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# Caring for Caregivers: Mentoring and Its Effects on Affective and Behavioral Outcomes

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CARING FOR CAREGIVERS: MENTORING AND ITS EFFECTS ON AFFECTIVE  
AND BEHAVIORAL OUTCOMES

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A Dissertation  
Presented to  
the Graduate School of  
Clemson University

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In Partial Fulfillment  
of the Requirements for the Degree  
Doctor of Philosophy  
Industrial-Organizational Psychology

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by  
Pamela Farago  
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## ABSTRACT

Long hours, in addition to a heavy workload, lack of control over the environment, and inadequate recognition are some factors that have been described as contributing to healthcare workers developing burnout (Ahlin, Ericson-Lidman, Norberg, & Strandberg, 2015), decreasing their job performance, and ultimately leading them to leave their jobs. It is critically important that preventive methods of buffering burnout are studied in this context, and mentoring may be one such method. Drawing on bodies of research related to motivation and stress, this study examined a mentoring intervention using a healthcare population who had engaged in an 8-month mentoring program. This study wanted to investigate the outcomes of mentoring, contextual influences on mentoring success, and the mechanism through which mentoring produced positive outcomes. The results of this study indicated that the outcome of meaningful work was increased in mentors, protégés, and the subordinates of protégés as compared to control groups. The contextual factors of dyad matching and organizational learning climate additionally influenced outcomes as a result of engaging in this program. The mechanism through which mentoring operated did not produce significant results, but did open possible lines of future research. This study, therefore, filled several gaps in the mentoring literature and can inform future mentoring interventions to ensure wide applicability and ultimate success.

## DEDICATION

There are several people who have helped me immensely throughout my graduate school journey who deserve much more than just this small level of thanks. Nonetheless, this is my best effort at letting them know how much they have inspired me.

First, a big thanks to my family. My parents were the first people who told me I could do whatever I wanted to do and be whatever I wanted to be. Their guiding words were to follow my passion, and following that is exactly what has gotten me here today. Another big thanks to my fiancée, who is the newest member of my family. Without his endless help, support, and grounded perspective, I would not have had the fortitude to continue pursuing my degree.

Second, I have immense gratitude to my Clemson friends and lab-mates. They made my graduate experience both fulfilling and meaningful, complete with countless laughs and cups of coffee along the way. I've learned so much from these amazing and intelligent people, running the spectrum from statistics to what it means to be selfless. I can't wait to see the things that these lifelong friends accomplish in the future.

Finally, my committee was a big help throughout this entire process. Their thoughtful feedback about research questions and new areas of research have helped me dig deeper into the mentoring literature. This study is infinitely stronger as a result of their collective brainpower, and I could not be more thankful.

## TABLE OF CONTENTS

	Page
TITLE PAGE.....	i
ABSTRACT.....	ii
DEDICATION.....	iii
TABLE OF CONTENTS.....	iv
LIST OF TABLES.....	vi
LIST OF FIGURES.....	vii
 CHAPTERS	
1. INTRODUCTION.....	1
Purpose of the Current Study.....	1
Theoretical and Practical Significance of the Current Study.....	3
2. THEORETICAL FRAMEWORK.....	5
Introduction.....	5
Mentoring in the Workplace.....	5
Mentoring Distinctions.....	6
Current State of Workplace Mentoring.....	7
Mentoring Types and Forms.....	10
Mentoring in Healthcare.....	12
Theoretical Background for Current Model.....	15
Overview of the Current Model.....	20
3. DEFINING THE CONSTRUCTS.....	24
Protégé Outcomes.....	24
Mentor Outcomes.....	30
Individual Contextual Factors on Mentoring Proximal Outcomes.....	36
Dyadic Contextual Factors on Mentoring Proximal Outcomes.....	40
Organizational Contextual Factors on Mentoring Proximal Outcomes.....	43
Mediating and Moderating Mechanisms on Distal Outcomes.....	45
Summary.....	51
4. METHOD.....	53
Participants.....	53
Design.....	54
Measures.....	55

Table of Contents (Continued)	Page
5. RESULTS .....	64
Data Screening.....	64
Demographic Variables.....	66
Confirmation of Factor Structure .....	68
Examining the Outcomes of Mentoring.....	70
Examining the Contextual Factors of Mentoring.....	77
Examining the Mechanism of Mentoring .....	84
6. DISCUSSION .....	89
Overview of the Hypotheses .....	89
Limitations .....	96
Practical Applications .....	97
Future Directions .....	101
Conclusion.....	102
7. TABLES .....	104
8. FIGURES.....	121
9. REFERENCES.....	132
10. APPENDICES.....	151

## LIST OF TABLES

Table	Page
1. Distinctions Between Mentoring and Related Constructs .....	104
2. Studies and Outcomes from Mentoring in Healthcare Professionals... .....	105
3. Construct Definitions of Interest .....	106
4. Frequencies for Demographic and Job Position Characteristics in Mentor, Potential Mentor, Protégé, and Potential Protégé Groups .....	107
5. Mentor, Potential Mentor, Protégé, and Potential Protégé Comparative Tests to Establish Group Equivalency.....	108
6. Standardized Factor Loadings and AVEs for Constructs of Interest .....	110
7. Correlations Between Constructs of Interest.....	111
8. Scale Reliability for Each Construct.....	112
9. Independent Samples t-test on Meaningful Work, Turnover Intentions, and Job Performance for Mentors, Protégés, Subordinates of Mentors, and Subordinates of Protégés.....	113
10. Regressions Indexing Relationship Between Similarity and Meaningful Work for Mentors.....	114
11. Regressions Indexing Relationship Between Similarity and Meaningful Work for Protégés .....	115
12. Regressions Indexing Relationship Between Organizational Learning Climate and Meaningful Work for Mentors and Protégés .....	116
13. Models of the Effects of Meaningful Work and OCBs on Job Performance for Mentors.....	117
14. Models of the Effects of Meaningful Work and OCBs on Job Performance for Protégés .....	118
15. Summary of Hypotheses, Support, and Relevant Implications.....	119

## LIST OF FIGURES

Figure	Page
1. Overview of Outcomes for Mentors, Protégés, Subordinates of Mentors, and Subordinates of Protégés.....	121
2. Overview of Contextual Factors and Proximal Outcomes.....	122
3. Overview of Proposed Mentoring Mechanism for Affective Outcomes of Subordinates of Mentors and Protégés.....	123
4. Overview of Proposed Mentoring Mechanism for Behavioral Outcomes of Mentors and Protégés.....	124
5. Quadratic Relationship Between Dyadic Total Similarity and Meaningful Work Outcome for Protégés.....	125
6. Linear Relationship Between Organizational Learning Climate and Meaningful Work Outcome for Mentors.....	126
7. Quadratic Relationship Between Organizational Learning Climate and Meaningful Work Outcome for Protégés.....	127
8. Mediation Path Coefficients Testing the Mentoring Mechanism for Affective Outcomes of Subordinates of Mentors.....	128
9. Mediation Path Coefficients Testing the Mentoring Mechanism for Affective Outcomes of Subordinates of Protégés.....	129
10. Graphical Depiction of the Effect of OCBs on the Relationship Between Meaningful Work and Job Performance for Mentors	130
11. Graphical Depiction of the Effect of OCBs on the Relationship Between Meaningful Work and Job Performance for Protégés	131



## CHAPTER ONE

### INTRODUCTION

#### **Purpose of the Current Study**

Long hours, in addition to a heavy workload, lack of control over the environment, and inadequate recognition are some factors that have been described as contributing to healthcare workers developing burnout (Ahlin, Ericson-Lidman, Norberg, & Strandberg, 2015), decreasing their job performance, and ultimately leading them to leave their jobs. Therefore, it is critically important that preventive methods of buffering burnout, thus impacting workers' turnover intentions and job performance, are studied in this context. Mentoring may be one of these preventive methods. Mentoring has demonstrated importance in professional development and the balancing of professional and personal demands in a wide variety of organizational contexts, which makes it a promising avenue of study for use with healthcare workers (Sambunjak, Straus, Marusic, 2006).

The current study had three main purposes. First, the current study aimed to investigate the utility of a mentoring intervention for mentors, protégés, and their respective subordinates within the healthcare environment. The utility of the mentorship program was conceptualized primarily through three constructs: the proximal outcome of leader and subordinate meaningful work, the distal outcome of subordinate turnover intentions, and the distal outcome of leader job performance. These outcomes were necessary to study because they could index affective and behavioral outcomes that were of consequence to leaders, their subordinates, and their organizations.

However, mentoring's ultimate efficacy could not be fully understood without looking at contextual factors that may inadvertently influence mentoring's success. Therefore, the second purpose of the current study was to look at potential moderating variables of the mentoring relationship. These proximal moderating variables included (a) use of a structured program, (b) participant similarity, and (c) organizational learning climate. These variables were chosen to represent situational variables that a healthcare organization could directly manipulate to gain greater return on investment from implementing a mentoring program.

Finally, it was of value to gain greater insight into the mechanism through which mentoring produced positive outcomes. To serve this purpose, leader organizational citizenship behaviors were studied to determine their potential linkage between leader meaningful work and leader job performance. Additionally, subordinate affective commitment was studied to determine its potential linkage between subordinate meaningful work and subordinate turnover intentions. These two variables may explain with greater clarity how mentoring functions to produce a mentoring climate, and subsequent positive personal and unit outcomes, giving organizations additional ideas for how to successfully implement mentoring in the workplace. Therefore, this study filled three critical gaps in the current mentoring literature, as well as provided intervention ideas that could be utilized in a healthcare population most effectively.

In the literature review section of the study, the broader mentoring literature was reviewed first. The distinction between mentoring, coaching, and related forms of dyadic relationships was made. Following this, a look at mentoring in healthcare, specifically,

was undertaken. This background set the stage for exploring the current mentoring program examined in this study, along with the presentation of hypotheses related to the aforementioned outcomes of interest.

### **Theoretical and Practical Significance of the Current Study**

As briefly mentioned, there were three main goals for conducting this research. The first goal was practical in nature: to investigate the utility of a mentoring intervention from the perspectives of mentors, protégés, and the respective subordinates that they lead. Currently, there is a lack of research about a mentor's specific outcomes related to engaging in a mentoring relationship (Allen, Poteet, & Burroughs, 1997). It is crucial for mentors to understand what they can gain from this partnership, so they use their time in this mentoring relationship to develop their protégés and themselves. Without this, mentors may experience adverse outcomes due to increased time commitment and the detrimental resource drains that can result (Edwards & Rothbard, 2000). Additionally, there is a lack of research investigating the results of mentorship on the subordinates who have a leader engaged in a mentoring program. Some studies have proposed that a mentoring climate may pave the way for positive outcomes to result within the context of a unit (Van Vianen, Rosenauer, Homan, Horstmeier, & Voelpel, 2017), but unit-level outcomes should be more rigorously studied to lend support to that idea.

The second goal of this study was also practical: to elucidate the contextual factors of an effective mentoring relationship. Previous mentoring literature had not extensively looked at contextual factors that may influence mentoring outcomes (Wanberg, Kammeyer-Mueller, & Marchese, 2006). This research sought to explain three

specific contextual factors as they relate to mentoring outcomes: use of a structured program, participant similarity, and organizational learning climate. Using a structured program has been touted as a useful tool to enable long-term learning (Kolb, 1984), but has not been extensively studied within mentoring in the healthcare context. Study of participant similarity has yielded conflicting outcomes, making it an area of study that warrants more attention (Eby, 2011). Organizational learning climate has been discussed as theoretically important to mentoring implementation, but more empirical studies into how individual outcomes result from this process have not been conducted (Kram & Ragins, 2007).

The third goal of this study was theoretical. This goal aimed to elucidate the mechanisms through which mentoring may lead to the aforementioned positive outcomes. To do this, the current research sought to quantify the relationship between (1) subordinate meaningful work, subordinate affective commitment, and affective outcomes that are associated with subordinate turnover intentions and (2) leader meaningful work, leader organizational citizenship behaviors and behavioral outcomes associated with leader job performance. Studies within the healthcare context have been scarce that examine the mediating mechanisms leading to affective and behavioral outcomes of mentoring (Day & Allen, 2004; Scandura, 1992). However, these proposed mediating and moderating mechanisms can provide rich information about the processes through which mentoring is effective, specifying data that can be used in future interventions to ensure positive individual, unit, and organizational outcomes.

## CHAPTER TWO

### THEORETICAL FRAMEWORK

#### **Introduction**

In this section, the broader mentoring literature will be reviewed first. The distinction between mentoring, coaching, and related forms of dyadic relationships will be made. Following this, a look at mentoring in healthcare, specifically, will be undertaken. This background will set the stage for discussing three, key theoretical frameworks that were used to build the current study's model. The current model will then be presented and its contributions to the literature examined.

#### **Mentoring in the Workplace**

Mentoring is a mechanism used to cultivate the greatest resources that a company has: its own internal talent (Stumpf & London, 1981). About 71% of Fortune 500 companies report that they currently have one or more formal mentoring programs in place (Bridgeford, 2007). The companies involved in this study spanned a wide range of disciplines, including banking, hospitality, telecommunications, and manufacturing. While it is difficult to gauge the overall percentage of employees who have experienced mentoring at work, some research suggests that somewhere between 45% (Chao, 1997) and 76% (Scandura & Ragins, 1993) of white-collar employees have experience as a protégé at work. Since these numbers encompass a relatively substantial portion of employees, it is of utmost importance to understand the nature of mentoring and the mechanism through which it can be most effectively implemented to help workers grow and develop to their fullest potential.

Mentoring has been typically conceptualized as a relationship between a more senior employee and a junior employee that is marked by an emotional bond (Eby et al., 2013). It is useful to note that the terms “senior” and “junior” denote levels of experience, and not necessarily differences in age or job position. Three distinct bodies of mentoring literature exist, which include youth mentoring, academic mentoring, and workplace mentoring. These literatures share the common belief that through mentoring interactions marked by trust, empathy, and authentic concern, mentees can benefit (Allen & Eby, 2007). The realm of youth mentoring and academic mentoring will not be explored here. This study will instead focus only on workplace mentoring.

### **Mentoring Distinctions**

To ensure a complete understanding of workplace mentoring and to reduce confusion between mentoring and other similar constructs, it is worth providing a few definitions before moving forward. Workplace mentoring is conceptually similar to four other supportive experiences in organizational settings: workplace friendships, social support at work, supervisory relationships, and coaching relationships (Eby, 2011). In workplace mentoring, the scope of support received is task-related, professional, and personal in nature. The extent of reciprocity is moderate to high, there is sometimes role prescribed behavior, and the interaction itself is time-bound (Ragins & Cotton, 1999). Workplace friendship also contains elements of task-related, professional, and personal support, similar to workplace mentoring. The extent of reciprocity is also moderate to high. The difference between workplace friendship and mentoring, though, is that there is no role prescribed behavior or time-bound interaction in workplace friendship. What this

means is that friendships can grow and change over time, with no formal rules describing how these employees should interact.

Mentoring is less similar to social support at work, supervisory relationships, and coaching relationships. The overlap between these three types of supportive work interactions is in the fact that they are time-bound. Social support at work can be task-related and provide personal support, but does not usually include the provision of professional support. Social support at work also does not have role prescribed behavior associated with it, and no reciprocity between parties is required. Supervisory relationships can provide task-related and professional support, but usually not personal support. The extent of reciprocity is low to moderate, and there is definitely role prescribed behavior associated with this role. Coaching is defined as a one-to-one learning and development intervention that uses a collaborative, reflective, goal-focused relationship to achieve professional outcomes that the coachee values (Smither, 2011). In a coaching relationship, support is usually task-related and professional as well. There is no extent of reciprocity required and there is definitely role prescribed behavior associated with it. Coaching is further differentiated from mentoring in that the coach may not have expertise or experience of the coachee's area of work, making the relationship guided by specific objectives (Brockbank & McGill, 2012).

Table 1 presents a summary of these distinctions. With this holistic view of mentoring in mind, as well as how it differs from related streams of research, it will be explored in more specific detail in the following sections.

### **Current State of Workplace Mentoring**

There were two main works that truly catalyzed the current research on workplace mentoring. The first was Levinson and colleagues' qualitative study of adult development (Levinson, Darrow, Levinson, Klein, & McKee, 1978). Within this study, biographical accounts of the life experiences of adult men were documented. Having a mentor was described as the most important relational experience in adulthood.

The second work was Kram's research on workplace mentoring, which expanded the field of mentoring beyond a focus on adult men (1985). This was the first comprehensive examination of mentoring at work, and was based on interviews conducted with mentor-protégé dyads. Specifically, in workplace mentoring, it is widely accepted that mentors provide two types of support: career development and psychosocial development (Kram, 1985). Career development enhances a mentee's advancement in the organization and includes mentor sponsorship, exposure to higher-level employees, visibility within a network, coaching, and a provision of more challenging assignments. Psychosocial development addresses interpersonal aspects of the relationship that enhance competence, identity, and effectiveness in a professional role. Kram also delineated the phases of the mentoring relationship and outlined organizational factors that contributed to successful mentoring relationships.

Since Levinson and Kram's works were published, there has been a burst of interest and study on mentoring. Recent work conducted on this topic has characterized mentoring as highly flexible, and useful for many specific purposes and at many different times within organizations (Eby, 2011). For example, mentoring can be used by workers at any stage of their career lifecycle to facilitate personal learning and individual career



development. The career lifecycle is characterized as having three distinct phases: exploration, trial, and establishment. In the exploration stage, the focus is on career preparation. The goals of a mentoring relationship in this stage can be a realistic occupational preview, skill building, and self-efficacy development. Mentoring received at this stage also contributes to protégés one day assuming the role of a mentor (Allen, 2003; Eby, Lockwood, & Butts, 2006). Positive, early experiences with being a protégé makes it more likely that those protégés will one day want to become mentors and impart their experience to others.

In the second career lifecycle, the trial stage, the focus is on learning about organizational life and developing a professional identity. The goals of a mentoring relationship in this stage can be socialization and advanced skill acquisition. Offering formal mentoring programs as part of early training and socialization experiences can help individuals receive the most mentoring support they can early in their careers. Actively seeking out mentoring relationships early in one's career can also help reap greater mentoring benefits in later organizational positions (Wanberg, Kammeyer-Mueller, & Marchese, 2006).

In the third, establishment stage, the focus is on continued learning and development. The goals of a mentoring relationship in this stage can be preparing for advancement, skill diversification, and job enrichment. Learning and development can continue in this stage through skill development in two ways: horizontally and vertically. Horizontal skill development involves diversification of skills, while vertical skill development involves deepening talents in one particular area. During this stage, serving

as a mentor can help an individual learn and prevent stagnation, which leads some employees and former protégés to become mentors themselves in this stage (Allen, 2007). To encourage an organizational culture that values mentorship, recognition or performance management rewards can serve as valuable incentives.

While each of these stages is distinct, it demonstrates that mentoring can have a place in a variety of organizational contexts and situations, and at a variety of stages of an employee's career. With this broader framework in mind, the next section will take a deeper look at the specific types, forms, and functions of mentoring.

### **Mentoring Types and Forms**

To dive a little deeper into the different ways in which mentoring can be implemented in an organization, the types and forms of mentoring relationships will be described in this section. There are two distinct types of mentoring relationships: formal and informal mentoring. Formal mentoring is part of an organizationally-sponsored program where a facilitator matches mentors and protégés (Eby, 2011). Usually, there is a mentoring contract that sets goals and expectations for the relationship in formal mentoring (Eby et al., 2007). In informal mentoring, mutual attraction and shared interests spark a relationship between a mentor and protégé to spontaneously develop. There is no formal contract or sanctioned program that the mentor and protégé rely on during their relationship together (Ragins & Cotton, 1999). Both of these types of mentoring relationships have been associated with positive protégé outcomes (Chao, Walz, & Gardner, 1992).

Mentoring relationships can take several different forms as well. Hierarchical

mentoring is the most commonly studied form of mentoring (Eby, 2011). This type of mentoring is when a more experienced mentor has a one-on-one relationship with a less experienced protégé who is outside of the mentor's chain of command (Kram, 1985). In this form of mentoring, a mentor can provide exposure to other networks and employees for his or her protégé, as well as a perspective on the overarching political structure of an organization. A second, and related, form of mentoring is supervisory mentoring. This is when a supervisor takes an interest in a subordinate and provides career and psychosocial support to that protégé (Scandura & Schriesheim, 1994). This type of mentoring allows the protégé to more easily receive challenging assignments and resources to help in the attainment of his or her goals, as compared to other employees without such a mentor (Payne & Huffman, 2005). Possible drawbacks of this type of mentoring are that it can be perceived as favoritism by other employees (Sias & Jablin, 1995) and can lead to role conflict in terms of the mentor being both a sounding board and performance evaluator (Le Maistre, Boudreau, & Pare, 2006). A third form of mentoring is peer mentoring (Kram, 1985). This type of mentoring is between employees of similar status in an organization, and can aid in career strategizing, information sharing, and emotional support (Kram & Isabella, 1985). Mutual learning is a hallmark of this form of mentoring.

These types and forms of mentoring each have benefits and shortcomings associated with them. Care should be taken to ensure that the right kind of mentoring is offered to employees, helping them accomplish their specific goals. Relatedly, it is also important to consider the context in which mentoring is implemented to ensure successful

outcomes. The right kind of mentoring must be offered so employees can benefit from its use. Therefore, the next part of this review considers special mentoring considerations that are present in this study's context of interest: healthcare.

### **Mentoring in Healthcare**

There is a dearth of empirical research studies related to mentoring in healthcare settings. Given the specific challenges of working in healthcare, mentoring may allow employees to utilize the relational resources found in the workplace. This enables positive outcomes (Ghosh, 2014). As previously stated, the mentoring relationship is defined as an interpersonal one in which more experienced organizational members provide support to less experienced organizational members (Kram, 1983). Within the healthcare context, such mentoring relationships are usually conducted in academic medicine between medical school faculty and residents (Lau, Ford, Lieshout, Saperson, McConnell, & McCabe, 2016). However, studies of the effectiveness of such mentoring partnerships could benefit from more rigorous experimental methods that address contextual factors (Sambunjak, Straus, & Marusic, 2006).

In a theoretical sense, according to work by Kram (1985), formal mentoring relationships in healthcare can be seen as going through several distinct phases: initiation, cultivation, separation, and redefinition. The initiation phase involves the mentor and protégé learning about each other and setting up relationship expectations. The cultivation phase is where the mentor supports the protégé in clarifying the present workplace situation and creating goals that relate back to that situation. The separation phase is where the mentor challenges the protégé to be more autonomous, solving

problems by himself or herself. The redefinition phase involves the mentor and protégé giving and receiving feedback to review the process, thus bringing the formal aspect of the relationship to an end. A longitudinal, qualitative study sought to unravel what learning occurs for both mentors and protégés throughout each phase of the mentoring relationship (Jones, 2013). It was found that mentors and protégés were not fully aware of what to expect through mentoring, but that they learn in similar ways. A key finding was that sharing experiences and stories plays a key role in learning, suggesting that selecting the right mix and pairing of mentors who have appropriate work experience and skills is crucial to success. Personal reflection is also an important driver for learning, so having regular meetings to strengthen this is essential. In conclusion, matching, mentor training, pre-mentoring expectations, on-going support, and evaluation are essential to the success of a mentoring program (Clutterbuck, 2004).

More recent work has extended the ideas of mentoring out of both the strictly academic medicine context and theoretical realm, moving it into the broader healthcare context. Table 2 demonstrates the studies that have been conducted within various segments of the healthcare setting. Participants in such mentoring studies have grown to include medical trainees, nurses, residents, and junior physicians among their ranks. These studies have looked at a wide range of outcomes that result from engaging in a mentoring program, including increased self-efficacy, increased relationship quality, greater career advancement, and increased ability to provide care.

However, design methodologies associated with conducting such studies are still in their infancy. The downside of many of these studies is that they are conducted with

cross-sectional methodologies. This only provides a snapshot of mentoring and its potential outcomes, and can be subject to participant biases. For example, Ramanan, Taylor, Davis, and Phillips conducted a study with internal medicine residents (2006). Surveys were mailed to these residents to examine the development of mentoring relationships during residency training, and the satisfaction with mentoring and perceived career preparation that resulted. Residents indicated that mentoring can influence perceived career preparation. Another example can be found in the work of Hunter, Rockman, Gingrich, Silveira, and Salach (2008). This study looked to address how a mentoring network helped family practitioners. Through a collection of survey data administered after using the survey, family practitioners demonstrated high satisfaction with the mentoring network and an improvement in their ability to provide patient care. While these two studies demonstrate the promise of mentoring, stronger designs that are more longitudinal in nature and collect data from a variety of sources could contribute greater understanding of mentoring and its far-reaching impact. Designs can additionally be strengthened through the use of contextual factors that may influence mentoring outcomes. These contextual factors may include personality, matching, and organizational variables (Wanberg et al., 2006).

Mentoring provides support to healthcare workers in their units, providing both individual and unit-level benefits. In the next part of this review, the overall model that will be tested in this study is presented in two steps. First, the three main theories that underlie the current study's model will be articulated: Job Characteristics Theory, Job Demands-Resources Theory, and Conservation of Resources Theory. Second, after

discussing the theoretical underpinnings, the current study's hypotheses will be discussed and placed into the overarching model.

## **Theoretical Background for Current Model**

### *Job Characteristics Model*

The proposed model in this study is built on the theoretical underpinnings of the Job Characteristics Model, Job Demands-Resources Model, and Conservation of Resources Model. These three theories will be described in detail here, and then will be incorporated into the current study's proposed model in the following sections.

The Job Characteristics Model was first proposed and tested by Hackman and Oldham (1976). The model first came into being amidst the discussion of work redesign. Little was known about how this "enriched" work led to positive outcomes for workers or the effectiveness of strategies for carrying out work redesign (Hackman, 1975). Therefore, this model sought to specify the conditions under which individuals would become internally motivated to perform their jobs more effectively. Focus was placed on the interaction among three classes of variables: (1) the psychological states of employees that must be present for internally motivated work behavior to develop, (2) the characteristics of jobs that can create those psychological states, and (3) the attributes of individuals that determine how a person responds to a complex and challenging job. Each of these variables will be described here in detail.

The three psychological states form the causal core of the model. Following Hackman and Lawler (1971), these three states are experienced to the extent that an individual learns and understands how effectively the job is being performed (knowledge

of results), has personally performed well on a task and is responsible for the results of work (experienced responsibility), and cares about that task (experienced meaningfulness). The self-generated motivation that results from these psychological states is highest when all three states are present.

The characteristics of jobs fall into five job dimensions that foster the emergence of the aforementioned psychological states. Three of the dimensions contribute to experienced meaningfulness. The first is skill variety, which is the degree to which a job requires a variety of different activities in carrying out the work. This includes when an individual engages in activities that challenge his or her skills and abilities. When this occurs, an individual finds the job to be of personal meaning. The second dimension is task identity. This is the degree to which the job requires completion of an identifiable piece of work. Creating and completing the entire job is seen as more meaningful than being responsibly for only a small part of the whole job. The third dimension is task significance. This is the degree to which the job has an impact on the lives or work of other people. The fourth job dimension contributes to experienced responsibility. This characteristic is autonomy. Autonomy is the degree to which the job provides freedom and discretion to the individual in completing the work. This leads the individual to feel a strong personal responsibility for success and failure on the job. The fifth job dimension contributes to knowledge of results. This dimension is feedback. Feedback is the degree to which doing the work activities of the job results in the individual obtaining direct and clear information about performance effectiveness.

Outcomes that result from the creation of these psychological states include high



internal work motivation, high quality work performance, high satisfaction with the work, and low absenteeism and turnover. These outcomes are desirable both at an individual level and organizational level. A meta-analysis conducted by Fried and Ferris (1987) supported the conclusions that psychological states mediate the relationship between job characteristics and outcomes of interest.

### *Job Demands-Resources Model*

The Job Demands-Resources (JD-R) Model was proposed and tested by Demerouti, Bakker, Nachreiner, and Schaufali (2001). The central assumption of this model is that each occupation has its own specific risk factors associated with job stress, and these factors can be collectively grouped into job demands and job resources. This allows the model to be applied to a wide variety of settings (Bakker & Demerouti, 2007). Specifically, job demands refer to physical, social, or organizational aspects of the job that require physical or psychological effort or skills. This can lead to certain physical or psychological costs. Job demands may turn into job stressors when meeting those demands necessitates high effort from an employee, with inadequate recovery time (Meijman & Mulder, 1998). On the other hand, job resources are physical, psychological, social, or organizational aspects of the job that help achieve work goals, reduce job demands, or stimulate personal growth, learning, and development. Job demands and job resources both serve to influence employee well-being.

This view of resources creates a tie into both the job characteristics theory and conservation of resources theory. The job characteristics model emphasizes the motivational potential of job resources at the task level, including autonomy, feedback,

and task significance (Hackman & Oldham, 1980). The conservation of resources theory states that human motivation is directed towards maintaining and accumulating resources (Hobfoll, 2001). In that model, resources are valued because they are the means to gaining and protecting other valued resources. These resources can come from a variety of sources as well. For example, the organization may supply career opportunities and job support. Social relationships can provide a team climate and peer support. The organization of work can provide role clarity. The task itself can provide skill variety, task identity, task significance, autonomy, or feedback.

The JD-R model also proposes that there are two underlying psychological processes that play a role in the development of job strain and motivation, respectively. The first process is related to strain. Job demands lead to employees exhausting their mental and physical resources. This results in a depletion of energy and health problems (Demerouti et al., 2001). The second process is related to job resources, and is motivational in nature. Job resources have the potential to lead to high work engagement, low cynicism, and high performance. Resources can motivate employees either intrinsically or extrinsically. Job resources may play an intrinsic motivational role because they foster growth, learning, and development. Such resources fulfill the basic human needs of autonomy, competence, and relatedness (Deci & Ryan, 1985). Resources may also play an extrinsic motivational role because they help achieve work goals. Such resources foster a willingness to dedicate effort and ability to the work task. This makes it more likely that the work task will be successfully completed and the overarching goal achieved. In summary, resources can lead to engagement.

There is still currently debate regarding how job demands and job resources interact to lead to employee well-being. Some studies point to a buffering effect of job resources (Bakker, Demerouti, & Euwema, 2005). Other studies support the classical hypothesis that job demands predict job strain and job resources predict motivation (DeJonge et al., 2001; Dormann & Zapf, 2002). There may also be reciprocal relationships between well-being and job demands and job resources (Zapf, Dormann, & Frese, 1996; Gorgievski-Duijvesteign et al., 2005). As it stands, this is an area that can be further investigated moving forward.

#### *Conservation of Resources Model*

The Conservation of Resources (COR) Model's basic tenet is that people strive to retain, protect, and build resources. They are threatened by the potential or actual loss of these valued resources (Hobfoll, 1989). Stress is defined as a reaction to the environment in which there is the threat of a net loss of resources, the net loss of resources, or a lack of resource gain following investment of resources. In summary, resources are the single unit that is needed to understand stress. In this model, a resource is an object, personal characteristic, condition, or energy that is valued by an individual or that serves as a means for attaining an object, personal characteristic, condition, or energy.

This model identifies four types of resources: objects, personal characteristics, conditions, and energies. Object resources are valued because of their physical nature or their ability to convey status value. Personal characteristics generally aid stress resistance (Hobfoll, 1985b). These can include personal orientation toward the world or positive sense of self and mastery (Cohen & Wills, 1985). Condition(s) is a life position, such as

having organizational tenure, that is valued. Energies are valuable because they aid in acquiring other kinds of resources. Time, money, and knowledge are examples of this type of resource.

When a person is not confronted with a stressor, he or she strives to develop a resource surplus to offset the possibility of future loss. This may involve investing other resources. For example, this may take the form of giving aid to others, with the longer-term outlook that this would help them to gain more resources in the future (Dodge & Martin, 1970). Through investing and gaining resources, employee well-being can thrive (Cohen & Wills, 1985). Several studies have supported the findings that greater resources are associated with positive affective outcomes (Holahan, Moos, & Bonin, 1999), while resource loss is associated with burnout and negative affective outcomes (Shirom, 1989). Positive affective outcomes can make a person more likely to engage in behaviors that lead to resource gain, while negative affective outcomes are more likely to lead to behaviors to avoid resource loss (Whitman, Halbesleben, & Holmes, 2014).

### **Overview of the Current Model**

Given the definition of mentoring and its use in the healthcare industry, this study proposed a model that sought to elucidate relationships and outcomes that are of specific importance to this industry. The model was built on the theoretical underpinnings of the Job Characteristics Model, Job Demands-Resources Model, and Conservation of Resources Model. In doing so, this research clarified three areas of the mentoring literature that, until now, have had glaring gaps. These gaps will be discussed here, to create a meaningful rationale to describe why this research was conducted.

As can be seen from Figure 1, this model attempted to investigate whether engagement in a mentoring program influenced the (distal) outcomes of leader job performance and subordinate turnover intentions of both mentors and protégés, and how it influenced the (proximal) outcome of meaningful work for mentors, protégés, subordinates of mentors, and subordinates of protégés. It also investigated how individual, dyadic, and organizational contextual variables (use of a structured program, organizational learning climate, and mentor-protégé similarity) influenced the mentoring-meaningful work relationship, how subordinate affective commitment mediated the meaningful work-turnover intentions relationship, and how leader OCBs moderated the meaningful work-job performance relationship (Figures 2-4). These constructs of interest, along with their associated definitions, can be seen in Table 3.

Therefore, the *first* question that this study looked to answer was what outcomes resulted from engaging in a mentoring program as either a mentor or protégé, within the context of healthcare. These outcomes of interest were the distal outcomes of subordinate turnover intentions and leader job performance, along with the proximal outcome of leader and subordinate meaningful work. Job performance, here, was conceptualized as high-quality care towards patients, customers, and other employees. In evaluating mentor, protégé, and their respective subordinates' outcomes, this sought to remedy the first gap in current mentoring research: the lack of data on (1) benefits to mentors and (2) benefits to protégé and mentor subordinates as a result of engaging in a mentoring program (Allen, Poteet, & Burroughs, 1997). It is crucial for mentors to understand what they can gain from this partnership so they use their time in the program to develop both their

protégés and themselves. Additionally, through an understanding of how mentoring can trickle down to subordinates, the full utility of mentoring as an intervention can be conceptualized. The Job Characteristics Model was used here to provide theory for the proposed relationships.

*Secondly*, this study sought to elucidate the contextual factors of an effective mentoring relationship. Previous mentoring literature had not extensively looked at contextual factors that may influence mentoring outcomes (Wanberg et al., 2006), posing a second gap in the current mentoring literature. This research sought to look at three specific contextual factors as they related to mentoring outcomes: use of a structured program, participant similarity, and organizational learning climate. Structured mentoring programs have been touted as a useful tool to enable long-term learning (Kolb, 1984), but they have not been extensively studied within mentoring in the healthcare context. Study of participant similarity has yielded conflicting outcomes, warranting it as a useful area of study (Eby, 2011). Organizational learning climate has been touted as important to mentoring implementation, but there have been few empirical studies into how individual outcomes result from this process (Kram & Ragins, 2007). The Job Characteristics Model was also used here to provide theory for the proposed relationships.

The *third* gap that this study sought to close was to elucidate the mechanism through which mentoring led to positive outcomes. To do this, the current research sought to quantify the relationship between (1) subordinate meaningful work, subordinate affective commitment, and affective outcomes that are associated with subordinate turnover intentions and (2) leader meaningful work, leader organizational citizenship

behaviors and behavioral outcomes associated with leader job performance. Studies within the healthcare context that examine the mediating mechanisms leading to affective and behavioral outcomes of mentoring (Day & Allen, 2004; Scandura, 1992) have been scarce. Additionally, methodologies used to evaluate mentoring have mainly centered on mentor perceptions and survey responses. Therefore, this study sought to collect responses from a variety of sources to decrease reporting bias and create a more holistic picture of mentoring's impact. Here, the JD-R Model and COR Model were used to provide theoretical underpinnings to these proposed relationships.

## CHAPTER THREE

### DEFINING THE CONSTRUCTS

#### **Protégé Outcomes**

##### *Meaningful Work*

The benefits of mentoring can be seen at both the individual level or at the organizational level. At the individual level, these benefits are worth investigating in both protégés and mentors. At the organizational level, these benefits can have both short-term and long-term impact. While there are certainly significant benefits associated with mentoring programs, there are several challenges to consider as well to ensure that a program is successful.

The bulk of research in the mentoring literature has focused on the protégé's benefits derived from such a mentoring relationship. For example, mentoring can be associated with higher salaries, faster promotion rates, or more positive attitudes toward one's work and career (Allen et al., 2004). Other studies have found that mentoring is associated with higher performance, less stress, more positive interpersonal relations, higher motivation, and use of helping behaviors toward others (Eby et al., 2008) for the protégé. Other outcomes include behavioral, attitudinal, health-related, relational, motivational, and career outcomes (Eby, Allen, Evans, Ng, & DuBois, 2008). Behavioral outcomes include increasing job performance and decreasing turnover. Attitudinal outcomes include positive attitudes toward job assignments or fostering of psychological attachment to the relationship context of work. Health-related outcomes are those that involve decreased stress, along with increased well-being, self-esteem, and self-



confidence. Relational outcomes can involve better strategies to face interpersonal problems at work and overall positive relationships. Motivational outcomes may include increased goal-setting and realizing personally relevant outcomes. Career outcomes include learning and skill development, increased professional networking, and widening career knowledge and options.

Benefits that fall into affective and behavioral outcomes will be further discussed and studied as they pertain to this study. Specifically, the affective outcomes of meaningful work and turnover intentions will be examined. Meaningful work is a more proximal outcome in the current study's model, and thus will be examined first. Meaningful work is a component of the construct workplace spirituality. Workplace spirituality is defined as the effort to find one's ultimate purpose in life, to develop a connection to coworkers and others associated with work, and to have consistency between one's core beliefs and the values of an organization (Milliman et al., 2003). Workplace spirituality has been further broken down into the components meaningful work, sense of community, and alignment with organizational values. Meaningful work itself has been defined as the value of a work goal or purpose, judged to the individual's own ideals or standards (May, Gilson, & Harter, 2004). If an employee perceives his or her work to be meaningful, that can lead to greater well-being in the organizational environment (Ryff, 1989).

While most research has focused broadly on workplace spirituality, it's important to understand how meaningful work impacts organizational outcomes. Theoretically, to enhance the meaning of work, the Job Characteristics Model was used (Hackman &

Oldham, 1980). This originated in the job enrichment literature (Duchon & Plowman, 2005). Job enrichment was seen as a shift from a focus on job specialization and boring routine (Duchon & Plowman, 2005). Job enrichment focused on a workers' psychological needs in addition to physical needs (Herzberg, 1974). Revisions of job enrichment led to the Job Characteristics Model, in which employees could experience meaningful work through (1) performing activities that challenged their skill set, (2) completing an identifiable piece of work, (3) understanding the impact of their job on others, (4) having autonomy to determine how the job should be done, (5) obtaining feedback on the effectiveness of job performance (Hackman & Oldham, 1980).

Mentoring can provide several of these characteristics to protégés. For instance, mentors can challenge their protégés to take on more challenging assignments to encourage skill variety. Mentors can additionally help protégés set goals to allow them to complete an identifiable piece of work, promoting skill identity. Finally, mentors can help their protégés understand how their work impacts others, fostering skill significance. Skill variety, skill identity, and skill significance all contribute positively to supporting the psychological state of experienced meaningfulness of work.

The literature has been largely silent on whether engaging in a mentoring relationship can facilitate greater meaningful work for protégés. Thus, it warrants empirical study based on the theoretical underpinnings of the Job Characteristics Model. This study hypothesized that protégés would have greater meaningful work compared to similar employees who were not protégés.

*Hypothesis 1a: Employees who have been protégés will have increased*

*meaningful work as compared to employees who have not been protégés.*

Based on the idea of career mentoring climate, protégés may create mentoring partnerships of their own within their unit as a result of engaging in a mentoring relationship. Career mentoring climate is the shared perceptions of supervisors' career mentoring behaviors (Gonzalez-Roma, Peiro, & Tordera, 2002). When protégés experience mentoring themselves, they are more likely to extend the principles of that relationship to their own unit. Employees within the unit then become more consistently exposed to a supervisor who exhibits mentoring behaviors, thus creating a mentoring climate (Van Vianaen, De Pater, Bechtoldt, & Evers, 2011). This climate can increase subordinates' feelings of support, leading to higher organizational commitment (Rhoades & Eisenberger, 2002). However, additional unit outcomes of a mentoring climate have not been extensively explored. The current study sought to extend this line of research through its hypothesis that subordinates of employees who have been protégés will experience greater meaningful work.

*Hypothesis 1b: Subordinates of employees who have been protégés will have increased meaningful work as compared to subordinates of employees who have not been protégés.*

### *Turnover Intentions*

The second affective outcome of interest in this study is that of turnover intentions, conceptualized as a more distal outcome of engaging in a mentoring program. Turnover intention is defined as an employee's intention to leave a job (Kim, Im, & Hwang, 2015). Organizations care about turnover intentions because they are paramount

in predicting actual job turnover (Fishbein & Ajzen, 1974; Johnston, Parasuraman, Futrell, & Black, 1990). This resulting turnover can have a highly negative impact on an organization's overall success (Vanderberghe & Bentein, 2009). There is a well-supported link between mentoring and turnover intentions in a variety of occupations (Allen et al., 2004).

While mentoring has been shown to have an impact on turnover intentions in a variety of organizational contexts, the healthcare context has not been extensively studied regarding this linkage. The healthcare industry may face declining numbers of nurses and physicians in the upcoming years (Miller, 2007), so focusing on retaining healthcare workers and reducing the costs of voluntary turnover are vital (DeLong, 2004; Almada, Carafoli, Flattery, French & McNamara, 2004). The cost of employee turnover is also substantial for healthcare organizations, specifically, because recruiting and training replacement employees can require considerable investment of time and money due to the specific nature and importance of their skill sets (Parry, 2008; Loan-Clarke & Bosely, 2010).

It is therefore important to understand and implement interventions that influence turnover intentions. Through utilizing a mentoring program that provides support and resources to protégés, that population may experience less of a desire to leave its current job. Based on the idea of career mentoring climate, protégés may then create other mentoring partnerships of their own within their unit, decreasing subordinate turnover intentions in turn. This trickle-down effect may result in less turnover within greater numbers of employees as a result. Therefore, this study sought to extend the

aforementioned line of research through its hypothesis that subordinates of employees who have been protégés will experience lowered turnover intentions.

*Hypothesis 2: Subordinates of employees who have been protégés will have lower turnover intention scores as compared to the subordinates of employees who have not been protégés.*

### *Job Performance*

The second category of outcomes that can be considered are behavioral in nature. For this study, those behavioral outcomes will be conceptualized as job performance. Job performance has been defined as the effectiveness with which employees perform role-prescribed activities that contribute to the technical core of organizations (Borman & Motowidlo, 1993). In one study that explored job performance and mentoring, job performance was studied within the context of sales. Using a qualitative approach, it was revealed that mentoring contributes to protégé performance improvements, career trajectory improvements, and fosters the desire of a protégé to become a mentor in the future (Rollins, Rutherford, & Nickell, 2014). In another study conducted by Tonidandel, Avery, and Phillips, NCAA women's basketball coaches were surveyed to determine whether there was a link between mentoring received and protégé success (2007). It was found that mentoring received by the protégé was associated with increased job performance. However, this relationship was moderated by the mentor's abilities in being a mentor. There are several other studies that have shown linkages between mentoring and increased performance (Chao, Walz, & Gardner, 1992; Day & Allen, 2004; Peluchette & Jeanquart, 2000; Tenenbaum, Crosby, & Gliner, 2001). However, there are

also studies that have not found this linkage (Green & Bauer, 1995; Scandura, 1992; Scandura & Schriesheim, 1994). This points to the need for additional study into the moderating and mediating mechanisms of when mentoring is successful for protégés and when it may not be. These mediating and moderating mechanisms will later be explored.

While these studies point to mentorship improving job performance, they are not conducted within the population of interest to this study: healthcare. In the context of healthcare, job performance can take the form of high-quality care towards patients, customers, and other employees. There are no studies that explicitly look at the connection between mentoring and this measure of job performance in healthcare, which is a gap that this study will look to fill. Based on mentoring research conducted in other organizational contexts, it was hypothesized that protégés will demonstrate higher quality care towards patients, customers, and other employees as a result of engaging in a mentoring program.

*Hypothesis 3: Employees who have been protégés will have higher job performance scores as compared to employees who have not been protégés.*

## **Mentor Outcomes**

### *Meaningful Work*

The literature on the benefits of mentoring for mentors has been less extensively studied compared to that on the benefits of mentoring for protégés. The call for increased emphasis on mentoring outcomes for the mentor is not new, however (Allen, Poteet, & Burroughs, 1997). In a study conducted by Allen, Poteet, and Burroughs, a qualitative research strategy was used to examine mentoring from the mentor's perspective (1997).

In-depth interviews with mentors revealed both positive and negative benefits associated with mentoring. The positive benefits included building a support network, self-satisfaction, improvement in job-related categories for the mentor, and improvement in job-related categories for others in the organization. The negative consequences of mentoring were the time requirements, favoritism shown to the protégé compared to others in the organization, abuse of the relationship by the protégé, and feelings of failure by the mentor. This study laid out several propositions that future research could work to resolve, but there has not been extensive movement in this area of study.

With that being said, some studies have tried to study mentor outcomes using quasi-experimental designs. Affective well-being is one outcome that has been virtually unexplored in the formal mentoring literature (Allen, 2007). Research has suggested that helping others increases one's own positive emotions (Cialdini & Kenrick, 1976). Theoretically, this may take place through the broaden-and-build theory of positive emotions (Fredrickson, 2001). This theory posits that there are certain positive emotions that can broaden people's thought-action repertoires and build enduring personal resources. Mentors, through helping their protégés, may experience positive emotions that, in turn, build their own personal resources and engender further positive emotions.

A study by Chun, Sosik, and Yun looked to examine these questions through studying the relationship between being a mentor and affective well-being and organizational commitment outcomes (2012). A longitudinal study design was used to collect data from mentors and protégés engaging in a seven-month formal mentoring program. The pre-test and post-test survey design indicated that mentors did experience

increases in affective well-being and organizational commitment as a result of engaging in this formal mentoring program. This lends some support to the idea that mentors experience positive outcomes as a result of mentoring. Experience of being a mentor has been associated with a host of other positive outcomes, such as perceptions of career success (Allen, Lentz, & Day, 2006) and salary and promotion rates (Allen et al., 2006; Collins, 1994). Other outcomes have included personal satisfaction, positive work attitudes, and recognition from others (Eby, Durley, Evans, & Ragins 2006).

Focusing more specifically on the proximal, affective outcome of meaningful work, the Job Characteristics Model posits that employees could experience meaningful work through (1) performing activities that challenged their skill set, (2) completing an identifiable piece of work, (3) understanding the impact of their job on others, (4) having autonomy to determine how the job should be done, (5) obtaining feedback on the effectiveness of job performance (Hackman & Oldham, 1980). Mentoring can provide these characteristics to mentors. Through the act of being a mentor, these employees are challenging their usual skill set, encouraging skill variety. These mentors are also completing an identifiable piece of work through helping their protégé improve, constituting skill identity. Finally, mentors can see the direct impact that their job of being a mentor has on their protégés, fostering skill significance.

Relatedly, Kennett and Lomas conducted research on the effect of mentoring on the mentors' meaningful work (2015). It was found that mentoring engendered a sense of meaning through facilitating a combination of self-determination and self-reflection. This created a rewarding experience that was conducive to psychological growth. This points



to the promising outcome of meaningful work that can result not only from engaging in a mentoring relationship, but also to the potential impact of reflection on encouraging the development of that meaning. This study hypothesized that mentors will have increased meaningful work compared to similar employees who were not mentors.

*Hypothesis 4a: Employees who have served as mentors will have increased meaningful work as compared to employees who have not served as mentors.*

Based on the idea of career mentoring climate, mentors may create mentoring partnerships of their own within their unit. Employees within the unit then become more consistently exposed to a supervisor who shows mentoring behaviors, thus creating a mentoring climate (Van Vianaen, De Pater, Bechtoldt, & Evers, 2011). The current study sought to extend this line of research through its hypothesis that subordinates of employees who have been mentors will experience greater meaningful work.

*Hypothesis 4b: Subordinates of employees who have served as mentors will have increased meaningful work as compared to subordinates of employees who have not served as mentors.*

#### *Turnover Intentions*

Some studies have shown that the experience of being a mentor has been associated with such outcomes as perceptions of career success (Allen, Lentz, & Day, 2006), salary and promotion rates (Allen et al., 2006; Collins, 1994), and recognition from others (Eby, Durley, Evans, & Ragins 2006). However, these benefits may not always be direct and immediate rewards for acting as a mentor.

Therefore, the immediate, affective outcomes that are experienced are vital to

consider. However, there is a gap in the current research related to affective outcomes as a result of a mentoring intervention. This will be explored in greater detail with the current study. Turnover intentions as an outcome of mentoring has only been examined in a handful of studies (Ghosh & Reio, 2013). Mentors may learn more about their job, experience greater positive emotions, and have fewer turnover intentions as a result when they have a protégé. Based on the aforementioned idea of career mentoring climate, mentors may create an environment of mentorship within their work unit (Van Vianen et al., 2017). This could allow for their own subordinates to see them as role models and emulate them by becoming mentors themselves. This could help those subordinates experience similar positive outcomes of mentorship, including decreased turnover intentions. Therefore, it was hypothesized that the subordinates of mentors will experience the affective outcome of lower turnover intentions due to their leader engaging in the role as mentor, compared to equivalent subordinates who did not have a leader engaged in mentorship.

*Hypothesis 5: Subordinates of employees who have served as mentors will have lower turnover intention scores as compared to subordinates of employees who have not served as mentors.*

### *Job Performance*

The behavioral outcomes of being a mentor have been more robustly studied, compared to the affective outcomes (Eby, Durley, Evans, & Ragins, 2006; Ragins & Scandura, 1999; Ghosh & Reio, 2013). In one such study that looked at job performance outcomes related to engaging in a mentoring program, it was found that mentors who

provided greater amounts of mentoring to their protégés benefited through having increased in-role job performance (Liu, Liu, Kwan, & Mao, 2009). Another study looked specifically at a healthcare organization sample. It was found that engaging in a mentoring program as a mentor led to greater objective outcomes of performance, including promotion rates and career success, as compared to non-mentors (Allen, Lentz, & Day, 2006).

As stated in the earlier section on protégé outcomes, in the healthcare industry, job performance can be conceptualized as high-quality patient, customer, and employee care. Typically, this specific outcome has not been studied in relation to mentoring in healthcare. Rather, objective outcomes such as salary increases and promotion rates have been investigated. Thus, this study aimed to look at an under-studied outcome that is crucial to organizational success in the future. It was hypothesized that mentors will have greater levels of patient, customer, and employee care as compared to those who have not been mentors. This could allow for the creation of a healthcare organization that is valued, respected, and used repeatedly within the community.

*Hypothesis 6: Employees who have served as mentors will have higher job performance scores as compared to employees who have not served as mentors.*

To recap, the first group of questions this research looked to address included specific outcomes for both protégés and mentors after engaging in a mentoring program. The next group of questions this research sought to answer were which contextual factors could influence the success of a mentoring engagement, thus impacting the strength of the relationship between mentoring and its subsequent outcomes. The contextual factors

of interest to this study, which included individual-, dyadic-, and organizational-level factors, will be explored in relation to their influence on the proximal outcome of meaningful work.

### **Individual Contextual Factors on Mentoring Proximal Outcomes**

#### *Use of a Structured Program*

To ensure that successful mentorship is formed and the desired outcomes are produced, it is necessary to look at contextual factors that influence the relationship. These factors are important because they may lead to negative outcomes of mentoring relationships if not given the proper consideration. Different organizations may require distinct types of mentoring relationships to produce the optimal benefit. For example, poor matching of mentors and protégés may lead to reduced job satisfaction, negative reactions to the relationship, turnover, and strain (Eby & Allen, 2002; Eby, Butts, Lockwood, & Simon, 2004). That being said, the specific context of healthcare must be explored in more detail to determine the optimal mentoring features to be employed there. Through looking at contextual idiosyncrasies present in the healthcare environment, a mentoring program can be implemented to produce the greatest possible outcomes for pairings.

Previous mentoring literature has not extensively looked at contextual factors that may influence mentoring outcomes (Wanberg et al., 2006). Contextual factors of mentoring can take the form of individual characteristics, dyadic characteristics, or organizational characteristics. These distinctions are based on the work of Ghosh (2014). In his meta-analytic study, the potential moderators of mentoring relationships were

discussed in great detail, and he summarized multilevel antecedents of different kinds of mentoring support. At the individual level, it was found that the mentor's transformational leadership, mentee's proactivity for career support, and mentee's learning goal orientation showed the strongest association with support. At the relational level, trust showed the highest positive association with support, followed by perceived similarity between the mentor and mentee. Ethnicity and age similarity were not related to any aspect of mentoring support. At the organizational level, organizational support for mentoring showed the highest positive association with support. Each moderator, or contextual factor, may potentially impact the successful outcomes for mentors and protégés engaging in a relationship.

The first category of contextual factors that will be discussed here are those that constitute individual characteristics. For example, protégé individual differences include motivation, commitment (Noe, 1988; Whitely et al., 1992), interpersonal skills (Eby, Lockwood, & Butts, 2006), and achievement orientation (Hirschfeld, Thomas, & Lankau, 2006). Mentor individual differences such as proactivity and openness to experience may relate positively to protégé perceptions of mentoring support (Wanberg et al., 2006; Bozionelos, 2004).

The individual characteristic that will be explored in this study is learning through the use of a structured syllabus during the mentoring relationship. Personal learning is concerned with gaining knowledge, skills, or competencies that lead to development (Kram, 1996). Studies have suggested that protégés can gain such knowledge, skills, or competencies through formal mentoring programs (Hale, 2000). In one study, it was

shown that protégés learned primarily through four different processes: (1) mentors sharing their own views and experiences; (2) mentors discussing information that higher organizational levels talked about; (3) mentors discussing organizational politics; and (4) personal reflection (Hale, 2000). In another study, it was suggested that protégés learn through three mechanisms: (1) observation of a mentor; (2) mentor explanations, advice, and information; (3) reflection on actions and interactions (Hezlett, 2005). There is clear overlap in these aforementioned categories through which protégés might learn from their mentors. Therefore, these categories were used as a starting point to inform a sequence of qualitative interviews to investigate the ways in which mentors and protégés learn within the context of a healthcare organization (Jones, 2013). It was found that protégés learned primarily through mentors sharing their experiences, protégé personal reflection, and observation of mentor behaviors. It was found that mentors learned through sharing their experiences and offering support/feedback.

These studies point to an overarching conclusion: sharing experiences and reflecting on workplace experiences are important learning tools for both mentors and protégés. There are two ways to achieve these outcomes: through the use of either formal or informal mentoring relationships. As earlier stated, formal mentoring is part of an organizationally-sponsored program where a facilitator matches mentors and protégés (Eby, 2011). Usually, there is a mentoring contract that sets goals and expectations for the relationship in formal mentoring (Eby et al., 2007). This mentoring contract, along with guidelines for facilitating the sharing of experiences and opportunities for reflection, can be incorporated into a more structured mentoring syllabus that is used to guide the

relationship. In informal mentoring, mutual attraction and shared interests spark a relationship between a mentor and protégé to spontaneously develop. There is no formal contract or sanctioned program that the mentor and protégé rely on during their relationship together (Ragins & Cotton, 1999). The conversations around sharing experiences and reflection may more organically develop in these types of relationships.

There has been debate on whether formal or informal mentoring relationships produce more positive outcomes for employees. In general, there has been little research comparing outcomes among protégés in formal and informal mentoring relationships (Ragins, Cotton, & Miller, 2000). When there have been studies conducted on these two populations, the results have been mixed. For example, the first grouping of studies reports that protégés in informal pairings experience greater satisfaction with mentoring relationships than those in formal pairings (Viator, 1999, 2001). Research has tended to find that informal mentoring yields greater benefits than does formal mentoring (Chao, Walz, & Gardner, 1992; Ragins & Cotton, 1999). A second grouping of studies has found that there are no overall differences in outcomes between formal and informal pairings (Siegel, Rigsby, Agrawal, & Leavins, 1995). The last grouping of studies has demonstrated that satisfaction with a mentoring relationship is the determinant of positive attitudinal outcomes of a mentoring partnership, regardless of whether the relationship was formal or informal in nature (Ragins, Cotton, & Miller, 2000).

These studies indicate that informal mentoring may produce more positive outcomes compared to formal mentoring for protégés. However, studies have been limited that directly test mentoring outcomes for protégés from both formal and informal

structures. Studies on mentoring outcomes for mentors from both formal and informal structures have not been tested. Based on the findings from prior research, this study hypothesized that mentors and protégés who used the informal mentoring program will have more positive outcomes as compared to those who used the formal mentoring program.

*Hypothesis 7a: Mentors who have used an informal mentoring program will have increased meaningful work as compared to mentors who have used a formal mentoring program.*

*Hypothesis 7b: Protégés who have used an informal mentoring program will have increased meaningful work as compared to protégés who have used a formal mentoring program.*

## **Dyadic Contextual Factors on Mentoring Proximal Outcomes**

### *Participant Similarity*

Individual characteristics can be used as a springboard to shift the discussion to dyadic characteristics that can function as contextual factors. These individual characteristics can create a scheme by which mentors are matched with protégés, which may impact the outcome of their relationship. Many different personal characteristics may be used to match mentors and protégés. These can include race, gender, technical background, personality, or geography (Eby, 2011). A matching strategy may depend on the purpose of the mentoring program. In certain instances, dissimilarity of the mentor and protégé may be desired, while in other instances, similarity may be favored (Eby, 2011). For example, if the purpose of the mentoring relationship was to enable greater



cross-sector exposure, a mentor from a different business unit may be chosen. If the purpose of the mentoring relationship was to socialize a new employee, a mentor from the same business unit may be chosen.

While research on matching has been limited, several studies have found that perceived similarity predicted positive protégé outcomes more consistently than matching on specific criteria such as departmental affiliation (Ragins et al., 2000). Based on social exchange theory, mentoring itself is a social exchange based on fit between the mentor's and protégé's preferences, incentives, and valuations (Homans, 1958). The quality of the resulting relationship is a function of reciprocity, investment, and maintenance of the relationship (Bozeman & Feeney, 2008).

Thus, this study's current hypothesis is that mentors and protégés who have greater similarity will have more improvement on the proximal outcome of meaningful work as a result of their relationship. Greater similarity will be operationalized as (1) similar demographic characteristics (age, race, gender), (2) similar job position characteristics (length of service, tenure in a leadership position, shift, position type, primary work location (region), and primary work location (hospital)), and (3) overall similarity of all characteristics. Both of these characteristics theoretically support greater mentor-protégé relational development and subsequent positive outcomes. Demographic characteristics may encourage more positive outcomes through relational demography (Tsui & O'Reilly, 1989). Similar mentors and protégés would have a shared understanding of how they perceive each other, leading to fewer misconceptions and more frequent interactions. Job position characteristics may encourage more positive

outcomes through the similarity-attraction paradigm (Byrne, 1971). This theory suggests that the more similar two individuals are, the greater likelihood of attraction and mentoring support. Thus, it was hypothesized that greater dyadic similarity in demographic and job position variables will lead to greater meaningful work for mentors and protégés.

*Hypothesis 8a: Mentors who have greater demographic similarity will have increased meaningful work as compared to mentors who do not have greater demographic similarity.*

*Hypothesis 8b: Protégés who have greater demographic similarity will have increased meaningful work as compared to protégés who do not have greater demographic similarity.*

*Hypothesis 8c: Mentors who have greater job position similarity will have increased meaningful work as compared to mentors who do not have greater job position similarity.*

*Hypothesis 8d: Protégés who have greater job position similarity will have increased meaningful work as compared to protégés who do not have greater job position similarity.*

*Hypothesis 8e: Mentors who have greater overall similarity will have increased meaningful work as compared to mentors who do not have greater overall similarity.*

*Hypothesis 8f: Protégés who have greater overall similarity will have increased meaningful work as compared to protégés who do not have greater overall*

*similarity.*

## **Organizational Contextual Factors on Mentoring Proximal Outcomes**

### *Organizational Learning Climate*

Contextual factors can also take the form of organizational characteristics. These are crucial variables to study, because they can change the outcomes of a well-designed program for mentoring partners. Research suggests that one of the most important organizational characteristics to study with regard to mentoring program success is a climate that supports employee growth, development, and learning.

Broadly defined, organizational culture is a pattern of basic assumptions shared by a group of people (Schein, 1984). Organizational learning is a continuous testing of experience and transformation of that experience into knowledge that is available to the entire organization (Senge, 1990). Organizations can learn through the use of three processes: knowledge creation, knowledge retention, and knowledge transfer (Argote, 2011). Growing out of this organizational learning literature, organizational learning cultures are cultures that foster the practices of acquisition of information, along with distribution and transfer of learning and recognition for learning-based application (Yang et al., 2004). In other words, an organization with a learning culture is one that values continuous acquisition of knowledge and subsequent improvement in the ways in which work is done. However, a learning culture must be perceived as such for employees to reap its benefits.

Organizational climate is the personal interpretation of the working mechanism of the organization by individual employees (Bates & Khasawneh, 2005). Stated another

way, organizational culture encompasses underlying values and beliefs, while organizational climate is the surface-level manifestation of those beliefs (Denison, 1996). Therefore, climate is the measure of employees' surface-level expressions of the underlying culture of an organization. To understand why employees act as they do, it's important to see the organization through their eyes. Therefore, this study focuses on climate, rather than culture, as it relates to organizational learning.

A learning transfer climate is crucial in facilitating employee development (Bates & Khasawneh, 2005). This is the perception about the existence of a system that supports sharing of knowledge and skills among organizational members (Holton & Bates, 2002). Such a climate can help motivate employees to devote more time to learning newer things and applying them to their work (Bates & Khasawneh, 2005). According to the Experiential Learning Theory (Kolb, 1984), deep learning is an outcome of an individual's interaction with other people and the environment, and feedback from the interaction is crucial to facilitating learning. Based on this understanding, if employees perceive their organization is promoting a healthy learning culture through feedback and mentorship, they will be more motivated to learn and apply those learnings to their job (Banerjee, Gupta, & Bates, 2017).

Studies have shown that cultures that support learning and professional development are the most natural fit for mentoring programs through the creation of a climate conducive to mentoring (Kram & Ragins, 2007; Zachary, 2005; Allen, Poteet, & Burroughs, 1997). However, there is a lack of empirical studies that explicitly test whether organizational learning climate moderates outcomes for mentors. Thus, this

study hypothesized that individual's perceptions that their organization values growth, development, and learning will lead to greater meaningful work as a proximal outcome.

*Hypothesis 9a: Mentors who have higher perceived organizational learning climate will have increased meaningful work as compared to mentors who have lower perceived organizational learning climate.*

*Hypothesis 9b: Protégés who have higher perceived organizational learning climate will have increased meaningful work as compared to protégés who have lower perceived organizational learning climate.*

To recap, the first group of questions this research looked to address concerned outcomes for both protégés and mentors after engaging in a mentoring program. The second group of questions this research sought to answer were which contextual factors could influence the proximal outcome of meaningful work. The last group of questions to be presented articulate the proposed mechanism through which mentoring leads to positive, but distal, outcomes. Therefore, the relationship between (1) subordinate meaningful work, subordinate affective commitment, and subordinate turnover intentions and (2) leader meaningful work, leader organizational citizenship behaviors and leader job performance will be explored in the next sections.

### **Mediating and Moderating Mechanisms on Distal Outcomes**

The criteria of interest in the current study include meaningful work, affective commitment, turnover intentions, organizational citizenship behaviors, and job performance. With regard to our model, to this point we have discussed how mentoring could influence the proximal outcome of meaningful work and the distal outcomes of job

performance and subordinate turnover intentions. We have also discussed how certain variables (use of a structured program, mentor-protégé similarity, and organizational learning climate) could influence the relationship between mentoring and meaningful work. We now discuss how subordinate affective commitment can be seen as a potential mediator of subordinate meaningful work and the affective outcome of subordinate turnover intentions, and how leader organizational citizenship behaviors (OCBs) are potential moderators of leader meaningful work and the behavioral outcome of leader job performance.

Adult learning theory is one conceptualization of learning where individuals take responsibility for their learning (Knowles, Swanson, & Elwood, 2011). Learning itself can be a product or a process (Merriam, Caffarella, & Baumgartner, 2007). Learning is a product where emphasis is placed on the outcome of learning, while it is a process when focus is put on what happens when learning takes place (Gagne, 1965; Kolb, 1984). In this study, learning is seen as more of a product than a process. Using this starting point, learning is the acquisition of knowledge, skills or competencies that contribute to an individual's personal development (Kram, 1996)..This personal learning can take the form of cognitive learning, skill-based learning, or affective-related learning (Kraiger, Ford, & Salas, 1993).

Cognitive learning is concerned with gaining knowledge about the organization (Jones, 2012). Cognitive learning outcomes can include verbal knowledge, knowledge organization into schemas, or cognitive strategies. Skill-based learning is the acquisition of new skills (Jones, 2012). Skill-based learning outcomes are a function of compilation

and automaticity of the skills (Kraiger, Ford, & Salas, 1993). Compilation is when performance of the acquired skill is fluid and faster. Automaticity can be seen as a shift from controlled to automatic processing (Schneider & Shiffrin, 1977). Performance is more fluid, accomplished, and individualized at this stage. Affective learning is concerned with deeper and more personal learning, which can involve a motivational change and direction of energy (Jones, 2012). Affective learning outcomes can be attitudinal or motivational in nature. Both affective outcomes and skill-based, behavioral outcomes are of interest in the current study, and will be explored further.

#### *Affective Commitment*

Meaningful work ties directly into the affective outcome of affective organizational commitment. Affective commitment is one component of organizational commitment, which is a psychological relationship between the organization and employees (Allen & Meyer, 1990). Within this overarching construct, affective commitment is a desire to remain at an organization due to an emotional attachment to that organization (Meyer et al., 2002). For example, a person with high affective commitment would accept an organization's values and goals as their own, and want to continue to work in such an environment moving forward (Meyer & Allen, 1991).

It has been shown that workplace spirituality is associated with greater affective commitment and better subsequent outcomes (Rego & Cunha, 2008). However, two gaps in the literature exist here. The first gap is that meaningful work has not been systematically studied in its relationship to performance outcomes of interest; the overarching construct of workplace spirituality has been more extensively studied. There

are several reports that demonstrate higher workplace spirituality can lead to higher performance of organizational citizenship behaviors, higher job satisfaction, and lower turnover (Kazemipour & Amin, 2012; Kinjerski & Skrypnek, 2008). It remains to be determined, though, how meaningful work fits in the nomological network of predicting job-relevant outcomes.

Relatedly, the second gap is that the mechanism through which meaningful work operates to impact workplace outcomes. This is an area that has not been extensively studied (Noe, Greenberger, & Wang, 2002). It has been proposed that meaningful work and job-relevant outcomes may be related indirectly through positive employee attitudes (Giacalone et al., 2005). The Job Characteristics Model provides one theoretical linkage between meaningful work and affective commitment (Hackman & Oldham, 1980). In this model, meaningful work creates a psychological state that allows individuals to experience competence, growth, and ownership over their work. These predict positive work outcomes, such as affective commitment (Humphrey et al., 2007). Another theory, that of transcendence, states that employees who experience meaningful work also experience transcendence. This is where they work toward a greater social good, driving employee commitment to an organization's purpose (Steger & Dik, 2010). While these theories rationally connect meaningful work, affective commitment, and job outcomes, this connection should be further tested to determine its exact nature. It is hypothesized that the relationship between these three variables will be that affective commitment mediates the relationship between meaningful work and affective outcomes. In this case, the outcome of interest is turnover intentions.



Affective commitment can be conceptualized as a mediator based on the job demands-resources (JD-R) theory (Bakker & Demerouti, 2014). According to the JD-R model, job resources contribute to work engagement, which facilitate positive outcomes (Bakker & Demerouti, 2007; Demerouti, Bakker, Nachreiner, & Schaufell, 2001). Job resources are defined as any aspect of the job that helps achieve goals, foster personal growth, and encourage motivation. Under this definition falls meaningful work, since it stimulates a sense of purpose to encourage motivation (Steger & Dik, 2010). As a resource, meaningful work allows an employee to invest himself or herself in work tasks and experience a sense of dedication (Johnson & Jiang, 2016). Feeling dedicated and invested in work can foster a sense of affective commitment. This affective commitment can, in turn, facilitate gaining additional resources that carry over into intentions of remaining in a current job due to the resources that can be gained from staying.

Specifically for protégés, mentorship may help them realize the meaning behind what they do each day, while also enhancing their feelings of being valued by the organization. The gain in resources from experiencing meaningful work can facilitate affective commitment to the organization and subsequent decreases in turnover intentions. Specifically for mentors, the act of helping someone else experience his or her full potential can enhance the mentors' own feelings of meaningful work. This can lead to more affective commitment and less of a desire to leave an organization that commits its own resources to helping others. These linkages between meaningful work, affective commitment, and turnover intentions, extended to subordinates of mentors and protégés through career mentoring climate, led to the hypotheses that commitment mediates the

meaningful work and turnover intentions links for both subordinates of mentors and protégés.

*Hypothesis 10a: Affective commitment will mediate the relationship between meaningful work and turnover intentions for subordinates of mentors.*

*Hypothesis 10b: Affective commitment will mediate the relationship between meaningful work and turnover intentions for subordinates of protégés.*

### *Organizational Citizenship Behaviors (OCBs)*

There are two behavioral outcomes of interest in this study as well: organizational citizenship behaviors (OCBs) and job performance, conceptualized here as high-quality patient, customer, and employee care. OCBs are defined as behaviors that contribute to the maintenance and enhancement of the social and psychological organizational context to promote task performance (Organ, 1997). This usually involves actions that go beyond formal role obligations and are performed using individual discretion (Bergeron, 2007). It has been shown that OCBs improve individual, group, and organizational performance (Podsakoff & MacKenzie, 1997; Podsakoff, Whiting, Podsakoff, & Blume, 2009). However, there is also reason to believe that greater OCBs may lead to lower job performance. These concerns stem from the theory of resource drain (Edwards & Rothbard, 2000). This theory states that personal resources, such as time and energy, are finite. Resources that are used in one domain are not available to be used in another domain (Valcour, 2007). Within this context of finite resources, employees need to decide how they allocate their time and energy. In-role and extra-role behaviors may compete for the limited resources that an employee has. This can lead to a trade-off

between OCBs and job performance (Deery, Rayton, Walsh, & Kinnie, 2016).

While this theoretical relationship between OCBs and job performance could be either positive or negative depending on contextual factors, this study looks to argue that meaningful work is an antecedent of job performance that is moderated through a curvilinear relationship with OCBs. In an empirical study conducted by Kazemipour and Amin, it was found that meaningful work had a positive relationship with OCB performance in a nursing population (2012). Based on the Conservation of Resources theory, meaningful work may serve to augment an employee's resources. These augmented resources can be used for further investment, allowing even more resources to be gained (Hobfoll, 1989). Through meaningful work, an employee has more resources to invest in performing extra-role behaviors. These behaviors can then lead to even greater resources being gained, and job performance improving as a result. However, if this level of OCB performance is too high, job performance may lower as a result. Thus, this study hypothesized that OCBs moderate the relationship between meaningful work and job performance for both mentors and protégés in a curvilinear fashion.

*Hypothesis 11a: OCBs will moderate the relationship between meaningful work and job performance for mentors.*

*Hypothesis 11b: OCBs will moderate the relationship between meaningful work and job performance for protégés.*

## **Summary**

These hypotheses formed the basis of the current study and sought to fill three critical gaps in the mentoring literature. The first gap was filled through exploring the

outcomes of mentoring for protégés, mentors, and their respective subordinates through drawing on the Job Characteristics Theory. The second gap was filled through articulating contextual factors that are of importance to the healthcare industry. The third gap was filled through investigating the nomological network of mentoring and its affective and behavioral outcomes through a consideration of JD-R and COR theories.

This section provided the theory, rationale, and empirical underpinnings for each hypothesis. The next section will articulate the method used to collect the data needed to evaluate these hypotheses. The following section will then discuss the analyses run that turned this data into meaningful answers to this study's questions.

## CHAPTER FOUR

### METHOD

#### **Participants**

This project used a cohort of healthcare leaders engaged in a mentoring program at a large hospital in the southeastern United States. This cohort was made up of 24 mentors and 24 protégés who qualified for participation in the program based on unit scores from a yearly engagement survey. Those leaders with units who scored in the top tier (Tier I) could volunteer to be mentors. Those leaders with units who scored in the bottom tier (Tier III) could volunteer to be protégés. These mentors and protégés were then matched based on their shift schedule and could begin the 8-month program.

These mentors and protégés formed a natural experimental group, while the other leaders who were in the top tier formed a control group of comparable potential mentors and the leaders who were in the bottom tier formed a control group of comparable potential protégés. There were 278 potential mentors who were not a part of the program but would have qualified to be a part of it. There were 128 potential protégés who were not a part of the program but would have qualified to be a part of it. Based on the voluntary nature of the mentoring program, there may have been selection bias that contribute to differences between the experimental and control groups (Engel & Schutt, 2014). To minimize the potential effects of this nonequivalent control group design, an individual matching protocol was used. From the pool of potential control mentors and protégés, 24 potential mentors and 24 potential protégés were selected through matching criteria (Stuart & Rubin, 2008). The potential mentors were matched to existing mentors

based on the greatest similarity on nine demographic and job position characteristics. The potential protégés were matched to existing protégés based on the greatest similarity on nine demographic and job position characteristics.

Each mentor and protégé had a unique participant code that could be matched to each other to determine who was paired with each other for the purposes of data analysis.

## **Design**

Engaging in the mentoring partnership created four groups of individuals in the study. The primary research question here was whether engaging in a mentoring program influenced turnover intentions and job performance in each of these populations and their respective units. All other relationships of interest were only conducted in the mentor and protégé populations to determine the mechanism through which the mentoring process produced potentially favorable outcomes in comparison to employees not engaging in the mentorship partnerships.

The contextual factor of using a structured program was one that was explicitly tested within the model. The mentoring partners were given the option to use a structured program syllabus at the start of their partnership. The data to track the pairings' use of the syllabus was available through an online portal within the healthcare system. This allowed two groups to be formed: pairings that used structure and pairings that did not use structure. This could test whether mentoring in conjunction with a structured program influenced more favorable outcomes as compared to mentoring without the structured components.

The constructs of organizational learning climate and dyad similarity were

assessed at the beginning of the partnership (June 2017) to get a better sense of the contextual elements that may have influenced the proximal outcomes of the partnership. The proximal outcome of meaningful work was assessed through a leadership survey distributed in November 2017.

At the conclusion of the 8-month partnership, the mentors and protégés were given an employee engagement survey. This survey was used to track the distal outcomes of interest: turnover intentions, job performance, affective commitment, and OCBs. Mentor and protégé responses and participation were vital to this project. More detail on the measures of interest can be seen in the following sections.

## **Measures**

The primary constructs of interest in this study were: organizational learning climate, participant similarity, use of a structured program, meaningful work, affective commitment, turnover intentions, OCBs, and job performance. These items and scale reliabilities can be found in Appendix A and Appendix B.

*Organizational learning climate.* This was measured using five items from an annual proprietary survey deployed in March 2017. Since there was no way to identify the leaders using their participant codes from this year, a leader-level data point was created through aggregating unit-level data. The items measuring this construct included, “I get the tools and resources I need to provide the best care/service for our customers/clients/patients”, “Rounding has improved my overall work environment”, “Information from this survey will be used to make improvements”, “This organization provides career development opportunities”, and “This organization cares about quality

improvement”. These items mirror the construct definition of organizational learning climate, which is the perception about the existence of a system that supports sharing of knowledge and skills among organizational members (Holton & Bates, 2002).

Participants rated their agreement with the aforementioned five statements using a scale of 1 to 5, 1 being “Strongly Disagree” and 5 being “Strongly Agree”. These items showed good reliability (Cronbach’s alpha = .844) and demonstrated a unitary factor (eigenvalue = 3.120) with all item loadings above .650. These reliability and factor analysis statistics were acceptable based on the literature (ten Berge & Zegers, 1978; Preacher & MacCallum, 2003).

*Participant similarity.* This was measured using nine items collected from Human Resources at the start of the mentoring partnership. These items of interest included length of service (in years), tenure in a leadership position (in years), shift (day, evening, or night), gender (male or female), ethnicity (White, Asian, African American, Hispanic, Pacific Islander, or two or more ethnicities), age (under 20, 20-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65-69, 70-74), position type (manager, supervisor, or director), primary work location (region), and primary work location (hospital). More granularly, length of service was coded into six groups to capture greater levels of potential similarity. Group 1 corresponded to 0-5 years of service in the organization. Group 2 corresponded to 6-10 years of service. Group 3 corresponded to 11-15 years of service. Group 4 corresponded to 16-20 years of service. Group 5 corresponded to 21-25 years of service. Group 6 corresponded to 26+ years of service. Tenure in a leadership position was coded into three groups. Group 1 corresponded to 1-5 years of leadership



experience. Group 2 corresponded to 6-10 years of leadership experience. Group 3 corresponded to 11+ years of leadership experience.

These items looked at both demographic characteristics and job position characteristics. As previously mentioned, both of these characteristics have been cited as contributing to perceived participant similarities in mentoring partnerships (Ghosh, 2014). Each demographic characteristic (gender, ethnicity, age group) was coded as either similar (scored a 1) or dissimilar (scored a 0) in mentor-protégé dyads. These similarity measures were then added together to create a score of 0-3. This score was analyzed in conjunction with the dependent variable of interest to determine how similar demographic characteristics influenced proximal outcomes. Based on the work of Harrison and Klein, this created an index of overall demographic similarity (2007). Adding similarity indices together provided a single, global value for the measured dyad. Such summations for similarity indices can be used if each characteristic is a formative indicator, meaning each characteristic contributes to a linear composite that is the sum of its parts (MacCallum & Browne, 1993). This study conceptualized each similarity variable as being equal, thus allowing a composite factor to be created from the summation of characteristics. The creation of this composite factor was also based on previous studies on mentor and protégé similarity (Mitchell, Eby, & Ragins, 2015).

Each job position characteristic (length of service, tenure in a leadership position, shift, position type, primary work location (region), and primary work location (hospital)) was coded as either similar (scored a 1) or dissimilar (scored a 0) in mentor-protégé dyads. These similarity measures were then added together to create a score of 0-6. This

score was analyzed in conjunction with the dependent variable of interest to determine how similar job position characteristics influenced proximal outcomes. For the same reasons as outlined above, this created an index of overall job position similarity (Harrison & Klein, 2007).

The similarity measures for demographic characteristics and job position characteristics were then combined to create an overall index of participant similarity, with a score from 0-9, to determine how overall similarity influenced proximal outcomes. For the same reasons as outlined above, this created an index of overall similarity (Harrison & Klein, 2007).

*Use of a structured program.* The mentoring program's participants were given the option to use either a more formal or more informal structure to their partnership together. The more formal mentoring option was to use a mentoring syllabus throughout the course of the program. This syllabus contained seven meeting ideas, one for each month of the partnership. Each meeting had agenda items, such as reviewing prior topics from earlier meetings, reviewing goals and progress, providing teaching moments to the protégé, and preparing for the next meeting. The more informal mentoring option was to forgo using this syllabus, and have meetings and discussions on a less formal basis.

This variable was quantified through the number of downloads of the mentoring program syllabus from a company website. This created two groups in both the mentor and protégé populations: those that downloaded the resources and those that did not. It was double-checked at the conclusion of the program whether or not mentors and protégés actually used the mentoring program syllabus, and that number was compared to

the downloads of the syllabus obtained earlier. This verified the accuracy of those download numbers in indicating the use of the materials.

*Meaningful work.* This was measured in leaders using two items from an annual Special Leadership Survey deployed in November 2017. These items included, “My work is meaningful”, and “The work I do makes a real difference”. Participants rated their agreement with the aforementioned two statements using a scale of 1 to 7, 1 being “Strongly Disagree” and 7 being “Strongly Agree”. This was also measured in subordinates using two items from an annual proprietary survey deployed in March 2018. These items included, “My work is meaningful”, and “The work I do makes a real difference”. Participants rated their agreement with the aforementioned two statements using a scale of 1 to 5, 1 being “Strongly Disagree” and 5 being “Strongly Agree”. These items were based on the content of the validated Comprehensive Meaningful Work Scale (Lips-Wiersma & Wright, 2012). This scale contained the dimensions of developing the inner self, unity with others, service to others, and expressing full potential. The two items used map onto these four dimensions. When a scale is comprised of only two items, Spearman-Brown is a better measure of reliability than is Cronbach’s alpha (Eisinga, Te Grotenhuis, & Pelzer, 2013). Therefore, this statistic was used to demonstrate scale reliability. The items showed good reliability (Spearman-Brown = .875) and demonstrated a unitary factor (eigenvalue = 1.778). This factor analysis statistic was acceptable based on the literature (Preacher & MacCallum, 2003).

*Affective commitment.* This was measured using subordinate responses to four items from an annual proprietary survey deployed in March 2018. These items included,

“I am proud to tell people I work for this organization”, “I would recommend this organization as a good place to work”, “I feel like I belong in this organization”, and “I selected this organization as a place to work because its values reflect my own”. These items mirrored the content of the validated scale that measured the affective component of organizational commitment (Meyer & Allen, 1990). Participants rated their agreement with the aforementioned four statements using a scale of 1 to 5, 1 being “Strongly Disagree” and 5 being “Strongly Agree”. These items showed good reliability (Cronbach’s alpha = .881) and demonstrated a unitary factor (eigenvalue = 2.949) with all item loadings above .650. These reliability and factor analysis statistics were acceptable based on the literature (ten Berge & Zegers, 1978; Preacher & MacCallum, 2003).

*Turnover intentions.* This was measured using subordinate responses to two items from an annual proprietary survey deployed in March 2018. These items included, “I would like to be working at this organization three years from now” and, “I would stay with this organization if offered a similar job elsewhere”. Participants rated their agreement with the aforementioned two statements using a scale of 1 to 5, 1 being “Strongly Disagree” and 5 being “Strongly Agree”. For this scale, higher scores indicated less of a desire to leave the organization. These items mirrored the content of the validated turnover intentions scale from Simon, Kummerling, and Hasselhorn (2004). This scale looked at how often participants think of leaving their job to do the same job in another department, for another type of job within the same organization, to do the same job for another organization, and for a career change. When a scale is comprised of only

two items, Spearman-Brown is a better measure of reliability than is Cronbach's alpha (Eisinga, Te Grotenhuis, & Pelzer, 2013). Therefore, this statistic was used to demonstrate scale reliability. The items showed good reliability (Spearman-Brown = .820) and demonstrated a unitary factor (eigenvalue = 1.695). This factor analysis statistic was acceptable based on the literature (Preacher & MacCallum, 2003).

*OCBs.* This was measured using five items from an annual proprietary survey deployed in March 2018. These items were filled out by individuals in the leader's unit and aggregated to create a leader-level measure of OCB performance. This was meant to decrease self-report bias. These items included, "The person I report to consistently demonstrates this organization's Compassion Standards of Behavior", "The person I report to follows up on my concerns/questions from employee rounding", "The person I report to gives me useful feedback", "The actions of the person I report to support this organization's mission and values", and "The person I report to cares about quality improvement". Participants rated their agreement with the aforementioned three statements using a scale of 1 to 5, 1 being "Strongly Disagree" and 5 being "Strongly Agree". These items were analyzed to ensure that they loaded onto the same factor and had an acceptable Cronbach's alpha. These items captured the overall essence of the content of the validated Organizational Citizenship Behavior Measure (Motowidlo & Van Scotter, 1994) based on the accepted definition of contextual performance (Borman & Motowidlo, 1993). These items showed good reliability (Cronbach's alpha = .940) and demonstrated a unitary factor (eigenvalue = 4.075) with all item loadings above .850. These reliability and factor analysis statistics were acceptable based on the literature (ten

Berge & Zegers, 1978; Preacher & MacCallum, 2003).

*Job performance.* This was measured using subordinate responses to three items from an annual proprietary survey deployed in March 2018. These items were filled out by individuals in the leader's unit and aggregated to create a leader-level measure of job performance. This was meant to decrease self-report bias. These items included, "Employees in my work unit make every effort to deliver safe, error-free care", "My work unit provides high-quality care and service", and "Employees in my work unit follow proper procedures for patient care/customer service". Mentors and protégés rated their agreement with the aforementioned five statements using a scale of 1 to 5, 1 being "Strongly Disagree" and 5 being "Strongly Agree". These items were analyzed to ensure that they loaded onto the same factor and had an acceptable Cronbach's alpha. These items were specific to job performance within this healthcare organization. These items showed good reliability (Cronbach's alpha = .918) and demonstrated a unitary factor (eigenvalue = 2.580) with all item loadings above .850. These reliability and factor analysis statistics were acceptable based on the literature (ten Berge & Zegers, 1978; Preacher & MacCallum, 2003).

The response rate for these surveys was very high. The overall response rate for the Special Leadership Survey was 87.5%. The response rate for the experimental group was 75%, while the response rate for the control group was 100%. The overall response rate for the Employee Engagement Survey was similarly high. The response rate for mentors was 91.7%. The response rate for protégés was 66.7%. The response rate for potential mentors was 95.8%. The response rate for potential protégés was 87.5%.

Using these measures, answers to the study's hypotheses could be articulated. These results can be found in the next section, followed by a discussion of their theoretical and practical implications.

## CHAPTER FIVE

### RESULTS

#### **Data Screening**

To test the proposed hypotheses, analyses were conducted primarily in IBM SPSS Statistics 24 and EQS. All mentors and protégés had a unique identifying code that could be used to match both their survey results, and the survey results of their subordinates, together. The data from mentors, potential mentors, protégés, and potential protégés was collected into one data file and screened for both outliers and large sets of missing values. The data from the subordinates of these mentors, potential mentors, protégés, and potential protégés was included in the same data file and screened for both outliers and large sets of missing values.

The data screening for outliers was conducted using SPSS Statistics 24. The diagnostic indices that were used to assess whether or not there was an outlier present were Mahalanobis distance, studentized deleted residuals, Cook's *d*, and M-estimators. Since both linear and quadratic relationships were of interest here, these four statistics were calculated. Mahalanobis distance measured leverage, or how far an observed value was from the mean of the set of independent variables (Tabachnik & Fidell, 2007). Based on the chi-square distribution, a cut-off value of 6.571 was chosen based on the number of independent variables in this study and an alpha of 0.95. In the present study, there were no Mahalanobis distance measures that indicated outliers. Studentized deleted residuals measured discrepancy, or the distance between predicted and observed values on a dependent variable (Tabachnik & Fidell, 2007). The difference between the



observed value on a dependent variable and that case's predicted value if it were removed from the dataset was determined. In examining the dataset, there were no studentized deleted residual values that indicated any outliers. The global index of Cook's *d* measured influence, which combined information from leverage and discrepancy measures (Tabachnik & Fidell, 2007). Cook's *d* can additionally be used to find outliers in nonlinear relationships (Riazoshams, Habshah, & Adam, 2009). Typically, cases with high influence have a Cook's *d* value that is greater than 1 or highly set apart from other cases within the data. The present dataset did not contain any cases with a Cook's *d* greater than 1. M-estimators were used as robust statistics from the family of maximum likelihood estimators. This estimator sought to minimize bias from potential outliers, and it could be used to evaluate outliers in nonlinear relationships (Mahata, Mitra, & Mitra, 2016). If the M-estimators were similar to the computed means, then it was suggested that outliers had a minimal effect on computed outcomes (Riazoshams, Habshah, & Adam, 2009). The M-estimators calculated for each scale of interest were similar to the means of each scale, indicating that outliers had minimal effect on subsequent outcomes. Based on this evaluation, all data points were included in the following analyses.

The last piece of data screening was to establish whether missing data had any effect on the dependent variables being assessed. To investigate this, EQS was used. Direct maximum likelihood for missing data was evaluated using all variables in the current study's dataset (Graham, 2009). Based on the GLS test of homogeneity of means, the chi-square value was not significant ( $p=0.087$ ). This supports the notion that data was missing completely at random (MCAR), and thus did not impact the dependent variables

in this study. Pairwise deletion was used for missing data values in the remainder of the analyses (Tabachnik & Fidell, 2007).

### **Demographic Variables**

This study focused on four main groups of participants using a quasi-experimental methodology. The mentor and protégé groups created an experimental group. The potential mentor and potential protégé groups created a control group. Given the voluntary nature of the mentorship program, it was necessary to ensure that the control groups were as similar as possible to the experimental groups to reduce potential bias and unwanted influences from extraneous variables. To ensure that the control groups were matched to the experimental groups, each mentor and protégé had his or her demographic characteristics and job position characteristics coded. These coded variables were then compared against a list of potential mentors or potential protégés to find those employees who were as similar as possible to the employees in the experimental groups. Out of nine possible categories (gender, ethnicity, age, length of service, tenure in leadership, shift, position type, primary work location (region), and primary work location (hospital)), the average number of matched categories for each control participant to each experimental participant was relatively high (7.46 for mentors, 6.64 for protégés). In addition to this, frequency statistics were created for each group in each matched category. These frequencies can be seen in Table 4.

Two additional methods of confirmation that the groups were equivalent on each demographic and job position variable were conducted. The first method to support group equivalency was performing diagnostics for the matching methods. These methods

included t-tests of the potential covariates between (1) mentors and potential mentors and (2) protégés and potential protégés (Stuart & Rubin, 2008). For the mentor and potential mentor groups, there were no significant differences in any of the demographic or job position characteristics. For the protégé and potential protégé groups, there were also no significant differences in any of the demographic or job position characteristics.

The second method to support group equivalency was conducting a chi-square test to determine whether there were significant differences between the expected frequencies and observed frequencies in each demographic and job position group. This statistic was not significant for all but one group and variable. This one significant difference was between mentors and potential mentors in their region location. However, there were many comparisons done in the course of this test, which could have inflated the Type I error. To compensate for this, the Bonferroni adjustment was used (Tabachnik & Fidell, 2007). Dividing the significance level ( $\alpha = 0.05$ ) by the number of comparisons (18), the new significance level for each comparison was reduced ( $\alpha = 0.003$ ). The difference between mentors and potential mentors did not reach this new level of significance, indicating that there was no real difference between these two groups. All calculated statistics for these demographic variables can be found in Table 5.

Through the aforementioned methods, a control group of potential mentors and a control group of potential protégés were created that approximated their respective experimental groups as closely as possible. This also ensured that subordinates were matched between experimental and control groups fairly consistently as well. This decreased the extraneous variables that may have confounded the results of this study.

With these groups clearly established, the data from the groups could be used to confirm the factor structure of each construct of interest prior to specifically testing the hypotheses of interest.

### **Confirmation of Factor Structure**

The survey items were then factor analyzed using EQS statistical software (Bentler, 2006) to confirm the dimensionality and factor structure of the given items. This was done using a confirmatory factor analysis (CFA) to ensure that the preliminary, exploratory factor analyses done prior to data collection with a set of 2017 survey data were still valid for the current data set. First, the hypothesized six factors were tested: organizational learning climate, meaningful work, affective commitment, turnover intentions, organizational citizenship behaviors, and job performance. The adequate fit of the overall factor structure was determined using several fit indices. These fit indices were both relative and absolute. Specifically, the relative fit index of the Comparative Fit Index (CFI) was explored, along with the absolute fit indices of the Root Mean Square Error of Approximation (RMSEA) and the Standardized Root Mean Square Residual (SRMR). The chi-square is often used in assessing fit, but can be highly influenced by sample size (Marsh, Hau, & Wen, 2004). Therefore, it was not explicitly used as an indicator of overall model fit. Acceptable levels of fit were based on cutoffs found in Hu and Bentler (1999). Adequate fit is considered the CFI greater than 0.95, the RMSEA lower than 0.05, and the SRMR lower than 0.08. For this six-factor model, the CFI was 0.977, the RMSEA was 0.055, and the SRMR was 0.034. The chi-square value for this model was 712.495. Overall, this indicated that there were six discrete factors being

measured with the survey items.

To examine the items more closely, the standardized factor loadings and factor correlations were investigated for evidence of convergent and discriminant validity between the factors. It is a best practice to have items with a standardized loading greater than 0.70 for their given factor, since this would demonstrate that a majority of the variance in an indicator was explained (Kline, 2011). Any items that did not fulfill this stipulation or loaded onto another factor as indicated by the LeGrange Multiplier test (LM test) were examined more closely. The standardized loadings can be found in Table 6. The only construct that had several loadings well below the threshold of 0.70 was organizational learning climate. Given the breadth of this construct, the items that measured it were correspondingly broad in nature. Since each item served to add additional explanatory variance to the construct as a whole, all items were retained.

To demonstrate convergent validity within each factor, the Average Variance Extracted (AVE) was calculated. This is the average of the squared loadings. To demonstrate discriminant validity, the correlations among the factors were examined. Convergent validity and discriminant validity both assist in demonstrating construct validity. Convergent validity demonstrates that two or more measures of a construct that are theoretically related are, in fact, related. Discriminant validity demonstrates that measurements that are theoretically unrelated are actually unrelated (Campbell & Fiske, 1959). The calculated AVE can be found in Table 6, and the factor correlations can be found in Table 7.

The AVE measurements for each construct were largely greater than the factor

correlations. This supported that the items measured the constructs that they were intended to measure. The one exception to this was the high factor correlation between affective commitment and turnover intentions, as compared to each construct's AVE. This could indicate that both factors were actually measuring the same construct. Therefore, an alternative model was tested where all items for those two constructs were loaded onto one overarching factor, producing a five-factor model. This five-factor model had slightly worse fit compared to the six-factor model (chi-square = 748.531, CFI = 0.976, RMSEA = 0.056, SRMR = 0.037). Based on this difference in model fit, both affective commitment and turnover intentions scales and their corresponding items were retained in a six-factor model. The potential implications of such a high factor correlation will be explored in more depth in the limitations section of this study.

Cronbach's alphas were then calculated for each construct of interest. These measures can be found in Table 8. All calculated Cronbach's alphas were above the commonly accepted threshold of 0.70 (ten Berge & Zegers, 1978). Therefore, all scales demonstrated good internal reliability and both convergent and discriminant validity.

### **Examining the Outcomes of Mentoring for Mentors and Protégés**

#### *Meaningful Work*

After confirming the factor structure of each construct of interest, the specific hypotheses of interest were analyzed. To determine whether there was support for Hypothesis 1a and 1b, in addition to Hypothesis 4a and 4b, independent samples t-tests were conducted.

For Hypothesis 1a, protégé meaningful work was compared to potential protégé

meaningful work. The protégé meaningful work scores ( $M=6.438$ ,  $SD=0.629$ ) were higher than those of the potential protégé group ( $M=5.500$ ,  $SD=1.310$ ). The independent samples t-test demonstrated that there was a significant difference between protégé meaningful work and potential protégé meaningful work ( $t(38)=2.656$ ,  $p=0.011$ ,  $d=0.912$ ). What this means is that those who were protégés in the mentoring program experienced increased meaningful work after engaging in the mentoring program compared to a control group of similar potential protégés.

For Hypothesis 1b, subordinates of protégés had their meaningful work scores compared to those of subordinates of potential protégés. The subordinates of protégés had meaningful work scores ( $M=4.464$ ,  $SD=0.661$ ) that were higher than those of the subordinates of potential protégés group ( $M=4.326$ ,  $SD=0.778$ ). The independent samples t-test demonstrated that there was a significant difference for meaningful work in subordinates of protégés and subordinates of potential protégés ( $t(624)=2.385$ ,  $p=0.017$ ,  $d=0.191$ ). What this means is that subordinates who had leaders that were protégés in the mentoring program experienced increased meaningful work compared to the subordinates of a control group of similar potential protégés.

For Hypothesis 4a, mentor meaningful work was compared to potential mentor meaningful work. The mentor meaningful work scores ( $M=6.700$ ,  $SD=0.441$ ) were higher than those of the potential mentor group ( $M=6.063$ ,  $SD=1.288$ ). The independent samples t-test demonstrated that there was a significant difference between mentor meaningful work and potential mentor meaningful work ( $t(42)=2.109$ ,  $p=0.041$ ,  $d=0.662$ ). What this means is that those who were mentors in the mentoring program experienced increased

meaningful work after engaging in the program compared to a control group of similar potential mentors.

For Hypothesis 4b, subordinates of mentors had their meaningful work scores compared to those of subordinates of potential mentors. The subordinates of mentors had meaningful work scores ( $M=4.601$ ,  $SD=0.692$ ) that were slightly higher than those of the subordinates of potential mentors ( $M=4.596$ ,  $SD=0.578$ ). The independent samples t-test demonstrated that there was not a significant difference in meaningful work for subordinates of mentors or subordinates of potential mentors ( $t(556)=0.081$ ,  $p=0.935$ ,  $d=0.010$ ). What this means is that those who were subordinates of mentors in the mentoring program did not experience increased meaningful work compared to the subordinates of a control group of similar potential mentors.

In summary, Hypothesis 1a and 4a were supported. For both mentors and protégés, participation in the mentoring program led to significant increases in meaningful work compared to control groups of matched potential mentors and potential protégés. Given the relatively small sample size explored here, effect size was also calculated to index the magnitude of the relationship independent of the sample size. The effect size in the mentor population was large, while the effect size in the protégé population was medium (Baron & Kenny, 1986; Aiken & West, 1991). This issue of sample size will be further explored in the discussion section.

Hypothesis 1b was supported, while Hypothesis 4b was not supported. Subordinates of protégés experienced greater meaningful work as compared to subordinates of potential protégés, indicating the potential creation of a positive



mentoring climate. However, subordinates of mentors did not experience greater meaningful work as compared to subordinates of potential mentors. These results can be found in Table 9.

### *Turnover Intentions*

The outcome of turnover intentions was then explored in subordinate populations of mentors and protégés. To determine whether there was support for Hypothesis 2 and Hypothesis 5, an independent samples t-test was conducted.

For Hypothesis 2, turnover intentions of subordinates of protégés was compared to turnover intentions of subordinates of potential protégés. The subordinates of protégés had turnover intentions scores ( $M=4.021$ ,  $SD=0.811$ ) that were slightly higher than those of the subordinates of potential protégé group ( $M=3.979$ ,  $SD=0.888$ ). Here, higher scores indicated less of a desire to leave the organization. The independent samples t-test demonstrated that there was not a significant difference between the turnover intentions of the subordinates of protégés and the turnover intentions of the subordinates of potential protégés ( $t(614)=0.616$ ,  $p=0.538$ ). What this means is that subordinates of protégés in the mentoring program did not have significantly different turnover intentions compared to a control group of subordinates of potential protégés.

For Hypothesis 5, turnover intentions of subordinates of mentors was compared to turnover intentions of subordinates of potential mentors. The subordinates of mentors had turnover intentions scores ( $M=4.270$ ,  $SD= 0.892$ ) that were slightly higher than those of the subordinates of potential mentor group ( $M= 4.227$ ,  $SD= 0.760$ ). The independent samples t-test demonstrated that there was not a significant difference between the

turnover intentions of the subordinates of mentors and the turnover intentions of the subordinates of potential mentors ( $t(545)=0.605, p=0.545$ ). What this means is that those who were subordinates of mentors in the mentoring program did not have significantly different turnover intentions compared to a control group of subordinates of potential mentors.

In summary, Hypothesis 2 and 5 were not supported. For the subordinates of both protégés and potential protégés, there was no difference in turnover intentions. Having a leader who went through a mentoring program did not influence the individuals within the unit regarding their desire to leave their jobs. For the subordinates of both mentors and potential mentors, the outcome was largely the same. There was no difference in turnover intentions within their respective units as a result of engaging in a mentoring program. These results can be found in Table 9.

### *Job Performance*

The outcome of job performance was then explored in both mentor and protégé populations. This measure was collected from mentor and protégé subordinates in an effort to reduce social desirability bias. The job performance measure was aggregated to the leader-level based on the support of the appropriate aggregation indices. These aggregation indices included the ICC<sub>1</sub>, ICC<sub>2</sub>, and  $r_{wg}$  indices (Tabachnik & Fidell, 2007).

The ICC<sub>1</sub> was calculated using a mixed models approach, with only the dependent variable of job performance and the grouping variable of unit code used. This intercepts only model was run since group size in each unit was unequal. Using the residual value (0.311) and intercept value (0.053), the ICC<sub>1</sub> was calculated (0.147). This meant that

14.7% of the variability in job performance was associated with differences between classes. Since the  $ICC_1$  was a non-zero value, this indicated that group membership affected lower-level observations (Bliese, 2000). Thus, this established non-independence.

The  $ICC_2$  was then calculated to establish reliability of the means that would be formed at the unit level, thus providing empirical support for aggregation. A one-way ANOVA was run with job performance as the dependent variable and unit code as the factor. Using the mean square between (1.019) and the mean square within (0.310), the  $ICC_2$  was calculated (0.696). This  $ICC_2$  was deemed acceptably large, and provided a piece of empirical support for aggregating job performance across individuals to produce a leader-level variable (Bliese, 2000).

Finally, the  $r_{wg}$  was calculated to provide further justification of aggregation of job performance to the level of the unit's leader. This statistic measured agreement, or the degree to which ratings from individuals were interchangeable. This measure of within-group agreement was calculated using the univariate general linear model. The mean square error (0.310) and number of response categories (5) were used to calculate the  $r_{wg}$  (0.845). This indicated that the members of each unit had high agreement on job performance items, providing enough empirical evidence to support aggregation (Lance, Butts, & Michels, 2006).

The individual-level measure of job performance was then aggregated to produce a data point that represented a leader-level measure. To determine whether there was support for Hypothesis 3 and Hypothesis 6, an independent samples t-test was conducted

using these leader-level job performance variables.

For Hypothesis 3, protégé job performance was compared to potential protégé job performance. The protégés had job performance scores ( $M=4.389$ ,  $SD=0.236$ ) that were roughly equal to those of the potential protégé group ( $M=4.350$ ,  $SD=0.352$ ). The independent samples t-test demonstrated that there was not a significant difference between the job performance of protégés and the job performance of potential protégés ( $t(35)=0.390$ ,  $p=0.699$ ,  $d=0.130$ ). What this means is that those who were protégés in the mentoring program had equivalent performance compared to a control group of similar potential protégés.

For Hypothesis 6, mentor job performance was compared to potential mentor job performance. The mentors had job performance scores ( $M=4.738$ ,  $SD=0.215$ ) that were roughly equivalent to those of the potential mentor group ( $M=4.672$ ,  $SD=0.177$ ). The independent samples t-test demonstrated that there was not a significant difference between the job performance of mentors and the job performance of potential mentors ( $t(42)=1.107$ ,  $p=0.275$ ,  $d=0.335$ ). What this means is that those who were mentors in the mentoring program had equivalent performance compared to a control group of similar potential mentors.

In summary, Hypothesis 3 and 6 were not supported. For protégés and potential protégés, there was no difference in protégé-reported leader job performance. For mentors and potential mentors, the outcome was largely the same. There was no difference in protégé-reported job performance as a result of engaging in a mentoring program. These results can be found in Table 9.

## **Examining the Contextual Factors of Mentoring for Mentors and Protégés**

Next, contextual factors were tested in the mentor and protégé models to determine if they influenced the subsequent relationship to the proximal outcome of meaningful work in any way. These contextual factors were individual, dyadic, and organizational in nature. The individual factor was the use of a structured program. The dyadic factor was matching criteria. The organizational factor was the presence of an organizational learning climate.

### *Individual Contextual Factor: Use of a Structured Program*

The factor of using a structured program was tested by determining who downloaded the syllabus materials via an online portal. That created two categories of “used” and “did not use” in both the mentor and protégé populations. The influence of the structured program on the outcome of meaningful work was tested using an independent t-test in both the mentor and protégé population.

For Hypothesis 7a, mentor meaningful work was compared between those who used a structured program and those who did not use a structured program. The mentors who used a structured program had meaningful work scores ( $M=6.00$ ,  $SD=0.001$ ) that were slightly lower than the mentors who had not used a structured program ( $M=6.500$ ,  $SD=0.650$ ). However, the independent samples t-test demonstrated that there was not a significant difference between these two groups ( $t(14)=1.055$ ,  $p=0.309$ ). This suggests that there was no difference in meaningful work between mentors who used the more formal, structured program and those who used a more informal, unstructured program. Hypothesis 7a was not supported.

For Hypothesis 7b, protégé meaningful work was compared between those who used a structured program and those who did not use a structured program. The protégés who used a structured program had meaningful work scores ( $M=6.625$ ,  $SD=0.479$ ) that were slightly lower than the protégés who had not used a structured program ( $M=6.719$ ,  $SD=0.446$ ). However, the independent samples t-test demonstrated that there was not a significant difference between these two groups ( $t(18)=0.371$ ,  $p=0.715$ ). This suggests that there was no difference in meaningful work between protégés who used the more formal, structured program and those who used a more informal, unstructured program. Hypothesis 7b was not supported.

#### *Dyadic Contextual Factor: Matching Criteria*

The contextual factor of dyad similarity was tested by coding the responses to each demographic question, as previously described in the method section. Three sets of hypotheses were tested here. The first set looked at whether greater demographic similarity led to increases in meaningful work for mentors and protégés (Hypothesis 8a, 8b). The second set looked at whether greater job position similarity led to increases in meaningful work for mentors and protégés (Hypothesis 8c, 8d). The third set looked at whether greater overall similarity led to increases in meaningful work for mentors and protégés (Hypothesis 8e, 8f). The independent variables of interest were mean centered to allow for meaningful interpretations of the data.

To test Hypothesis 8a, a linear regression was conducted. There was no significant relationship found between demographic similarity and meaningful work for mentors, and demographic similarity did not explain a significant proportion of variance

in meaningful work scores ( $R^2=0.048$ ,  $F(1,17)=0.856$ ,  $p=0.368$ ). To ensure that there was not a quadratic relationship between demographic similarity and meaningful work, a squared variable was also tested in the regression relationship. The mean centered demographic variable was squared to produce this new term. However, this, too, was not significant and did not explain a significant proportion of variance in meaningful work scores ( $R^2=0.074$ ,  $F(2,16)=0.640$ ,  $p=0.540$ ). The regression coefficients for the linear and quadratic equations can be seen in Table 10. Therefore, Hypothesis 8a was not supported.

To test Hypothesis 8b, a linear regression was conducted. There was no significant relationship found between demographic similarity and meaningful work for protégés, and demographic similarity did not explain a significant proportion of variance in meaningful work scores ( $R^2=0.046$ ,  $F(1,14)=0.669$ ,  $p=0.427$ ). To ensure that there was not a quadratic relationship between demographic similarity and meaningful work, a squared variable was also tested in the regression relationship. The mean centered demographic variable was squared to produce this new term. However, this, too, was not significant and did not explain a significant proportion of variance in meaningful work scores ( $R^2=0.064$ ,  $F(2,13)=0.443$ ,  $p=0.651$ ). The regression coefficients for the linear and quadratic equations can be seen in Table 11. Therefore, Hypothesis 8b was not supported.

To test Hypothesis 8c, a linear regression was conducted. There was no significant relationship found between job position similarity and meaningful work for mentors, and job position similarity did not explain a significant proportion of variance in meaningful work scores ( $R^2=0.018$ ,  $F(1,17)=0.308$ ,  $p=0.586$ ). To ensure that there was not a quadratic relationship between job position similarity and meaningful work, a

squared variable was also tested in the regression relationship. The mean centered job position variable was squared to produce this new term. However, this, too, was not significant and did not explain a significant proportion of variance in meaningful work scores ( $R^2=0.018$ ,  $F(2,16)=0.146$ ,  $p=0.865$ ). The regression coefficients for the linear and quadratic equations can be seen in Table 10. Therefore, Hypothesis 8c was not supported.

To test Hypothesis 8d, a linear regression was conducted. There was no significant relationship found between job position similarity and meaningful work for protégés, and job position similarity did not explain a significant proportion of variance in meaningful work scores ( $R^2=0.122$ ,  $F(1,14)=1.953$ ,  $p=0.184$ ). To ensure that there was not a quadratic relationship between job position similarity and meaningful work, a squared variable was also tested in the regression relationship. The mean centered job position variable was squared to produce this new term. However, this, too, was not significant and did not explain a significant proportion of variance in meaningful work scores ( $R^2=0.195$ ,  $F(2,13)=1.576$ ,  $p=0.244$ ). The regression coefficients for the linear and quadratic equations can be seen in Table 11. Therefore, Hypothesis 8d was not supported.

To test Hypothesis 8e, a linear regression was conducted. There was no significant relationship found between total similarity and meaningful work for mentors, and total similarity did not explain a significant proportion of variance in meaningful work scores ( $R^2=0.000$ ,  $F(1,17)=0.001$ ,  $p=0.974$ ). To ensure that there was not a quadratic relationship between total similarity and meaningful work, a squared variable was also tested in the regression relationship. The mean centered total similarity variable was squared to produce this new term. However, this, too, was not significant and did not



explain a significant proportion of variance in meaningful work scores ( $R^2=0.009$ ,  $F(2,16)=0.074$ ,  $p=0.929$ ). The regression coefficients for the linear and quadratic equations can be seen in Table 10 Therefore, Hypothesis 8e was not supported.

To test Hypothesis 8f, a linear regression was conducted. There was no significant relationship found between total similarity and meaningful work for protégés, and total similarity did not explain a significant proportion of variance in meaningful work scores ( $R^2=0.043$ ,  $F(1,14)=0.630$ ,  $p=0.441$ ). To ensure that there was not a quadratic relationship between total similarity and meaningful work, a squared variable was also tested in the regression relationship. The mean centered total similarity variable was squared to produce this new term. While the variance explained was not significant, ( $R^2=0.300$ ,  $F(2,13)=2.791$ ,  $p=0.098$ ), the quadratic relationship between total similarity and meaningful work was significant ( $p=0.048$ ). Total similarity explained 30.0% of the variance in meaningful work. Additionally, as total similarity increased by one unit, the total similarity-meaningful work slope decreased by 0.158. For this relationship, power was calculated to be 0.7 (Cohen, Cohen, West, & Aiken, 2003). Therefore, Hypothesis 8f was supported. The regression coefficients can be found in Table 11, and a graphical depiction of this relationship can be found in Figure 5.

#### *Organizational Contextual Factor: Presence of an Organizational Learning Climate*

The factor of organizational learning climate was next tested. The organizational learning climate measure was aggregated to the leader-level based on the support of the appropriate aggregation indices. These aggregation indices included the  $ICC_1$ ,  $ICC_2$ , and  $r_{wg}$  indices (Tabachnik & Fidell, 2007).

The  $ICC_1$  was calculated using a mixed models approach, with only the dependent variable of organizational learning climate and the grouping variable of unit code used. This intercepts only model was run since group size in each unit was unequal. Using the residual value (0.509) and intercept value (0.156), the  $ICC_1$  was calculated (0.234). This meant that 23.4% of the variability in organizational learning climate was associated with differences between classes. Since the  $ICC_1$  was a non-zero value, this indicated that group membership affected lower-level observations (Bliese, 2000). Thus, this established non-independence.

The  $ICC_2$  was then calculated to establish reliability of the means that would be formed at the unit level, thus providing empirical support for aggregation. A one-way ANOVA was run with organizational learning climate as the dependent variable and unit code as the factor. Using the mean square between (2.464) and the mean square within (.509), the  $ICC_2$  was calculated (0.7934). This  $ICC_2$  was deemed acceptably large, and provided a piece of empirical support for aggregating organizational learning climate across individuals to produce a leader-level variable (Bliese, 2000).

Finally, the  $r_{wg}$  was calculated to provide further justification of aggregation of organizational learning climate to the level of the unit's leader. This statistic measured agreement, or the degree to which ratings from individuals were interchangeable. This measure of within-group agreement was calculated using the univariate general linear model. The mean square error (0.509) and number of response categories (5) were used to calculate the  $r_{wg}$  (0.7455). This indicated that the members of each unit had high agreement on organizational learning climate items, providing enough empirical evidence

to support aggregation (Lance, Butts, & Michels, 2006).

The individual-level measure of organizational learning climate was then aggregated to produce a data point that represented a leader-level measure. A linear regression was then conducted to determine if organizational learning climate was related to meaningful work in mentor and protégé populations (Hypothesis 9a and Hypothesis 9b).

For Hypothesis 9a, it was found that there was a significant linear relationship between organizational learning climate and meaningful work for mentors, and that organizational learning climate explained a significant proportion of variance in meaningful work scores ( $R^2=0.286$ ,  $F(1,14)=5.597$ ,  $p=0.033$ ). There was no significant quadratic relationship. In other words, organizational learning climate explained 28.6% of the variance in meaningful work. Additionally, as organizational learning climate increased by one unit, meaningful work increased by 0.695 units. The level of power achieved for this analysis was 0.80 (Cohen, Cohen, West, & Aiken, 2003). Hypothesis 9a was supported. A graphical depiction of this relationship can be found in Figure 6.

For Hypothesis 9b, it was found that there was not a significant linear relationship between organizational learning climate and meaningful work for protégés, and organizational learning climate did not explain a significant proportion of variance in meaningful work scores ( $R^2=0.100$ ,  $F(1,12)=1.339$ ,  $p=0.270$ ). Upon further inspection, however, it was found that there was a significant quadratic relationship between organizational learning climate and meaningful work for protégés, and that organizational learning climate explained a significant proportion of variance in meaningful work scores

( $R^2=0.422$ ,  $F(2,11)=4.017$ ,  $p=0.049$ ). In other words, organizational learning climate explained 42.2% of the variance in meaningful work. The level of power achieved for this analysis was 0.80 (Cohen, Cohen, West, & Aiken, 2003). Hypothesis 9b was supported, and a graphical depiction of this relationship can be found in Figure 7. The regression coefficients for Hypothesis 9a and 9b can be found in Table 12.

### **Examining the Mechanism of Mentoring for Mentors and Protégés**

This study also had the aim of assessing the theoretical mechanism through which distal mentoring outcomes are achieved for both mentors and protégés. In order to accomplish this goal, the mentor and protégé populations were used for subsequent data analysis. The control groups were not of interest in this portion of the study.

Several models were created to test the relationships between this study's variables of interest. The first set of models tested these variable relationships in the mentor population. The second set of models tested these variable relationships in the protégé population. Hypothesis 10a and 10b sought to determine whether affective commitment was a mediator between meaningful work and turnover intentions for the subordinates of mentors and protégés, respectively. Hypothesis 11a and 11b sought to determine whether organizational citizenship behaviors moderated the relationship between meaningful work and job performance for mentors and protégés, respectively.

#### *Mechanism of Subordinate Affective Outcomes*

Hypothesis 10a and 10b were explored first. Hypothesis 10a tested whether affective commitment mediated the relationship between meaningful work and turnover intentions for subordinates of mentors. The data outputs provided information on the

direct and indirect relationships in this proposed model. These direct and indirect relationships were tested using PROCESS in SPSS (Hayes, 2009; Rockwood & Hayes, 2017). Tests of significance indicated that affective commitment did not mediate the relationship between meaningful work and turnover intentions for the subordinates of mentors (effect = 0.096; CI: -0.021, 0.257). The coefficients for each path in the model can be seen in Figure 8. There appeared to be a confound in this model, which will be explored in the discussion section. Therefore, Hypothesis 10a was not supported.

Hypothesis 10b tested whether affective commitment mediated the relationship between meaningful work and turnover intentions for subordinates of protégés. The data outputs provided information on the direct and indirect relationships in this proposed model. These direct and indirect relationships were tested using PROCESS in SPSS (Hayes, 2009; Rockwood & Hayes, 2017). Tests of significance indicated that affective commitment did not mediate the relationship between meaningful work and turnover intentions for the subordinates of protégés (effect = 0.032; CI: -0.061, 0.136). The coefficients for each path in the model can be seen in Figure 9. Therefore, Hypothesis 10b was not supported.

#### *Mechanism of Mentor and Protégé Behavioral Outcomes*

Hypothesis 11a and 11b sought to determine whether organizational citizenship behaviors (OCBs) moderated the relationship between meaningful work and job performance for mentors and protégés, respectively. The OCB measure was aggregated to the leader-level, with the appropriate aggregation indices calculated ( $ICC_1$ ,  $ICC_2$  and  $r_{wg}$ ) to support the creation of this level 2 variable ( $ICC_1 = 0.120$ ;  $ICC_2 = 0.775$ ;  $r_{wg} =$

0.722). The job performance measure was also aggregated to the leader-level, with the appropriate aggregation indices calculated ( $ICC_1$ ,  $ICC_2$  and  $r_{wg}$ ) to support the creation of this level 2 variable. These aggregation indices were previously reported.

Hypothesis 11a tested whether OCBs moderated the relationship between meaningful work and job performance for mentors. The moderation was conducted through evaluating the continuous by continuous interaction of meaningful work and OCBs on job performance. This was performed through running a regression and testing both the main effects of each variable as well as the interaction term (Cohen, Cohen, West, & Aiken, 2003). Both continuous variables were mean-centered prior to analysis. The results indicated that meaningful work had no significant relationship with job performance ( $t=-1.010$ ;  $p=0.331$ ). OCBs had a positive relationship with job performance ( $t=5.284$ ;  $p=0.000$ ). These variables together accounted for 77.90% of the variance in job performance ( $R^2=0.779$ ). When the interaction of meaningful work and OCBs was added to the model, there was a change in the  $R^2$  of 1% ( $R^2=0.780$ ). The interaction was found to be slightly negative ( $t=-0.211$ ;  $p=0.836$ ). Regression coefficients and standard errors for each independent variable can be found in Table 13. In summary, OCBs had a significantly positive effect on job performance for mentors, where higher OCBs indicated greater job performance. Meaningful work and the interaction of meaningful work and OCBs did not appear to have an effect on job performance. Power was analyzed and determined to be greater than 0.9. Graphical representation of these relationships can be seen in Figure 10. In summary, Hypothesis 11a was not supported.

Hypothesis 11b tested whether OCBs moderated the relationship between

meaningful work and job performance for protégés. The moderation was then tested through evaluating the continuous by continuous interaction of meaningful work and OCBs on job performance. This was conducted through running a regression and testing both the main effects of each variable as well as the interaction term (Cohen, Cohen, West, & Aiken, 2003). Both continuous variables were mean-centered prior to analysis. The results indicated that meaningful work had no relationship with job performance ( $t=0.5852$ ;  $p=0.573$ ). OCBs had a positive relationship with job performance ( $t=2.839$ ;  $p=0.019$ ). These variables together accounted for 53.9% of the variance in job performance ( $R^2=0.539$ ). When the interaction of meaningful work and OCBs was added to the model, there was a change in the  $R^2$  of 11.2% ( $R^2=0.651$ ). The interaction was found to be not significant ( $t=-1.603$ ;  $p=0.148$ ). Regression coefficients and standard errors for each independent variable can be found in Table 14. In summary, OCBs had a significantly positive effect on job performance for protégés, where higher OCBs indicated greater job performance. Meaningful work did not have a significant effect on job performance. The interaction between meaningful work and OCBs was also not significant, but exhibited a trend towards having a positive effect on job performance.

Since the interaction term was trending towards significance, the simple slopes were tested to more granularly break down the potential relationship between meaningful work, OCBs, and job performance. The strongest slopes were found for those with high levels of OCBs ( $t=0.360$  for low OCBs,  $t=2.732$  for average OCBs,  $t=3.222$  for high OCBs). As meaningful work increased, job performance increased for low and high levels of OCBs. As meaningful work increased, job performance decreased for average

levels of OCBs. The relationship was strongest for high levels of OCBs. Power was analyzed and determined to be 0.9. Graphical representation of these relationships can be seen in Figure 11. In summary, Hypothesis 11b was partially supported.



## CHAPTER SIX

### DISCUSSION

#### **Overview of the Hypotheses**

##### *Interpreting the Outcomes of Mentoring for Mentors and Protégés*

The outcome of meaningful work was seen as exhibiting significant improvement as a result of engaging in a mentoring program for both mentors and protégés (Hypothesis 1a and 4a). After leaders participated in this program, perceptions of their own meaningful work increased as compared to a control group of potential mentors and potential protégés. This may point to the mentoring program enabling these leaders to gain a greater appreciation for the task significance, skill variety, and task identity of their work, thus making it more meaningful to them (Hackman & Oldham, 1976).

The outcome of meaningful work was also tested in the subordinates of mentors and subordinates of protégés (Hypothesis 1b and 4b). This was done to address prior weaknesses in mentoring study designs that have only used responses from the mentoring program's participants, rather than casting a wider net to look at other possible perspectives. It was found that subordinates of protégés had increases in meaningful work as compared to a control group of subordinates of potential protégés. However, subordinates of mentors did not have significantly different meaningful work scores as compared to a control group of subordinates of potential mentors. These outcomes point to the possible creation of a mentoring climate within units that have a strong leader who is also a mentor (Van Vianen et al., 2017). In the protégé population, especially, their participation in the program may have helped them to become better mentors to their

subordinates as compared to potential protégés who did not go through the program. The mentor and potential mentor populations may not have experienced a difference in subordinate meaningful work because these leaders were already skilled mentors. These leaders volunteered to be mentors or had the option of being mentors based on their unit's already-favorable opinion of their abilities. Therefore, a mentoring climate may have already been in place at the start of the mentoring program, leading to no differences in subordinate meaningful work at the end of the program. It is interesting to note that both subordinates of mentors and potential mentors had higher meaningful work scores as compared to subordinates of protégés or potential protégés. This may indicate that protégés still have some skills to learn in order to further meaningful work within their units.

The next outcome that was investigated was turnover intentions within the subordinate population (Hypothesis 2 and 5). Using the lens of the creation of a mentoring climate and subsequent trickle-down of positive outcomes, it was thought that mentors and protégés who went through the mentoring program would have subordinates with less of a desire to leave their current job, as compared to the subordinates of potential mentors and protégés. There was no significant difference in the turnover intentions of subordinates of protégés as compared to subordinates of potential protégés. Likewise, there was no significant difference in the turnover intentions of subordinates of mentors as compared to subordinates of potential mentors. While turnover intentions have been shown as being reduced in mentor and protégé populations (Raabe & Beehr, 2003; Park, Newman, Zhang, Wu, & Hooke, 2016), turnover intentions in subordinates

may not be influenced by whether or not a leader created a mentoring climate within his or her unit; rather, it may be more contingent on other contextual factors inherent in the job itself, such as rewards for good work, pay, or changing shift schedules.

The final outcome that was tested was that of job performance (Hypothesis 3 and 6). It was hypothesized that protégés would have higher job performance as compared to potential protégés, and that mentors would have higher job performance as compared to potential mentors. Each leader's job performance was rated by his or her own subordinates, to minimize the risk of social desirability bias. It was found that protégé job performance was roughly the same as potential protégé job performance. This may point to a more robust measure of job performance needed to measure mentoring effects in the future. Additionally, it was found that mentor job performance was roughly the same as potential mentor job performance. It is worth noting that mentor and potential mentor job performance was higher than protégé and potential protégé job performance. This may point to protégés having more to learn from their mentors to reach that same level of optimal job performance.

#### *Interpreting the Contextual Factors of Mentoring for Mentors and Protégés*

The contextual factors that were explored in the current study received mixed support. The structure of the mentoring program did not significantly influence meaningful work outcomes for either mentors or protégés (Hypothesis 7a, 7b). This outcome may have two main explanations. The first is that there was not adequate sample size and subsequent power to accurately assess whether or not there was a significant relationship between the program's structure and meaningful work. With such low

power, there was an increased risk of Type II error occurring. The second explanation is that structure truly has no effect on meaningful work for mentors or protégés. A mentoring relationship can be successful regardless of the structure used, which is good news for mentoring programs at-large. The mentor and protégé can choose whether structured or unstructured partnerships work for them, with one size not fitting all dyads. However, the current study did indicate that there were other contextual factors that may have contributed to ensuring a successful partnership.

The next contextual factor that was explored was participant similarity within his or her dyad. This similarity was conceptualized through demographic similarity, job position similarity, and total similarity (Hypothesis 8a-8f) for each dyad. For mentors, none of the participant similarity variables were significantly related to meaningful work changes. This may be because mentors are able to connect with any protégé that they may have, decreasing the need for similarity to guide their interactions. For protégés, the total similarity they had with their mentors was significantly related to meaningful work through a negative quadratic effect. To explain this effect, it is necessary to think about it from the perspective of a protégé. Low similarity may make it difficult for the protégé to initially connect with the assigned mentor, leading to lower levels of meaningful work since the interaction is not fulfilling or useful. A moderate amount of similarity may allow the protégé to connect with his or her mentor, becoming more comfortable in the interaction to allow the relationship to blossom. Some dissimilarity may also allow for new ideas to be shared, resulting in the protégé learning more lessons and incorporating them into his or her work. Meaningful work can then be allowed to flourish. Having too

much similarity, however, may not lead to any new insights being generated. Both participants in the relationship may have similar viewpoints and jobs, leading to little learning. Meaningful work may not increase in this case, since there are no new challenges being posed.

The final contextual factor that was considered was the presence of an organizational learning climate. It was hypothesized that greater organizational learning climate would be related to higher meaningful work in mentors and protégés (Hypothesis 9a, 9b). This relationship presented differently for mentors and protégés. In the mentor population, the linear relationship between organizational learning climate and meaningful work was significantly positive. As organizational learning climate increased, meaningful work increased for these mentors. This can be seen as relating to a sense that an emphasis on personal development, and mentoring as one element of that development, influences how meaningful mentors find their work to be. In the protégé population, though, the linear relationship between organizational learning climate and meaningful work was not significant; however, the negative quadratic relationship between the two variables was significant. This could mean that not enough of an emphasis on personal development could undermine the protégé's need to fully engage in the mentoring relationship and cultivate meaningful work. On the other hand, having too much of an emphasis on personal development can be a drain on protégé resources, since he or she wouldn't necessarily know how to invest those resources among both task and contextual duties. This could lead to decreased meaningful work as the mentoring relationship became another developmental resource drain. Therefore, there may be a

sweet spot for increasing protégé meaningful work within the context of organizational learning climate.

*Interpreting the Mechanism of Mentoring for Mentors and Protégés.*

The next set of hypotheses looked to delve into the theoretical mechanism through which meaningful work could influence other outcomes as a result of engaging in a mentoring program. Hypothesis 10a and 10b looked at how the affective outcomes of affective commitment and turnover intentions may be influenced by meaningful work in subordinates of mentors and protégés. Hypothesis 11a and 11b looked at how the behavioral outcomes of organizational citizenship behaviors and job performance may be influenced by meaningful work in mentors and protégés themselves.

Hypothesis 10a and 10b were addressed first. It was found that affective commitment did not mediate the relationship between meaningful work and turnover intentions for the subordinates of mentors (Hypothesis 10a). This model did indicate the presence of a confound, however. What this meant was that, with the addition of affective commitment into the model, this variable served to explain the relationship between meaningful work and turnover intentions (MacKinnon, Krull, & Lockwood, 2000). Affective commitment, therefore, should be investigated with more rigor in future mentoring program evaluations. Additionally, it was found that affective commitment did not mediate the relationship between meaningful work and turnover intentions for the subordinates of protégés (Hypothesis 10b). The strong relationship between affective commitment and turnover intentions, though, may also indicate that affective commitment should be investigated more fully in future studies.

To explore Hypothesis 11a and 11b, a moderation analysis was used in both mentor and protégé populations. This analysis tested the presence of a curvilinear effect of OCBs through using linear regression models (Hayes, 2017). First, the relationship between meaningful work and job performance, moderated by OCBs, was tested in the mentor population (Hypothesis 11a). It was found that OCBs had a significantly positive main effect on job performance for mentors, where higher OCBs indicated greater job performance. The main effect of meaningful work and the interaction of meaningful work and OCBs did not appear to have an effect on mentors' job performance.

Next, the relationship between meaningful work and job performance, moderated by OCBs, was tested in the protégé population (Hypothesis 11b). OCBs had a significantly positive effect on job performance for protégés, where higher OCBs indicated greater job performance. Meaningful work did not appear to have an effect on job performance, while the interaction between meaningful work and OCBs was trending towards having a positive effect on job performance. To explore this interaction further, an analysis of simple slopes showed that as meaningful work increased, job performance increased for low and high levels of OCBs. As meaningful work increased, job performance decreased for average levels of OCBs. This may be related to resource gain, as posited through the Conservation of Resources model, but in the opposite direction than was initially hypothesized. When protégés have low levels of OCBs, their increases in meaningful work increase the resources they have to directly spend on improving job performance. Likewise, when protégés have high levels of OCBs, they obtain even more resources from investing their resources in extra-role performance. In addition to

increases in meaningful work, these invested resources also help improve job performance. On the other hand, when protégés have average levels of OCBs, they may be using up their resources performing these contextual actions, rather than investing a surplus of resources. Thus, increases in meaningful work can't make up for the resources spent on OCBs, and job performance suffers. A summary of all prior hypotheses, whether or not they were supported, and their relevant implications can be seen in Table 15.

### **Limitations**

As with all research, this study did have several main limitations. The first limitation was the highly correlated factors of affective commitment and turnover intentions. As indicated in the high construct correlations found during the confirmatory factor analysis, these two constructs may have been too highly related to help delineate the mechanism through which mentoring could lead to positive outcomes. This may have been what led to the confound in the mediation models for the subordinates of mentors and protégés (MacKinnon, Krull, & Lockwood, 2000). Affective commitment may be a more fruitful factor to investigate in mentoring research moving forward, since turnover intentions was not found to be different between experimental and control groups of subordinates.

Another limitation was sample size and the resultant power for Hypothesis 1a and 1b, as well as for Hypothesis 4a and 4b. It was unknown whether a significant effect would be detected or whether Type II error would come into play with such a limited sample (Cohen, Cohen, West, & Aiken, 2003). Despite the small sample size, however, a significant effect was found for these hypotheses. Additionally, there was a medium



effect size in the mentor population, and a large effect size in the protégé population. This points to meaningful conclusions being drawn from this data set, despite the initial poor power outlook. However, it would be advantageous to test these hypotheses in a larger group of mentors to lend further credence to this study's findings.

A third limitation was the organizational learning climate measure. This measure, while demonstrating good reliability, had low standardized factor loadings. This may have contributed to the counterintuitive finding that higher organizational learning climate was associated with lower meaningful work scores for protégés. In future studies, a different measure of organizational learning climate should be tested to ensure that the findings of this study point to a true effect of this variable, and are not artifacts of a poor measure.

The final limitation was a lack of control variable testing. Several control variables, most notably whether or not a mentor or protégé had prior experience in the mentorship program, could influence participation outcomes. For example, it may take several rounds of participation for a mentor to learn the ropes and have positive outcomes trickle down to his or her subordinates. Controlling for mentorship program tenure may help researchers and practitioners see the timeline of how proximal and distal outcomes are attained as a result of program participation. This could dictate the ideal duration of a given partnership.

### **Practical Applications**

This study sought to move the field of mentoring forward in three specific ways. The first purpose of this study was to investigate the utility of a mentoring intervention

from both the mentor and protégé perspectives within healthcare. The second purpose was to study the contextual factors that influence an effective mentoring relationship. The third purpose was to examine the mechanism through which mentoring may lead to positive outcomes. The results that relate to each purpose of this study can be used to inform future implementation of mentoring programs within healthcare.

Related to the first purpose, it was found that engaging in a mentoring program improved meaningful work for mentors, protégés, and the subordinates of protégés. The mentoring literature is in constant need of evaluation metrics that can successfully show the utility of a mentoring program, related to both mentor and protégé outcomes (Allen et al., 2006; Eby et al., 2013). Additionally, there is a lack of research investigating the results of mentorship on the subordinates who have a leader engaged in a mentoring program. Some studies have proposed that a mentoring climate may pave the way for positive outcomes to result within the context of a unit (Van Vianen, Rosenauer, Homan, Horstmeier, & Voelpel, 2017), but unit-level outcomes must be more rigorously studied to lend support to that idea. With that being said, meaningful work may be one such outcome that can be further explored in the mentoring literature moving forward. The other outcomes explored in this study, those of subordinate turnover intentions and leader job performance, did not show any significant differences between experimental and control groups. These outcomes may be subject to other contextual factors that were not measured in this study, and thus not as useful as mentoring evaluation criteria.

Related to the second purpose, several contextual factors were found to have interesting relevance to mentoring outcomes. The use of a structured or unstructured

program did not have any direct impact on meaningful work scores for either mentors or protégés. There may be another unmeasured variable here that could have influenced this finding: relationship quality. It has been found that higher relationship quality between a mentor and protégé leads to more positive outcomes (Holt, Markova, Dhaenens, Marler, & Heilmann, 2016). Therefore, it may not be the structured or unstructured nature of the program that influences outcomes. Rather, it may be the quality of those relationships. This means that mentors should be free to use the methods that best fit their particular style when engaging with their protégés in future mentoring partnerships. The organization may present ideas for both structured and unstructured partnerships to participants, allowing them to choose which one would help them develop the most high-quality relationships.

On the other hand, matching criteria and organizational learning climate proved to have some impact on coaching outcomes. For protégés, the total similarity they had with their mentors was significantly related to meaningful work through a negative quadratic effect. What this means is that low similarity may have made it difficult for the protégé to initially connect with the assigned mentor, a moderate amount of similarity may have allowed the protégé to blossom with his or her mentor, and too much similarity may not have led to any new insights being generated for the protégé. Therefore, care should be taken when matching mentors and protégés to ensure that there is some demographic and job position similarity, but not too much (Tsui & O'Reilly, 1989; Byrne, 1971).

Looking at organizational learning climate, organizations can take some important conclusions away from these analyses. For mentors, increased organizational learning

climate led to increases in meaningful work. Organizations should encourage participation in the mentoring program as a form of personal development for such mentors, thus allowing them to fully reap the benefits of their participation. This organizational learning climate can also provide a healthy context for transferring learning from the mentoring partnership back to the job (Bates & Khasawneh, 2005). For protégés, there was a quadratic effect of organizational learning climate on meaningful work outcomes. Not enough of an emphasis on personal development, as well as too much of an emphasis, undermined the positive effects of participation in the program. Having just enough of an emphasis on development helped these protégés to thrive within the program. Organizations should encourage participation in this program as a form of personal development, but should also emphasize that the program should not be a drain on resources that could otherwise be devoted to the job. Providing greater clarity to protégés about what they are expected to get out of the program, and how what they learned can be transferred back to their job, may help them develop themselves while still focusing on their job duties (Banerjee, Gupta, & Bates, 2017).

Related to the third purpose, this study helped elucidate potential new outcomes that can be investigated in future research. Affective commitment appeared to be more of a confound than a mediator, and thus may be an important subordinate outcome in its own right as compared to that of turnover intentions. Greater attempts should be made to see how mentoring can influence a mentor's or protégé's subordinates and their subsequent positive outcomes (Van Vianen et al., 2017). This could make a case for how mentoring can trickle down into more parts of the organization, thus increasing return on

investment. OCBs also proved to be useful in improving job performance for both mentors and protégés. Mentoring programs that help encourage OCB performance may enable employees to have improved job performance as well.

### **Future Directions**

The future directions for mentoring research comprise two main categories: mentoring outcomes and contextual effects. In terms of looking at mentoring outcomes, a strength of this design was obtaining responses longitudinally for mentors and protégés. An additional strength was getting responses from multiple sources to assess mentoring in a more comprehensive way. Future directions should continue to utilize these two methods (Eby, 2011). Collecting outcomes longitudinally can help researchers and practitioners understand how mentoring partnerships develop, and how they may change over time. Multi-source collection of criteria can create a more comprehensive picture of mentoring and allow for even greater specificity when evaluating the outcomes of mentoring. These steps would advance the field of mentoring beyond a focus on only protégé outcomes.

Future studies should also investigate different outcomes of mentoring effectiveness. Typically, reaction measures were collected from participants in mentoring programs. The current study sought to widen this scope by looking at affective outcomes and behavioral changes. Future directions could consider studying affective commitment in greater detail, since that showed some promise in this study. However, other measures of coaching effectiveness may include looking at results for the organization as a whole, which could incorporate return on investment, patient safety improvements, decreases in

employee burnout, or decreases in patient errors.

The second main category for future directions is an increasing level of focus on contextual elements. Considering contextual elements, there is a plethora of unexplored potential that can be tapped here. For example, this study conceptualized dyadic matching as being similar on certain demographic variables and job position variables. There are many other ways of conceptualizing matching, however, including using more personality-based factors. These alternative ways of matching mentors with protégés may facilitate even greater relationship-building. As another example, organizational learning climate was used in this study as an organization-level factor that could influence the success of a mentoring partnership. Organizations could also support mentoring through using kick-off programs or e-technology to encourage communication between partners. These alternative methods could be tested in future mentoring programs to see whether or not they can contribute to mentoring effectiveness.

## **Conclusion**

Long hours, in addition to a heavy workload, lack of control over the environment, and inadequate recognition are some factors that have been described as contributing to healthcare workers developing burnout (Ahlin, Ericson-Lidman, Norberg, & Strandberg, 2015), decreasing their job performance, and ultimately leading them to leave their jobs. It is critically important that preventive methods of buffering burnout are studied in this context, and mentoring may be one such method.

This study sought to move the field of mentoring research forward in three specific ways. The first purpose of this study was to investigate the utility of a mentoring

intervention from both the mentor and protégé perspectives within healthcare. Through obtaining survey responses longitudinally and from multiple perspectives, it was found that mentors, protégés, and the subordinates of protégés have increased meaningful work as a result of a mentoring intervention.

The second purpose was to study the contextual factors that influence an effective mentoring relationship. Through investigating individual, dyadic, and organizational factors relevant to healthcare, it was found that matching mentors and protégés had positive results on subsequent measures. Additionally, the organizational factor of organizational learning climate was found to influence subsequent measures for mentors and protégés.

The third purpose was to examine the mechanism through which mentoring may lead to positive outcomes. While the mechanism proposed in this study was not fully supported, the results provided future researchers with new, potential mentoring outcomes of interest. These include affective commitment and organizational citizenship behaviors.

In summary, healthcare workers who take part in a mentoring program can emerge from this experience with a feeling of greater meaningful work. However, the impact of mentoring does not have to stop there. The introduction of a mentoring climate may allow these resources to spread to others within the healthcare system, encouraging positive individual, unit, and organizational outcomes both today and tomorrow.

Table 1

Distinctions Between Mentoring and Related Constructs

Workplace Mentoring	Social Support at Work	Workplace Friendship	Supervisory Relationship	Coaching Relationship
Scope of support received is task-related, professional, and personal in nature	Scope of support received is task-related and personal, but not usually professional	Scope of support received is task-related, professional, and personal support	Scope of support received is task-related and professional, but not usually personal	Scope of support received is task-related and professional
Extent of reciprocity is moderate to high	No reciprocity between parties is required	Extent of reciprocity is moderate to high	Extent of reciprocity is low to moderate	There is no extent of reciprocity required
Sometimes role prescribed behavior	Does not have role prescribed behavior	No role prescribed behavior	There is definitely role prescribed behavior	There is definitely role prescribed behavior
Interaction itself is time-bound		No time-bound interaction		The coach may not have expertise or experience of the coachee's area of work



Table 2

## Studies and Outcomes from Mentoring in Healthcare Professionals

Authors	Participants	Outcomes
Giblin & Lakey, 2010	Medical trainees	<ul style="list-style-type: none"> <li>• Psychosocial mentoring led to increased self-efficacy</li> </ul>
Huang & Weng, 2012	Hospital nurses	<ul style="list-style-type: none"> <li>• Formal mentoring improved relationship quality and relationship learning</li> </ul>
Zannini et al., 2011	Nurses	<ul style="list-style-type: none"> <li>• Engaging in mentoring was a strategy for career advancement and professional development</li> <li>• Created positive group processes and connections</li> </ul>
Bay et al., 2015	Neuroscience nurses	<ul style="list-style-type: none"> <li>• Led to improved reliability in assessments, leadership in managing patients, and collaboration in patient care</li> </ul>
Lau et al., 2016	Academic medicine faculty, staff, and trainees at a university	<ul style="list-style-type: none"> <li>• Self-reported mentoring competency increased after engaging in a mentoring workshop</li> </ul>
Stamm & Buddeberg-Fischer, 2011	Doctors undergoing postgraduate specialist training	<ul style="list-style-type: none"> <li>• Having a mentor was a predictor of both objective and subjective career success</li> </ul>
Ramanan et al., 2006	Internal medicine residents	<ul style="list-style-type: none"> <li>• Those with mentors had self-reported better career preparation</li> </ul>
Diekroger et al., 2017	Developmental-behavioral pediatric fellows	<ul style="list-style-type: none"> <li>• Effective mentoring addressed career goals, provided insight into being a pediatrician, assisted in navigating academics, and involved a personal relationship</li> </ul>
Burns et al., 2015	Early-career physician-scientists	<ul style="list-style-type: none"> <li>• Mentoring led to many trainees reporting success in establishing a patient-oriented clinical research study, received grants, and experienced increased career success</li> </ul>
Buddeberg-Fischer et al., 2004	Junior physicians	<ul style="list-style-type: none"> <li>• Concrete career plans and goals were developed, promotions to senior physician posts increased, and measurable career steps were achieved</li> </ul>
Hunter et al., 2008	Family practitioners	<ul style="list-style-type: none"> <li>• There was increased satisfaction with the mentorship program</li> <li>• Practitioners reported an improvement in their ability to provide care</li> </ul>

Table 3

Construct Definitions of Interest

Construct	Definition
Meaningful Work	The value of a work goal or purpose, judged to the individual's own ideals or standards.
Affective Commitment	A desire to remain at an organization due to an emotional attachment to that organization.
Turnover Intentions	An employee's intention to leave a job.
Organizational Citizenship Behaviors (OCBs)	Behaviors that contribute to the maintenance and enhancement of the social and psychological organizational context to promote task performance, which usually involves actions that go beyond formal role obligations and are performed using individual discretion.
Job Performance	The effectiveness with which employees perform role-prescribed activities that contribute to the technical core of organizations, here conceptualized as high-quality care towards patients, customers, and other employees.
Organizational Learning Climate	The perception about the existence of a system that supports sharing of knowledge and skills among organizational members.

Table 4

Frequencies for Demographic and Job Position Characteristics in Mentor, Potential Mentor, Protégé, and Potential Protégé Groups

Demographic Characteristics	Group	Mentor	Potential Mentor	Protégé	Potential Protégé
Gender	Male	13.6%	33.3%	33.3%	16.7%
	Female	86.4%	66.7%	66.7%	83.3%
Ethnicity	White	95.5%	91.7%	87.5%	91.7%
	Non-White	4.5%	8.3%	12.5%	8.3%
Age	< 39 years	18.2%	20.8%	20.8%	41.7%
	40-49 years	40.9%	45.9%	33.4%	12.5%
	50-59 years	36.4%	20.8%	33.3%	29.2%
	60-69 years	4.5%	12.5%	8.3%	19.7%
	> 70 years	0%	0%	4.2%	0%
Job Position Characteristics	Group	Mentor	Potential Mentor	Protégé	Potential Protégé
Length of Service	< 5 years	27.3%	25.0%	29.2%	25.0%
	6-10 years	27.3%	29.2%	29.2%	37.5%
	11-15 years	18.2%	4.2%	8.3%	8.3%
	16-20 years	18.2%	20.8%	12.5%	12.5%
	21-25 years	4.5%	8.3%	12.5%	4.2%
	> 25 years	4.5%	12.5%	8.3%	12.5%
Tenure in Leadership	< 5 years	77.3%	62.5%	62.5%	75.0%
	6-10 years	18.2%	20.8%	25.0%	16.7%
	> 11 years	4.5%	16.7%	12.5%	8.3%
Shift	Day	100%	100%	100%	100%
	Night	0%	0%	0%	0%
Position Type	Manager	59.1%	54.2%	58.3%	65.2%
	Supervisor	31.8%	25.0%	20.8%	30.4%
	Director	9.1%	20.8%	20.8%	4.3%
Primary Work Location (Region)	Central	54.5%	50%	41.7%	50%
	Corporate Services	9.1%	37.5%	37.5%	29.2%
	Other	36.4%	12.5%	20.8%	20.8%
Primary Work Location (Hospital)	University	31.8%	37.5%	20.8%	45.8%
	Medical Group				
	Greenville Memorial Hospital	22.7%	20.8%	20.8%	20.8%
	Corporate Services	4.5%	25%	25.0%	16.7%
	Other	41.0%	16.7%	33.4%	16.7%

Table 5

## Mentor, Potential Mentor, Protégé, and Potential Protégé Comparative Tests to Establish Group Equivalency

Characteristic	Group	N	Mean	SD	t	p-value	chi-square
Gender	Mentor	22	0.86	0.351	1.594	0.118	0.118
	Potential Mentor	24	0.67	0.482			
	Protégé	24	.67	.482	-1.330	0.190	0.182
	Potential Protégé	24	.83	.381			
Ethnicity	Mentor	22	0.05	0.213	-0.849	0.400	0.626
	Potential Mentor	24	0.17	0.673			
	Protégé	24	.17	.482	0.134	0.468	0.600
	Potential Protégé	24	.08	.282			
Age	Mentor	22	6.09	1.659	0.099	0.922	0.815
	Potential Mentor	24	6.04	1.706			
	Protégé	24	6.38	1.996	0.678	0.501	0.426
	Potential Protégé	24	5.96	2.255			
Length of Service	Mentor	22	2.59	1.436	-0.772	0.444	0.663
	Potential Mentor	24	2.96	1.756			
	Protégé	24	2.75	1.700	0.085	0.932	0.910
	Potential Protégé	24	2.71	1.681			
Tenure in Leadership	Mentor	22	1.27	0.550	-1.361	0.187	0.377
	Potential Mentor	24	1.54	0.779			
	Protégé	24	1.50	0.722	0.848	0.401	0.646
	Potential Protégé	24	1.33	0.637			
Shift	Mentor	22	1.00	0.00	---	---	---
	Potential Mentor	24	1.00	0.00			
	Protégé	24	1.00	0.000	---	---	---
	Potential Protégé	24	1.00	0.000			
Position Type	Mentor	22	0.50	0.673	-0.752	0.456	0.528
	Potential Mentor	24	0.67	0.816			
	Protégé	24	0.63	0.824	1.126	0.267	0.222

	Potential Protégé	23	0.39	0.583			
Primary Work Location (Region)	Mentor	22	1.23	1.541	-0.147	0.884	0.035*
	Potential Mentor	24	1.29	1.429			
	Protégé	24	1.46	1.382	-0.452	0.654	0.190
	Potential Protégé	24	1.67	1.786			
Primary Work Location (Hospital)	Mentor	22	4.23	2.506	0.801	0.427	0.184
	Potential Mentor	24	3.67	2.239			
	Protégé	24	4.04	1.989	0.134	0.894	0.266
	Potential Protégé	24	3.96	2.312			

\* p<0.05

Table 6

## Standardized Factor Loadings and AVEs for Constructs of Interest

<b>Factor</b>	<b>Item</b>	<b>Loading</b>	<b>AVE</b>
Meaningful Work	My work is meaningful.	1.00	1.00
	The work I do makes a real difference.	1.00	
Affective Commitment	I am proud to tell people I work for this organization.	0.84	0.641
	I would recommend this organization as a good place to work.	0.91	
	I selected this organization as a place to work because its values reflect my own.	0.66	
	I feel like I belong in this organization.	0.77	
Turnover Intentions	I would like to be working at this organization three years from now.	0.85	0.689
	I would stay with this organization if offered a similar job elsewhere.	0.81	
OCBs	The person I report to consistently demonstrates this organization's Compassion Standards of Behavior.	0.89	0.769
	The person I report to follows up on my concerns/questions from employee rounding.	0.80	
	The person I report to gives me useful feedback.	0.87	
	The actions of the person I report to support this organization's mission and values.	0.91	
	The person I report to cares about quality improvement.	0.91	
Job Performance	Employees in my work unit make every effort to deliver safe, error-free care.	0.89	0.841
	My work unit provides high-quality care and service.	0.93	
	Employees in my work unit follow proper procedures for patient care/customer service.	0.93	
Organizational Learning Climate	I get the tools and resources I need to provide the best care/service for our customers/clients/patients.	0.65	0.293
	Rounding has improved my overall work environment.	0.36	
	Information from this survey will be used to make improvements.	0.51	
	This organization provides career development opportunities.	0.27	
	This organization cares about quality improvement.	0.76	

Table 7

Correlations Between Constructs of Interest

	Meaningful Work	Affective Commitment	Turnover Intentions	OCBs	Job Performance	Organizational Learning Climate
Meaningful Work	1	--	--	--	--	--
Affective Commitment	0.011	1	--	--	--	--
Turnover Intentions	0.014	0.955	1	--	--	--
OCBs	0.007	0.640	0.564	1	--	--
Job Performance	-0.014	0.567	0.492	0.621	1	
Organizational Learning Climate	0.468	0.010	0.008	-0.013	-0.035	1

Table 8

Scale Reliability for Each Construct

<b>Survey Scale</b>	<b>Reliability</b>
Organizational Learning Climate	$\alpha = 0.788$
Meaningful Work	$\alpha = 0.898$
Affective Commitment	$\alpha = 0.878$
Turnover Intentions	$\alpha = 0.806$
OCBs	$\alpha = 0.941$
Job Performance	$\alpha = 0.930$



Table 9

Independent Samples t-test on Meaningful Work, Turnover Intentions, and Job Performance for Mentors, Protégés, Subordinates of Mentors, and Subordinates of Protégés

Outcome Variable	Group	<i>M</i>	<i>SD</i>	<i>t</i>	<i>p</i>	<i>d</i>
Meaningful Work	Mentor	6.700	0.4413	2.109	0.041*	0.662
	Potential Mentor	6.063	1.288			
	Protégé	6.4375	0.629	2.656	0.011*	0.912
	Potential Protégé	5.500	1.310			
Meaningful Work	Mentor	4.601	0.692	0.081	0.935	0.010
	Subordinate					
	Potential Mentor	4.596	0.578			
	Subordinate					
Meaningful Work	Protégé	4.464	0.662	2.385	0.017*	0.191
	Subordinate					
	Potential Protégé	4.326	0.778			
	Subordinate					
Turnover Intentions	Mentor	4.270	0.892	0.605	0.545	0.052
	Subordinate					
	Potential Mentor	4.227	0.760			
	Subordinate					
Turnover Intentions	Protégé	4.021	0.811	0.616	0.538	0.049
	Subordinate					
	Potential Protégé	3.979	0.888			
	Subordinate					
Job Performance	Mentor	4.738	0.215	1.107	0.275	0.335
	Potential Mentor	4.672	0.177			
	Protégé	4.389	0.236	.390	0.699	0.130
	Potential Protégé	4.350	0.352			

\*  $p < 0.05$

Table 10

Regressions Indexing Relationship Between Similarity and Meaningful Work for Mentors

Similarity Characteristic	Regression Type	<i>B</i>	<i>t</i>	<i>p</i>
Demographic	Linear	0.122	0.925	0.368
	Quadratic	0.092	0.672	0.511
Job Position	Linear	-0.049	-0.555	0.586
	Quadratic	-0.003	-0.050	0.961
Total	Linear	0.002	0.034	0.974
	Quadratic	0.014	0.383	0.706

Table 11

Regressions Indexing Relationship Between Similarity and Meaningful Work for Protégés

Similarity Characteristic	Regression Type	<i>B</i>	<i>t</i>	<i>p</i>
Demographic	Linear	0.167	0.818	0.427
	Quadratic	-0.108	-0.503	0.623
Job Position	Linear	-0.135	-1.397	0.184
	Quadratic	-0.073	-1.084	0.298
Total	Linear	-0.068	-0.794	0.441
	Quadratic	-0.079	-2.187	0.048*

\*  $p < 0.05$

Table 12

Regressions Indexing Relationship Between Organizational Learning Climate and Meaningful Work for Mentors and Protégés

Group	Contextual Factor	Regression Type	<i>B</i>	<i>t</i>	<i>p</i>
Mentor	Organizational Learning Climate	Linear	0.695	2.366	0.033*
		Quadratic	-0.411	-0.567	0.581
Protégé	Organizational Learning Climate	Linear	-0.773	-1.157	0.270
		Quadratic	-7.513	-2.474	0.031*

\*  $p < 0.05$

Table 13

Models of the Effects of Meaningful Work and OCBs on Job Performance for Mentors

Model	Variables	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>
1	OCBs	0.827	0.080	6.534	< 0.001**
	Meaningful Work	-0.421	0.053	-3.328	0.005**
2	OCBs	0.846	0.102	5.284	< 0.001**
	Meaningful Work	-0.353	0.146	-1.010	0.331
	OCBs x Meaningful Work	-0.078	0.224	-0.211	0.836

\*\* p<0.01

Table 14

Models of the Effects of Meaningful Work and OCBs on Job Performance for Protégés

Model	Variables	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>
1	OCBs	0.678	0.167	2.839	0.019*
	Meaningful Work	0.140	0.094	0.585	0.573
2	OCBs	0.617	0.157	2.761	0.025*
	Meaningful Work	0.066	0.089	0.292	0.778
	OCBs x Meaningful Work	0.352	0.322	1.603	0.148

\*  $p < 0.05$

Table 15

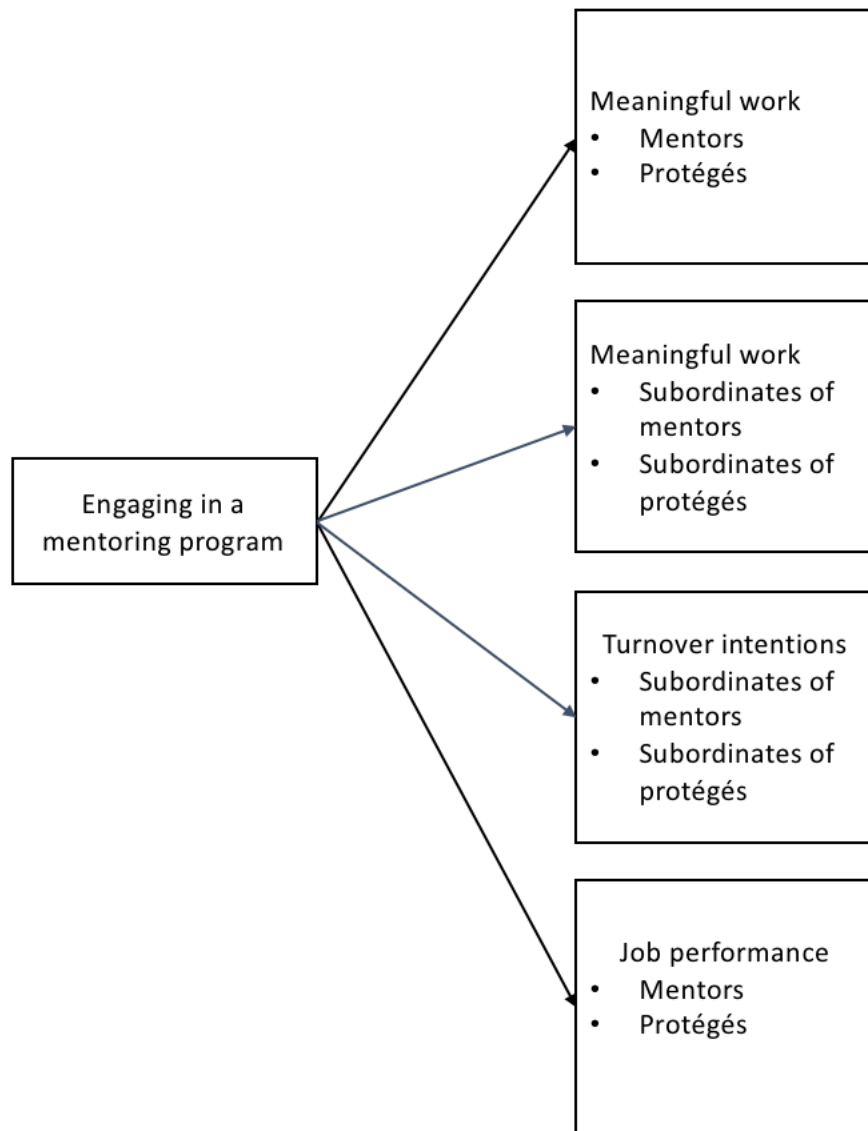
## Summary of Hypotheses, Support, and Relevant Implications

Hypothesis	Supported?	Implication
1a, 4a	Yes	The mentoring program enables leaders to gain a greater appreciation for the task significance, skill variety, and task identity of their work, thus making it more meaningful to them.
4b	No	These leaders are already skilled mentors, meaning a mentoring climate may have already been in place at the start of the mentoring program.
1b	Yes	Protégé participation in the program may have helped them to become better mentors to their subordinates as compared to potential protégés who did not go through the program.
2, 5	No	While turnover intentions have been shown as being reduced in mentor and protégé populations, turnover intentions in subordinates may not be influenced by whether or not a leader created a mentoring climate within his or her unit; rather, it may be more contingent on other contextual factors such as shift schedules or pay.
3, 6	No	This may point to a more robust measure of job performance needed to measure mentoring effects in the future.
7a, 7b	No	A mentoring relationship can be successful regardless of the structure used, which is good news for mentoring programs at-large. The mentor and protégé can choose whether structured or unstructured partnerships work for them, with one size not fitting all dyads.
8a-8e	No	For mentors, none of the participant similarity variables were significantly related to meaningful work changes. This may be because mentors are able to connect with any protégé that they may have, decreasing the need for similarity to guide their interactions.
8f	Yes	For protégés, the total similarity they had with their mentors was significantly related to meaningful work through a negative quadratic effect. Low similarity may make it difficult for the protégé to initially connect with the assigned mentor, a moderate amount of similarity may allow the protégé to connect with his or her mentor, while some dissimilarity may also allow for new ideas to be shared. Having too much similarity may not lead to any new insights being generated.
9a	Yes	An emphasis on personal development, and mentoring as one element of that development, influences how meaningful mentors find their work to be.

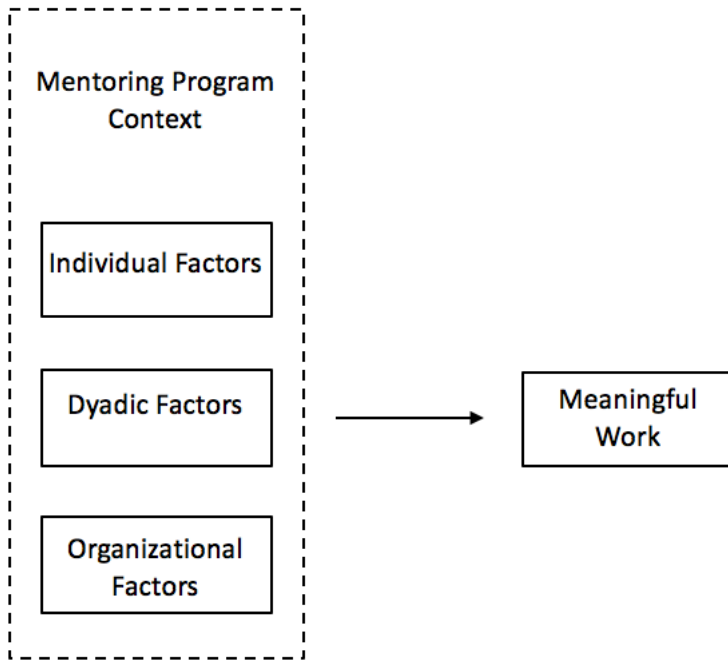
9b	Yes	Not enough of an emphasis on personal development could undermine the protégé's need to fully engage in the mentoring relationship, but having too much of an emphasis on personal development can be a drain on protégé resources.
10a, 10b	No	This model did indicate the presence of a confound. With the addition of affective commitment into the model, this variable served to explain the relationship between meaningful work and turnover intentions. Affective commitment, therefore, should be investigated with more rigor in future mentoring program evaluations.
11a	No	It was found that OCBs had a significantly positive main effect on job performance for mentors, where higher OCBs indicated greater job performance. The main effect of meaningful work and the interaction of meaningful work and OCBs did not appear to have an effect on mentors' job performance.
11b	No	When protégés have low levels of OCBs, their increases in meaningful work increase the resources they have to directly spend on improving job performance. Likewise, when protégés have high levels of OCBs, they obtain even more resources from investing their resources in extra-role performance. In addition to increases in meaningful work, these invested resources also help improve job performance. When protégés have average levels of OCBs, they may be using up their resources performing contextual actions, rather than investing a surplus of resources.

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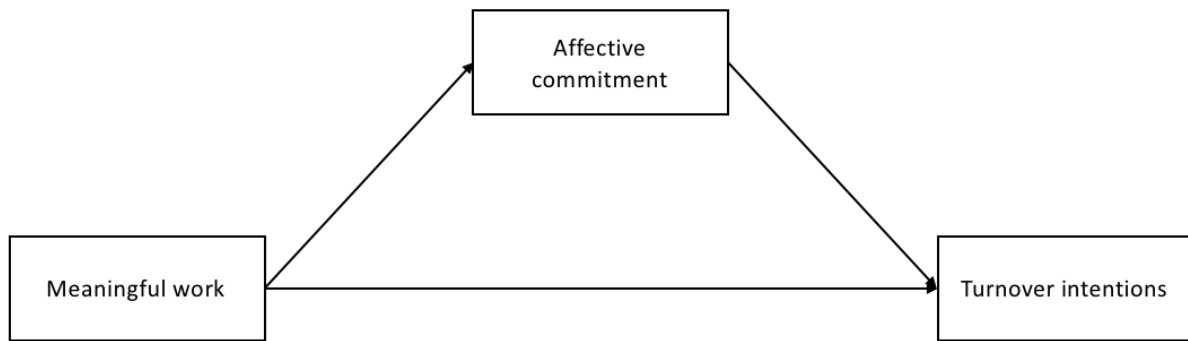




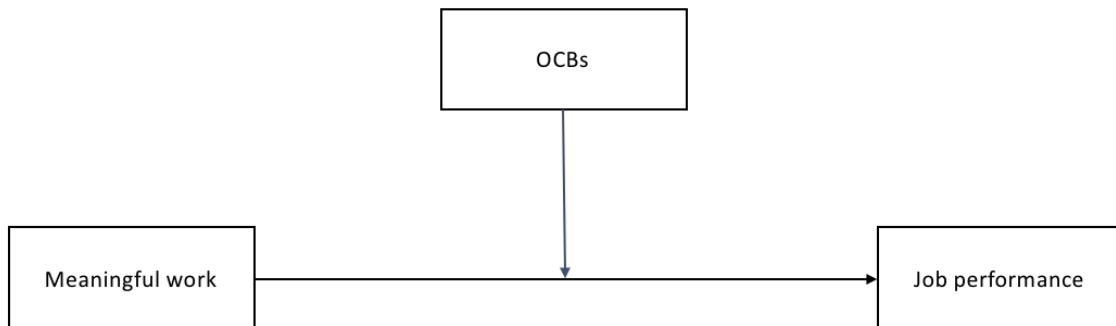
*Figure 1.* Overview of Outcomes for Mentors, Protégés, Subordinates of Mentors, and Subordinates of Protégés.



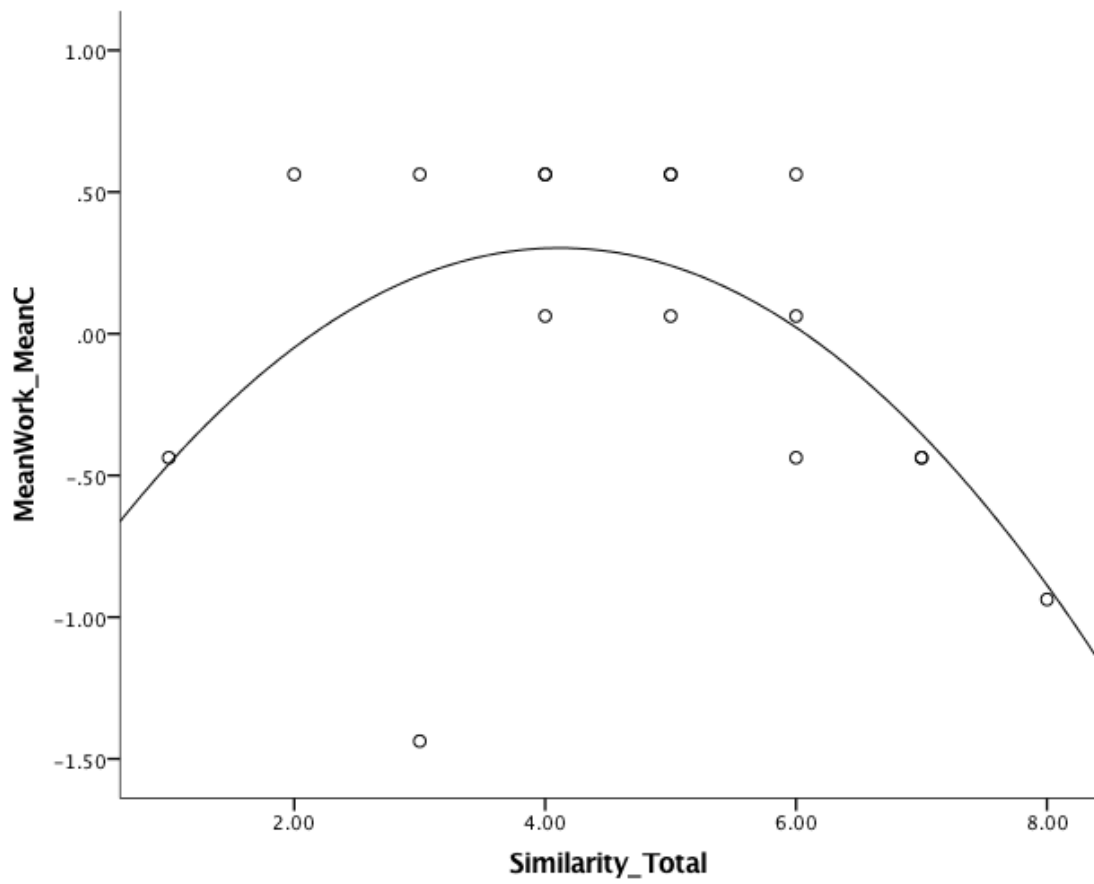
*Figure 2.* Overview of Contextual Factors and Proximal Outcomes.



*Figure 3.* Overview of Proposed Mentoring Mechanism for Affective Outcomes of Subordinates of Mentors and Protégés.



*Figure 4.* Overview of Proposed Mentoring Mechanism for Behavioral Outcomes of Mentors and Protégés.



*Figure 5.* Quadratic Relationship Between Dyadic Total Similarity and Meaningful Work Outcome for Protégés.

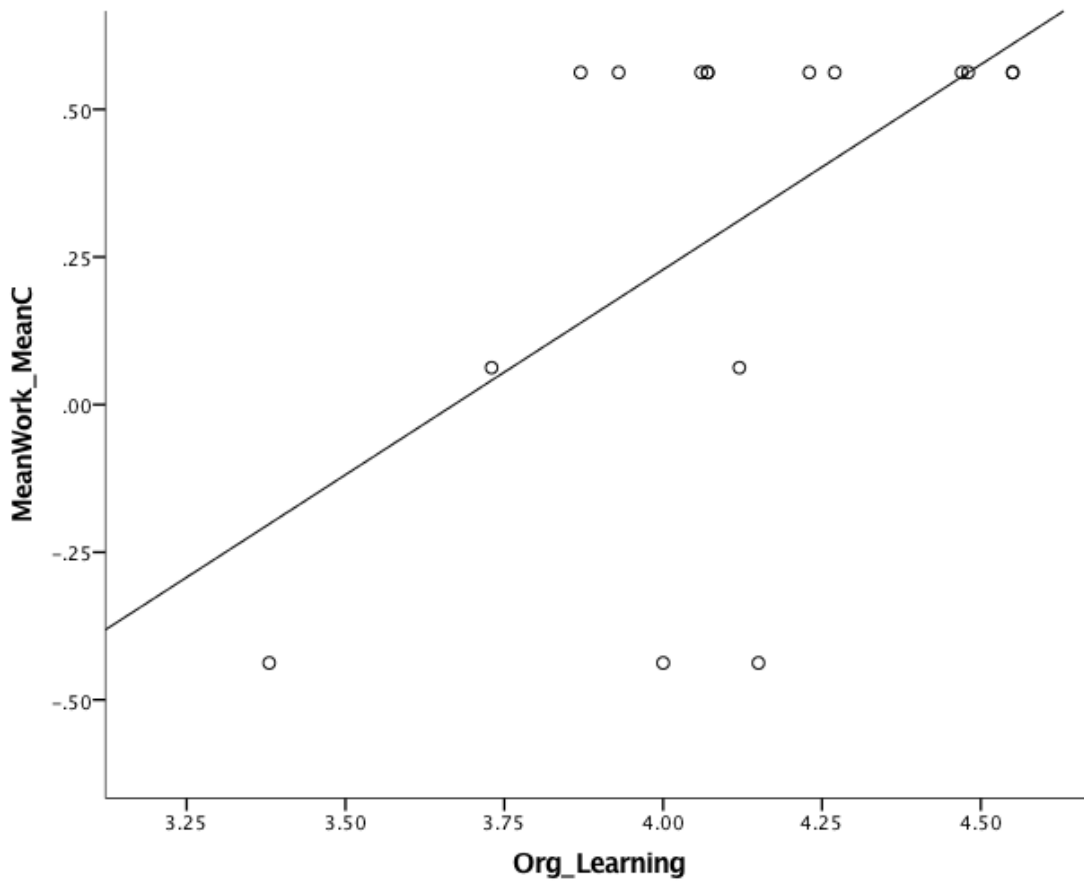
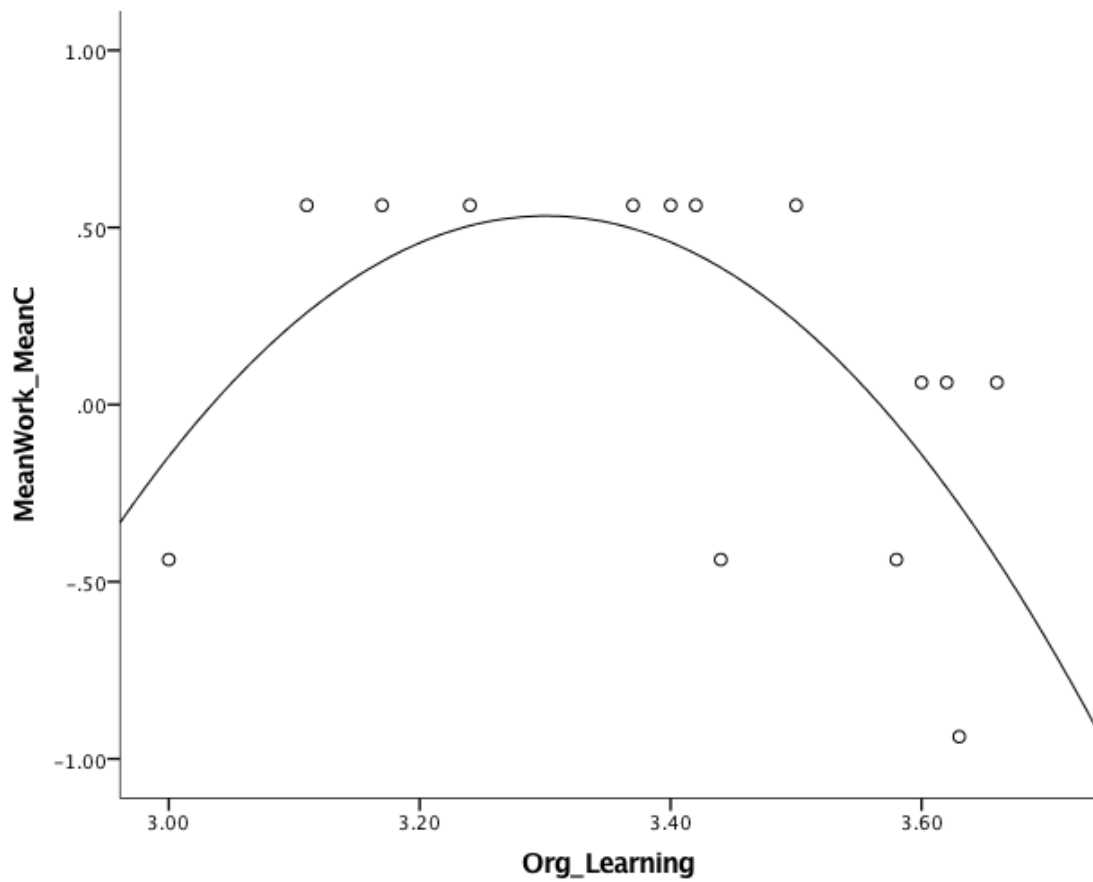
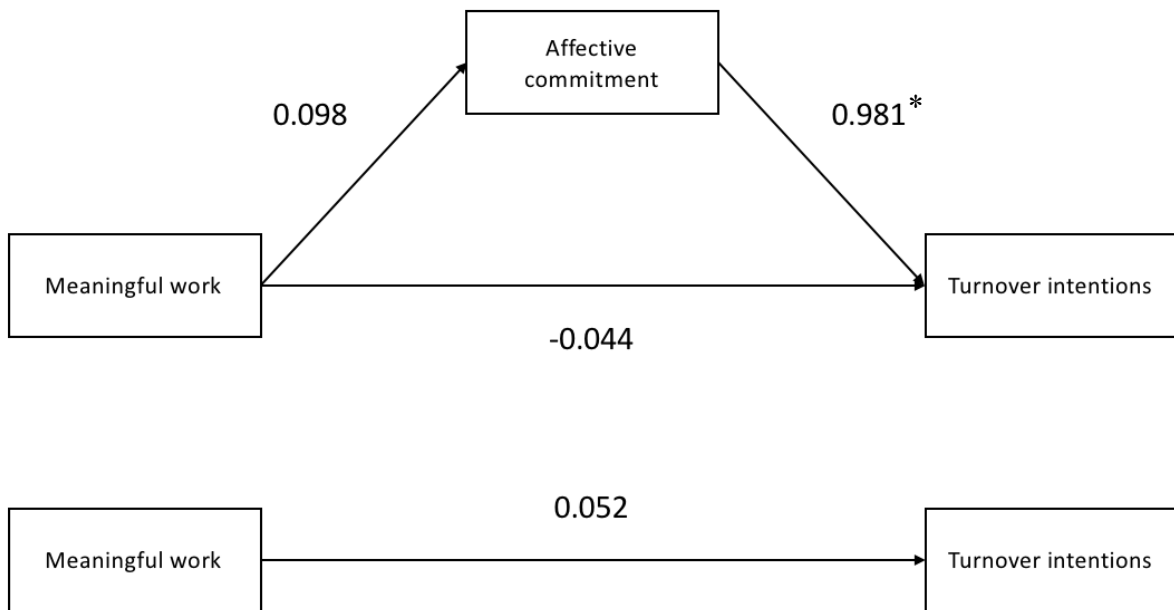


Figure 6. Linear Relationship Between Organizational Learning Climate and Meaningful Work Outcome for Mentors.



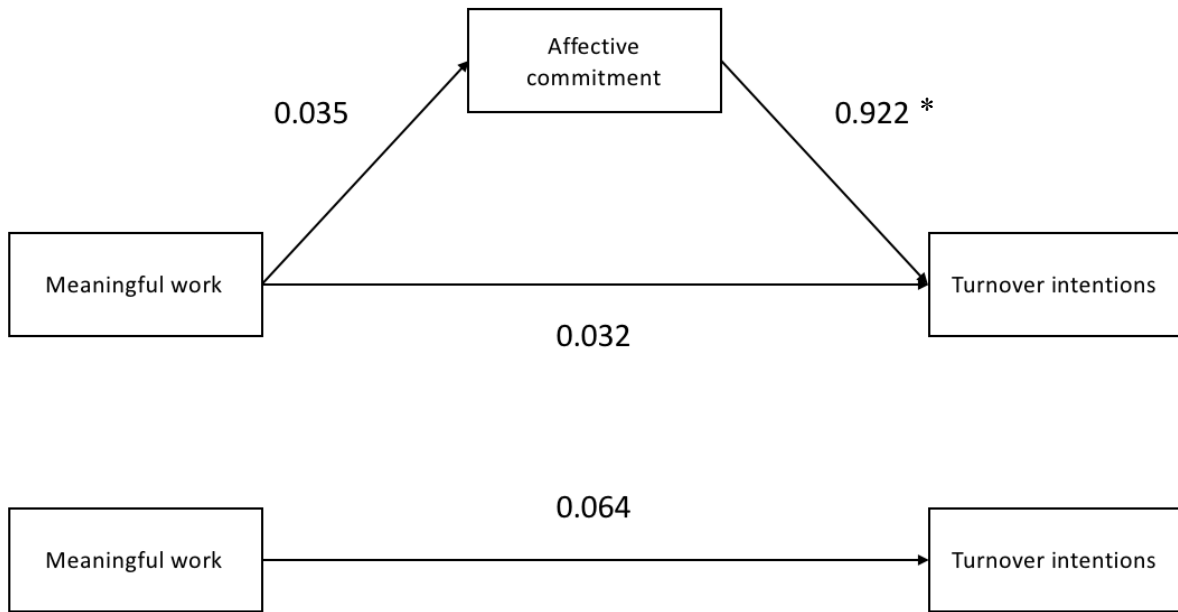
*Figure 7.* Quadratic Relationship Between Organizational Learning Climate and Meaningful Work Outcome for Protégés.



\*  $p < 0.05$

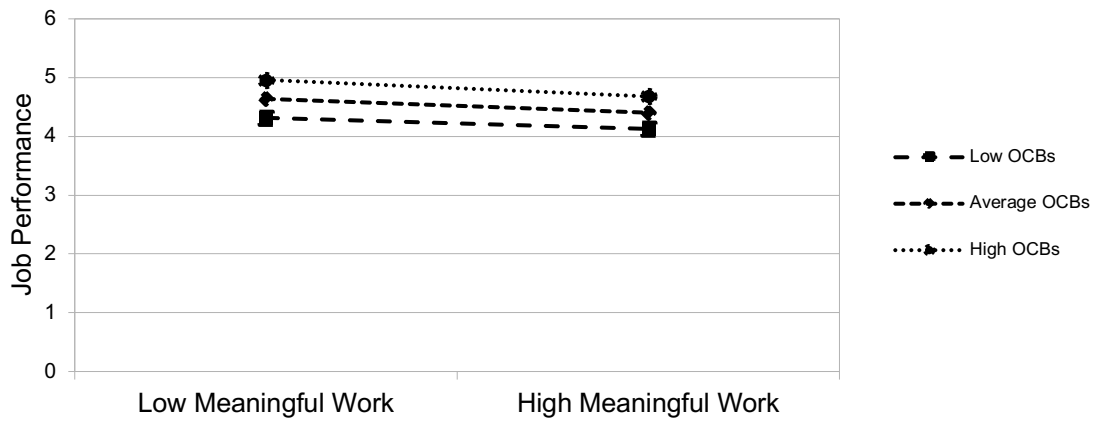
Figure 8. Mediation Path Coefficients Testing the Mentoring Mechanism for Affective Outcomes of Subordinates of Mentors.



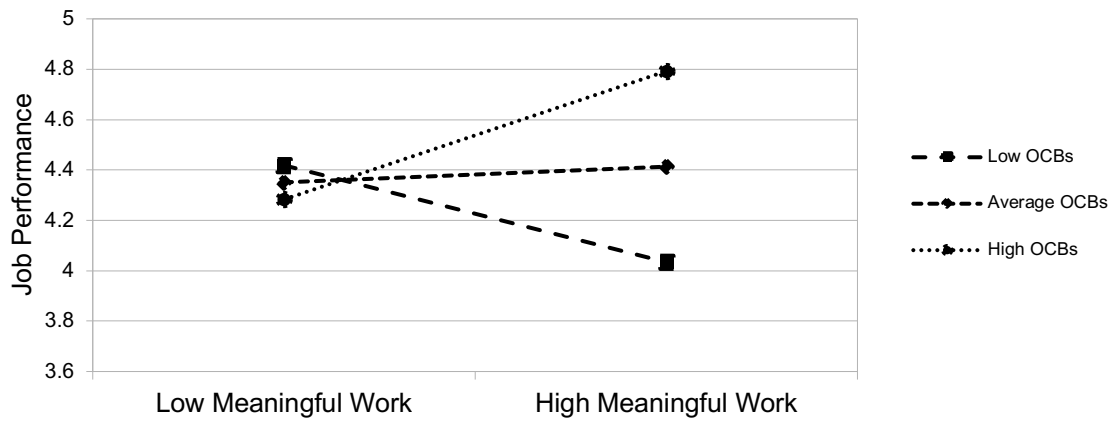


\*  $p < 0.05$

*Figure 9.* Mediation Path Coefficients Testing the Mentoring Mechanism for Affective Outcomes of Subordinates of Protégés.



*Figure 10.* Graphical Depiction of the Effect of OCBs on the Relationship Between Meaningful Work and Job Performance for Mentors.



*Figure 11.* Graphical Depiction of the Effect of OCBs on the Relationship Between Meaningful Work and Job Performance for Protégés.

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## APPENDICES

## APPENDIX A SURVEY ITEMS

### **Organizational learning climate**

Please rate your agreement with the following statements using a scale from 1-5 (1 being “Strongly Disagree” and 5 being “Strongly Agree”).

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

1. I get the tools and resources I need to provide the best care/service for our customers/clients/patients
2. Rounding has improved my overall work environment
3. Information from this survey will be used to make improvements
4. This organization provides career development opportunities
5. This organization cares about quality improvement

### **Participant similarity.**

Please answer the following questions:

1. Please select your length of service.
  - a. 0-5 years; 6-10 years; 11-15 years; 16-20 years; 21-25 years; 26+ years
2. Please select your leadership tenure
  - a. 1-5 years; 6-10 years; 11+ years
3. Please select your shift.
  - a. Day shift; evening shift; night shift
4. Please select your gender.
  - a. Male; female
5. Please select your race/ethnicity.
  - a. White; Asian; Black or African American; Hispanic/Latino; Native Hawaiian or other Pacific Islander; two or more races/ethnicities
6. Please select your age.
  - a. Under 20; 20-29; 30-34; 35-39; 40-44; 45-49; 50-54; 55-59; 60-64; 65-69; 70-74
7. Please select your position type
  - a. Manager; supervisor; director
8. Please select your primary work location (region).
9. Please select your primary work location (hospital).



**Meaningful work.**

Please rate your agreement with the following statements using a scale from 1-5 (1 being “Strongly Disagree” and 5 being “Strongly Agree”).

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

1. My work is meaningful
2. The work I do makes a real difference

**Affective commitment**

Please rate your agreement with the following statements using a scale from 1-5 (1 being “Strongly Disagree” and 5 being “Strongly Agree”).

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

1. I am proud to tell people I work for this organization
2. I would recommend this organization as a good place to work
3. I feel like I belong in this organization
4. I selected this organization as a place to work because its values reflect my own

**Turnover intentions**

Please rate your agreement with the following statements using a scale from 1-5 (1 being “Strongly Disagree” and 5 being “Strongly Agree”).

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

1. I would like to be working at this organization three years from now
2. I would stay with this organization if offered a similar job elsewhere

**OCBs**

Please rate your agreement with the following statements using a scale from 1-5 (1 being “Strongly Disagree” and 5 being “Strongly Agree”).

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

1. The person I report to consistently demonstrates this organization's Compassion Standards of Behavior
2. The person I report to follows up on my concerns/questions from employee rounding
3. The person I report to gives me useful feedback
4. The actions of the person I report to support this organization's mission and values
5. The person I report to cares about quality improvement

**Job performance.**

Please rate your agreement with the following statements using a scale from 1-5 (1 being “Strongly Disagree” and 5 being “Strongly Agree”).

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly agree

1. Employees in my work unit make every effort to deliver safe, error-free care
2. My work unit provides high-quality care and service
3. Employees in my work unit follow proper procedures for patient care/customer service

APPENDIX B  
SURVEY SCALE RELIABILITIES

<b>Survey Scale</b>	<b>Reliability (2017)</b>
Organizational Learning Climate	$\alpha = .844$
Meaningful Work	$\alpha = .875$
Affective Commitment	$\alpha = .881$
Turnover Intentions	$\alpha = .820$
OCBs	$\alpha = .940$
Job Performance	$\alpha = .918$