. Retrieved from http://www.ajan.com.au/

Jacobs, L., Nawaz, M., Hood, J., & Bae, S. (2012). Burnout among workers in a pediatric health care system. *Workplace Health & Safety, 60*(8), 335-44. doi:10.3928/21650799-20120726-03

Jafari, V., Moradi, M. A., & Ahanchi, M. (2013). An examination of the relationship between empowerment and organizational commitment (case study kurdistan province electric staff). *Interdisciplinary Journal of Contemporary Research in Business, 4*(12), 860-868. Retrieved from www.ijcrb.com/

James, J. B., McKechnie, S., & Swanberg, J. (2011). Predicting employee engagement in an age-diverse retail workforce. *Journal of Organizational Behavior*, *32*(2), 173–196.

Jiunn-Horng, L., Hsing-Yi, Y., Hsiu-Yueh, H., & Hung-Da, D. (2007). A study of role stress, organizational commitment and intention to quit among male nurses in southern Taiwan. *Journal of Nursing Research (Taiwan Nurses Association), 15*(1), 43-53. Retrieved from http://journals.lww.com/jnr-twna/pages/default.aspx

Jonathan, H., Thibeli, M., & Darroux, C. (2013). Impact investigation of organizational commitment on intention to leave of public secondary school teachers in Tanzania. *Developing Country Studies*, *3*(11), 78-91. Retrieved from

http://www.iiste.org/Journals/index.php/DCS

Joseph, D., Kok-Yee, N., Koh, C., & Soon, A. (2007). Turnover of information technology professionals: A narrative review, meta-analytic structural equation modeling, and model development. *MIS Quarterly*, *31*(3), 547-577. Retrieved from www.misq.org/

Juraschek, S.P., Zhang, X., Ranganathan, V.K., & Lin, V.W. (2012). United States registered nurse workforce report card and shortage forecast. *American Journal of Medical Quality*. *27*(3), 241-249. doi:10.1177/1062860611416634

Kanter, R. M. (1968). Commitment and social organization: A study of commitment mechanisms in utopian communities. *American Sociological Review*, *33*(4),499 – 517. Retrieved from http://www.asanet.org/journals/asr/american_sociological_review.cfm

Keane, S., Smith, T., Lincoln, M., & Fisher, K. (2011). Survey of the rural allied health workforce in new south wales to inform recruitment and retention. *Australian Journal of Rural Health, 19*(1), 38-44. doi:10.1111/j.1440-1584.2010.01175.x

Kelly, K., Clark, B., Brown, V., & Sitzia, J. (2003). Good practice in the conduct and reporting of survey research. *International Journal for Quality in Healthcare. 15*(30), 261-266. Retrieved from http://intqhc.oxfordjournals.org/

Keough, V. A., & Tanabe, P. (2011). Survey research: an effective design for conducting nursing research. *Journal of Nursing Regulation*, *1*(4), 37-44. Retrieved from http://jnr.metapress.com/home/main.mpx

Kessler, L. (2014). The effect of job satisfaction on IT employees turnover intention in

Israel. *Annals of The University Of Oradea, Economic Science Series*, *23*(1), 1028-1038. Retrieved from http://anale.steconomiceuoradea.ro/en/

Khanna, R., & Khanna, R. (2013). Is medicine turning into unhappy profession?. *Indian Journal of Occupational & Environmental Medicine*, *17*(1), 2-6. doi:10.4103/0019-5278.116363

Khasawneh, S., Omari, A., & Abu-Tineh, A. (2012). The relationship between transformation leadership and organizational commitment: The case for vocational teachers in Jordan. *Educational Management Administration Leadership*, *40*(4), 494-508. doi:10.1177/1741143212438217

Kim, E., & Hwang, J. (2011). Characteristics associated with intent to stay among quality improvement nurses. *International Nursing Review*, *58*(1), 89-95. doi:10.1111/j.1466-7657.2010.00841.x

Kinfu, Y., Dal Poz, M. R., Mercer, H., & Evans, D. B. (2009). The health worker shortage in Africa: are enough physicians and nurses being trained? *Bulletin of the World Health Organization*, *87*(3), 225-230. Retrieved from http://www.who.int/bulletin/en/

Kochanski, J., & Sorensen, A. (2008). Turning around employee turnover. *Financial Executive*, *24*(5), 28-31.

Kumar, R. & Eng, K.G. (2012). Perceived organizational commitment and its impact to the turnover intention: A correlation analysis. *Journal of Global Business and Economics*, *4*(1), 40-57. Retrieved from http://www.globalresearch.com.my/

Lam, L. W., & Liu, Y. (2014). The identity-based explanation of affective commitment.

Journal of Managerial Psychology, 29(3), 321-340. doi:10.1108/jmp-02-2012-0036

Laschinger, H.K. & Finegan, J. (2005). Using empowerment to build trust and respect in the workplace: A strategy for addressing the nursing shortage. *Nursing Economic$. 23*(1), 6-13. Retrieved from http://www.nursingeconomics.net

Leahy, N., Sheps, J., Tracy, C.S., Nie, J.X., Moineddin, R., & Upshur, R.E. (2008). Family physicians' attitudes toward education in research skills during residency: findings from a national mailed survey. *Canadian Family Physician, 54*(3), 413-414. Retrieved from http://www.cfp.ca/

Lee, H., Kim, M., & Yoon, J. (2011). Role of internal marketing, organizational commitment, and job stress in discerning the turnover intention of Korean nurses. *Japan Journal of Nursing Science, 8*(1), 87-94. doi:10.1111/j.1742-7924.2010.00162.x

Leiter, M. P., & Maslach, C. (1988). The impact of interpersonal environment on burnout and organizational commitment. *Journal of Organizational Behavior, 9*(4), 297-308. doi:10.1002/job.4030090402

Leiter, M. P., & Maslach, C. (2009). Nurse turnover: the mediating role of burnout. *Journal of Nursing Management, 17*(3), 331-339. doi:10.1111/j.1365-2834.2009.01004.x

Leiter, M., Jackson, N., & Shaughnessy, K. (2009). Contrasting burnout, turnover intention, control, value congruence and knowledge sharing between Baby Boomers and Generation X. *Journal of Nursing Management, 17*(1), 100-109.

doi:10.1111/j.1365-2834.2008.00884.x

Linhartová, L. (2012). Organisational perception of employee turnover. *Scientific Papers of the University of Pardubice. Series D, Faculty Of Economics & Administration*, 121-133. Retrieved from https://www.ebscohost.com/

Macy, B. A., & Mirvis, P. H. (1976). A methodology for assessment of quality of work life and organizational effectiveness in behavioral-economic terms. *Administrative Science Quarterly*, *21*(2), 212-226. Retrieved from http://www.johnson.cornell.edu/publications/asq/

March, J., & Simon, H. A. (1958). *Organizations*. New York: Wiley Press

Martin, C. J. (2015). The effects of nurse staffing on quality of care. *MEDSURG Nursing*, *24*(2), 4-6

Maslach, C., & Florian, V. (1988). Burnout, job setting, and self-evaluation among rehabilitation counselors. *Rehabilitation Psychology*, *33*(2), 85-93. doi:10.1037/h0091691

Maslach, C., Jackson, S. E., & Leiter, M. P. (1996). *Maslach Burnout Inventory manual* (3rd ed.). Palo Alto, CA: Consulting Psychologists Press.

Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Occupational Behavior*, *2*(2), 99-113. Retrieved from http://www.jstor.org/journals/01422774.html

Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology*, 52, 397-422. doi:10.1146/annurev.psych.52.1.397

McMenamin, P. (2014). 2022: Where have all those nurses gone?. *Georgia Nursing*,

74(2), 8-11. Retrieved from http://www.georgianurses.org/

Meyer, J. P., & Allen, N. J. (1984). Testing the 'side-bet theory' of organizational commitment: Some methodological considerations. *Journal of Applied Psychology*, *69*(3), 372-378. doi:10.1037/0021-9010.69.3.372

Meyer, J. P., Allen, N. J., & Smith, C. A. (1993). Commitment to organizations and occupations: Extension and test of a three-component conceptualization. *Journal of Applied Psychology*, *78*(4), 538-551. doi:10.1037/0021-9010.78.4.538

Meyer, J.P. & Allen, N.J. (1997). *Commitment in the Workplace: Theory, Research, and Application.* Thousand Oaks, CA: Sage Publications.

Mobley, W. H. (1977). Intermediate linkages in the relationship between job satisfaction and employee turnover. *Journal of Applied Psychology*, *62*(2), 237-240. doi:10.1037/0021-9010.62.2.237

Mobley, W. H. (1982). *Employee Turnover: Causes, Consequences and Control*. Reading, London: Addison-Wesley Publishing.

Mobley, W.H., Horner, S.O., & Hollingsworth, A. T. (1978). An evaluation of precursors of hospital employee turnover. *Journal of Applied Psychology, 63*(4), 408-414. doi:10.1037/0021-9010.63.4.408

Montero-Marín, J., Araya, R., Blazquez, B., Skapinakis, P., Vizcaino, V., & García-Campayo, J. (2012). Understanding burnout according to individual differences: ongoing explanatory power evaluation of two models for measuring burnout types. *BMC Public Health, 12*922. doi:10.1186/1471-2458-12-922

Moore, K. D., Eyestone, K. M., & Coddington, D. C. (2014). Viewing U.S. health care as

a growth industry. *Healthcare Financial Management: Journal of the Healthcare Financial Management Association*, *68*(4), 102.

Moreno, J., Bordas, C., Lopez, M., Peracho, C., Lopez, A., de Miguel, E., & Vazquez, L. (2010). Descriptive study of stress and satisfaction at work in the Saragossa university services and administration staff. *International Journal of Mental Health Systems*, *4*7-13. doi:10.1186/1752-4458-4-7

Morgan, B., de Bruin, G. P., & de Bruin, K. (2014). Operationalizing burnout in the Maslach Burnout Inventory–Student Survey: personal efficacy versus personal inefficacy. *South African Journal of Psychology*, *44*(2), 216-227. doi:10.1177/0081246314528834

Morgan, P., Strand de Oliveira, J., & Short, N. M. (2011). Physician assistants and nurse practitioners: a missing component in state workforce assessments. *Journal of Interprofessional Care*, *25*(4), 252-257. doi:10.3109/13561820.2010.501917

Mosadeghrad, A.M., Ferlie, E., & Rosenberg, D. (2008). A study of the relationship between job satisfaction, organizational commitment and turnover intention among hospital employees. *Health Services Management Research*, 21, 211-227. doi:10.1258/hsmr.2007.007015

Mosadeghrad, A. M. (2013). Occupational stress and turnover intention: Implications for nursing management. *International Journal of Health Policy and Management*, *1*(2), 169-176. doi: 10.15171/ijhpm.2013.30

Mowday, R. T., Porter, L. W., & Steers, R. M. (1982). *Employee-organization linkages: The psychology of commitment, absenteeism, and turnover*. New York, NY:

Academic Press.

Mowday, R. T., Steers, R.M., & Porter, L.W. (1979). The measurement of organizational commitment. *Journal of Vocational Behavior*, (14), 224-227. doi:10.1016/0001-8791(79)90072-1

National Accrediting Agency for Clinical Laboratory Sciences. (2013). *2013 annual report of the National Accrediting Agency for Clinical Laboratory Sciences*. Retrieved from http://www.naacls.org/docs/annualreport.pdf

Nazim A. (2008). Factors affecting overall job satisfaction and turnover intention. *Journal of Managerial Sciences, 2*(2), 239-252. Retrieved from http://www.qurtuba.edu.pk/jms/

Nelson, T., Johnson, S., & Bebbington, P. (2009). Satisfaction and burnout among staff of crisis resolution, assertive outreach and community mental health teams. A multicentre cross sectional survey. *Social Psychiatry And Psychiatric Epidemiology*, *44*(7), 541-549. doi:10.1007/s00127-008-0480-4

Nowak, P., Holmes, G., & Murrow, J. (2010). A model for reducing health care employee turnover. *Journal of Hospital Marketing & Public Relations*, *20*(1), 14-25. doi:10.1080/15390940903450925

Nunnally, J. C. & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). New York: McGraw-Hill.

Ohue, T., Moriyama, M., & Nakaya, T. (2011). Examination of a cognitive model of stress, burnout, and intention to resign for Japanese nurses. *Japanese Journal of Nursing Science, 8*(1), 76-86. doi:10.1111/j.1742-7924.2010.00161.x.

O'Reilly, C. A., & Chatman, J. (1986). Organizational commitment and psychological attachment: The effects of compliance, identification, and internalization on prosocial behavior. *Journal of Applied Psychology*, *71*(3), 492-499. doi:10.1037/0021-9010.71.3.492

Osborne, K. (2014). High turnover of top-level staff revealed. *Nursing Management - UK*, *21*(5), 6. doi:10.7748/nm.21.5.6.s2

Osuji, J., Uzoka, F., Aladi, F., & El-Hussein, M. (2014). Understanding the factors that determine registered nurses' turnover intentions. *Research and Theory for Nursing Practice, 28*(2), 140-61. doi:10.1891/1541-6577.28.2.140

Park, S. H., Boyle, D. K., Bergquist-Beringer, S., Staggs, V. S., & Dunton, N. E. (2014). Concurrent and lagged effects of registered nurse turnover and staffing on unit-acquired pressure ulcers. *Health Services Research*, *49*(4), 1205-1225. doi:10.1111/1475-6773.12158

Park, T., & Shaw, J. D. (2013). Turnover rates and organizational performance: A meta-analysis. *Journal of Applied Psychology*, *98*(2), 268-309. doi:10.1037/a0030723

Poghosyan, L., Aiken, L.H., & Sloan, D.M. (2009). Factor structure of the Maslach burnout inventory: An analysis of data from large scale cross-sectional surveys of nurses from eight countries. *International Journal of Nursing Studies*, *45*(7), 894-902. doi:10.1016/j.ijnurstu.2009.03.004

Porter, L. W., & Steers, R. M. (1973). Organizational, work, and personal factors in employee turnover and absenteeism. *Psychological Bulletin*, *80*(2), 151-176. doi:10.1037/h0034829

Porter, L. W., Steers, R. M., Mowday, R. T., & Boulian, P. V. (1974). Organizational commitment, job satisfaction, and turnover among psychiatric technicians. *Journal of Applied Psychology*, *59*(5), 603-609. doi:10.1037/h0037335

Price J. L. (1977). *The Study of Turnover*. Ames, Iowa: Iowa State University Press.

Price, J. L. (1999). Introduction to the special issue on employee turnover. *Human Resource Management Review*, *9*(4), 387-395. doi:10.1016/S1053-4822(99)00026-1

Ramoo, V., Abdullah, K. L., & Piaw, C. Y. (2013). The relationship between job satisfaction and intention to leave current employment among registered nurses in a teaching hospital. *Journal of Clinical Nursing*, *22*(21/22), 3141-3152. doi:10.1111/jocn.12260

Randall, K. J. (2007). Examining the relationship between burnout and age among Anglican clergy in England and Wales. *Mental Health, Religion & Culture*, *10*(1), 39-46. doi:10.1080/13674670601012303

Reig, J., Valverde, J. A., & Reig, M. (2015). Great opportunities ahead! Don't miss the boat! Where tech meets health care. *EWMA Journal*, *15*(1), 42-45

Ribeiro, V. F., Ferreira Filho, C., Valenti, V. E., Ferreira, M., de Abreu, L. C., Dias de Carvalho, T., & ... Ferreira, C. (2014). Prevalence of burnout syndrome in clinical nurses at a hospital of excellence. *International Archives of Medicine*, *7*(1), 1-14. doi:10.1186/1755-7682-7-22

Richardsen, A. M., & Martinussen, M. (2004). The Maslach Burnout Inventory: Factorial validity and consistency across occupational groups in Norway. *Journal of*

Occupational & Organizational Psychology, *77*(3), 377-384. doi: 10.1348/0963179041752691

Rousseau, V., & Aubé, C. (2010). Social support at work and affective commitment to the organization: The moderating effect of job resource adequacy and ambient conditions. *Journal of Social Psychology*, *150*(4), 321-340. doi:10.1080/00224540903365380

Rothman, K. (2010). Curbing type I and type II errors. *European Journal of Epidemiology*, *25*(4), 223-224. doi:10.1007/s10654-010-9437-5

Rusu, R. (2013). Affective organizational commitment, continuance organizational commitment or normative organizational commitment? *Buletin Stiintific*, *18*(2), 192-197. Retrieved from http://search.ebscohost.com

Saleem, T. & Gull, S. (2013). Drivers of turnover intention in public sector organizations: Pay satisfaction, organizational commitment, and employment opportunities. *Middle-East Journal of Scientific Research*, *17*(6), 697-704. doi:10.5829/idosi.mejsr.2013.17.06.11939

Sawatzky, J., and Enns, C. (2012). Exploring the key predictors of retention in emergency nurses. *Journal of Nursing Management*, *20*(5), 696-707. doi:10.1111/j.1365-2834.2012.01355.x.

Scanlan, J., & Still, M. (2013). Job satisfaction, burnout and turnover intention in occupational therapists working in mental health. *Australian Occupational Therapy Journal*, *60*(5), 310-318. doi:10.1111/1440-1630.12067

Schaufeli, W. B., Leiter, M. P., Maslach, C., & Jackson, S. E. (1996). The Maslach

Burnout Inventory—General Survey. In C. Maslach, S. E. Jackson, & M. P. Leiter (Ed.), *MBI manual* (3rd ed.). Palo Alto, CA: Consulting Psychologists Press.

Scheffler, R. M., Liu, J. X., Kinfu, Y., & Dal Poz, M. R. (2008). Forecasting the global shortage of physicians: an economic- and needs-based approach. *Bulletin of the World Health Organization, 86*(7), 516-B. doi:10.2471/BLT.07.046474

Shahriari, M., Shamali, M., & Yazdannik, A. (2014). The relationship between fixed and rotating shifts with job burnout in nurses working in critical care areas. *Iranian Journal of Nursing & Midwifery Research, 19*(4), 360-365. Retrieved from http://www.ijnmr.mui.ac.ir/index.php/ijnmr

Sheldon, M. E. (1971). Investments and involvements as mechanisms producing commitment to the organization. *Administrative Science Quarterly, 16*(2), 143-150. doi:10.2307/2391824

Siddiqi, M. A. (2013). Examining work engagement as a precursor to turnover intentions of service employees. *International Journal of Information, Business & Management, 5*(4), 118-132. Retrieved from http://ijibm.elitehall.com/

Singh, B., Gupta, P.K., & Venugopal, S. (2008). Organizational commitment: Revisited. *Journal of the Indian Academy of Applied Psychology, 34*(1), 57-68. Retrieved from http://jiaap.org/

Sirin, Y., Bilir, P., & Karademir, T. (2013). The effect of organizational commitment on job performance: The case of the kahramanmaras provincial directorate of youth services and sports. *International Journal of Academic Research, 5*(4), 65-71. doi:10.7813/2075-4124.2013/5-4/B.9

Somers, M. (1995). Organizational commitment, turnover and absenteeism: an examination of direct and interaction effects. *Journal of Organizational Behavior*, *16*(1), 49-58. doi:10.1002/job.4030160107

Spencer, D. G., Steers, R. M., & Mowday, R. T. (1983). An empirical test of the inclusion of job search linkages into Mobley's model of the turnover decision process. *Journal of Occupational Psychology*, *56*(2), 137-144. doi:10.1111/j.2044-8325.1983.tb00121.x

Stanetic, K., & Tesanovic, G. (2013). Influence of age and length of service on the level of stress and burnout syndrome. *Medical Review*, *66*(3/4), 153-162. doi:10.2298/MPNS1304153S

Steckler, A., & McLeroy, K. R. (2008). The importance of external validity. *American Journal of Public Health, 98*(1), 9-10. doi:10.2105/AJPH.2007.126847

Suma, S. & Lesha, J. (2013). Job satisfaction and organizational commitment: The case of shkodra municipality. *European Scientific Journal, 9*(17), 41-51. Retrieved from http://www.eujournal.org/index.php/esj

Suresh, K.P. & Chandrashekara, S. (2012). Sample size estimation and power analysis for clinical research studies. *Journal of Human Reproductive Science*, *5*(1), 7-13. doi:10.4103/0974-1208.97779

Suzuki, E., Tagaya, A., Ota, K., Nagasawa, Y., Matsuura, R., & Sato, C. (2010). Factors affecting turnover of Japanese novice nurses in university hospitals in early and later periods of employment. *Journal of Nursing Management*, *18*(2), 194-204. doi:10.1111/j.1365-2834.2010.01054.x

Taddei, S., & Contena, B. (2010). Burnout in call centre workers between demands and resources. *BPA - Applied Psychology Bulletin (Bollettino Di Psicologia Applicata)*, (261/262), 37-48. Retrieved from http://www.giuntios.it/catalogo/rivista/bollettino-di-psicologia-applicata

Taing, M., Granger, B., Groff, K., Jackson, E., & Johnson, R. (2011). The multidimensional nature of continuance commitment: Commitment owing to economic exchanges versus lack of employment alternatives. *Journal of Business & Psychology*, *26*(3), 269-284. doi:10.1007/s10869-010-9188-z

Truzzi, A., Valente, L., Ulstein, I., Engelhardt, E., Laks, J., & Engedal, K. (2012). Burnout in familial caregivers of patients with dementia. *Revista Brasileira De Psiquiatria*, *34*(4), 405-412. doi:10.1016/j.rbp.2012.02.006

Turpin, D. L. (2008). Meeting the challenges of a workforce shortage. *American Journal of Orthodontics and Dentofacial Orthopedics*. *133*(2), 183. doi:10.1016/j.ajodo.2007.12.015

Urbonas, G., Kubilienė, L., Kubilius, R., & Urbonienė, A. (2015). Assessing the effects of pharmacists' perceived organizational support, organizational commitment and turnover intention on provision of medication information at community pharmacies in Lithuania: a structural equation modeling approach. *BMC Health Services Research*, *15*(1), 1-10. doi:10.1186/s12913-015-0741-3

Van Dam, K., Meewis, M., & Van Der Heijden, B. I. (2013). Securing intensive care: towards a better understanding of intensive care nurses' perceived work pressure and turnover intention. *Journal of Advanced Nursing*, *69*(1), 31-40.

doi:10.1111/j.1365-2648.2012.05981.x

Van Der Westhuizen, S., and Narainsamy, K. (2013). Work related well-being: Burnout, work engagement, occupational stress and job satisfaction within a medical laboratory setting. *Journal of Psychology in Africa*, *23*(3), 467-474. Retrieved from http://www.ajol.info/index.php/jpa

Verhoef, M.J. & Casebeer, A.L. (1997). Broadening horizons: Integrating quantitative and qualitative research. *Canadian Journal of Infectious Diseases*, *8*(2), 65-66. Retrieved from http://www.pulsus.com/journals/home.jsp

Vogel, L. (2014). Rural premedicine program aims to tackle doctor shortages. *CMAJ: Canadian Medical Association Journal*, *186*(3), 177. doi:10.1503/cmaj.109-4700.

Waldman, J.D., Kelly, F., Arura, S., & Smith, H.L. (2004). The shocking cost of turnover in health care. *Health Care Management Review*, *29*(1), 2-7. doi:10.1097/hmr.0b013e3181e3940e

Wasti, S. A. (2003). Organizational commitment, turnover intentions and the influence of cultural values. *Journal of Occupational & Organizational Psychology*, *76*(3), 303-321. doi:10.1348/096317903769647193

World Health Organization. (2013). Global health workforce shortages to reach 12.9 million in coming decades. Retrieved from http://www.who.int/mediacentre/news/releases/2013/health-workforce-shortage/en/

Liu, X.-P., & Wang, Z.-M. (2013). Perceived risk and organizational commitment: The moderating role of organizational trust. *Social Behavior & Personality: An International Journal*, *41*(2), 229-240. doi:10.2224/sbp.2013.41.2.229

Yedidia, M. (2014). Effectiveness of strategies addressing the nurse faculty shortage. *Nursing Education Perspectives*, *35*(5), 279

Yin-Fah, B.C., Foon, Y.S., Chee-Leong, L., & Osman, S. (2010). An exploratory study on turnover intention among private sector employees. *International Journal of Business and Management*, *5*(8), 57-64. doi:10.5539/ijbm.v5n8p57

Zhang, Y., & Feng, X. (2011). The relationship between job satisfaction, burnout, and turnover intention among physicians from urban state-owned medical institutions in Hubei, China: a cross-sectional study. *BMC Health Services Research*, *11*, 235. doi:10.1186/1472-6963-11-235

Appendix A. Invitation to Participate

My name is Tasia Hilton. I am an ASCP certified Medical Laboratory Scientist who previously worked in Florida for several years as a Clinical Laboratory Technologist. I am currently conducting a research project addressing issues related to the shortage of clinical laboratory personnel in the state of Florida and I need your help! The research project examines the relationship between job Burnout and Organizational Commitment and laboratory professional's decision to stay or leave their current place of employment. The study is partial fulfillment of the requirements for my PhD degree in Health Services – Healthcare Administration at Walden University. In addition, your participation in the study will provide valuable information on the topic and may be used to address and change policies and procedures aimed at retaining and recruiting clinical laboratory personnel within an organization.

I am asking you to please use the link below to complete my survey at your earliest convenience. You qualify for this study because you hold an active Florida license as a clinical laboratory director, clinical laboratory technologist, clinical laboratory technician, or clinical laboratory supervisor from the Florida Department of Health. You are being asked to complete a brief online survey and a demographics questionnaire that will take about ten minutes of your time. Participation in the study is strictly voluntary and you may withdraw from the study at any point in time. Participation is not associated with your place of employment. All data collected for this study is strictly anonymous and will be used for research purposes only. You will not have to give your name or any other identifying information at any point during the

survey. Although there is no personal or foreseeable risk to participating in this study, you are free to decline or withdraw from the study at any point in time. Thank you for your time and assistance.

Please click the "**Begin Survey**" button below to take the brief online clinical laboratory employee survey by Friday April 3, 2015.

Sincerely,

Tasia Hilton, MA, MLS(ASCP)^{CM}
PhD Student, Walden University

Appendix B. Demographics Questionnaire

Please choose the answer that best represents you.

1. What is your gender?

    (1) Female

    (2) Male

    (3) Other

2. What is your age in years?

    (1) 19-24

    (2) 25-30

    (3) 31-35

    (4) 36-40

    (5) 41-50

    (6) 51-55

    (7) 56 and older

3. What is the highest level of education you have achieved?

    (1) Associate degree

    (2) Bachelor degree

    (3) Master’s degree

    (4) Doctoral degree

4. Which best describes your current job role?

    (1) Clinical Laboratory Technician or Technologist

    (2) Clinical Laboratory Supervisor or Director

5. How many years of service do you have at your current organization?

    (1) 0-1 year

    (2) 1-5 years

    (3) 5-10 years

    (4) 10-15 years

    (5) 15-20 years

    (6) 20-30 years

    (7) over 30

6. What is your current work shift?

    (1) First/day shift

    (2) Second/evening shift

    (3) Third/night shift

7. How many years of experience do you have working in the clinical laboratory?

    (1) 0-5 years

    (2) 5-10 years

    (3) 10-15 years

    (4) 15-20 years

    (5) 20-25 years

    (6) 25-30 years

(7) over 30 years

Below are a series of statements that represent employee attitudes about leaving their job. Please indicate your degree of agreement or disagreement with each of the statements.

8. I will likely actively look for a new job in the next year.

1 = *strongly disagree*

2 = *moderately disagree*

3 = *slightly disagree*

4 = *neither agree or disagree*

5 = *slightly agree*

6 = *moderately agree*

7 = *strongly agree*

9. I often think about quitting.

1 = *strongly disagree*

2 = *moderately disagree*

3 = *slightly disagree*

4 = *neither agree or disagree*

5 = *slightly agree*

6 = *moderately agree*

7 = *strongly agree*

10. I will probably look for a new job in the next year.

1 = *strongly disagree*

2 = *moderately disagree*

3 = *slightly disagree*

4 = *neither agree or disagree*

5 = *slightly agree*

6 = *moderately agree*

7 = *strongly agree*

Appendix C. Organizational Commitment Questionnaire (OCQ)

1. I am willing to put in a great deal of effort beyond that normally expected in order to help this organization be successful.

1 = *strongly disagree*

2 = *moderately disagree*

3 = *slightly disagree*

4 = *neither agree or disagree*

5 = *slightly agree*

6 = *moderately agree*

7 = *strongly agree*

2. I talk up this organization to my friends as a great organization to work for.

1 = *strongly disagree*

2 = *moderately disagree*

3 = *slightly disagree*

4 = *neither agree or disagree*

5 = *slightly agree*

6 = *moderately agree*

7 = *strongly agree*

3. I feel very little loyalty to this organization.

1 = *strongly disagree*

2 = *moderately disagree*

3 = *slightly disagree*

4 = *neither agree or disagree*

5 = *slightly agree*

6 = *moderately agree*

7 = *strongly agree*

4. I would accept almost any type of job assignment in order to keep working for this organization.

1 = *strongly disagree*

2 = *moderately disagree*

3 = *slightly disagree*

4 = *neither agree or disagree*

5 = *slightly agree*

6 = *moderately agree*

7 = *strongly agree*

5. I find that my values and the organization's values are very similar.

1 = *strongly disagree*

2 = *moderately disagree*

3 = *slightly disagree*

4 = *neither agree or disagree*

5 = *slightly agree*

6 = *moderately agree*

7 = *strongly agree*

6. I am proud to tell others that I am part of this organization.

1 = *strongly disagree*

2 = *moderately disagree*

3 = *slightly disagree*

4 = *neither agree or disagree*

5 = *slightly agree*

6 = *moderately agree*

7 = *strongly agree*

7. I could just as well be working for a different organization as long as the type of work was similar.

1 = *strongly disagree*

2 = *moderately disagree*

3 = *slightly disagree*

4 = *neither agree or disagree*

5 = *slightly agree*

6 = *moderately agree*

7 = *strongly agree*

8. This organization really inspires the very best in me in the way of job performance.

1 = *strongly disagree*

2 = *moderately disagree*

3 = *slightly disagree*

4 = *neither agree or disagree*

5 = *slightly agree*

6 = *moderately agree*

7 = *strongly agree*

9. It would take very little change in my present circumstances to cause me to leave this organization.

1 = *strongly disagree*

2 = *moderately disagree*

3 = *slightly disagree*

4 = *neither agree or disagree*

5 = *slightly agree*

6 = *moderately agree*

7 = *strongly agree*

10. I am extremely glad that I chose this organization to work for instead of others I was considering at the time I joined.

1 = *strongly disagree*

2 = *moderately disagree*

3 = *slightly disagree*

4 = *neither agree or disagree*

5 = *slightly agree*

6 = *moderately agree*

7 = *strongly agree*

11. There's not too much to be gained by sticking with this organization indefinitely.

1 = *strongly disagree*

2 = *moderately disagree*

3 = *slightly disagree*

4 = *neither agree or disagree*

5 = *slightly agree*

6 = *moderately agree*

7 = *strongly agree*

12. Often, I find it difficult to agree with this organization's policies on important matters relating to its employee.

1 = *strongly disagree*

2 = *moderately disagree*

3 = *slightly disagree*

4 = *neither agree or disagree*

5 = *slightly agree*

6 = *moderately agree*

7 = *strongly agree*

13. I really care about the fate of this organization.

    1 = *strongly disagree*

    2 = *moderately disagree*

    3 = *slightly disagree*

    4 = *neither agree or disagree*

    5 = *slightly agree*

    6 = *moderately agree*

    7 = *strongly agree*

14. For me this is the best of all possible organizations for which to work.

    1 = *strongly disagree*

    2 = *moderately disagree*

    3 = *slightly disagree*

    4 = *neither agree or disagree*

    5 = *slightly agree*

    6 = *moderately agree*

    7 = *strongly agree*

15. Deciding to work for this organization was a definite mistake on my part.

    1 = *strongly disagree*

    2 = *moderately disagree*

    3 = *slightly disagree*

    4 = *neither agree or disagree*

    5 = *slightly agree*

6 = *moderately agree*

7 = *strongly agree*

Appendix D. Permission to Use and Republish OCQ

RE: OCQ - Permission to Use
1 message

Rick Mowday Tue, Apr 14, 2015 at 6:22 PM
To: Tasia Hilton

Tasia

I don't see a problem is you want to republish the OCQ in your dissertation. Good luck on publishing your dissertation.

Rick

From: Tasia Hilton
Sent: Tuesday, April 14, 2015 11:40 AM
To: Rick Mowday
Subject: Re: OCQ - Permission to Use

Dr. Mowday,

In February 2015, you granted me permission to use the Organizational Commitment Questionnaire (OCQ) for my dissertation. Thank you for granting me that permission. My research is now complete and I am in the process of completing my dissertation. I am contacting you for permission to republish the OCQ in hopes that my dissertation will be published. Thank you for your time.

Regards,

Tasia Hilton

On Wed, Feb 18, 2015 at 7:23 PM, Rick Mowday wrote:

Tasha

The Organiztional Commitment Questionaire (OCQ) was originally developed by Proffessor Lyman Porter. He decided not to.copyright the instrument to encourage it use by others in research. As a consequence the OCQ legally exits in the public domain and you are free to use it in your dissertation without formal permission.

Good luck on your dissertation.

Should you need anything further I will be out of touch by email as I am leaving to

travel in a country with limited or no internet access. I'll be back in a week or so.

Rick_____
From: Tasia Hilton
Sent: Tuesday, February 17, 2015 2:00 PM
To: Rick Mowday
Cc: Tasia Hilton
Subject: OCQ - Permission to Use

February 17, 2015

Dr. Mowday,

My name is Tasia Hilton. I am a doctoral student at Walden University. I am conducting my dissertation on the effect of Burnout and Organizational Commitment on the turnover intention of clinical laboratory employees in Florida. I am contacting you to obtain permission to use your Organizational Commitment Questionnaire (OCQ) in my dissertation research study.

If I may be granted permission to use the OCQ, please indicate by replying with your approval.

I look forward to hearing from you soon. Thank you for your consideration.

Sincerely,

Tasia Hilton
Doctoral Student, Walden University

Appendix E. Permission to Use and Republish MOAQ

Re: MOAQ - Permission to Use

Yan Fu Wed, Apr 15, 2015 at 4:13 PM
To: Tasia Hilton

Hi Tasia,

What do you mean by republish MOAQ? You are using some parts of the questionnaire in your dissertation and it is OK if your dissertation is published using the questionnaires.

Yan

On Tue, Apr 14, 2015 at 2:41 PM, Tasia Hilton wrote:

Dear Yan Fu,

In February 2015, you granted me permission to use the Michigan Organizational Assessment Questionnaire (MOAQ) for my dissertation. Thank you for granting me that permission. My research is now complete and I am in the process of completing my dissertation. I am contacting you for permission to republish the MOAQ in hopes that my dissertation will be published. Thank you for your time.

Regards,

Tasia Hilton

On Wed, Feb 18, 2015 at 9:25 AM, Yan Fu wrote:
Hi Tasia,

You have our permission to use MOAQ in your dissertation.

Let me know if you have further questions.

Yan

--
Yan Fu

Population Studies Center Library
Institute for Social Research
University of Michigan
426 Thompson St
Ann Arbor, MI 48106
734-763-2152

On Tue, Feb 17, 2015 at 12:34 PM, Tasia Hilton wrote:

February 17, 2015

Dear Yan Fu,

My name is Tasia Hilton. I am a doctoral student at Walden University. I am conducting my dissertation on the effect of Burnout and Organizational Commitment on the turnover intention of clinical laboratory employees in Florida. I am contacting you to request permission to use the Michigan Organizational Assessment Questionnaire (MOAQ) in my research for my dissertation. Specifically, I would like to use the turnover portion of Module 2.

If I may be granted permission to use the MOAQ, please indicate by replying with your approval.

I look forward to hearing from you soon. Thank you for your consideration.

Sincerely,

Tasia Hilton
Doctoral Student, Walden University

Appendix F. License to Use MBI-GS

mind garden

www.mindgarden.com

To whom it may concern,

This letter is to grant permission for the above named person to use the following copyright material for his/her thesis or dissertation research:

Instrument: ***Maslach Burnout Inventory, Forms: General Survey, Human Services Survey & Educators Survey***

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The entire instrument may not be included or reproduced at any time in any published material.

Sincerely,

Robert Most
Mind Garden, Inc.
www.mindgarden.com

Appendix G. Power Analysis to Determine Sample Size

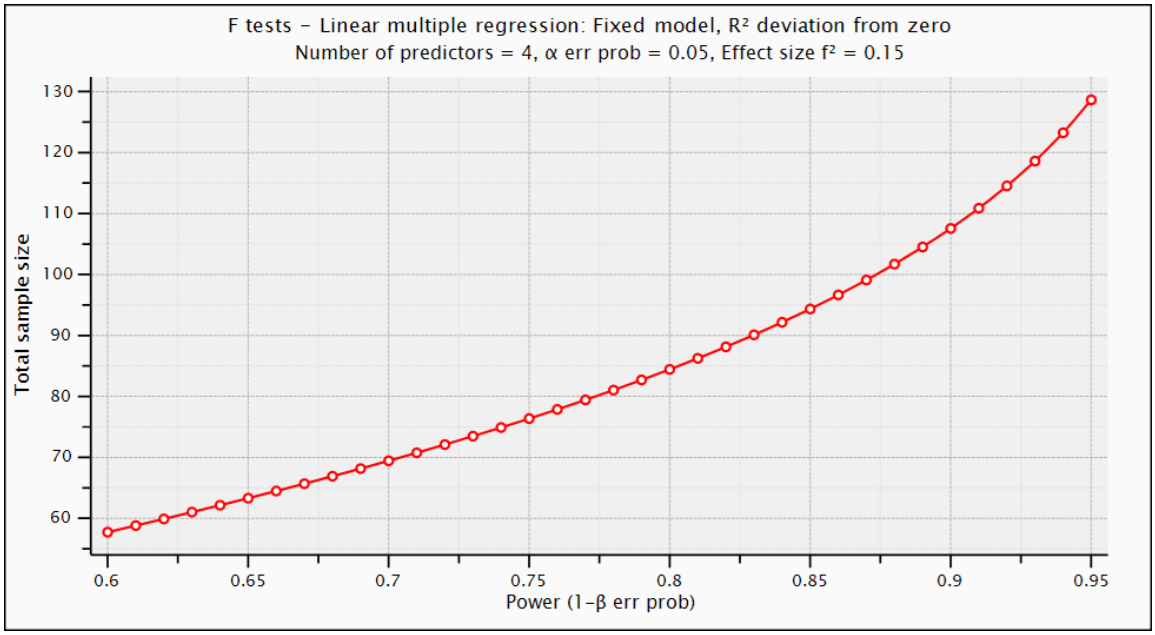

Figure 1: Power analysis to determine sample size.