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Self-Efficacy, Decision Latitude, and Work Ethic Among Educated Women

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Abstract

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MS, State University of New York at Cortland, 2012

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Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

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Abstract

Although women are more likely to seek advanced degrees, there are substantial gaps between men and women in terms of employment rates, wages, and positions of power. This cross-sectional study aligned with the social cognitive career theory and investigated how specific demographic variables (age and education level) interacted and influenced work-related characteristics (decision latitude, self-efficacy, and work ethic) to address issues women experience in the workplace. Females who identified as working a minimum of 15 hours per week and over the age of 18 were contacted via social media or in person. A snowball effect occurred when participants invited peers to participate. Two-hundred and eighty-six females completed an online survey including demographic questions and items from 3 instruments: Job Content Questionnaire, Short Occupational Self-Efficacy Scale, and Multidimensional Work Ethic Profile-Short Form. The research questions helped evaluate the differences and interactions between the independent variables age and education level on the dependent variables decision latitude, self-efficacy, and work ethic. Six one-way analyses of variance were used to assess for differences, and 3 two-way analyses of variance were used to assess for interactions between 5 age groups and 4 education levels. The analyses showed only 1 significant difference between education level and decision latitude. The current research may influence social change at an individual level within career or therapeutic counseling and policies and procedures at the organizational level. The information can create positive change for women within current work environments as they increase responsibilities or advance to positions of power.

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Dedication

To my smart and beautiful daughter, Jacie Madison. I hope your future is as happy and bright as you. I hope this study influences your future in a positive way.

To my supportive and loving husband, Nate. Now it is your turn to follow your dreams.

In memory of my grandmother Katalin Marton and my father-in-law Michael Harris, both of which were extremely supportive and proud of this journey…and both had incredible work ethic.

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Chapter 1: Introduction to the Study

Introduction

Although the definition of work varies across occupations, work is an essential aspect of many American's lives. On average, Americans work 1,780 hours per year, or around 34.2 hours per week (Organisation for Economic Co-operation and Development, 2018). Work is considered necessary for survival. It offers purpose in life and provides opportunities to meet personal goals. Work provides a way to afford recreational activities and increases social interaction. Employed individuals often spend more time at work during waking hours than at home (Cohen, Panter, Turan, Morse, & Kim, 2014), which likely impacts overall wellness. Interactions within the work setting, in combination with work characteristics, may influence work ethic, decision latitude, and self-efficacy.

This chapter introduces the independent variables age and education level, as well as the dependent variables decision latitude, self-efficacy, and work ethic. Chapter 1 highlights the social cognitive career theory (SCCT), the history of women in education, and work. Chapter 1 also describes why this study can be significant for career counseling and the workplace.

Background

Traditionally, in American culture there was a societal expectation that women worked within the home caring for children and other family members, while men worked outside of the home (Hogans, Perucci, & Berringer, 2005). As women slowly entered the paid workforce, they accepted non-decision-making and lower-level positions

at a reduced pay. They were viewed as undereducated and inexperienced (Hogans et al., 2005). When females were able to prove themselves and offered higher level positions, they often faced discrimination. These earlier barriers may have impacted the slow progress for women in terms of receiving competitive pay and experiencing promotions in more recent years. Unfortunately, women still experience the workplace differently than men. While women are more likely to complete high school, finish a four-year degree, and earn advanced degrees than men, women are more likely to have lower incomes and face difficulties advancing to decision-making positions (Koch, D'Mello, & Sackett, 2015), especially when caring for elderly parents or young children (Langan, Sanders, & Agocs, 2017). Some researchers argued the current work environment trends are a reflection of social norms throughout history (Hogans et al., 2005). Other researchers argued that vast changes have occurred which created more equality in the workplace since the inception of women (International Labour Organization [ILO], 2016; Koch et al., 2015; United States Department of Labor [DOL], 2011).

Nearly 72 million women are employed or are looking for employment within the United States (DOL, 2011). Therefore, the results from this research have the potential to positively influence millions of working women through social change in the workplace and within career counseling settings by understanding workplace dynamics. The researcher assessed interactions between age and education level regarding decision latitude, self-efficacy, and work ethic, a topic that had yet to be explored. This has been confirmed through thorough research using Academic Search Complete, EBSCOHost Online Research, Google Scholar, ProQuest Central, ProQuest Dissertations,

PsycARTICLES, PsycBOOKS, PsycCRITIQUES, PsycEXTRAS, PsycINFO, Research Gate, SAGE Journals, Science Direct, and SocINDEX with Full Text.

This chapter introduces the complexities of work-related characteristics including decision latitude, self-efficacy, and work ethic, as well as challenges women face in the workplace. Information about the population, theory, and significance of the study are presented in Chapter 1.

Problem Statement

According to Meriac, Poling, and Woehr (2009), as well as Meriac, Slifka, and LaBat (2015), work ethic is a multifaceted and learned behavior that is not limited to any one work environment. It is a reflection of attitudes and beliefs of the individual and mirrors motivation which can be observed through behaviors within the workplace, as well as in other aspects of one's life (Meriac et al., 2015). Throughout history, women were more likely to be responsible for domestic work, and men were laborers outside of the home (Hogans et al., 2005). It was not until approximately the past hundred years that a revolution (Standford University, 2014) or evolution (Fernandez, 2007) occurred within the workplace. According to Hogans et al. (2005), women started to enter the workforce at low-paying positions and rarely were placed in decision-making roles.

In some cultures, women are continually restricted to entry level positions and rarely move up the ladder without discrimination (Hogans et al., 2005). Sexual harassment, just one example of discrimination, has a devastating impact on women's decision-making within the workplace (McLaughlin, Uggen, & Blackstone, 2017). Women have experienced challenges in entering male-dominated fields such as law

enforcement (White, 2015). Women feel a high level of pressure trying to break through what is termed the boy's club (Langan et al., 2017; White, 2015). Discrimination, such as the factors described here, ultimately affects the current work environment, and likely future outcomes for women within the work setting (McLaughlin et al., 2017).

Modern American women have more fluidity in terms of moving up rank in comparison to women in other countries. However, outcomes related to self-efficacy are different between males and females in similar positions, with a positive correlation between self-efficacy and males (Hogans et al., 2005; Jackson, Gardner, & Sullivan, 1992; Karwowski, Lebuda, Wisniewska, & Gralewski, 2013), which may influence work ethic. Males are more likely to move up in rank (Hogans et al., 2005), have higher entrepreneurial conviction (Wang, Chang, Yao, & Liang, 2016) and hold higher powered positions in comparison to females (Hogans et al., 2005).

Women have and still face inequalities within the workplace (Hogans et al., 2005; Wang et al., 2016). They may experience difficulties in terms of advancing, promoting, and earning equal incomes (Hogans et al., 2005; Wang et al., 2016). The social norms throughout history lead up to these current work environment dynamics, which has likely impacted decision latitude, self-efficacy and work ethic. Due to limited research on decision latitude, self-efficacy, and work ethic, quantitative research was used to gain a wide range of understanding on the variables within this study and how they are collectively influenced by age and education level. Similar to research by Jackson et al. (1992), work ethic, perceived inputs (e.g. self-efficacy), and decision latitude were observed through self-ratings through surveys.

Gap in Literature

Many work characteristics and personal factors influence dynamics and motivation in the workplace. While combinations of characteristics and workplace factors have been explored, previous literature had not investigated the interaction of age and education level on the variables decision latitude, self-efficacy, and work ethic. The gap that I assessed for is how the variables age and education level influenced independently or interacted together with decision latitude, self-efficacy, and work ethic.

Purpose of the Study

The goal of this study was to add to the current literature by gaining women's perspectives on work-related variables and learn how these variables are influenced by age and education level. The purpose of this quantitative study was to explore the dependent variables self-efficacy, decision latitude, and work ethic in individuals working at least 15 hours per week at one location. The study assessed female responses and compared four levels of education to determine differences between the dependent variables. The levels of education were divided into four groups. The first group was high school diploma, GED, equivalent or less than a high school diploma. The second group was some college or associate's degree. The third group included some college and up to bachelor's degree. The fourth group included a master's, doctoral degree or other professional advanced degree. Identifying and assessing the interactions between these variables provided a better understanding of women's current work ethic patterns related to education level. In addition, age was assessed. Responses were divided into five age groups: 20-29, 30-39, 40-49, 50-59, and 60-69.

Participant perceptions of work-related experiences were captured via online self-report surveys. These were promoted through businesses and programs geared towards women's needs and interests. This research was measured by using three assessment tools: the Job Content Questionnaire (Karasek, 1985), the Multidimensional Work Ethic Profile-Short Form (Miller, Woehr & Hudspeth, 2002), and the Short Occupational Self-Efficacy Scale (Rigotti, Schyns & Mohr, 2008b).

Research Questions and Hypotheses

RQ1: Is there a difference in decision latitude based on level of education among women in the workplace?

$H_0$1: There are no differences in decision latitude among women based on education level.

H_a1: There are differences in decision latitude among women based on education level. Women with lower levels of education will have lower levels of decision latitude. Women with higher levels of education will have higher levels of decision latitude.

RQ2: Is there a difference in self-efficacy based on level of education among women in the workplace?

$H_0$2: There are no differences in self-efficacy based on level of education among women in the workplace.

H_a2: There are differences in self-efficacy among women based on education level. Women with lower levels of education will have lower levels of self-efficacy. Women with higher levels of education will have higher levels of self-efficacy.

RQ3: Is there a difference in work ethic based on level of education among women in the workplace?

$H_0$3: There are no differences in work ethic based on level of education among women in the workplace.

H_a3: There are differences in work ethic among women based on education level. Women with lower levels of education will have lower levels of work ethic. Women with higher levels of education will have higher levels of work ethic.

RQ4: Is there a difference in decision latitude based on age among women in the workplace?

$H_0$4: There are no differences in decision latitude based on age among women in the workplace.

H_a4: There are differences in decision latitude among women based on age. Decision latitude will increase as a woman ages.

RQ5: Is there a difference in self-efficacy based on age among women in the workplace?

$H_0$5: There are no differences in self-efficacy based on age among women in the workplace.

H_a5: There are differences in self-efficacy based on age among women in the workplace. Self-efficacy will increase as a woman ages.

RQ6: Is there a difference in work ethic based on age among women in the workplace?

$H_0$6: There are no differences in work ethic based on age among women in the workplace.

H_a6: There are differences in work ethic based on age among women in the workplace. Work ethic will increase as a woman ages.

RQ7: Is there a significant interaction between age and education level on decision latitude?

$H_0$7: There will be no significant interaction between age and education level on decision latitude.

H_a7: There will be a significant interaction between age and education level on decision latitude.

RQ8: Is there a significant interaction between age and education level on self-efficacy?

$H_0$8: There will be no significant interaction between age and education level on self-efficacy.

H_a8: There will be a significant interaction between age and education level on self-efficacy.

RQ9: Is there a significant interaction between age and education level on work ethic?

$H_0$9: There will be no significant interaction between age and education level on work ethic.

H_a9: There will be a significant interaction between age and education level on work ethic. Specifically, individuals with higher levels of education are expected to have

higher work ethic among older women. Additionally, individuals with lower levels of education are also expected to have lower levels of work ethic among younger women.

Theoretical Foundation

The SCCT focuses on the core concept of self-efficacy which stemmed from Bandura's social cognitive/learning theory. Bandura's theory describes that motivation and behavior are influenced by observation, the environment and reciprocal determinism, where the individual's interaction with others is a mutual interaction (Bandura, 1971, Bandura, 1977; Bandura, 1978). Specifically, attitudes and beliefs are influenced by behavioral, environmental, and personal factors (Bandura, 1971). The SCCT expands on Bandura's theory with an emphasis on career-related components (Lim, Lent & Penn, 2016), such as career interests, decision-making, career development, performance at work, and workplace outcomes (Lent & Brown, 2013). The theory supports expectations related to self-efficacy and participation towards career-related goals, as well as perceived on-the-job obstacles and the ability to fulfill tasks throughout the career span (Foley & Lytle, 2015). As the individual performs a job, he or she observes the benefits or consequences of the work, which can influence future behaviors based on perceptions of the immediate outcome (Bandura, 1971).

In recent research SCCT was utilized to predict work behaviors of individuals nearing retirement age (Foley & Lytle, 2015), educational and career developmental needs (Olson, 2014; Raque-Bogdan & Lucas, 2016), as well as career transitions due to job loss (Thompson, Dahling, Chin & Melloy, 2017). Based on this theory, it can be hypothesized that there are differences in terms of decision latitude, self-efficacy, and

work ethic of women impacted by the factors age and education level. For example, as women near retirement, the variables decision latitude, self-efficacy, and work ethic are likely to change. This may be due to unique financial needs related to delayed age of retirement and preparing for retirement (Foley & Lytle, 2015). Due to the changes in retirement dynamics, individuals facing retirement are now more likely to remain employed past projected retirement or switch careers after retiring from lifelong positions (Foley & Lytle, 2015). While it may seem obvious that education level influences the dependent variables within this study (Artino, 2012; Thompson et al., 2017), it is not entirely understood how women perceive themselves, make decisions, or apply themselves at work throughout their career span. I surmised that women who were older with advanced levels of education were expected to report higher levels of decision latitude, self-efficacy, and work ethic. In contrast, women who were younger and had less education were expected to report lower levels of decision, self-efficacy, and work ethic. The application of the SCCT as it relates to the variables decision latitude, self-efficacy, and work ethic as well as age and education level is described in more detail in Chapter 2.

Nature of the Study

The study uses a quantitative cross-sectional design, as the information was collected through measurable instruments at one point in time. These scales include the JCQ (Karasek, 1985), Short OSE Scale (Rigotti et al., 2008b), and MWEP-SF (Meriac, Woehr, Gorman & Thomas, 2013). The dependent variables decision latitude, self-efficacy, and work ethic were evaluated in terms of the influence of the independent variables age and education level. The participants accessed the survey through an

Internet-based version of these questionnaires. Females who work a minimum of 15 hours per week were assessed to evaluate psychological factors based on their experiences within their current work setting. Six one-way and three two-way analyses of variance (ANOVA) were used to compare groups of American women based on age and education level. The methodology of this study is described in more detail in Chapter 3.

Definitions

Decision latitude: Decision latitude is one's ability to make decisions within the workplace. This includes having the power and opportunity to make decisions, develop skills, and use skills when at work (Brouwers & Tomic, 2016; Marchand, Juster, Durand, & Lupien, 2015; Noblet et al., 2017; Ståhl, Gustavsson, Karlsson, Johansson, & Ekberg, 2015).

Education level: An individual's level of education is defined by the highest degree or training received. According to the United States Bureau of Labor Statistics (2014), these designations include: less than high school, high school diploma or equivalent, some college, postsecondary nondegree award, associate's degree, bachelor's degree, master's degree, and doctoral or professional degree.

Self-efficacy: Self-efficacy is an individual's belief that he or she can complete a task (Chan et al., 2016; Lloyd, Bond, & Flaxman, 2017). It is the confidence to perform a job or activity to produce an expected outcome or goal (Oguegbe, Okeke, Joe-Akunne, & Ogochukwu, 2014).

Work ethic: Work ethic refers to attitudes and behaviors, including hard work, which produce desired expectations related to accountability within the workplace (Bogt,

Raaijmakers, & Wel, 2005; Miller, Woehr, & Hudspeth, 2001; Zabel, Biermeier-Hanson, Baltes, Early, & Shepard, 2017).

Assumptions

First, I assumed that all female workers experience some level of decision latitude, self-efficacy, and work ethic. Specifically, when women are in the workplace it is likely that they have some level of decision-making, some level of belief that they are able to complete work-related tasks, and some level of work ethic. It was assumed that women fall within these levels or ranges.

Second, I assumed all participants were honest in their responses related to work characteristics, age, and education level. Finally, I assumed the assessment tools accurately measured the variables within this research. Therefore, the results produced accurate information about current perceptions of women when in the work environment.

Scope and Delimitations

The study was limited to female individuals over the age of 18, who worked at least 15 hours per week at one location and lived and worked within the United States. The Internet and social media created potential to cover all areas of the United States. However, it was expected that many of the respondents would be from New York, where this researcher resides. Particularly, this expectation was due to the accessibility of individuals during the initial recruiting efforts (e.g. outreach efforts, peers, word of mouth).

The number of projected participants was low. Therefore, the findings may not be generalizable to all working women in the US. The results are representative of the

participants in this study. However, it is hypothesized that the results reflect the attitudes, thoughts, and beliefs of other American women.

Limitations

Finding female participants who work a minimum of 15 hours per week and are willing to complete the questionnaire could have been onerous. Due to the type of participant recruitment within this study, it was projected that the researcher would face challenges recruiting participants that represented females of aging and low-income populations. It was hypothesized that females who were considered low-income would fall under the 15-hour per week cutoff.

Females nearing retirement may be less inclined to participate in online questionnaires or have access to the Internet. While younger participants are likely to have access to and feel comfortable with the Internet, people within the aging population are found to have more anxiety when completing online self-report questionnaires (Weigold, Weigold, Drakeford, Dykema, & Smith, 2015). Unfortunately, implementing another format such as paper-and-pencil, to accommodate this population would create a confounding variable.

Another limitation of this study was that the questionnaires are self-reported. Biases may impact results. Respondents were encouraged to be honest in order to help understand women's experiences and challenges within the work setting. The final limitation related to the number of groups within this research. In order to attain adequate statistical power, the number of participants is high. Meeting this requirement was

expected to take some time and personal resources to promote the research. While the latter portion was true, data collection occurred within 12 days.

Significance

The intentions of the study were to influence social change for women within the workplace. The findings may help career counseling settings by gaining a deeper understanding of workplace characteristics. The results may add to current literature and provide guidance for additional gaps in research.

While women have substantially contributed to the nation's success through farming and family business for hundreds of years, it was only within the past century that women entered the workforce outside of the home. Hardships and resistance were experienced by many of these pioneer women (Green, 1992; Stanford University, 2014). It was not until World War II that it was found acceptable for women to be in the workforce, as many workforce men were drafted for war (Stanford University, 2014).

According to Paterniti, Niedhammer, Lang, and Consoli (2002) and reiterated by Hentrich, Zimber, Sosnowsky-Waschek, Gregersen and Petermann (2017b), decision latitude is a measurement that indicates an individual's control over work, including job variety and having the ability to learn new skills. Feeling limited in terms of decision-making may negatively impact one's mental health, which could ultimately influence work ethic. Depression would eventually negatively impact employee engagement (Hentrich et al., 2017b; Paterniti et al., 2002).

The researcher expected to find significant differences in terms of group interactions. I initially speculated there would be age and education level group

differences. For example, younger women with higher levels of education would have higher levels of self-efficacy, decision latitude, and work ethic. Females with lower levels of education would experience lower levels of self-efficacy, decision latitude, and work ethic, although these factors were believed to increase with age.

Summary

Due to an extensive history of men dominating the workforce, women face a host of challenges in the workplace in comparison to men. The current literature was lacking in terms of detail regarding how age and education level impacted workplace psychological characteristics. By asking women to participate and contribute to this research, I was able to fill the gap between the dependent and independent variables noted within this chapter.

Chapter 2 takes an in-depth look at the current literature regarding issues that women face at a personal and systemic level. The chapter describes how decision latitude, self-efficacy, and work ethic are related to the workplace. It also explores the history of education and age and how it relates to this study.

Chapter 2: Literature Review

Introduction

Women in the workforce face many barriers within the workplace, such as feeling incapable and lacking control to make decisions at work, lacking potential for advancement, lacking work purpose, and successfully juggling family and work responsibilities. Historically, women had domestic work responsibilities while men worked outside of the home (Hogans et al., 2005). When allowed the opportunity, women entered the workforce at entry level positions and almost always with a consequence of low pay, unlike their male counterparts (Hogans et al., 2005). Women were rarely placed in positions that provided flexibility to make decisions (Hogans et al., 2005). Hogans et al. (2005) argued that when women attempted to advance in their profession, they were often discriminated against. Similar to these experiences in the work setting, women historically faced challenges attending grade school and college in order to fill the roles of wife and mother, in addition to other domestic responsibilities (National Women's History Museum [NWHM], 2007).

The purpose of this literature review is to provide the reader with an overview of decision latitude, self-efficacy, and work ethic, while highlighting other factors that influence the workplace unique to women such as age, education level, and childbearing. Previous literature had established relationships between several of the variables. However, the relationship between all the variables within this study has yet to be established. It has been argued that adults spend a considerable amount of their lives within the workplace (Cohen et al., 2014). Therefore, advancing research in this area may

be helpful for practitioners, such as in career counseling, to help empower employed women while in the work setting.

The first part of the chapter provides a detailed description of the SCCT, which guided the research for this literature review. The latter portion of the literature review describes the variables that make up the foundation for this research. The justification for analyzing decision latitude, self-efficacy, and work ethic by age and education level is offered within the literature review.

Literature Search Strategy

The following databases were used for the literature review search: Academic Search Complete, EBSCOHost Online Research, Google Scholar, ProQuest Central, ProQuest Dissertations, PsycARTICLES, PsycBOOKS, PsycCRITIQUES, PsycEXTRAS, PsycINFO, Research Gate, SAGE Journals, Science Direct, and SocINDEX with Full Text. The libraries that were used in the search included Cornell University, Ithaca College, New York State Library, State University of New York at Cortland, and Walden University. The following keywords were used in various combinations: *administrative positions*, *age*, *challenges*, *decision latitude*, *education*, *gender*, *higher education*, *generation*, *history*, *lifespan*, *self-efficacy*, *social cognitive career theory*, *theory of reasoned action*, *vocation*, *women*, *work ethic*, *work-life balance*, and *work setting*. Most literature was published between 1975 and 2018 with a majority of the literature published between 2013 to 2018.

Theoretical Foundation

Social Cognitive Career Theory

The SCCT stems from Bandura's social cognitive/learning theory and focuses on career-related behavior (Lim et al., 2016) and is divided into three core components (Lent & Fouad, 2011). The theory involves the development of career interests, how people make career choices, and how career development impacts work-related outcomes, specifically career performance and stability (Leung, 2008). The three constructs of this theory are self-efficacy, outcome expectations, and personal goals (Lent & Fouad, 2011; Lent, Ireland, Penn, Morris, & Sappington, 2017; Leung, 2008; Raque-Bogdan & Lucas, 2016).

Self-efficacy is an individual's ability to strategize and perform a task (Thompson et al., 2017). Thompson et al. (2017) noted that levels of self-efficacy fluctuate depending on the task and therefore should be defined by the task. The level of self-efficacy may increase when a task is learned and practiced. As confidence increases, self-efficacy for the performed task may increase as well (Thompson et al., 2017).

Self-efficacy, as described in SCCT, influences career goals and aspirations and corresponds with an individual's work-related abilities, interests, and personal values (Raque-Bogdan & Lucas, 2016). Career goals and aspirations impacted by self-efficacy may include advancing in careers, exploring new careers, making decisions within the work environment, assessing current income levels, as well as seeking to achieve higher income levels for the purposes of economic flexibility within familial and social environments (Lent et al., 2017; Raque-Bogdan & Lucas, 2016). In addition to one's

beliefs surrounding ability to expand within the work setting, it is also necessary to assess for barriers perceived by the individual. Lent and Brown (2013) argued that the individual must believe he or she has the ability to perform specific tasks necessary for career training, entering the field, adjusting within a position, and transitioning between jobs or fields.

According to Raque-Bogdan and Lucas (2016), self-efficacy involves an individual's personal beliefs about perceived barriers and overcoming perceived barriers. Raque-Bogdan and Lucas (2016) reported that although women predicted more barriers while searching for work or within the work setting, women were more likely to attempt the same career paths despite these expectations. Outcome expectations refer to the positive and negative consequences anticipated by the individual when performing a specific task.

The third construct, personal goals, describes the intent to perform a task in a way that produces a desired outcome (Thompson et al., 2017). This means the intent within work-related behaviors to create the desired outcome, such as work ethic, performance level, job title or financial compensation by a predetermined deadline (Lent & Brown, 2013; Thompson et al., 2017). The current research is supported by all three variables from SCCT. However, there is a focus on self-efficacy within the workplace (Thompson et al., 2017).

Similar research utilizing social cognitive career theory. The SCCT has been utilized to determine career exploration and decision-making self-efficacy, as well as outcome expectations (Lent et al., 2017). Specifically, Lent et al. (2017) recent study

assessed for variables that could describe and predict self-efficacy in career exploration. Researchers can use SCCT to analyze the relationships to the variations in outcomes (Lent et al., 2017).

Relationship of SCCT to this study. The SCCT has been argued to be a valuable tool for individuals within early stages of career development including education and first employment (Olson, 2014; Raque-Bogdan & Lucas, 2016; Thompson et al., 2017), as well as through various transitions throughout the lifespan including job loss, unemployment, and job recovery (Lim et al., 2016; Raque-Bogdan & Lucas, 2016; Thompson et al., 2017). Self-efficacy is the motivating variable in SCCT that stimulates action through decision-making and work ethic to reach goals (Lent et al., 2017). Based on the constructs of SCCT, women who are older with advanced levels of education are expected to report higher levels of decision latitude, self-efficacy, and work ethic. In contrast, women who are younger and have less education are expected to report lower levels of decision-making, self-efficacy, and work ethic.

Literature Review Related to Key Concepts

Work Ethic

Work ethic and work-related outcomes are described through various focal points (Blau & Ryan, 1997). Blau and Ryan (1997) noted five facets of work ethic: career salience, job involvement, as well as affective and continuance dimensions, with the focus being the endorsement of the old Protestant beliefs of work ethic (Blau & Ryan, 1997; Furnham & Koritas, 1990; Hill & Petty, 1995). Blau and Ryan (1997) broke down

work ethic into four additional categories of work ethic: hard work, non-leisure, independence, and asceticism.

The Protestant Work Ethic was described as hard work equals financial success (Blau & Ryan, 1997; Hill & Petty, 1995). The more recent definition of work ethic within the American work culture offered the idea that people must work in order to serve a life of purpose (Bogt et al., 2005). Bogt et al. (2005) also suggested that work ethic served as a political function and a social construct which was used to position oneself socially by working hard and saving money. While this may still be true for many communities, the current belief focuses on attitudes and behaviors that align with accountability in the workplace.

While the work ethic construct originated in the religious sector, it was soon believed that work ethic had less to do with religion and was more relative to attitudes surrounding work (Blau & Ryan, 1997). According to Miller et al. (2001), work ethic encompasses work effort, individualism, fairness, efficiency and production of quality work. Similarly, Bogt et al. (2005) suggested that work site success was the overarching motivation. The definition also incorporated attitudes and beliefs that relate to behavior in the workplace. While these factors are more likely to be utilized in current definitions, problematic behaviors may also need to be indicated. These would include: frequent and unauthorized breaks, theft within the workplace or inconsistent attendance (Miller et al., 2001).

Like other factors influencing work-related behaviors, personality is a response to the environment and internal situations (Judge, Simon, Hurst & Kelly, 2014). Personality

traits influence behaviors which in turn impacts work experiences and interactions with coworkers. Researchers have highlighted efforts or motivations of people within the workplace and the likelihood to avoid negative stimuli, such as being fired, or seeking positive stimuli, such as a job promotion (Judge et al., 2014; Palaiou & Furnham, 2014). Similar to Blau and Ryan (1997), Miller et al. (2001) observed four factors that were found useful to identifying work ethic. Miller et al. (2001) version included: hard work creates anticipated outcomes, work centeredness, avoiding time wasting and delayed gratification.

Not all research is consistent in thought and support. Bogt et al. (2005) argued that work ethic is a stagnant characteristic that does not change over time. Whereas, Miller et al. (2001) found work ethic values to have many components such as autonomy, delay in gratification, efficient time usage and fairness, all of which highlighting examples of the many dimensions of work ethic. In addition, Bogt et al. (2005) incorporated a short longitudinal study indicating that perhaps the study was only a snapshot of one period in an individual's life and not during changes throughout the lifespan. In contrast, most of the scales assessing work ethic and the studies that utilize these scales support that work ethic is multidimensional, as mentioned above (Miller et al., 2001; Miller et al., 2002; Zabel et al., 2017). Bogt et al. (2005) utilized a work ethic scale that was narrowly focused and ignored the diversity of characteristics and skills that work ethic has to offer. According to Meriac et al. (2009), researchers should be careful when utilizing and referencing one dimensional scales. The scales utilized in this study assessed for multiple components of work ethic.

Early researchers had identified that work ethic levels decreased as an individual's level of education increased (Furnham, 1982). However, society has changed drastically over the past few decades. There are an increasing number of people seeking college degrees and having a desire to attain proficiency in both skill and knowledge (National Research Council, 2013). Due to these societal changes, including the increase in seeking college degrees, the gaps were explored in this study through the research questions including work ethic and levels of education.

Decision Latitude

Decision latitude, also known as job control, is the combination of decision-making authority and skill discretion (Brouwers & Tomic, 2016; Marchand et al., 2015; Noblet et al., 2017). Decision latitude is the individual's perception of control over decision-making within the work setting (Chua & Iyengar, 2011). Core concepts of decision latitude include control over the use of skills and intellectual discretion, organizational decisions, as well as flexibility, time allocation and personal schedule freedom (Gerdenitsch, Kubicek, & Korunka, 2015; Karasek, Baker, Marxer, Ahlbom & Theorell, 1981; Karasek et al., 1998).

The level of decision latitude has been observed to impact stress and other work outcomes, particularly when the workload is high (Akbari, Akbari, Shakerian & Mahaki, 2017). According to Akbari et al. (2017), when individuals feel they have a lower level of decision latitude they are likely to feel more stress no matter the level of workload. In contrast, a higher level of decision latitude can reduce stress levels even when the workload is extremely high (Akbari et al., 2017). Having control over one's work

environment greatly increases positive outcomes, such as feelings of success, self-worth and self-efficiency (Akbari et al., 2017).

There is some evidence to suggest that elevated levels of decision latitude can lead to negative effects. Specifically, Chua and Iyengar (2011) argued that giving employees more opportunities in decision-making, as well as implementing more opportunities for making decisions within work settings would reduce productivity. It is recommended that individuals should only have a mild or moderate level of decision latitude in order to be successful (Chua & Iyengar, 2011). Chua and Iyengar (2011) argued that their research could be considered reliable as three of their studies supported their views. However, their findings are incongruent to other researchers' more recent findings showing decision latitude produces more positive outcomes (Akbari et al., 2017; Brouwer & Tomic, 2016; Marchand et al., 2015: Noblet et al., 2017).

One limitation found in previous research indicates the specificity of the populations being analyzed. Akbari et al. (2017) focused solely on the workers within the prison system in Iran. Jensen, Patel, and Messersmith (2013) investigated decision latitude within public sector employees in England. While some research produced strong validity and reliability within the research (Brouwers & Tomic, 2016), the narrow focus reduces the generalizability of the findings to other populations (Akbari et al., 2017; Jensen et al., 2013). In addition to these studies, Gerdenitsch et al. (2015) utilized a small sample of psychology students within one Austrian university. The current research included females from various occupations in order to gain better insight into decision latitude and the interaction with the other variables as suggested by the literature.

Self-Efficacy

Historically, theorists attempted to determine the influence of behaviors. Many psychologists agreed that behaviors were most directly connected to internal forces and social learning (Bandura, 1971). Self-efficacy, one construct within social cognitive career theory and stems from social cognitive theory, is described below.

Lloyd et al. (2017) described self-efficacy as being the key influence on motivation, as well as coping mechanisms for stress and behavior (Deuling & Burns, 2017). Self-efficacy is considered a personal resource and is necessary for successful performance and favorable outcomes (Chan et al., 2016). Self-efficacy is the perception of an individual's own abilities to organize and execute a task (Chan et al., 2016; Lloyd et al., 2017). Self-efficacy influences an individual's choices and aspirations, the level of effort invested in the task, the level and extent to which perseverance is utilized when faced with challenges, as well as the level of stress one can endure within an environment of high demands (Chan et al., 2016). For example, when an individual believes he or she is capable of completing a work assignment the appropriate level of effort will be activated. The individual will overcome stressors within the demanding environment which will then lead to task completion (Chan et al., 2016; Lloyd et al., 2017). As an individual's level of self-efficacy increases, the ability to cope with challenges and control distressing thoughts will increase (Chan et al., 2016; Lloyd et al., 2017).

In contrast, Lloyd et al. (2017) found that when an individual believes they do not have the capacity to perform the task the individual will stop any efforts which may create the potential for failure. Perhaps these findings were due to the high attrition rates.

However, Chan et al. (2016) also argued that when an individual's level of self-efficacy decreases, the individual will feel they are less capable of completing a task. They may dwell longer on their deficits and possibly experience stress and/or depression (Lloyd, et al, 2017). The individual's focus on self-doubt will lead to undermining job performance (Chan et al., 2016). Lower levels of self-efficacy are suggestive of lack of motivation, effort and preparation necessary for a favorable outcome (Chan et al., 2016).

A recent study with a significant participant pool indicated that participants with higher levels of self-efficacy are more likely to take advantage of opportunities within the work setting (Chan et al., 2016). It is hypothesized that older women with a higher level of education are more likely to utilize this characteristic. However, it is not yet determined whether women utilize self-efficacy more based on age or education level.

The History of Women in Education

In 1833, women were able to attend a chartered school at Oberlin College (NWHM, 2007). However, the school prohibited women from attending courses intended for men. Females were restricted in course load and were offered a ladies course that pertained to motherhood (NWHM, 2007). It was not until 1836 that women were admitted into an official collegiate setting currently known as Wesleyan College. Women were provided with a year of prep school if they did not meet minimum enrollment qualifications (NWHM, 2007).

Mount Holyoke was another school that offered women a collegiate opportunity. However, women were expected to participate in domestic work alongside their

colleagues to minimize tuition costs (NWHM, 2007). Unique to Mount Holyoke, women were offered opportunities in math, science, research and exercise.

Vassar college was the first of its kind to offer education exclusively to females (Vassar, n.d.; NWHM, 2007). The institute was considered comparable to Harvard and Yale, both male-only schools (Vassar, n.d.; NWHM, 2007). Although the college was geared towards the wealthy, three-hundred and fifty-three females were enrolled for a meager tuition of $350 (NWHM, 2007).

As of the mid-1940's, men continued to outnumber women in higher education (Goldin, Katz, & Kuziemko, 2006). Women enrolled at nearly an equal rate in the 1960's and it was not until the early 1970's that female graduation rates were comparable to their male counterparts (Goldin et al., 2006). After a thorough review of previous literature between 1955 and 2014, Mohajeri, Mokhtar, and Balash (2015) reported that women with higher education are more likely to have access to local, national and international communities, which may provide greater work opportunities in the future.

The History of Women in the Workplace

A significant number of women may not be in the workforce at any given time for various reasons such as: child birth and child care, health and mental health related concerns, or in some cases intimate partner violence (Charles & James, 2003; LeBlanc, Barling, & Turner, 2014). Some women are likely to reduce work hours to spend more time raising children or tending to other familial obligations (Landivar, 2014; Tajlili, 2014). As the American population begins to age, it is likely that women will continue to balance needs outside of the workplace including caring for parents, grandparents or

other aging family members (Family Caregiver Alliance, 2003). For many, this becomes challenging and often requires leaving work for periods at a time (Landivar, 2014).

Individuals within the workforce devote a majority of their time, energy and attention to both work and family (Chan et al., 2016). Due to the above findings of women and work orientation, it has been argued that women's attention and dedication are not necessarily within the work setting (Adame, Caplliure, & Misquel, 2016; Charles & James, 2003). Adame et al. (2016) argued that compatibility among responsibilities creates conflict for women due to the responsibilities between home life and work life. While all parents face such conflicts today, women are more likely to see obstacles in workplace growth due to familial obligations (Adame et al., 2016). Charles and James (2003) suggested that only 20% of the female working population are considered work-centered in the way that males are often perceived. It has been argued that some women are less likely to set work as a main priority (work ethic) or a long-term concern (Charles & James, 2003; James, 2008).

Barriers in the workplace. Most working individuals experience barriers within the workplace. However, many work settings create a unique experience that produces additional challenges. Females within law enforcement, for example, often face challenges related to gender specific expectations. Langan et al. (2017) described stereotypes of affectability and physiology as justifiable reasons for determining females as unsuitable by peers within the field of law enforcement. Females are sometimes observed as outsiders in a male dominated profession, with credibility and commitment often in question (Langan et al., 2017). Female police officers have been known to work

harder in order to prove worthiness and earn respect from their colleagues (Langan et al., 2017). It is not until policewomen have proven themselves that they gain privileges and are found acceptable amongst their peers (Langan et al., 2017). Females must remove all doubt of emotional or physical weakness to gain and maintain this status. When females are not deemed worthy within their profession they are faced with barriers in promotional opportunities, ultimately creating delays in career progression (Langan et al., 2017).

Another barrier related to gender inequity noted above is the determination among female peers to minimize or eliminate other females who appear weaker. One study highlighted the lack of camaraderie among female law enforcement and harsh competition to prove self-worth (Langan et al., 2017). Female officers are known to do this in order to fit in more with their male peers.

The influence of childbearing. From as early as the early 1800's, women with less education were likely to have more children while women in advanced education had fewer children (Hazan & Zoabi, 2014; Jones & Tertilt, 2008). Hazan and Zoabi (2014) hypothesized this is most likely due to the difficulty of balancing family life and work. In one qualitative study, female law enforcement officers were interviewed to better understand recruitment and retention during pregnancy and after childbirth. Langan et al. (2017) highlighted that female police officers were more likely to leave for familial reasons in comparison to male police officers. Women who are police officers and mothers are sometimes ostracized due to the belief that both roles are incompatible within police culture (Langan et al., 2017). Childcare commitments are viewed as a weakness. For many women, returning to work is no longer an option (Langan et al., 2017; Wallace

& Saurel-Cubizolles, 2013). Wallace and Saurel-Cubizolles (2013) noted women that did return were likely to have higher levels of job satisfaction and social markers such as age and education level.

According to Langan et al. (2017), women in law enforcement are likely to look to other women's experiences with pregnancies. Through this lens they have found that timing for pregnancy and childbirth is crucial for work success. In addition, timing of disclosure to supervisors is critical. However, many women are likely to accept a demotion, desk duty or not return to law enforcement altogether. Having children depreciated their value at work (Langan et al., 2017). The research suggests that women experience either demotion or limitations to advancement within the workplace due to the dual role of mother and professional (Shin & Bang, 2013).

Women and Work Throughout the Lifespan

The variable age is lacking within current research when looking at the interaction of decision latitude, self-efficacy and work ethic. Previous research does however indicate changes within work attitudes as a person ages. As people navigate careers through various stages in their lives, major changes occur related to attitudes, behaviors and interests towards work (Pogson, Cober, Doverspike & Rogers, 2003; Zabel et al., 2017). Various career stage theories support that attitudes and behaviors change as people graduate from one stage of life to another (Pogson et al., 2003; Zabel et al., 2017). Pogson et al. (2003), as well as Zabel et al. (2017) suggested that people within the same stage of life are experiencing similar attitudes and behaviors indicating changes in job status and performance, ultimately influencing work ethic. Zabel et al. (2017) argued

these changes are less consistent than previous research had indicated. The lack of research in the area of age supports the additional need for exploration of the interaction with education when investigating the variables decision latitude, self-efficacy, and work ethic.

Gaps in Literature, Summary and Conclusions

The purpose of this study is to examine how decision latitude, self-efficacy, and work ethic are related to age and education level among women. The themes in the literature indicate that women have historically experienced barriers in education and the workplace, including childbearing and returning to work. This may have impacted decision latitude, self-efficacy and work ethic throughout the lifespan. However, as stated previously, there is no research that analyzes age and education level with the variables decision latitude, self-efficacy and work ethic.

Current research encompasses self-efficacy and work-life balance (Chan et al., 2017), work ethic among adolescents (Bogt et al., 2005), generational differences in work ethic (Zabel et al., 2017), work ethic and career stages (Pogson et al., 2003), women and challenges with pregnancy within the workplace (Langan et al., 2007; Wallace & Saurel-Cubizolles, 2013), self-efficacy and burnout (Brouwers & Tomic, 2016), self-efficacy and gender (Oguegbe et al., 2014), as well as job demand and decision latitude (Karasek et al., 1981; Marchand et al., 2015; Noblet et al., 2017). It is hypothesized that decision latitude, self-efficacy and work ethic are related to age and education level.

Many work characteristics and personal factors influence dynamics and motivation in the workplace. Literature had not previously assessed for the interaction of

age and education level on the variables decision latitude, self-efficacy, and work ethic. The gap that I explored is how the variables age and education level influenced independently or interacted together with decision latitude, self-efficacy, and work ethic. Decision latitude, self-efficacy, and work ethic and how it is related to age and educational level in this way is yet to be understood. Exploring these work factors can improve workplace interactions between employees, provide a better understanding of workplace attitudes and beliefs (Pogson et al., 2003; Zabel et al., 2017), reduce age discrimination, improve performance, improve the transition between jobs or promotions, improve with coping skills during times of job loss (Lim et al., 2016; Raque-Bogdan & Lucas, 2016; Thompson et al., 2017), and gain understanding in how both age and education influence productivity for women.

The current research has the potential to affect millions of women within the United States. According to the DOL (2011), nearly 50 million women are employed full-time, approximately 16 million women are employed part-time, and another 6 million women are looking for work. Some of these jobs include physicians, surgeons, lawyers, psychologists, nurses, teachers, and salespersons. Many of these positions require women to display qualities of independence such as working hard (Miller et al., 2001), being autonomous (Lennon, 1994), believing in their abilities (Lloyd et al., 2017) and making decisions (Brouwers & Tomic, 2016; Chua & Iyengar, 2011; Marchand et al., 2015; Noblet et al., 2017). While these work-related characteristics have been an interest within research for decades, women's decision latitude, self-efficacy, and work

ethic in the workplace has come a long way from the times of only selecting font types for mailers and letterheads (Lennon, 1994).

The DOL (2011) and the ILO (2016) indicated that females have a higher unemployment rate than males. The findings could help high school and collegiate level counselors prepare young women for the work force. With the information from this research, employers, as well as staff within administrative and human resource positions, can find ways to support women in the work force so they are able to find and keep jobs.

Perhaps the research can also help women reduce the wage gap (DOL, 2011; ILO, 2016). The ILO (2016) suggested that female dominated professions are more likely to have a lower wage average. Professions that are male dominated show a twenty percent difference internationally (ILO, 2016). Women under the age of twenty-four earn 95% of what men earn within the same age range supporting there is still a wage gap (DOL, 2011). The findings of this research can inform and empower women both young and old with varying education levels.

In addition to the gap supported by this literature review, other areas remain to be studied. Specifically, additional research should be done to assess external factors (e.g. single parenthood, same sex parenthood) on the workplace characteristics that have been discussed in this literature review. It may also be beneficial to compare data between job types to see if some career fields increase decision latitude, self-efficacy, and work ethic.

Chapter 3 comprises the research design and rationale, methodology, instrumentation, data analysis, threats to validity, as well as ethical procedures including IRB approval. The methodology includes the target population, sampling procedures and

recruitment processes. This researcher is unaware of any studies that highlight women's experience with decision latitude, self-efficacy, and work ethic within the work setting that analyzes the interaction of age and education level. This study intends to add to the discipline of psychology in the workplace by examining the synergy of these variables.

Chapter 3: Research Method

Introduction

The purpose of this quantitative study was to explore decision latitude, self-efficacy, and work ethic with the interaction of age and education level. The variables were measured using the JCQ (Karasek, 1985), Short OSE Scale (Rigotti et al., 2008b**)** and the MWEP-SF (Miller et al., 2002). A description of the design and rationale for the research, as well as the population, sampling and collection strategies, and instrumentation is provided below. Data analysis, validity, and a description of ethical protocols conclude this chapter.

Research Design, Rationale, and Variables

The cross-sectional design for this study allowed the researcher to analyze relationships between the variables within one point in time. This research did not involve a longitudinal study as the research questions did not indicate a need for collecting data over an extended period of time. The cross-sectional design was the best fit as it met the needs for comparing populations by age and education level. The design also allowed for a comparison of several variables at the same time. A cross-sectional design was advantageous for this study as it provided answers to the research questions, specifically the differences and interactions of the variables.

The dependent variables decision latitude, self-efficacy, and work ethic were analyzed in female individuals working at least 15 hours per week at one location. The quantitative study assessed female age and education to determine differences between decision latitude, self-efficacy, and work ethic. The levels of education include some high

school or no diploma, high school graduate or equivalent, current undergraduate student or undergraduate degree received, and current graduate student or graduate degree received. Participants were asked to provide their current age. Collecting this information was helpful in two ways. First, it informed the researcher where the individual was within the life cycle (Pew Research Center, 2015). Second, it identified potential traits that the individual may share with people within the same age group. Pew Research Center (2015) argued age is one of the most influential factors for workplace attitudes and beliefs. Age can provide the researcher with information regarding current traits or patterns of work characteristics, such as external motivation and internal drive. This research was not able to identify whether trait similarities were related to a generational cohort. Identifying and assessing the interactions between the independent variables age and education provided a better understanding of women's current work ethic patterns related to education level and age.

Quantitative research involves applying numbers to variables and using those numbers to produce statistics to show and compare relationships and interactions (Cottrell & McKenzie, 2011). A quantitative design was used within this research to show differences between variables through these statistics. This study employed nonexperimental research. Specifically, correlational research with a cross-sectional design was utilized via an online study using six two-way ANOVAs which analyzed interactions between multiple dependent and independent variables simultaneously. Specifically, ANOVA was used to observe relationships between the four levels of education (high school equivalent or less, two-year degree, four-year degree or

graduate/doctorate) and five age groups (20-29, 30-39, 40-49, 50-59, and 60-69) with each of the dependent variables.

This researcher did not need to manipulate the variables but did measure the relationships between the variables. The researcher did not attempt to prove cause and effect. Given the nature of the study, time and resource constraints were minimal.

Methodology

Population, Sampling and Sampling Procedures

The target population for this study was American women who worked at one location for a minimum of 15 hours per week. The DOL (2011) projected there are approximately 66 million women within the workforce. In 2010, females comprised approximately 47% of the labor force in the United States. It was projected that females would encompass 51% of the working U. S. population by the year 2018 (DOL, 2011).

Participants were 18 years of age or older to ensure protection of younger participants, a vulnerable population, and increase the likelihood that individuals work the minimum requirement of 15 hours per week. The study relied on participants who were contacted on social media sites including Facebook, Instagram, and LinkedIn. Whenever possible, the researcher contacted specific groups of women within those social media outlets. For example, several chapters of New York State Women, Inc. can be found and contacted through Facebook. Other groups were geared towards shopping interests (e.g. Lularoe shopping pages, dōTerra BOGOs), business (e.g. Southern Tier Young Professionals), school (e.g. Walden University PhD/EdD/DBA, Walden University PhD Student Led Dissertation Support Group), exercise (e.g. Organic Yoga)

and moms (e.g. Mommy & Me!, Moms with Careers Making it All Work, Engineering Working Moms). Posts with a link to the survey were produced daily until the necessary sample size was met. The participants were encouraged to share the link with their peers, also known as snowball sampling.

In addition to these efforts, participants were contacted by distributing flyers or posting on bulletin boards at workplace settings (e.g. hospitals, not-for-profit, and state agencies), women-owned businesses, fitness centers, shopping centers (e.g. stores and malls), restaurants (e.g. pubs and bars), and boutiques and hair salons which are geared towards women's needs or interests. Participants were provided with a link or quick response code which led to the survey found on Qualtrics. They were provided with the informed consent form describing the purpose of the study, anonymity, and the opportunity to withdraw. Continuance and return of the questionnaire indicated consent. Potential agencies included A New Hope Center, local Family Planning/Planned Parenthood sites, obstetricians and gynecologists, and United Health Services. Flyers were expected to be left at the mall, local coffee shops, bars, and other locations such as libraries that allow free advertising on billboards. I planned to use the Call for Participants participant pool, an online location to recruit participants for research. However, the participant number determined by the financial agreement between this researcher and the JCQ owners was met prior to use of Call for Participants.

Snowball sampling allowed the participants to recommend other individuals within a specific population, in this case working women, to also participate in the survey. The second round of participants could have potentially recommended other

females, such as coworkers or acquaintances who work at least part-time. Those women would have recommended other women. This is also known as the process of accumulation.

Inclusion and exclusion criteria. To be included in this study, the participants must have identified as female, live and work within the United States, and work at least 15 hours per week in one location. Participants were at least 18 years of age. Participants were excluded if they did not identify as a female, live or work outside of American territory, or work less than 15 hours per week at one location or are currently unemployed. Individuals under the age of 18 were excluded.

Power analysis. The G*Power offers the effect size for research to determine the likelihood of the null hypothesis to be rejected or accepted. There are five types of power analyses: a priori, compromise, criterion, post-hoc, and sensitivity (Faul, Erdfelder, Lang, & Buchner, 2007; Faul, Erdfelder, Buchner, & Lang, 2009). The a priori analysis was used to determine the power for this research. The researcher took this design-based approach by inputting the parameters of the test and the design of the study, including the number of groups, as well as the dependent and independent variables.

A power analysis was utilized to determine an appropriate sample size. The effect size is 0.4 with an alpha level of 0.05 and power level of 0.95. This led to a calculated sample size of at least 145 participants. This was calculated by G*Power to create a statistically validated level of significance (Faul et al., 2007; Faul et al., 2009).

Procedures for Recruitment, Participation, and Data Collection

As mentioned previously, the researcher recruited participants through social networking sites. This format was least expensive and created the potential to access a substantial participant pool. According to Kosinski, Matz, Gosling, Popov, and Stillwell (2016), Facebook and possibly other social media sites often provide access to 1.4 million people worldwide. Although it could be argued that the people who have access to the Internet are often people educated with funds or connections to services, Kosinski et al. (2016) suggested that even underrepresented populations are accessible through social media. Individuals were encouraged to share or invite other female participants through social media, emails, text messages and by word of mouth. Kosinski et al. (2016) highlighted that if enough individuals ask others to join then the study would become self-sustaining.

To supplement snowball sampling, this researcher utilized platforms on social media and targeted specific and rare populations of females (Kosinski et al., 2016). This practice advertises the study to include various behaviors (e.g. going to work), demographics (e.g. inner city or females) and preferences (e.g. likes comments related to waking up early").

To offset the limitations of recruiting specific education levels, the researcher also attempted to recruit participants through dispersing flyers by connecting with agencies or businesses that work with, by and for women, such as: workplace settings (e.g. hospitals, health clinics, not-for-profit and state agencies), women-owned businesses, fitness centers, shopping centers (e.g. stores and malls), restaurants (e.g. pubs and bars),

boutiques and hair salons, as noted previously. In addition, Call for Participants was expected to be utilized. However, this participant pool was not used due to reaching the maximum participant threshold prior to attempts to utilize this service.

The demographic information included were gender identity, age, location (state), race and ethnicity, education level, marital status, size of family, children (when applicable) and type (biological, step, foster, adopted), occupation, as well as household income. The data were collected to identify other demographic variables that may impact validity (Cottrell & McKenzie, 2011; Frankfort-Nachmias & Nachmias, 2008). See Appendix A for the Demographic Questionnaire.

Consent was provided on the first page of the survey link. It was recommended that the participants print or take a screenshot of the informed consent form. By continuing to the first question, the participants acknowledged they had read the informed consent form prior to survey administration. Participants were provided with the researcher's email if they were interested in the findings after research completion. Participants were also informed that a one-page report would be sent in the same manner as the initial outreach efforts.

Instrumentation

The Job Content Questionnaire

The JCQ is an instrument that was developed by Robert Karasek in the mid-1980's and can be used to obtain psychosocial job characteristics across varying occupations with the use of 49 core questions (JCQ Center, n.d.). The survey covers skill discretion, decision latitude, physical and psychological demands, supervisor and

coworker support, as well as job insecurity including self-efficacy (JCQ, n.d.). Due to the permission requirements, only the keywords to the JCQ items can be published (see Appendix B).

In previous research, the JCQ was assessed for reliability within a study of over 16,000 participants internationally (Karasek et al., 1998). Karasek et al. (1998) set out to determine validity and reliability of the JCQ by analyzing six studies across four countries, Canada, Japan, Netherlands and the United States. Karasek et al. (1998) found that the JCQ scale validation indicated reliability in all four countries. However, Karasek et al. (1998) added that there are differences internationally as work-related characteristics rely on social foundations. Only one scale, the skill discretion scale, was found to be less reliable than other scales and that was for Japanese men with a coefficient of .59, while Japanese women had a coefficient of .80 (Karasek et al., 1998). According to Karasek et al. (1998) the scale was determined reliable for Japanese women, however. Karasek et al. (1998) also took into account that there may be a self-reporting bias. Reliability was determined through Cronbach's alpha coefficients. Validity was assessed by analyzing correlations between scales and subscales (Karasek et al., 1998; Santos, de Araujo, Cavalho, & Karasek, 2017).

Psychometric properties. The psychometric data used to determine the validity and reliability were obtained from female and male participants in Canada, Japan, Netherlands and the United States (Karasek et al., 1998). According to Santos, Carvalho, and de Araujo (2016) and Niedhammer (2002), Cronbach's alpha values that range above .65 are considered acceptable. The instrument was found to accurately measure decision

latitude and psychological demands for men and women, which resulted in Cronbach's alpha coefficients for decision latitude as .74 (Santos et al., 2016) and .79 (Niedhammer, 2002). Cronbach's alpha coefficients for psychological demands were .73 (Santos et al., 2016) and .77 (Niedhammer, 2002). Both decision latitude and psychological demands were found to produce similar results between females and males (Niedhammer, 2002).

Another study in 1997 highlighted that the French version of the JCQ was reliable for the construct decision latitude as well as other work-related characteristics including psychological demands, social support and physical demands (Niedhammer, 2002). These results matched the efforts of Karasek's previous work (Niedhammer, 2002). Santos et al. (2016) indicated the dimensions of the subscales showed good internal consistency overall. However, Psychological Job Demand fell below the acceptable range with a range of .52 and .58, as well as Decision Authority with a range of .42 and .55 (Santos et al., 2016). Niedhammer (2002) argued all scales and subscales were found to be satisfactory for internal consistency as all Cronbach's alpha coefficients were above the .65 value. The Decision Latitude scale was found to have high internal consistency of .79 (Niedhammer, 2002). The scales for Psychological Demands, Social Support and Physical Demands were also found to have high internal consistency of .77, .80 and .85 respectively.

Karasek et al. (1998) used factorial validity, or groupings of factors, to determine validity of the subscales in the JCQ. The American results were found to have clear findings for both men and women (Karasek et al., 1998). The French version used the squared multiple correlations test, followed by a scree test and then a confirmatory factor

analysis to determine factorial validity and meaningful factors (Niedhammer, 2002). The results were found satisfactory for convergent validity and structure. There were clear associations for decision latitude and age for males, but there were no associations found for women (Niedhammer, 2002). Correlations between scales and subscales were also found to be satisfactory for validity (Niedhammer, 2002). Karasek et al. (1998) noted that some studies produced an inconsistency of one particular question related to repetitive work. Niedhammer (2002) also noted learn new things, conflicting demands, wait on others, excessive work in addition to repetitive work as areas of weakness.

Multidimensional Work Ethic Profile- Short Form

The MWEP, which was used to obtain characteristics related to work ethic, was published in 2002 by Miller et al. (Meriac et al., 2013). The original version of the instrument is a 65-item survey with statements to cover various work characteristics: delay of gratification, ethics and morality, hard work, leisure, self-reliance, wasted time and work centrality (Miller et al., 2002). The short form consists of only 28 items (Meriac et al., 2013). The MWEP can be found in Appendix D.

Miller et al. (2001) invested time in six studies to assess the quality of the MWEP. The studies researched the work ethic construct, psychometrics constructs, generalizability from students to a non-student working population and then again to a sample within a military sector (Miller et al., 2001). Finally, Miller et al. (2001) investigated the validity of the MWEP among all populations. Due to the level of investigation within these six studies it was determined that there were adequate levels of reliability for each of the dimensions noted above. This was consistent with previous

samples (Miller et al., 2001). The results also supported construct validity of the multidimensional approach of the survey (Miller et al., 2001).

Current researchers investigated the validity of both the original version and the short form of the MWEP (Meriac et al., 2013). Meriac et al. (2013) found MWEP-SF to be comparable to that of the full version.

Psychometric properties. The psychometric data used to determine the validity and reliability were obtained over a three-year period from 2,221 students from business and psychology courses from varying universities in the Midwest and Southeast United States (Meriac et al., 2013). The internal consistency on the short form of the instrument was equivalent to the full version which resulted in a .03 difference. All correlations between the MWEP-SF and full version of MWEP were above .90 (Meriac et al., 2013). All internal consistency values were above .70. Lower ranges resulted in Centrality of Work with a value of .86 (Meriac et al., 2013). Meriac, Woehr, Gorman, and Thomas (2013b) established validity through cross-validation with a second study where the MWEP-SF scale dimensions were evaluated against theoretically related variables through a nomological network approach, a measure developed by Cronbach and Meehl (1955). The research was found to be sound for both reliability and construct related validity. Meriac et al. (2013b) indicated that the short form was as equally psychometrically sound as the original 65-item version.

Short Occupational Self-Efficacy Scale

The original version of the OSE Scale by Schyns and von Collani (2002) consisted of twenty items that stemmed from various versions of general self-efficacy

scales. Shyns and von Collani (2002) adapted the general self-efficacy scales to the OSE to specifically assess work-related constructs (Rigotti, Schyns, & Mohr, 2008). In 2002, Schyns and von Collani created a shorter version of the OSE with just eight items. Both the original version and the eight-item version of this scale recorded responses on a six-point scale ranging from 1 (completely true) to 6 (not at all true).

The shortest form of the OSE scale was used to assess self-efficacy within the work environment. This assessment identifies the level of competence an individual may feel related to job tasks (Rigotti et al., 2008). The six items within this version consist of six-level responses from 1 (not at all true) to 6 (completely true). In the Rigotti et al. (2008b) version the higher values reflect higher levels of self-efficacy. The six-item version of this questionnaire can be found in Appendix F.

Psychometric properties. Felfe and Schyns (2006) facilitated a study with 175 student participants to assess occupational self-efficacy and other personality traits. Felfe and Schyns (2006) utilized an eight-item short version of the OSE developed by Schyns and von Collani (2002). Felfe and Schyns (2006) determined the OSE had an internal consistency of .79.

A study by Park and Jung (2015) utilized the Rigotti et al. (2008) short version of the OSE with 555 full-time employees from South Korea. Park and Jung's (2015) study indicated a Cronbach's alpha of .83. A more recent study utilized results from 1,074 German employees and found this short version of the OSE to be reliable with a Cronbach's alpha of .86 (Hentrich, Zimber, Gregersen, Nienhaus & Petermann, 2017).

Rigotti et al. (2008) assessed the structural and construct validity for the short version of the OSE. In order to assess validity, Rigotti et al. (2008) analyzed responses from a sample of 1,535 participants across five countries, which included Belgium, Germany, Spain, Sweden and the United Kingdom. There were no gender differences among the samples. However, there were positive correlations between age and self-efficacy among Belgian ($r = .10$, $p < .01$), British ($r = .18$, $p < .05$) and German ($r = .28$, $p < .001$) participants (Rigotti et al., 2008). There were also positive correlations between education level and self-efficacy among the Swedish participants ($F = 5.11$, $p < .01$) (Rigotti et al., 2008).

Data Analysis

The researcher utilized the International Business Machine's Statistical Package Social Science (SPSS) to analyze the data once the adequate number of participants completed the survey, as mentioned previously in the power analysis (IBM, 2015). Three two-way analyses of variance (ANOVA) were computed to help measure the psychological features of the five age groups and the four education levels outlined previously in this study. The first analysis examined effects of age and education level with decision latitude. Another analysis examined age and education level on self-efficacy. A third analysis evaluated age and education level on work ethic. The three two-way ANOVAs were used to investigate any interactions between the independent and dependent variables and significant differences were identified between groups (e.g. age and education level).

Research Questions and Hypotheses

RQ1: Is there a difference in decision latitude based on level of education among women in the workplace?

$H_0$1: There are no differences in decision latitude among women based on education level.

H_a1: There are differences in decision latitude among women based on education level. Women with lower levels of education will have lower levels of decision latitude. Women with higher levels of education will have higher levels of decision latitude.

RQ2: Is there a difference in self-efficacy based on level of education among women in the workplace?

$H_0$2: There are no differences in self-efficacy based on level of education among women in the workplace.

H_a2: There are differences in self-efficacy among women based on education level. Women with lower levels of education will have lower levels of self-efficacy. Women with higher levels of education will have higher levels of self-efficacy.

RQ3: Is there a difference in work ethic based on level of education among women in the workplace?

$H_0$3: There are no differences in work ethic based on level of education among women in the workplace.

H_a3: There are differences in work ethic among women based on education level. Women with lower levels of education will have lower levels of work ethic. Women with higher levels of education will have higher levels of work ethic.

RQ4: Is there a difference in decision latitude based on age among women in the workplace?

$H_0$4: There are no differences in decision latitude based on age among women in the workplace.

H_a4: There are differences in decision latitude among women based on age. Decision latitude will increase as a woman ages.

RQ5: Is there a difference in self-efficacy based on age among women in the workplace?

$H_0$5: There are no differences in self-efficacy based on age among women in the workplace.

H_a5: There are differences in self-efficacy based on age among women in the workplace. Self-efficacy will increase as a woman ages.

RQ6: Is there a difference in work ethic based on age among women in the workplace?

$H_0$6: There are no differences in work ethic based on age among women in the workplace.

H_a6: There are differences in work ethic based on age among women in the workplace. Work ethic will increase as a woman ages.

RQ7: Is there a significant interaction between age and education level on decision latitude?

$H_0$7: There will be no significant interaction between age and education level on decision latitude.

H_a7: There will be a significant interaction between age and education level on decision latitude.

RQ8: Is there a significant interaction between age and education level on self-efficacy?

H_08: There will be no significant interaction between age and education level on self-efficacy.

H_a8: There will be a significant interaction between age and education level on self-efficacy.

RQ9: Is there a significant interaction between age and education level on work ethic?

H_09: There will be no significant interaction between age and education level on work ethic.

H_a9: There will be a significant interaction between age and education level on work ethic. Specifically, individuals with higher levels of education are expected to have higher work ethic among older women. Additionally, individuals with lower levels of education are also expected to have lower levels of work ethic among younger women.

Threats to Validity

Internal Validity

There are potential factors that may offer alternative reasons as to what may influence variables within a study. These are known as threats to internal validity (Cottrell & McKenzie, 2011). The design and methods of implementing this research

were intended to strengthen the validity (Cottrell & McKenzie, 2011; Frankfort-Nachmias & Nachmias, 2008).

Generally, confounding is not a threat in cross-sectional studies. However, when associations are made between variables it can become a threat (Yu & Tse, 2012). Confounding describes changes in the dependent variable that may be attributed to another variable not measured. In an attempt to reduce this threat, the researcher collected additional demographic information that could have been considered confounding factors. In addition, stratified sampling reduced confounding (Boston University, 2013; Pennsylvania State University, 2017). According to Pourhoseingholi, Baghestani and Vahedi (2012), the analyses can include as many covariates as needed to determine distortion related to other factors. However, due to the type of study this cannot be ruled out completely.

The relationship between the independent variables may create a risk for potential multicollinearity. This is possible if there are correlations between age groups and education levels (Grimm & Yarnold, 1995). These relationships were considered and assessed within a scatter diagram, which checked for multicollinearity.

Navarro-González, Lorenzo-Seva and Vigil-Colet (2016) argued that people tend to want others to view them in a socially desirable fashion and therefore may alter their responses. This is known as response bias, self-report bias or objective validity (Karasek et al., 1998; Navarro-González et al., 2016). Questionnaire items that include variables such as work ethic may show a positive correlation to social desirability, separate from

the content of the study (Karasek et al., 1998; Navarro-González et al., 2016). The JCQ and MWEP-SF were selected specifically to reduce this bias.

Selection bias occurs when randomization cannot be achieved. A stratified analysis was used to validate statistical power. To offset this concern, the participants were divided into strata by ages 20-29, 30-39, 40-49, 50-59 and 60-69 (Boston University, 2013; Pennsylvania State University, 2017; Yu & Tse, 2012). One participant was under the age of 20. Two participants were over the age of 70. The responses from the three participants were eliminated as they fell outside of the strata noted above. The researcher cannot assume the response from one 18-year-old reflects the beliefs and experiences of other females within that age group. Similarly, the responses from the 70-year-old and 71-year-old individuals may not necessarily reflect the perceptions of other women in the same age category. Inferences cannot be made based on one or two responses and therefore cannot be generalized (Banerjee & Chaudbury, 2010).

Finally, there is the potential for researchers to observe a relationship when there is not a relationship between variables or researchers determine no relationship when there is a relationship between variables. This is known as threats to conclusion validity (Trochim, 2006). This can be prevented by setting the statistical power value above .80 (Trochim, 2006). As stated previously, the statistical power for this research is 0.95 (Faul et al., 2007; Faul et al., 2009).

External Validity

Threats to external validity transpire when researchers attempt to compare or generalize findings between populations, locations and/or times in history (Cottrell &

McKenzie, 2011). To further explain, a researcher tries to compare the findings within one research study's population to another population. However, the original research results may be unique to a specific group of people within one community or during one era (Trochim, 2006). One example of inaccurately comparing populations or generalizing the information is described by Jonck, van der Walt and Sobayeni (2017). American culture is often described as being competitive and individualistic with an increased focus on self-esteem and self-efficacy (Jonck et al., 2017). Other cultures, such as the one in this study of African participants, believe that group belonging, group recognition, as well accountability towards the community are most important (Jonck et al., 2017). Therefore, the comparison between these two groups would not be valid.

One factor that threatens external validity is volunteer bias, also known as sampling bias which suggests that the results may not reflect the population as the participants completing the study have volunteered (Sedgwick, 2015). The attitudes, beliefs and behaviors and other personality characteristics may be different between persons who volunteer for research and those who do not (Sedgwick, 2015). Therefore, this sampling bias and projected findings of this study should not be generalized to women that do not fall within these parameters. The researcher would not suggest generalizing this information to other women that do not have similar characteristics as the participants within this study.

Ethical Procedures

Prior to the start of survey participation, each participant was given a consent form to inform her of data collection procedures, anonymity and the capacity to withdraw

at any time. To ensure confidentiality the individuals were not asked to provide identifying data such as names, social security numbers or addresses. Therefore, the individuals were to remain anonymous (American Psychological Association [APA], 2017; Frankfort-Nachmias & Nachmias, 2008). Participants were identified by a number instead of a name for continued identity protection. The data were accessed and were accessible through Qualtrics (2018), the survey software tool, for a maximum of one year. The data were encrypted through Transport Layer Security with firewall protections and periodic scans (Qualtrics, 2018). While within Qualtrics, all data were in one location, not within a cloud. Once the data was extracted from Qualtrics the responses were encrypted and password protected. The data will be retained for a minimum of 5 years. All practices and procedures were preapproved by Walden University's Institutional Review Board and were followed by this researcher.

This study met the general APA's research ethical standards including gaining prior approval from Walden University's IRB and following the approved protocols, Code 8.01 (APA, 2017). The researcher followed Code 8.02 and presented a thorough informed consent which was made available to each participant prior to access to the survey (APA, 2017). The researcher did not offer money or other incentives for research participation, Code 8.06 (APA, 2017). The researcher offered a personal email address and a statement indicating that a one-page document with accurate data would be provided with the research findings in the same manner as the initial recruitment (Code 8.08 and Code 8.1) (APA, 2017). This research did not record voices or images (Code

8.03), use deception (Code 8.07), nor required the use of animals (Code 8.09) which would otherwise create potential for stress or harm (APA, 2017).

Summary

This chapter discussed research design, rationale, sampling and recruitment processes, as well as the target population. Chapter 3 also included a brief discussion of internal and external validity, as well as any noted ethical concerns. Finally, this chapter included the IRB process necessary to implement this study.

Chapter 4: Results

Introduction

The purpose of this cross-sectional quantitative study was to contribute to the current literature by gaining insight from women on work-related variables to identify how self-efficacy, decision latitude, and work ethic are influenced by age and education level. As previously identified, the study was administered to answer the following nine research questions. The remainder of Chapter 4 reviews the design, describes the sample population, and summarizes the results from the analyses that addressed these nine research questions.

RQ1: Is there a difference in decision latitude based on level of education among women in the workplace?

$H_0 1$*:* There are no differences in decision latitude among women based on education level.

$H_a 1$*:* There are differences in decision latitude among women based on education level. Women with lower levels of education will have lower levels of decision latitude. Women with higher levels of education will have higher levels of decision latitude.

RQ2: Is there a difference in self-efficacy based on level of education among women in the workplace?

$H_0 2$*:* There are no differences in self-efficacy based on level of education among women in the workplace.

H_a2: There are differences in self-efficacy among women based on education level. Women with lower levels of education will have lower levels of self-efficacy. Women with higher levels of education will have higher levels of self-efficacy.

RQ3: Is there a difference in work ethic based on level of education among women in the workplace?

$H_0$3: There are no differences in work ethic based on level of education among women in the workplace.

H_a3: There are differences in work ethic among women based on education level. Women with lower levels of education will have lower levels of work ethic. Women with higher levels of education will have higher levels of work ethic.

RQ4: Is there a difference in decision latitude based on age among women in the workplace?

$H_0$4: There are no differences in decision latitude based on age among women in the workplace.

H_a4: There are differences in decision latitude among women based on age. Decision latitude will increase as a woman ages.

RQ5: Is there a difference in self-efficacy based on age among women in the workplace?

$H_0$5: There are no differences in self-efficacy based on age among women in the workplace.

H_a5: There are differences in self-efficacy based on age among women in the workplace. Self-efficacy will increase as a woman ages.

RQ6: Is there a difference in work ethic based on age among women in the workplace?

$H_0$6: There are no differences in work ethic based on age among women in the workplace.

H_a6: There are differences in work ethic based on age among women in the workplace. Work ethic will increase as a woman ages.

RQ7: Is there a significant interaction between age and education level on decision latitude?

$H_0$7: There will be no significant interaction between age and education level on decision latitude.

H_a7: There will be a significant interaction between age and education level on decision latitude.

RQ8: Is there a significant interaction between age and education level on self-efficacy?

$H_0$8: There will be no significant interaction between age and education level on self-efficacy.

H_a8: There will be a significant interaction between age and education level on self-efficacy.

RQ9: Is there a significant interaction between age and education level on work ethic?

$H_0$9: There will be no significant interaction between age and education level on work ethic.

H_a9: There will be a significant interaction between age and education level on work ethic. Specifically, individuals with higher levels of education are expected to have higher work ethic among older women. Additionally, individuals with lower levels of education are also expected to have lower levels of work ethic among younger women.

Data Collection and Recruitment

Data Collection

Three hundred women 18 years of age or older, who lived and worked within the United States, and worked a minimum of 15 hours per week at one location attempted to complete the survey. The survey located on Qualtrics consisted of demographic questions and three self-report questionnaires. These would include the JCQ (Karasek, 1985), the MWEP-SF (Miller et al., 2002), as well as the Short OSE Scale (Rigotti et al., 2008b). Data were collected over a 12-day period. Participants were recruited through Facebook, LinkedIn and Instagram, as well as several locations in the Upstate New York area. While 300 participants attempted the online survey, only 284 individuals completed the survey. Due to an agreement with JCQ owner, 16 individuals were removed as they had attempted questions within the instrument but did not complete the entire survey. An additional 17 participants were removed for incomplete demographic information to determine inclusion criteria.

There were a few changes from the original design written in Chapter 3. Specifically, the demographic portion previously mentioned collecting family size and household income. The survey did not capture these variables. While family size was not captured, the participants did provide these details within other questions. For example,

the demographic questions prompted marital status, number of children (including stepchildren and foster children), and whether children shared residence. This was particularly helpful in observing whether children were considered confounding factors. Also, the implemented study included a question that captured income earned directly from the employment that the individual used to describe personal experiences.

Due to the short length of time in data collection, the researcher was not able to utilize all online locations. Particularly, no posts were made within Pinterest. Also, within Facebook there were several group pages that were not utilized either due to length in response time from the administrator, or the sample limits setup by the JCQ and Qualtrics were met. While some brick-and-mortar establishments were contacted and allowed for posters, not all locations were utilized. Particularly, the mall and hospital environments were not contacted. Flyers were posted at bars and restaurants, libraries, coffee shops and one health clinic. Finally, in order to answer the research questions appropriately, six one-way ANOVAs were run to answer research question 1-6. In addition, ANCOVAs were run to determine if confounding factors were present. As previously noted in Chapter 3, three two-way ANOVAs were run to determine the interaction of the two independent variables, age and education level, on each of the dependent variables, self-efficacy, decision latitude, and work ethic.

Recruitment

Administrators from several Facebook group pages were contacted via Facebook Messenger querying the potential to promote the online study within the page. The administrators were informed about the potential participant pool, the purpose of the

study, how long the survey would likely take and the potential for positive social change. The administrators were provided with details within the informed consent form. It was noted that the survey was voluntary and that no identifying information would be collected. The administrators were offered a link to the survey for the purpose of review. Finally, the administrators were informed that if approved, the group would be notified with a one-page equivalent post indicating the findings from this research. The data were collected between June 24 and July 5, 2018. The page administrators then offered approval or denial to share the research link within the group page. Two separate page administrators preferred they post the survey, while other page administrators allowed the researcher to post within the group page. Only one post was placed within each group page. The post encouraged the female participants to share the link with friends, family and colleagues. After 24-hours had lapsed, the researcher made a comment within the post to keep the information current and at the top of the page. Commenting on posts was found necessary to overcome challenges related to Facebook algorithms, which is discussed further in Chapter 5. When the survey link closed the groups were notified. Thank you messages were included within the original posts. The page administrators were directly informed. The administrators also received a thank you message, which included a reminder that a follow-up post would occur with the research findings. Thirteen posts were added to the researcher's personal Facebook page. Two posts were uploaded within the researcher's personal LinkedIn page. Two posts were uploaded within the researcher's Instagram page. Flyers were hung in three coffee shops, three bars and restaurants, two libraries, and one health clinic.

Demographic Information

A portion of the survey captured data related to demographic information. The data were utilized to determine inclusion, exclusion, as well as possible confounding factors. Participants were required to identify as female, 18 years of age or older, work and live within the United States, and work a minimum of 15 hours per week at one location. Table 1 depicts the demographic information of the females that participated in this survey. While 300 women attempted to participate in the survey, 284 women completed the survey and met the criterion for this study. The participants that did not complete or did not meet inclusion criteria were removed prior to the analyses.

Table 1

Frequencies of Demographic Variables

Demographic Variable	Category	*N*	Percentage
Age	20-29	24	8.8%
	30-39	126	46%
	40-49	64	23.4%
	50-59	47	17.2%
	60-69	13	4.7%
Live and Work within the US	Yes	284	100%
	No	0	0%
Hours Worked per Week	15-24 hours	22	7.7%
	25-34 hours	16	5.6%
	35-40 hours	112	39.4%
	40+ hours	134	47.2%
Education Level	High School Diploma, Equivalent or Less	35	12.9%

(table continues)

Associate's Degree	37	13.6%
Bachelor's Degree	72	26.5%
Master's Degree, PhD/ MD, Equivalent	131	48.2%

Results

Table 2 provides descriptive statistics for decision latitude are reported by five age groups and four levels of education. The data were utilized to observe means between age groups and education level for decision latitude. The data were helpful when comparing groups when reviewing the post hoc test results.

Table 2

Descriptive Statistics for Decision Latitude: Age and Education Level

Variable	Group	*N*	Mean	SD
Age	20-29	26	74.0	10.2
	30-39	126	75.3	11.9
	40-49	66	77.0	11.9
	50-59	47	76.2	14.6
	60-69	13	80.2	13
	Total	278	76.0	12.2
Education Level	High School Diploma, Equivalent or Less	35	71.8	12.8

(table continues)

	Associate's Degree	37	68.0	13.8
	Bachelor's Degree	72	75.8	12.2
	Master's Degree, PhD/ MD, Equivalent	131	79.2	10.0
	Total	275	75.9	12.1

Table 3 provides descriptive statistics are self-efficacy are reported by five age groups and four levels of education. The data were utilized to observe means between age groups and education level for self-efficacy. The data were helpful when comparing groups when reviewing the post hoc test results.

Table 3

Descriptive Statistics for Self-Efficacy: Age and Education Level

Variable	Group	*N*	Mean	SD
Age	20-29	24	5.1	0.4
	30-39	126	5.1	0.6
	40-49	64	5.1	0.6
	50-59	47	5.2	0.3
	60-69	13	5.3	0.6
	Total	274	5.1	0.5
Education Level	High School Diploma, Equivalent or Less	36	5.2	0.5
	Associate's Degree	36	5.1	0.4
	Bachelor's Degree	70	5.0	0.7
	Master's Degree,	129	5.2	0.5

(table continues)

	PhD/ MD, Equivalent			
	Total	271	5.1	0.5

Table 4 provides descriptive statistics for work ethic are reported by five age groups and four levels of education. The data were utilized to observe means between age groups and education level for work ethic. The data were helpful when comparing groups when reviewing the post hoc test results.

Table 4

Descriptive Statistics for Work Ethic: Age and Education Level

Variable	Group	*N*	Mean	SD
Age	20-29	24	1.9	0.3
	30-39	126	1.8	0.3
	40-49	64	1.9	0.3
	50-59	47	2.0	0.3
	60-69	13	2.0	0.5
	Total	274	1.9	0.3
Education Level	High School Diploma, Equivalent or Less	36	1.9	0.3
	Associate's Degree	36	1.9	0.3
	Bachelor's Degree	70	1.9	0.3
	Master's Degree, PhD/ MD, Equivalent	129	1.9	0.3
	Total	271	1.9	0.3

RQ1

Hypothesis

RQ1 asked to compare the differences in decision latitude between four levels of education. I hypothesized that there were differences in decision latitude among women based on education level. Specifically, I hypothesized that women with lower levels of education would have lower levels of decision latitude. In addition, women with higher levels of education would experience higher levels of decision latitude. Decision latitude and education levels were analyzed using an ANOVA. Decision latitude, a dependent variable, was measured utilizing the JCQ (Karasek, 1985). A G*Power analysis was used for this one-way ANOVA, which produced an effect size of 0.4 with an alpha level of 0.05 and power level of 0.95. A Levene test was run to verify assumptions and assisted with determining the homogeneity of variance across groups $F(3, 271) = 2.52$, $p = .06$. The equal variances are assumed. The ANOVA showed significance for this research question, $F(3, 271) = 10.82$, $p = .00$ (see Table 5). Therefore, there was enough evidence to reject the null hypothesis. The post hoc test Tukey's Honest Significance Difference did show statistically significant differences in decision latitude between specific levels of education. Particularly, the group high school diploma (regents, local, etc.) or equivalent, GED, or less than a high school diploma had a mean difference between another group master's degree or higher of -7.36 with a significance of $p = .01$. The group associate's degree had a mean difference of -7.81 between the bachelor's degree group with a significance of $p = .01$. The group associate's degree also had a mean difference of -3.39 between the group master's degree or higher with a significance of $p = .00$.

Table 5

One-Way ANOVA: Decision Latitude Differences Based on Education Level

Source	*SS*	*Df*	*MS*	*F*	*P*
Between groups	4308.271	3	1436.90	10.819	.000
Within groups	35970.478	271	132.732		
Total	40278.749	274			

RQ2

Hypothesis

Research Question 2 asked to compare the differences in self-efficacy between four levels of education. I hypothesized that there were differences in self-efficacy among women based on education level. Specifically, I hypothesized that women with lower levels of education would have lower levels of self-efficacy. Women with higher levels of education would have higher levels of self-efficacy. Self-efficacy and education levels were analyzed using an ANOVA. Self-efficacy, another dependent variable, was measured utilizing the Short OSE Scale (Rigotti et al., 2008b). A Levene test was run to verify assumptions and assisted with determining the homogeneity of variance across groups $F(3, 267) = 0.43$, $p = .73$. The equal variances are assumed. The ANOVA did not have a significant effect for this research question, $F(3, 267) = 2.21$, $p = .09$ (see Table 6). There was not enough evidence for significance, which resulted in a failure to reject the null hypothesis.

Table 6

One-Way ANOVA: Self-Efficacy Differences Based on Education Level

Source	*SS*	*Df*	*MS*	*F*	*P*
Between groups	1.815	3	.605	2.206	.088
Within groups	73.207	267	.274		
Total	75.021	270			

RQ3

Hypothesis

RQ3 asked to compare the differences in work ethic between four levels of education. I hypothesized that there were differences in work ethic among women based on education level. Specifically, I hypothesized that females with lower levels of education would have lower levels of work ethic. Females with higher levels of education would have higher levels of work ethic. Work ethic and education levels were analyzed using an ANOVA. Work ethic, another dependent variable, was measured utilizing the MWEP-SF (Meriac et al., 2013). A Levene test was run to verify assumptions and assisted with determining the homogeneity of variance across groups $F(3, 267) = 0.09$, $p = .97$. The equal variances are assumed. The ANOVA did not show significance for this research question, $F(3, 267) = 0.09$, $p = .96$ (see Table 7). There was not enough evidence for significance, which resulted in a failure to reject the null hypothesis.

Table 7

One-Way ANOVA: Work Ethic Differences Based on Education Level

Source	*SS*	*df*	*MS*	*F*	*P*
Between groups	.030	3	.010	.092	.964
Within groups	29.33	267	.110		
Total	29.36	270			

RQ4

Hypothesis

RQ4 asked to compare the differences in decision latitude between five age groups. I hypothesized that there were differences in decision latitude among women based on age. Specifically, I hypothesized there would be differences in decision latitude among women based on age. In addition, decision latitude would increase as a woman ages. Decision latitude and age were analyzed using an ANOVA. Decision latitude was measured utilizing the JCQ (Karasek, 1985). A Levene test was run to verify assumptions and assisted with determining the homogeneity of variance across groups $F(4, 273) = 0.8$, $p = .53$. The equal variances are assumed. The ANOVA did not have a significant effect for this research question, $F(4, 273) = 0.79$, $p = .53$ (see Table 8). There was not enough evidence for significance, which resulted in a failure to reject the null hypothesis.

Table 8

One-Way ANOVA: Decision Latitude Difference Based on Age

(table continues)

Source	*SS*	*df*	*MS*	*F*	*P*
Between groups	469.832	4	117.458	.791	.532
Within groups	40549.002	273	148.531		
Total	41018.835	277			

RQ5

Hypothesis

RQ5 asked to compare the differences in self-efficacy between five age groups. I hypothesized that there were differences in self-efficacy among women based on age. Specifically, I hypothesized that younger women would have lower levels of self-efficacy. As women aged, they would experience higher levels of self-efficacy. Self-efficacy and age were analyzed using an ANOVA. Self-efficacy was measured utilizing the Short OSE Scale (Rigotti et al., 2008b). A Levene test was run to verify assumptions and assisted with determining the homogeneity of variance across groups $F(3, 267) = 0.43$, $p = .73$. The equal variances are assumed. The ANOVA did not show significance for this research question, $F(4, 269) = 0.971$, $p = .42$ (see Table 9). There was not enough evidence for significance, which resulted in a failure to reject the null hypothesis.

Table 9

One-Way ANOVA: Self-Efficacy Differences Based on Age

Source	*SS*	*df*	*MS*	*F*	*P*
Between groups	1.072	4	.268	.971	.424

(table continues)

Within groups	74.236	269	.276
Total	75.309	273	

RQ6

Hypothesis

RQ6 asked to compare the differences in work ethic between five age groups. I hypothesized that there were differences in work ethic among women based on age. Specifically, I hypothesized that younger females would have lower levels of work ethic. Older females would have higher levels of work ethic. Work ethic and age were analyzed using an ANOVA. Work ethic was measured utilizing the MWEP-SF (Meriac et al., 2013). A Levene test was run to verify assumptions and assisted with determining the homogeneity of variance across groups $F(4, 269) = 1.60$, $p = .17$. The equal variances are assumed. The ANOVA did not have a significant effect for this research question, $F(4, 269) = 2.02$, $p = .09$ (see Table 10). There was not enough evidence for significance, which resulted in a failure to reject the null hypothesis. A Levene test was run to verify assumptions and assisted with determining the homogeneity of variance across groups $F(4, 269) = 1.60$, $p = .17$. The equal variances are assumed.

Table 10

One-Way ANOVA: Work Ethic Differences Based on Age

Source	*SS*	*Df*	*MS*	*F*	*P*
Between groups	.869	4	.217	2.023	.091

(table continues)

Within groups	28.895	269	.107
Total	29.764	273	

RQ7

Hypothesis

The first two-way ANOVA was conducted with the independent variables age and education level with the dependent variable decision latitude. A Levene test was run to verify assumptions and assisted with determining the homogeneity of variance across groups $F(18, 252) = 1.35$, $p = .16$. The equal variances are assumed. As seen in Table 11, the interaction of age and education level with decision latitude did not have a statistically significant effect ($p < .05$) with a p value of .33. This resulted in a failure to reject the null hypothesis. There were no significant differences in decision latitude means with age ($p = .23$). However, there were significant differences in education level means ($p = .00$).

Table 11

Factorial ANOVA: Decision Latitude: Interaction Between Age and Education Level

Source	*SS*	*Df*	*MS*	*F*	*P*
Age	730.458	4	182.614	1.420	.228
Education level	1752.367	3	584.122	4.543	.004
Age and education level	1608.086	11	146.190	1.137	.333

RQ8

Hypothesis

The second two-way ANOVA was conducted with the independent variables age and education level with the dependent variable self-efficacy. A Levene test was run to verify assumptions and assisted with determining the homogeneity of variance across groups $F(18, 248) = 0.82$, $p = .67$. The equal variances are assumed. As seen in Table 12, the interaction of age and education level with self-efficacy did not have a statistically significant effect ($p < .05$) with a p value of .2. There were no significant differences in self-efficacy means in either age ($p = .18$) or education level ($p = .86$). This resulted in the failure to reject the null hypothesis.

Table 12

Factorial ANOVA: Self-Efficacy: Interaction Between Age and Education Level

Source	*SS*	*Df*	*MS*	*F*	*P*
Age	1.746	4	.436	1.596	.176
Education level	.209	3	.070	.255	.857
Age and education level	4.059	11	.369	1.350	.198

RQ9

Hypothesis

A third two-way ANOVA was conducted with the independent variables age and education level with the dependent variable work ethic. A Levene test was ran to verify assumptions, which assisted with determining the homogeneity of variance across groups $F(18, 248) = 1.81$, $p = .02$. The assumption of homogeneity of variance was violated due

to variations between populations. Specifically, participants within the age group of 20-29, as well as the education level of master's degree or higher, were much larger than the other groups. Further evaluation indicated that this is likely due to the robust nature of violations when utilizing the two-way ANOVA. Therefore, it should be noted that the variances are not assumed. The results may be considered misleading. A box plot diagram was analyzed to determine outliers for work ethic. Two extreme outliers were identified and removed from the data. The homogeneity test was recalculated, $F(18, 246) = 1.25$, $p = .22$.

The initial analysis for RQ9, as seen in Table 13, indicated the interaction of age and education level with work ethic. This interaction did not have a statistically significant effect ($p < .05$) with a p value of .61. There were significant differences in work ethic means in age ($p = .04$). However, there were no significant differences in education level ($p = .95$). When the outliers were removed, there still were no significant differences in work ethic ($p = .60$), between age groups ($p = .10$) or levels of education ($p = .74$). This led to the failure to reject the null hypothesis.

Table 13

Factorial ANOVA: Work Ethic: Interaction Between Age and Education Level

Source	*SS*	*df*	*MS*	*F*	*p*
Age	1.155	4	.289	2.620	.036
Education level	.042	3	.014	.126	.945
Age and education level	1.006	11	.091	.830	.610

Confounding Factors

Marital status (p = .32), having biological children (p = .08), having stepchildren, foster or adopted children (p = .47), hours worked per week (p = .06), and income (p = .053) were not observed as confounding factors for RQ1. While supervisor support was not a significant factor (p = .59), coworker social support (p = .00) was determined a confounding factor for decision latitude and education level. This confound is discussed further in the limitations section in Chapter 5.

Conclusions

The results acquired from this data collection identified one significant relationship between decision latitude and level of education, which was found in RQ1. However, the variable coworker social support was determined a cofounding variable. The analyses for RQ2-9 indicated no significant differences between the variables. Particularly, there were no significant interactions found between each dependent variable with the independent variables. Chapter 5 concludes this research study with further discussion of the results, discussion of limitations, recommendations for future research, and implications for social change.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of this quantitative cross-sectional study was to examine differences in terms of work characteristics of women based on age and level of education. While there has been substantial research on varying workplace characteristics, there was little data identifying the interaction of age and education level in terms of self-efficacy, decision latitude, and work ethic. Chapter 5 begins with a summary of the research. The findings presented in Chapter 4 are interpreted and discussed in this section. The significance of this research with the SCCT is examined. Limitations are also briefly explained. Recommendations are presented for women in the workplace and their employers and counselors. Implications for social change and future directions for research conclude Chapter 5.

Summary of Research

Various businesses geared towards women, as well as online platforms including Facebook, Instagram, and LinkedIn were used to approach women for recruitment. The purpose of this study was to add to the current literature through women's perspectives of three work-related variables and learn how these variables were influenced by age and education level. This study implemented quantitative research with a cross-sectional design. The data were captured with the use of three scales: JCQ (Karasek, 1985), the Short OSE Scale (Rigotti et al., 2008) and the MWEP-SF (Meriac et al., 2013). While 300 female participants accessed the online survey through Qualtrics, only 284 women completed the survey. Demographics, as seen in Table 1, reflected a somewhat diverse

group of women. However, a majority of the participants fell between the ages of 30 and 50. Almost 90% of women reported working over 35 hours per week or more. In addition, nearly 50% of the participants reported having a master's degree or higher.

Participants had to identify as a female over the age of 18 who lived and worked within the United States and worked a minimum of 15 hours per week within one work environment. Participant perceptions were analyzed through six one-way and three two-way analyses of variance to compare groups of women based on age and education level. Levels of education were divided into four groups. The first group was high school diploma, GED, equivalent or less than a high school diploma. The second group was some college or associate's degree. The third group included some college and up to bachelor's degree. The fourth group included a master's, doctoral degree or other professional advanced degree. Age was divided into five groups: 20-29, 30-39, 40-49, 50-59, and 60-69. Three participants fell outside of these strata with one individual under the age of 19 and two individuals over the age of 70. The responses from these individuals were eliminated as the researcher cannot assume the responses reflect the beliefs or experiences of other females within the same age group.

The literature review focused on previous research relating to self-efficacy, work ethic, decision latitude, the history of women in education, history of women within the workplace, and balancing the roles of motherhood and work. This led to the gap within research, which indicated a need for the current study. The analyses determined that there was significance in one area of the study. Specifically, there was a relationship between level of education and decision latitude.

Interpretation of the Findings

This research produced information on relationships and interactions between three work setting characteristics and two demographic factors. Three research questions were developed to look at differences in terms of levels of education regarding self-efficacy, decision latitude, and work ethic. Another three questions were developed to look at the interaction between age and level of education in terms of self-efficacy, decision latitude, and work ethic.

Theoretical Foundation

The SCCT stems from the social cognitive theory, which guided the design for the current research. The theory highlights career interests, making career decisions, and impact of career development, performance, and stability (Lent & Fouad, 2011; Leung, 2008). The three constructs within SCCT are self-efficacy, outcome expectations, and personal goals (Lent & Fouad, 2011; Lent, Ireland, Penn, Morris & Sappington, 2017; Leung, 2008; Raque-Bogdan & Lucas, 2016). These constructs are observed in terms of career advancement, exploring new career options, making decisions within the work setting, performing tasks, projecting consequences, reaching for personal goals, as well as seeking and achieving higher income levels (Lent & Brown, 2013; Lent et al., 2017; Raque-Bogdan & Lucas, 2016).

This study supports the SCCT as it focuses on varying stages in career development, work performance, and education from early training to retirement (Foley & Lytle, 2015; Lim et al., 2016; Olson, 2014; Raque-Bogdan & Lucas, 2016; Thompson et al., 2017). These constructs are particularly useful in understanding the variables

within this research. Self-efficacy is the belief that the individual is capable of engaging in work-related tasks. In addition, career-related components such as work ethic and decision latitude fall within the career-related components of personal goals and outcome expectations (Lent & Brown, 2013; Lim et al., 2016). Individuals make decisions and put forth effort to reach goals related to expectations both in and outside of work (Foley & Lytle, 2015). Based on the constructs guided by the SCCT, I hypothesized that women who were older with higher levels of education were expected to report higher levels of decision latitude, self-efficacy and work ethic. However, the current research only supported the relationship between education level and decision latitude. Lim et al. (2016) argued there are two definitions of SCCT. The first described aspects of on-the-job performance, whereas the newer version of SCCT had included the career development process (Lim et al., 2016). This research particularly supports the initial version of SCCT, where women's behaviors and decision-making are observed through goals, actions, and performance at work (Lim et al., 2016). While not all aspects of the current research produced significant findings, the results may be considered helpful to describe current workplace characteristic trends among women. Additional research may be needed to better understand the SCCT in areas related to aging and retirement.

Women in Education

It was not until the early 1800s that women were able to attend college. However, attending school came with many restrictions such as limited coursework specific to gender roles of the 19th century (NWHM, 2007). From the time women entered the collegiate environment, it took over 150 years before women could both enroll and

graduate at comparable rates to males (NWHM, 2007). Mohajeri et al. (2015) reported women with higher levels of education were likely to experience more work opportunities due to access to additional resources. This may include additional training opportunities or networking. Due to these opportunities, it was hypothesized that women who had access to higher levels of education would have higher levels of self-efficacy, decision latitude, and work ethic. This was true for decision latitude.

These findings demonstrate that participants in this study perceived themselves as having the ability to make decisions at work when they had earned higher levels of education. Historically, women were confined to entry level positions with limited decision-making responsibilities. More recently, American women are gaining momentum with leadership roles and attaining positions with decision latitude. However, not all occupations within the United States provide similar experiences related to momentum (Langan et al., 2017). Women who live in cultures outside of the United States also face barriers in terms of promotions, pay increases, and being offered job opportunities that include decision latitude (Hogans et al., 2005).

Women at Work and Life Balance

Previous research described that women experienced barriers and challenges when entering education and navigating the work environment (Hogans et al., 2005; Koch et al., 2015). Research highlighted workplace challenges, such as promoting to decision-making positions or experiencing pay increases, due to balancing responsibilities outside of work (Hogans et al., 2005; Wang et al., 2016). These challenges included caring for aging family members and raising children (Bainbridge &

Broady, 2017; Koch et al., 2015; Langan et al., 2017; McLaughlin et al., 2017). The current study expanded the foundation of research described in Chapter 2, where I explored work environment, work characteristics, and life balance.

Limitations of the Study

These findings cannot be presented without acknowledging the limitations, including Facebook algorithms, representation of the sample, and a confounding factor of peer social support within the work setting. One limitation about participant recruitment was not a barrier as originally projected. It was believed that the participant recruitment would be challenging and take some time to meet or exceed the necessary sample size. Specifically, data collection was projected to fit a time table of six-months. However, the data were collected over a 12-day period.

The next limitation was not originally considered and therefore was not acknowledged in the proposal for this study. However, its impact should be noted. Online social networks are a great resource for connecting with other people for personal use, business, special causes, and attending events. Back in 2012, Facebook was a place for connection for more than 800 million users with an average of 130 friends with an additional 80 connections through events, groups and pages (Hsu, Chen, Huang & Huang, 2012). Today, Facebook has over 2 billion active users (Sprout Social, 2018). Sprout Social (2018) reported that if attempting to target an older population, the individual or marketer would have to utilize Facebook marketing to target this population and offset algorithms. As noted within Chapter 1 and again in Chapter 3, participants over the age of 65 were least likely to access and utilize Facebook (Sprout Social, 2018),

and more likely to experience anxiety when completing online self-report surveys (Weigold et al., 2015). This appears to be congruent with the participation levels seen within this study.

Another limitation to this study is the sample representation by education level. This study accumulated a high rate of individuals with master's degrees or higher. As observed in Table 1 within Chapter 4, over 48 percent of participants fell within this category. Whereas when looking at population characteristics among American women, the national average for women with a master's degree or higher was 12 percent in 2015 (Ryan & Bauman, 2016). This may have produced a weaker relationship between education level and decision latitude as there were more individuals with possession of a higher degree. The results may have been stronger had the sample been more representative of each education level. Although common in research, unequal sample sizes between groups weakens the results due to a loss of power. This is likely due to the recruitment process in the current research. Therefore, it is suggested that researchers be attentive to this detail when generalizing the results to other women.

A confounding factor was determined after recognizing the significant differences between education levels on decision latitude. Various factors were analyzed. However, only peer social support at work was found to be impactful. I would have expected supervisor support to be more influential in comparison to peer support as often people are guided by supervisors. However, it is possible that women look to their peers for support when making decisions, an area that might not be addressed in previous research.

Perhaps the direction of this research related to peer social support would be best understood through qualitative research efforts.

Recommendations

Research

The first recommendation stems from the limitations section within this chapter. Particularly, almost half of the participant population has a master's degree or higher. Increasing the sample size of these less represented groups could produce a better study. Similarly, working women over the age of 60 have a unique experience. While there were women within this study that represented this group, there were fewer female participants over the age of 60. A focus specifically on this population would be beneficial for employers and counselors alike as the retirement age is expected to increase in upcoming years (Social Security Administration, n.d.).

Since peer social support was found to be influential, it may be beneficial to look further into how peer social support allows women to feel they are able to make decisions at work. It could also be particularly helpful to compare the results of this study with supervisor support, which was not found to be a confounding variable. Many women are expected to make decisions while at work. Understanding how these external work factors impact interpersonal work characteristics would be interesting. It would be helpful to learn more about the relationship between education level, decision latitude, and varying supports.

Applying to the Field of Psychology

It was identified in Chapter 2 that people who work outside the home spend a great amount of time away from their families. For many, time spent at work consumes a majority of awake hours (Cohen et al., 2014). This can greatly impact overall wellness.

As mentioned in Chapter 2, Akbari et al. (2017) indicated that individuals with lower levels of decision latitude were more likely to have higher levels of stress. Mental health workers have a unique opportunity to help women at the individual level to overcome challenges with decision latitude. Understanding that education level supports making decisions within the work setting can guide the treatment plan. When the individual indicates she is looking for work that allows for more decision latitude, mental health professionals can direct the individuals towards training and education.

Previous research indicated that some individuals experience struggle with finding and maintaining employment, which is a constant challenge for career psychologists (Thompson et al., 2017). Long-term mental health concerns including depression and anxiety, as well as psychosomatic illnesses due to barriers related to unemployment also continue to challenge career psychologists (Thompson et al., 2017). The current study was able to explore and produce new and valuable information that may benefit psychologists and assist with some of these barriers. Specifically, these findings may influence career counselors to help women looking for jobs that include decision making roles by introducing, exploring and guiding women to educational opportunities. This may be beneficial for mental health including issues related to

depression or employee engagement (Hentrich et al., 2017b; Paterniti et al., 2002), both concerns mentioned in Chapter 1.

Implications

Social Change

The results from this study are indicative of progress for women in the work environment, particularly in comparison to the first females pioneers that joined men in the workplace. Historically, women stayed in entry-level positions, which granted them minimal decision latitude and minimal pay (Hogans et al., 2005). This study found that women do feel they have high levels of decision latitude from entry level positions to positions of power. We now know that education is a strong factor for decision latitude. This is substantial for the nearly 72 million women who are currently in the workforce or seeking employment (Department of Labor, 2011).

The average American spends 1,780 hours per year at work (Organisation for Economic Co-operation and Development, 2018). This is a considerable amount of time spent away from family, home and other responsibilities (Cohen et al., 2014). Therefore, it is essential for women to be in a work setting they enjoy, where they feel they can contribute and where they can make decisions.

I hoped to expand current available research with results from this study by looking at the relationships between age and education level on the three work characteristics decision latitude, self-efficacy and work ethic. The intent of the study was to influence social change for women who work or are seeking employment. Women in the workforce still face inequalities (Hogans et al., 2005; Wang et al., 2016). Some

challenges include barriers with advancing, earning promotions and earning higher income (Hogans et al., 2005; Wang et al., 2016). The results of this study can help understand barriers in the work setting. Specifically, women who earn higher levels of education often produce higher levels of decision latitude.

Future for Women and the Workplace

The suggested benefits noted above are beneficial for employers, as well as for the economic development (Thompson et al., 2017) within the United States. Employers looking for employees with these skill sets can expect to utilize this information by empowering women through offering more support to attend trainings at work, as well as encouragement to seek goals that lead to certificates or degrees outside of the work setting.

Women faced inequalities within the work setting from the first time they stepped into paid roles outside of the home. Women previously faced challenges with advancement and promotions (Hogans et al., 2005; Wang et al., 2016). These experiences likely led to an impact on decision latitude, work ethic and self-efficacy. The findings of this research can be instrumental for women to reduce the gap of inequalities at work through understanding workplace dynamics, such as decision latitude, and the benefits of education attainment. This is particularly helpful when seeking employment during job transitions, such as job loss and job recovery.

Finally, any data related to age and the work environment may contribute to the limited data as this was found to be a gap in research, as noted in Chapter 2. Employers can be comforted in knowing that education level and age did not have a relationship

with self-efficacy and work ethic. This may be particularly informative for employers concerned with aging employees in the workplace. Particularly, Bogt et al. (2005) reported that work ethic was a relatively stagnant characteristic that would not change over time. Current research may support this as relationships were not observed with work ethic and age. However, this may best be analyzed through a longitudinal study to confirm changes throughout the lifespan. The current research only looked at a snapshot of current traits, work patterns, and motivations.

Conclusion

I conducted this study with the intention to explore the differences and interactions of age and education level on females' decision latitude, self-efficacy, and work ethic within the work setting. It was determined that there was a significant difference between levels of education when looking at decision latitude, which is an extension of existing career-related research described in Chapter 2. The results from this study validate that women with higher levels of education are more likely to experience higher levels of decision latitude. Whereas, women with less education are experience lower levels of decision latitude.

Work can provide women with the feeling of purpose. Work provides women with the ability to meet basic needs and afford recreational activities. While within the work setting, making decisions can produce a sense of empowerment. I am optimistic that these results can: inform research, help employers or human resource staff support their employees, and mental health practitioners who work with women seeking assistance with work-related concerns.

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Appendix A: Demographic Questionnaire

Please select the appropriate box for each question:

1) Gender
- Female
- Male
- Neither male nor female/ Prefer not to answer

2) Marital Status
- Single
- Married
- Divorced
- Widowed
- Life Partner- never married

3) Do you currently reside within the United States?
- Yes
- No

4) Which state do you reside? _____

4a) Which state do you work? _____

5) Do you have biological children?
- Yes
- No

5a) How many? _____

5b) Do your children reside with you?
- Yes
- No

6) Do you have step, foster or adopted children?
- Yes
- No

6a) If yes, how many? _____

6b) If yes, do your step, foster or adopted children reside with you?
- Yes
- No

7) Is your current work setting based within the United State?

Yes
No

8) Indicate the number of hours worked per week
Less than 14 hours
15-24
25-34
35-40
40+

9) Age
19 and under
20-29
30-39
40-49
50-59
60-69
70 and older

10) Ethnicity (select all that apply)
Asian or Pacific Islander
Asian Indian
Black/ African American
Native or American Indian/ Alaskan Native
Caucasian/ White
Latino/ Hispanic
Multiethnic (please specify) _____
Other (please specify) _____

11) What is your highest level of completed education?
High school diploma (regents, local, etc.), GED, less than high school
Associate's degree
Bachelor's degree
Master's degree
Doctorate, MD/ DO or equivalent
Other (please specify) _____

12) Are you currently attending school?
Yes
No (if no, skip to #14)

13) If yes to # 12, what level of degree are you currently seeking?
High school diploma (regents, local, etc.), GED, less than high school
Associate's degree

Bachelor's degree
Master's degree
Doctorate, MD/ DO or equivalent
Other (please specify) _____

14) How many years have you worked in your current profession?
Less than 1 year
1-5 years
6-10 years
11-15 years
16-20 years
21+ years
I do not have a job

15) What is your current work discipline/ environment?
Management
Business
Law Enforcement
Medical/ Health
Psychology/ Mental Health
Sales
Engineering
Maintenance/ Repair
Administration/ Human Resources
Nursing
Teaching/ Higher Education
Computer Science
Political Science
Other (please specify) _____

16) Type of position
Starting level
Low-level management
Mid-level management
High-level management
CEO/ COO
Board Member
Legislator/ Government
Multi-level marketing

17) Are you allowed to work from home?
Yes
No (skip to #19)

18) If yes to #17, how many hours per week can you work from home? _____

19) Are you looking to change your career path in the next five years?
Yes
No

20) Would you like to promote or advance within your work setting?
Yes
No
Not applicable
I am my own boss/ I own my business
I am the highest level management

21) What is your current annual income? _____

Appendix B: JCQ

Items

Respondents are asked to select the answer that best represents their work life experiences. The items are rated on a 4-point Likert scale.

1a. Skill Discretion

"learn new things"; "repetitive work"; "requires creativity"; "high skill level"; "variety"; "develop own abilities"

1b. Decision Authority

"allows own decisions"; "little decision freedom"; "a lot of say"

1c. Skill Utilization

"education required by job" (also requires education)

1. Decision Latitude

= a weighted sum of 1a and 1b

2. Psychological Job Demands

"work fast"; "work hard"; "no excessive work"; "enough time"; "conflicting demands"; "intense concentration"#; "tasks interrupted"#; "hectic job"#; "wait on others"#

3a. Supervisor Social Support

"supervisor concerned"; "supervisor pays attention"; "hostile supervisor"#; "helpful supervisor"; "supervisor good organizer"

3b. Coworker Social Support

"coworkers competent"; "coworkers interested in me"; "hostile coworkers"#; "friendly coworkers"; "coworkers work together"#; "coworkers helpful"

4. Physical Job Demands

"much physical effort"; "lift heavy loads"#; "rapid physical activity"#; "awkward body position"#; "awkward arm positions"#

5. Job Insecurity

"steady work"; "job security"; "recent layoff" #; "future layoff"; "career possibilities"#; "skills valuable"#

Note. The symbol # indicates questions were added in 1985 to create the recommended version. For scale scoring, see the Job Content Questionnaire and User's Guide (Karasek, 1985). The macrodecision scales are not included here because of lack of broad use.

Additional recommended "global economy" questions (5) were added in 1995 (September 1995, revision 1.5), but these are still informal recommendations, because pilot data have not been reviewed.

Appendix C: MWEP-SF

Items

This section lists a series of statements. Please choose the alternative that best represents your agreement with how well each statement describes you.

1. It is important to stay busy at work and not waste time.
2. I feel content when I have spent the day working.
3. One should always take responsibility for one's actions.
4. I would prefer a job that allowed me to have more leisure time.
5. Time should not be wasted, it should be used efficiently.
6. I get more fulfillment from items I had to wait for.
7. A hard day's work is very fulfilling.
8. Things that you have to wait for are the most worthwhile.
9. Working hard is the key to being successful.
10. Self-reliance is the key to being successful.
11. If one works hard enough, one is likely to make a good life for oneself.
12. I constantly look for ways to productively use my time.
13. One should not pass judgment until one has heard all of the facts.
14. People would be better off if they depended on themselves.
15. A distant reward is usually more satisfying than an immediate one.
16. More leisure time is good for people.
17. I try to plan out my workday so as not to waste time.
18. The world would be a better place if people spent more time relaxing.
19. I strive to be self-reliant.
20. If you work hard you will succeed.
21. The best things in life are those you have to wait for.
22. Anyone who is able and willing to work hard has a good chance of succeeding.
23. It is important to treat others as you would like to be treated.
24. I experience a sense of fulfillment from working.
25. People should have more leisure time to spend in relaxation.
26. It is important to control one's destiny by not being dependent on others.
27. People should be fair in their dealings with others.

28. A hard day's work provides a sense of accomplishment.

Note. Items should be rated on a 5-point Likert-type scale from 5 = *Strongly Agree* to 1 = *Strongly Disagree*. To score the short form, take means of the four items corresponding to each subscale as follows. Self Reliance: 10, 14, 19, 26; Morality/Ethics: 3, 13, 23, 27; Leisure: 4, 16, 18, 25; Centrality of Work: 2, 7, 24, 28; Hard Work: 9, 11, 20, 22; Wasted Time: 1, 5, 12, 17; Delay of Gratification: 6, 8, 15, 21.

Appendix D: Short OSE Scale

Items

This section lists six statements about self-efficacy within the workplace. The items are rated on a six-level scale, which range from 1 (not at all true) to 6 (completely true).

1. I can remain calm when facing difficulties in my job because I can rely on my abilities.
2. When I am confronted with a problem in my job, I can usually find several solutions.
3. Whatever comes my way in my job, I can usually handle it.
4. My past experiences in my job have prepared me well for my occupational future.
5. I meet the goals that I set for myself in my job.
6. I feel prepared for most of the demands in my job.