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Abstract

Impact of Perceived Quality of Leadership on Job Satisfaction as Moderated by Hours

Teleworking Per Week

by

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MA, University of Central Florida

BS, University of South Florida

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Industrial/Organizational Psychology

Walden University

August, 2023

Abstract

The recent COVID-19 pandemic suddenly caused employers to uproot millions of employees from their in-office workstations to work at home or other designated workplaces. Although studies have shown that most teleworkers are satisfied with working remotely, many are unhappy. This study addresses the need to know more about teleworkers' perceptions of the leadership quality of their leaders and how these perceptions affect their job satisfaction as moderated by the number of hours they spend teleworking per week. Knowing how much leadership affects job satisfaction as tempered by the number of hours teleworking per week is necessary when designing work programs. This study's main theories are the leader-member exchange theory and Herzberg's two-factor theory. Data were collected from 145 participants who completed a demographic form, the Leader-Member Exchange-7 (LMX-7) questionnaire, and the Job Satisfaction Survey (JSS). The LMX-7 Scale was used to test teleworkers' perception of the quality of their leadership; the JSS was used to determine the levels of job satisfaction of the participants. The regression results indicated that 20.6% of the variation in job satisfaction could be attributed to the perception of the leadership quality that teleworkers have of their leaders. The results also indicated that there was not a significant effect of the number of hours per week that teleworkers work remotely on the relationship between leadership quality and job satisfaction. Findings may be used by administrators for positive social change in serving their teleworker employees.

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Dedication

I am greatly thankful for the many years I shared with my wife, who passed away on January 17, 2022, after a long illness. She was the inspiration of my life, and she supported me in all of my endeavors. She was a wonderful wife and mother to our two children and a great companion. She will always be missed and never forgotten.

Acknowledgments

I am thankful for the assistance I received from the members of my dissertation committee. Producing this dissertation was a great learning experience, and I benefitted greatly from the knowledge and expertise of my dissertation committee members.

One of the main reasons I decided to obtain a PhD was to use my God-given abilities to the fullest extent. I believe that we suffer a negative consequence equal to the extent that we do not use our God-given abilities. My mission is to use my education to improve the quality of life in the workplace for the mutual benefit of stakeholders, employees, and customers.

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Chapter 1: Introduction to the Study

This study concerns the teleworkers' relationship of their perceived leadership quality of their leaders and their job satisfaction level as moderated by the number of hours per week of teleworking. Additionally, the study considered age, gender, tenure on the job, and the number of hours the teleworkers work remotely per week. The study participants were also asked to report how many hours they would prefer to work remotely per week. The results of this study could help employers determine how well their leaders are performing and the optimum teleworking schedules (Rodríguez-Monforte et al., 2020). Since the data were collected while the COVID-19 pandemic was still causing global problems, it was expected that some additional insight would be gained concerning the role of leadership during a widespread chaotic occurrence such as the COVID-19 pandemic (Kuofie & Muhammad, 2021). This study addressed the social problem of inadequate leadership and poorly created work schedules.

This chapter will provide a brief overview of the history of remote working, a discussion about the social problems associated with teleworking, a review of the research questions and hypotheses, the theories that ground the study, and the research method to be used to obtain and analyze the necessary employee data. I will also discuss some limitations and the significance of the study.

Background of the Study

From time to time, worldwide events unexpectedly cause tremendous upheaval in the status quo, and the resulting chaos causes shifts in how organizations operate. The COVID-19 pandemic early in 2020 was one of those chaotic worldwide events.

Employers upended millions of workers from their typical workstations and mandated them to immediately start working at home or in designated areas under many new rules and requirements (Vaziri et al., 2020).

When teleworking became prominent in the early 1970s, “telecommuting” became the term used to describe this working format because it was considered a direct replacement for automobile commuting (Narayanan et al., 2017). In 1973, the world experienced a temporary oil and gas shortage scare. Employers believed that less oil and gas would be consumed, and air quality would improve if fewer employees had to be on the roads twice a day (Narayanan et al., 2017). Soon after, technological advancements in telephones, computers, software, and other communication equipment radically changed the way workers completed their jobs and communicated with each other (Allen et al., 2015). With the advent of the Internet, social media, and other business technology developments, it became more commonplace for workers to work remotely from their offices (Narayanan et al., 2017). The terms “telecommuting” and “teleworking” became “virtual” or “remote working.” The term “distance working” became a catch-all phrase for all types of remote working (Choi, 2020).

With the COVID-19 pandemic, these workers were suddenly forced to make workplace adjustments. Little time was available to learn new teleworking skills, set up home business equipment, and create an in-home workspace to accommodate the latest performance and security requirements (Contreras et al., 2020). Teleworkers also had to adjust to the new differences in work time versus family time (Belzunegui-Eraso & Erro-Garcés, 2020; Zhang et al., 2020). Many of these workers found it difficult to maintain a

set schedule of work activities versus family activities, and, frequently, one interfered with the other (Belzunegui-Eraso & Erro-Garcés, 2020; Kim, 2020).

Employers were suddenly faced with ensuring that employees had the right equipment, security provisions, and the proper training to conduct business (Belzunegui-Eraso & Erro-Garcés, (2020). Employers were aware of the possibility of losing many employees due to exposure to the virus and possibly causing it to spread more (Belzunegui-Eraso & Erro-Garcés, 2020; Morilla-Luchena et al., 2021). Organizations also had to ensure that work leaders were sufficiently trained in managing workers remotely (Bolton, 2020). Employers and employees did not have very much time to prepare for the many changes that have to occur in work rules, technical training, technical job equipment, and leadership grooming that would be required for employees to work out of their homes (Clark et al., 2020; Kuofie & Muhammad, 2021).

These difficulties were magnified by circumstances such as socioeconomic and cultural differences for the workers working in different parts of the world. For example, companies involved in offshoring experienced problems with foreign workers who did not have enough office space in their homes or personal office equipment for business purposes (Contreras et al., 2020).

To further emphasize the magnitude of this sudden requirement to have so many workers shift to remote working, Kamouri and Lister (2020) reported that approximately 20% of teleworkers in the United States are unhappily teleworking at home. Because of the COVID-19 pandemic, up to 29% of the workforce in the United States was estimated to be telecommuting at least one day a week by the end of 2021 (Kamouri & Lister,

2020). This percentage is up from 3.5% that occurred before the outbreak of the COVID-19 virus. As a result, a much larger number of workers may be dissatisfied with their jobs. This increase may cause a higher employee turnover rate, productivity reduction, and reduced customer satisfaction (Contreras et al., 2020; Vaziri et al., 2020).

This study is focused on the contention that the degree of perceived leadership quality can predict the level of teleworker job satisfaction as moderated by the number of hours teleworking per week. Perceived leadership quality in this study refers to the degree that teleworkers feel that their leaders are doing their jobs effectively. If the study results indicate a significant positive correlation, employers may want to measure employee-perceived leadership quality from time to time. They would then be able to determine whether job satisfaction is being affected, and they could take the necessary action to improve leadership quality. During highly turbulent periods, such as what we are currently experiencing with the COVID-19 pandemic, demands on leadership are considerably different from regular times. In the last few decades, leadership as it relates to remote workers has been referred to as e-leadership, implying that it is based on a different set of effectiveness criteria (Kashive et al., 2022). Kashive et al. (2022) emphasized that e-leadership has evolved as a distinctly different form of leadership than standard (in-office) leadership. Information technology and communication technologies have become much more complex, and there are so many new forms of these technologies that e-leaders must become more familiar and adept with than standard leaders. Leaders must be more sensitive to employees' elevated stress, emotions, and frustrations. They must be creative in finding solutions for unexpected problems and be

innovative in using new or alternative ways of communicating and conducting meetings (Bhattacharya & Mittal, 2020; Moretti et al., 2020). Employers need more guidance on the full range of knowledge, skills, and abilities that leaders now need to work with large numbers of teleworkers (Bhattacharya & Mittal, 2020; Moretti et al., 2020). This study could help employers effect positive social change by emphasizing the importance of the quality of leadership needed during difficult times (Palumbo, 2020).

Problem Statement

The specific research problem this study addressed is that there has been insufficient research examining the relationship between perceptions of leader effectiveness and job satisfaction for remote/telework virtual employees. Employers need to know whether leaders may need more training and education (Gajendran et al., 2015). They also need to know if their leaders communicate effectively with their subordinates (Rodríguez-Monforte, 2020). The work world has changed dramatically due to COVID-19, and there may be no turning back soon (Graves & Karabayeva, 2020). There are new demands on leaders, especially concerning leader–member communications (Graves & Karabayeva, 2020). Many organizations are finding out through direct experience that although there are numerous advantages of having workers telework, there are many new problems to deal with, and leaders now need to be aware of these new demands (Gajendran et al., 2015; Graves & Karabayeva, 2020; Pyöria, 2011).

Employees realize that it makes sense to telework at least part of the week (Gajendran et al., 2015). They have adjusted to a new normal, and they appreciate some advantages. They are not spending as much time commuting in traffic, and they are

saving money on fuel and automobile expenses. They also feel they contribute somewhat to environmental issues like air pollution and global warming (Gajendran et al., 2015). Many teleworkers like the flexible hours and the ability to switch back and forth between work and family life on a just-as-needed basis (Graves & Karabayeva, 2020).

Employers had an opportunity to gauge the difference in performance between office and remote working, and findings indicate that performance levels are at least the same while some are seeing an increase in performance (Vhazirir et al., 2020). However, employers know that some remote workers are not completely happy with teleworking. It is critical to know what factors can contribute to helping them to become more satisfied with their teleworking jobs (Graves & Karabayeva, 2020).

Kamouri and Lister (2020) reported that in the United States, about 60% of the jobs are the types of jobs that can be worked remotely. By the end of 2021, they indicate that about 29% of the total workforce will be teleworking, and 20% of these teleworkers may become dissatisfied with their jobs. This is a large number of employees that may become dissatisfied. As a result, turnover may increase, production may suffer, and customer satisfaction could decrease (Contreas et al., 2020). Because the COVID-19 virus became a problem so quickly, employers and employees were ill-prepared to meet all the challenges brought on by the pandemic. There was not much time to prepare for the changes in work rules, technical training, technical job equipment, and leadership grooming required for employees to work out of their homes (Belzunegui-Eraso & Erro-Garcés, 2020; Contreas et al., 2020). Leaders need to generate positive perceptions from their subordinates to solicit the “buy-in” necessary to motivate and inspire employees to

achieve the required performance goals. Although many factors affect job satisfaction, perception of the quality of leadership experienced is one of the most critical factors. This study will help determine how this perception affects job satisfaction (see Geisler, 2020).

Since March 2020, millions of employees have been telecommuting. There is now an opportunity to find out how these employees feel about remote working and how important leadership quality is for the job satisfaction levels of teleworkers. As employers understand more about the quality of their leaders and the perceptions of the leaders that the teleworkers have, the chances of having a more satisfied workforce increase. More studies are needed to enable employers to learn more about this relationship (Contreas et al., 2020).

Purpose of the Study

Current studies indicate that leadership affects teleworker job satisfaction (Garro-Abarca et al., 2021; Kuofie & Muhammad, 2021). Studies have also supported the idea that the number of hours per week spent teleworking is crucial for job satisfaction (Marchiori et al., 2020). Most studies revealed that teleworkers prefer to work part of their workweek at the office and home (Marchiori et al., 2020). The purpose of this study is to help employers and practitioners understand the relationship between perceived leadership quality and job satisfaction as moderated by the number of hours workers telework each week.

Research Questions and Hypotheses

RQ1

Do perceptions of leadership quality that teleworking employees have of their leaders predict levels of job satisfaction?

Predictor Variable: Perception of Quality of Their Leadership

Leadership quality in this study is the mutual respect that leaders and members have for each other. It is the degree to which subordinates feel they are in a functional, dyadic relationship with their leaders (Kahn et al., 2020; Tse et al., 2018).

Criterion Variable Level of Teleworker Job Satisfaction

In this study, the Level of Teleworker Job Satisfaction refers to the self-rated degree of job satisfaction.

Hypotheses

H_01 : No statistically significant relationship exists between the teleworkers' perceived leadership quality and job satisfaction.

H_11 : Teleworkers' perceived quality of leadership significantly predicts their job satisfaction levels.

RQ2

Does the number of hours teleworking per week moderate the relationship between perceived leadership quality and job satisfaction?

Hypotheses

H_02 : The number of hours teleworking per week does not moderate the relationship between perceived leadership quality and job satisfaction.

*H*₁₂: The number of hours teleworking per week moderates the relationship between perceived leadership quality and job satisfaction.

Theoretical Foundation

The theories that ground this study include the leader–member exchange theory (LMX; Olutade et al., 2015; Regts et al., 2019) and Herzberg’s two-factor theory of motivation (Locke, 1976; Sinha & Trivedi, 2014),

LMX Theory

The logical connections between the framework presented and the nature of my study include LMX because this theory supports the idea that employees respond well to leaders who understand the leader–member relationship (Casimir et al., 2014). LMX is a relationship-based leadership style instead of the behavioral leadership styles, such as transformational, authentic, or servant leadership (Casimir et al., 2014). LMX provides a format enabling employees to feel empowered and supported (Khan et al., 2020). The essence of LMX theory is that leaders become more effective if they develop relationships with their members to foster trust, liking, professional respect, and loyalty (Casimir et al., 2014; Soeprapto, 2020). Behavioral styles use manipulations, rewards, or other task-oriented implementations (Khan et al., 2020).

LMX focuses on the dyadic (two-way) relationship between the leader and the member. Essentially, the leadership style is based on a social exchange process in which leaders provide guidance, mentoring, support, developmental opportunities, and other valued resources (Borchgrevink et al., 2001). Leaders may develop a vested interest in the members to the point that they experience a degree of ownership in the member’s

success or failure. In exchange, the members become loyal, motivated to please the leader, and dedicated to meeting the job requirements (Borchgrevink et al., 2001). A key finding is that members in a high-quality LMX relationship usually go above and beyond to gain favor with LMX leaders. Members volunteer extra tasks or extra effort to accomplish goals (Erdogan & Bauer, 2015; Furunes et al., 2015). LMX has gained widespread interest among academics and practitioners, and an extensive array of supportive research concerning its effectiveness has been developed (Joseph et al., 2011).

Herzberg's Two-Factor Theory of Motivation

The two-factor theory defines job satisfaction as the fulfillment of needs. Herzberg et al. (1959) conducted research that revealed two sets of needs that they believed were independent. The first set was those related to avoiding pain, and the second set was those related to growing psychologically. The “dual factor” theory of motivation was advanced from these findings. Avoiding pain became the “hygiene factors” or those that would foster dissatisfaction. Growing psychologically became the “motivating factor” or a reinforcer for job satisfaction (Sinha & Trivedi, 2014; Spector et al., 2007). The two-factor theory has become widely studied by psychologists and has been used extensively by industrial managers. Even though numerous studies have shown the theory to be somewhat low in validity and reliability, the theoretical construct provides a springboard for discussions of factors associated with job satisfaction and motivation (House & Wigdor, 1967).

Members first want the improvement of those factors that make work less enjoyable (Kahn et al., 2020). As an example of a hygiene factor, if there is a shortage of

the necessary tools and workspace to perform a job, employees may need this issue resolved before appreciating those factors more directly involved with job satisfaction. Poor leadership can also become a hygiene factor that could negatively affect a subordinate's performance. If hygiene factors are controlled, the employees may be more open to focusing on factors that breed greater satisfaction, such as empowerment, inclusiveness, psychological safety, and a sense of organizational justice, as supported by LMX theory (Kahn et al., 2020; Tse et al., 2018).

Nature of the Study

This quantitative correlational study involved two questionnaires and a demographics data entry form. The questionnaire for the leadership data was the Leader–Member Exchange 7 (LMX-7) Scale (Scandura et al., 2005). The questionnaire for job satisfaction was the Job Satisfaction Survey (JSS) by Paul Spector (Spector et al., 2007). The scores from both questionnaires were compared using a regression procedure from SPSS (Version 28). A basic data entry form was created to gather demographic information. Each participant anonymously indicated their age, gender, race, job tenure, number of hours per week teleworking, and number of hours per week they would prefer to telework. The study aims to determine the relationship of this assessment of the quality of leadership they are experiencing to job satisfaction as moderated by the number of hours worked in remote locations versus the office location. The results from the LMX-7 functioned as the predictor variable, and the results on the JSS were the criterion variable. The SPSS program revealed how the number of hours of teleworking per week interacted with the relationship between the two main variables.

Definitions

The following definitions of terms are being presented as operational definitions and explanations intended to clarify how the terms are used in the context of this study.

- *Job satisfaction*: Job satisfaction is a state of emotion resulting from factors that fulfill a worker's material and psychological needs (Izvercian et al., 2016).
- *Organizational commitment*: Organizational commitment refers to a degree of conscious or sub-conscious dedication employees have to a job and an employing organization (Gatling et al., 2016).
- *Perceived leadership quality*: Perceived leadership quality in this study is the degree of mutual respect that leaders and members have for each other and the degree that subordinates feel that they are in a functional relationship with their leaders (Kahn et al., 2020; Tse et al., 2018).
- *Perceived supervisor support*: Perceived supervisor support refers to employees' belief that their immediate supervisor values their work and cares about their well-being (Kahn et al., 2020).
- *Social presence*: Social presence is a person's sense of being with another, especially pertaining to a technologically mediated environment (Biocca et al., 2003).
- *Telecommuting, teleworking, virtual working, remote working, and distance working*: The term telecommuting originated in 1970 and has since been renamed several times (Allen et al., 2015). Additional names are teleworking,

virtual, remote, and distance. Although these terms originally referred to specific differences when first introduced, they have since become interchangeable. They refer to work performed outside of organizations' typical or central work locations (Picu & Dinu, 2016).

Assumptions

This study was focused on how the perception of leadership quality correlates to levels of job satisfaction as moderated by the number of hours a teleworker works remotely per week. This study assumed that factors such as age, gender, and tenure are more or less in the normal range and will not impact results significantly.

The following additional assumptions were made regarding this study:

1. That the participants completed the survey instruments honestly and accurately. The participants received instructions before participating in the study to respond as accurately and truthfully as possible.
2. Whether a worker is required to telework or chooses to will not significantly bias the study because preferences are based more on home environments, technical skills, commuting requirements, and many other considerations (Ramirez Toro & Lopez Sanchez, 2020).
3. Other factors such as age, gender, and job tenure did not bias the study, based on a normal distribution of these factors. Situations such as inadequate home office space, long commuting distances from the office, and insufficient technical equipment and training would more likely create bias (Ramirez Toro & Lopez Sanchez, 2020).

4. The participants responded to all items on the demographic questionnaire and the questionnaire instruments, or their responses were rejected.

Scope and Delimitations

The study involves workers who telework at least one day per week. The focus of the study is the correlation of the perceived level of leadership quality to job satisfaction as moderated by the number of hours per week workers telework. The study was limited to full-time teleworkers. Data on gender, age, job tenure, and teleworking preferences were recorded to determine whether these factors occur in a normal distribution.

Limitations

Factors such as the number of years on the job, race, gender, age, etc., may limit the generalizability of the results depending on how normal the data curve ends up. I attempted to draw equally from these different groups of participants. Only instruments with an acceptable level of validity and reliability were used. I gave careful consideration to selecting instruments that align with the research questions I expected to answer.

The generalizability of the findings of this study will also be limited because correlational results will not determine causality (Campbell & Stanley, 1963). However, the results can be helpful for teleworker employers to have an idea about how important the relationship of leadership to job satisfaction is when moderated by the number of hours worked per week (Kuofie & Muhammad, 2021).

Some candidates for participation may have felt that they needed to “impression manage” when answering the questionnaire items. In other words, they may have thought it would be advantageous to choose socially desirable answers.

Another possible limitation to the generalizability of this study is that some teleworkers may not have wanted to participate because they were not satisfied with their working conditions. It also may be the case that some candidates responded because they were very satisfied with the working arrangements. Having different reasons for choosing to participate or not could affect the results of the study (Picu & Dinu, 2016).

Significance of the Study

This study is significant because it was designed to reveal critical information concerning the effects of teleworkers' perceptions of leadership quality on their levels of job satisfaction. These data will help management address the problem of experiencing declining job satisfaction and the resultant higher numbers of employee turnover, absenteeism, and other problems associated with lowering job satisfaction. Effective leadership will be one of the keys to assisting employees because of the chaos that the COVID-19 virus has suddenly caused (Bolton, 2020). Kamouri and Lister (2020) determined that approximately 20% of teleworkers dislike working at home, but that is still a large number of employees. In addition, when you add the feelings of family members to the equation, there ultimately can be a very large number of people that are dissatisfied with teleworking.

Significance to Theory

The theories of this study were selected because they serve as the basis for my formulating my research questions. My research questions address the importance of the quality of leadership that teleworkers receive, and they are concerned with how perceptions of this quality of leadership affect job satisfaction.

The job satisfaction theories emphasize how satisfied workers become more productive and loyal to the company. According to Locke and Latham (1990), job satisfaction can lead to higher performance on the job. In turn, this can elevate the worker's self-esteem and organizational commitment. This process supports the idea that improving job satisfaction ultimately increases positive social change. An employee who identifies with positive social change attributes additional value to working with the organization.

Significance to Practice

Evidence supports the idea that leadership enables an employee to perform well on a job (Rodríguez-Monforte et al., 2020). Organizations should hire the best leaders and provide appropriate leadership training, and proper selection and training of leaders could result in better-performing employees. Since the outbreak of COVID-19, the need for highly qualified leaders has increased dramatically. Studies reveal that leadership can be a significant factor in the success or failure of a teleworking system, especially in the chaotic times caused by COVID-19 (Kuofie & Muhammad, 2021).

Significance to Social Change

Since work is a significant part of our lives, any improvement that benefits workers also benefits workers' families and communities. If providing higher-quality leadership elevates employees' job satisfaction levels, society benefits. Moving employees out of the office to home offices can significantly impact employees and their families. Therefore, it is essential to know what factors contribute to job satisfaction for teleworkers. (Gibson et al., 2002).

In the following chapter, I describe the process used to gather literature relevant to the study of the relationship of leadership to job satisfaction of teleworkers. The literature search revealed a lack of academic focus on how teleworkers' leadership correlated to job satisfaction, especially in times of chaos, such as the present COVID-19 pandemic. This study is intended to help fill that gap in understanding.

Chapter 2: Literature Research

This study addresses the problem of insufficient research examining the relationship between perceptions of leader effectiveness and job satisfaction for remote/telework virtual employees. A decline in job satisfaction may be occurring because of the sudden massive shift of workers from working in central locations to working at home or other remote areas due to the COVID-19 pandemic (Bolton, 2020). Numerous factors affect the job satisfaction of teleworkers, and my literature search reveals that leadership quality is among the most critical factors (Rodriguez-Monforte et al., 2021). This study examines the possibility of correlating teleworkers' perception of their leadership quality to predict job satisfaction levels as moderated by the number of hours teleworking per week. The study results may help employers understand how teleworkers perceive their leadership quality. This information could enable employers to know how much more training they would need to provide to their leaders or hire more qualified leaders.

Literature Search Strategy

When I began researching the literature for this study, I attempted to find studies that focused on those factors that potentially affected the job satisfaction of teleworkers. Those factors were gender, age, technical proficiency, number of years on the job, corporate culture, salaries and benefits, teleworkers' perceptions of leadership quality, and the number of teleworking hours per week. As I was conducting the research, leadership kept surfacing as one of the most prevalent issues concerning teleworking and especially concerning teleworking during a worldwide crisis such as the COVID-19

pandemic (Bolton, 2020). Because of this, I decided to focus this study specifically on job satisfaction as affected by teleworkers' perceived quality of the leadership of their leaders as moderated by the number of hours teleworking each week. Since the COVID-19 pandemic caused such an increase in telecommuting across many companies, I attempted to find studies created in 2020 and 2021. This time frame encompassed the first year of the COVID-19 pandemic, which caused the highest yearly increase in teleworking since its introduction in the early 1970s. According to Kamouri and Lister (2020), COVID-19 is causing more than an 800% increase in teleworking in the United States. This increase amounts to millions of employees suddenly working at home or in other remote designated places. Kamouri and Lister also reported that 20% of teleworkers are unhappy with teleworking, which could be a dangerous level of employee dissatisfaction.

This study aims to help employers and practitioners expand their understanding of the importance of the quality of leadership and its effect on job satisfaction. In addition, the study will provide additional information about the importance of leadership during a major global crisis, such as the COVID-19 pandemic.

To collect literature for the study, I mostly used peer-reviewed articles from several databases, including EBSCO host, EBSCOhost Electronic Journals, Google, Google Scholar, Academic Search Premier, and Business Source Premier. I also used U.S. Data and Statistics, Deepdyve.com, and GlobalWorkplaceAnalytics.com. Some of the key search terms and phrases that I used in the study included the following singly or with the Boolean process: teleworking, telecommuting, remote working, virtual work,

virtual teams, leadership, job satisfaction, organizational commitment, organizational support, supervisor support, coworker support, age, and gender. For the most part, the search included articles published in the last 5 years, except for those seminal articles that tracked the history and development of teleworking. I broke down my research into several categories and then developed lists of search words and terms under each category. The following sections of this chapter represent the most significant categories that I used in my search process:

- History of Telecommuting
- Effectiveness of Telecommuting
- Social and Emotional Impact of Telecommuting
- Telecommuting Versus In-Office Working
- Telecommuting Strategies
- Telecommuting and Online Learning
- Telecommuting and Well-Being and Emotions
- Telecommuting and Gender
- Telecommuting and Age
- Telecommuting and Leadership
- Telecommuting and Job Satisfaction
- Telecommuting and Work Schedules

I detected an important gap in the literature by conducting this broad array of research on leadership, job satisfaction, telecommuting, and the COVID-19 pandemic.

Although I reported these studies one after another, they all served as references for the content of this dissertation.

Theoretical Foundation

The theories that ground this study include the LMX (Olutade et al., 2015; Regts et al., 2019) and Herzberg's two-factor theory of motivation (Locke, 1976; Sinha & Trivedi, 2014). The LMX theory provided conceptual support for teleworkers. I found there was insufficient research about leadership styles and their effectiveness in teleworking on job satisfaction during a worldwide pandemic. In my search of the literature, I discovered that one of the most effective models for leadership during a crisis is the LMX theory (Oborn et al., 2007). The Herzberg two-factor theory highlights the factors that breed discontent and those that foster satisfaction. The tenets of these two theories support the essence of my study.

Literature Review

History of Telecommuting

There is ample literature available concerning the development of telecommuting. However, a few areas were not studied as much as others. Leadership in the COVID-19 pandemic was an area that deserved more attention because of the great importance of effective leadership during a major crisis (Kuofie & Muhammad, 2021).

Telecommuting, teleworking, virtual working, distance working, and distributed work arrangements were terms initially used to refer to slight differences in remote working (Narayanan et al., 2017). These terms have been used on such an interchanged basis that they now refer to the same concept. *Telecommuting* means working at any time

or place other than the traditional workstation (O'Neill et al., 2014). *Teleworking* became prominent in the early seventies with the advent of the personal computer and other rapid technological advancements. In particular, new forms of communication accelerated the usage of telecommuting, such as the Internet, video calling, text messaging, teleconferencing, and e-mail. Indeed, the U.S. Census Current Population Survey estimates indicate that 32%–35% of employees with a college education or managerial/professional positions engage in part-time distributed work (Noonan & Glass, 2012). Globalization, the availability of a global workforce, and eventually the Internet propelled teleworking to a new form of employee work structure (Narayanan et al., 2017). Another factor that fueled the advancement of telecommuting was the oil and gas shortage of 1973 and concerns about air pollution in our big cities. Employers and employees considered telecommuting to be part of the solution to reduce air pollution while reducing the dependence on oil and gas usage. Telecommuting also placed homeownership under different considerations, such as the home location and space for a remote office (Ettema, 2010). Some employees felt that telecommuting was a way to improve the balance between work-life and family life (Narayanan et al., 2017).

Effectiveness of Telecommuting

Telecommuting changed how work is structured in organizations, and the work world has not settled on definitions, procedures, and policies. Some companies, such as Yahoo and Best Buy, believe that telecommuting causes production to decrease, and they have terminated the practice (Allen et al., 2015). However, most companies have concluded that telecommuting enables more benefits than disadvantages (Allen et al.,

2015). Opinions vary concerning telecommuting because there is a need for more studies concerning the factors used to evaluate its effectiveness. Part of the problem is that organizations employ different policies and procedures. Many factors play into whether employees perform effectively when working remotely. Employees may perform very well with one employer but may not do well on the same job with another employer (Allen et al., 2015).

Davidescu et al. (2021) reported in a study concerning the impact of teleworking on job satisfaction of Romanian employees that there were differences in results depending on regions, sectors, and type of company. However, in most cases, teleworking improved job satisfaction. Another study examined whether Slovakian workers are satisfied with teleworking (Karacsony, 2021). This study was conducted in December 2020 during Slovakia's second wave of the coronavirus. The results indicated a significant relationship between teleworking satisfaction, salary satisfaction, supervisory support, and job autonomy. Based on the obtained results, the relationship between manager and subordinate has improved, and work-life balance has also developed favorably.

Brunelle and Fortin (2021) surveyed 211 teleworkers and 237 office workers via an online questionnaire. Their findings indicated that teleworking is a better way of meeting workers' psychological needs for autonomy, competence, and relatedness.

Social and Emotional Impact of Telecommuting

In recent years, the academic world and employers have become more aware of employees' emotional states because emotions may relate to job satisfaction and

organizational commitment. Emotional intelligence is important to understand when designing work environments (LaCivita, 2015). Research has shown that telework usually improves workers' job emotional experience (Anderson et al., 2015). Anderson et al. (2015) reported that 102 government agency employees participated in a within-person design study to examine telecommuting and personal well-being. The results indicated a positive relationship between teleworking and well-being. The study noted that individual differences moderated the comparison results (Chong et al., 2020).

Telecommuting Versus In-Office Working

Studies have shown that most teleworkers prefer to work all or part of their workweek at home, and voluntary turnover occurs less for teleworkers (Anderson et al., 2015; Awotoye et al., 2020; Choi, 2020; Fonner & Roloff, 2010). However, some teleworkers are not happy working at home. Ahmad (2020) reported that accounting students required to attend their internship program virtually at home had only moderate to low job satisfaction levels. Students expressed concerns about limited communication with their instructors, undesirable job characteristics, low supervisor support, inadequate financial compensation, and other management issues. GlobalWorkplaceAnalytics.com indicated that 20% of teleworkers reported being unhappy working remotely (Kamouri & Lister, 2020). However, more articles supported the positive side of the argument. Choi (2020) found that teleworkers felt that being allowed to work all or part of their workweek at home was a benefit, and they felt the need to reciprocate by using high effort to do their jobs well. Employee turnover, as a result, was reduced, and overall job satisfaction increased.

Cheng and Zhang (2023) presented a case for why teleworkers prefer working at least two days a week from their home offices. One of the most compelling reasons they pointed out is that people are getting used to doing more things online or from their homes. For example, more and more people prefer to watch movies at home using streaming services such as Netflix, and they are getting used to ordering their food online and having it delivered to their kitchen table. Companies like Walmart, Wayfair, and Amazon will quickly ship almost anything to your doorstep at no cost for delivery. Many tasks can be accomplished at home in a comfortable recliner instead of driving in traffic, fighting crowds waiting in line, and wasting time doing the legwork. Employees realize that they can perform the same work in many cases sitting in front of their laptops at their home office as they can at the desk. Cheng and Zhang reported that some employees prefer to work at home because it makes it harder for managers or supervisors to take credit for their work. Instead of forwarding the work to their immediate supervisors, who simply re-forward to their superiors, the teleworker often can submit work directly to the upper-level manager.

Telecommuting Strategies

Most organizations have developed a telecommuting strategy that caters to the needs of employers and employees. Human resource specialists are usually involved in creating and implementing employee programs. Whether an employee works in the office or remotely, successful organizations utilize strategic planning extensively, starting with recruiting, selection, onboarding, and initial training (Greer & Payne, 2014). Companies must plan for filling positions to align with all departments' just-in-time needs, and

employees must receive training, guidance, and supervision for the long term. Kaplan and Norton (2007) introduced their management system entitled *The Balanced Scorecard*, which focused on aligning departmental strategic planning with organizational strategic planning. The Balanced Scorecard management system involves setting goals and objectives, reward systems, designing the right metrics to measure performance, and providing feedback. So, whether working in the office or remotely, strategic planning, goal setting, creating metrics, monitoring performance, and feedback are critical components of an effective strategy.

Telecommuting and Online Learning

Increased utilization of teleworking resulted in the need for changes in how employees learn and train for job requirements. Casimir et al. (2014)) discussed the Sloan Consortium, which proposed framework for online education in colleges. They found that online learning effectiveness is significantly better in academic or business environments than in-office learning systems and less money is spent on fuel, other travel costs. Also, travel time and stress are reduced. One reason is that learners can access programs when they are most energetic or free from other conflicts. Learners can usually learn at their own pace in the comfort of their own homes (Ng, 2006). Faculty members have greater flexibility with the use of their time and energy and students benefit from flexibility in accessing their courses, reduced travel time and parking issues, and less wasted time and energy.

Although, some distance learners do not prefer distance learning as much as others.

Learners have reported a sense of isolation, a lack of immediate help when needed, and a lower sense of social community (Wheeler, 2002).

Telecommuting and Well-Being and Emotion

Over the last decade or so, researchers have increased focus on the affective experience of workers. There seems to be a consensus that emotions are critical aspects of job satisfaction and organizational commitment. How employees feel can lead to tardiness, absenteeism, turnover, and overall job satisfaction (LaCivita, 2015).

Telecommuting and Gender

Telecommuting affects people differently depending on numerous considerations, such as age, gender, tenure on the job, and position in the company, to name a few factors (Chung & van der Horst, 2020). If all aspects were equal between men and women, there would not be much variance in job satisfaction between males and females. Certain societal norms and work situations tend to cause differences in job satisfaction (Kurowska, 2020). Feng and Savani (2020) reported that their study of dual-career parents showed that women had lower job satisfaction ratings because they spent more time doing housework and caring for children than their husbands. They also felt they had let their husbands choose how much time they needed to focus on completing their jobs. In these circumstances, women experienced lower long-term job satisfaction and organizational commitment. Daraba et al. (2021) reported that male and female employees responded unequally to work-family interference. Female employees reported

higher parenting roles and work values and felt more exposed to work-family conflict than their male counterparts.

Telecommuting and Age

Literature concerning age as a factor affecting job satisfaction of telecommuters is very sparse, and mostly what is available is related more toward comparing the different generations rather than specific ages. However, Moretti et al., (2020) suggested that workers between the ages of 60 and 69 should prioritize telework because of the greater risk of COVID-19 mortality. Another study indicates that Generation Z is most familiar with the latest communication and virtual technologies, and they are the most receptive generation to telecommuting (Feng & Savani, 2020). More studies are needed to determine how the different ages react to telecommuting.

Telecommuting and Leadership

As the COVID-19 pandemic rapidly spread in early 2020, organizations soon realized they needed more effective leaders to solve new problems and guide employees appropriately to control the ensuing chaos (Moretti et al., 2020). However, because there is much inconsistency in the effectiveness of leaders and the effects of COVID-19 were so substantial and widespread, no one leadership style has emerged as the definitively most appropriate style (Crayne & Medeiros, 2021; Notgrass, 2014). Different types of leadership produce different results, and COVID-19 happened so quickly that organizations had little time to conduct extensive research to determine the best leadership styles for handling a pandemic (Gibson et al., 2002; Sušanj & Jakopec, 2012). LMX theory provides conceptual support for teleworkers (Kwon & Jeon, 2020). There

has been insufficient research about leadership styles and their effectiveness in teleworking during a worldwide pandemic. One of the most effective models for leadership during a crisis is the LMX theory (Oborn et al., 2007).

One of the problems with teleworking is coordinating team meetings (Davidavicien, 2020). Although various programs are available for internet meetings, some workers feel they are not making the personal connections that meeting in person seems to enable (Hafermalz & Riemer, 2020; Kazekami, 2020). Hao et al. (2019) reported that the LMX leadership style improved team performance. In this leadership style, the leader coordinates knowledge sharing. The key to the success of LMX is understanding the employees by having one-on-one sessions with employees to foster commitment and the pursuit of goals (Hao et al., 2019).

Golden and Viega (2008) reported that much leadership research was focused on traditional work settings. Their study examined LMX of teleworkers, and the impact on job satisfaction, organizational commitment, and performance was observed. The results indicated that teleworkers with higher-quality LMX relationships demonstrated higher performance levels, organizational commitment, and job satisfaction. The study served as my basis for hypothesizing that teleworkers who perceived that their leaders exhibited higher quality leadership characteristics would have higher levels of job satisfaction.

Teleworkers benefit from the additional autonomy, and no matter what leadership style is employed, empowerment can be intrinsically rewarding (Herzberg, 1974). Employee empowerment has a positive effect on the work-family relationship. Since teleworkers have a more flexible schedule, they can have more options in scheduling

family activities. Teleworkers become more committed to accomplishing goals if the LMX leader encourages autonomy and ownership of the job (Kim & Beehr, 2020). Higher goal commitment increases job satisfaction, and organizational commitment increases job satisfaction (Oborn et al., 2007).

Coaching and mentoring are vital parts of LMX. Peng et al. (2019) reported that LMX relationships were ideal for establishing coaching or mentoring relationships with members. When members have trust, liking, and respect for their leaders, they are more likely to respond well to coaching and mentoring (Mharapara et al., 2019). A strong LMX relationship becomes a win-win situation for both leaders and members. The organization also benefits from increased organizational commitment, higher job satisfaction, and better performance (Peng et al., 2019).

A key to the success of LMX is the alignment with the organization's social network (Golden, 2006). The leader-follower relationship is critical in assuring that the needs and wants of teleworkers are known and that there is an attempt to fulfill these needs and wants (Golden, 2006; Rodríguez-Monforte et al., 2020). If teleworking members feel that the organization supports their efforts, supplies needed resources, creates a workable virtual environment, provides the necessary equipment, and is clear on expectations, the teleworker is more likely to have high job satisfaction (Regts et al., 2019).

Kashive et al (2022) reported that leadership that is associated with remote working has developed as a distinctly different form of leadership than standard (in-office) leadership. They point out that this different type of leadership is being referred to

as e-leadership and it mostly developed because Information Technology and Communication technologies have become much more complex and there are so many new forms of these technologies that e-leaders must become more familiar and adept with much of these technologies than standard leaders.

Telecommuting and Job Satisfaction

The importance of job satisfaction has been well-established by academia and organizations over the years (Mansfield, 2018). Low job satisfaction can generate undesirable outcomes such as tardiness, absenteeism, employee turnover, sabotage, and poor production (Golden & Veiga, 2008). On the other hand, a high level of job satisfaction can result in higher production, higher organizational commitment, a better organizational culture, and lower levels of employee turnover (Brunelle & Fortin, 2021). I chose Herzberg's two-factor theory of job attitudes as the grounding theory of job satisfaction for this study because this theory focuses on job satisfaction, not a continuum of low to high job satisfaction (Izvercian et al., 2016). Instead, the two-factor theory breaks down job satisfaction into job dissatisfaction and job satisfaction as two sets of characteristics differentiated from each other. Dissatisfaction is more about how workers are treated and supported, whereas what makes workers satisfied is autonomy, achievement, recognition for achievement, interesting work, increased responsibility, growth, and advancement (Herzberg, 1974).

Job satisfaction with high-quality leadership leads to high organizational commitment, enabling organizations to become dynamic (DeLay & Clark, 2020; Maidani, 1991; Susanj & Jakopec, 2012). When employees receive proper support,

sufficient resources, encouragement, and jobs that reward employees intrinsically, performance and innovation increase (Susanj & Jakopec, 2012; Willis, 2016). There are some critical differences in the requirements of leaders to successfully lead teleworkers to have high job satisfaction (Golden & Eddleston, 2020). LMX theory provides the basis to meet these requirements. The theory focuses on the two-way communication of the leader and member, which establishes the effective communication needed to build trust, liking, professional respect, and loyalty (Olutade et al., 2015; Smith et al., 2018). Teleworkers must be able to communicate differently than working in an office. Nuances of body language, lack of voice inflections that help convey meaning, and gestures such as handshaking, the pat on the back, and the all-important smile may be missing with certain types of communication. Leaders must communicate these subtleties effectively to convey clarity and emphasis (Mansfield, 2018).

One of the problems with teleworking is the absence of physical proximity and social interactions. Leaders must be aware of this deficiency and find ways to compensate for this (Izakson et al., 2020). Although there are numerous solutions, the leader must fill in the gaps that these solutions do not cover. Building trust, loyalty, and professional respect requires prepared, educated, and experienced leaders. Leaders can learn and train to provide high-quality leadership. They either have to be hired for possessing these abilities, or employers must be willing to spend the time, energy, and financial resources to train leaders in-house.

Telecommuting and Work Schedules

Csikortos (2019) conducted a study that investigated whether the percentage of time that weekly employees spend in virtual workspaces is related to job satisfaction (JS), organizational commitment (OC), perceived supervisor support (PSS), and perceived coworker support (PCS). The results showed that virtual workers who spent 75% or more time engaged in virtual work had higher JS, OC, and PSS than workers who spent 25% or less teleworking. Another study determined that the more hours employees spent teleworking, the lower the rates of employee turnover, and job satisfaction and organizational commitment improved (Marx et al., 2021).

My literature search did not reveal many articles that specifically addressed the number of hours a week employees ideally like to work remotely (Webster-Trotman, 2010). This may be because so many factors enter into this determination that it may be difficult to generalize across different organizations. However, knowing the optimal number of teleworking hours per week could help employers make the right scheduling decisions for their teleworkers (Marx et al., 2021; Rofcanin & Anand, 2020). Positive social change may be possible by providing information to organizations considering increasing the time employees spend engaging in virtual work (Duxbury & Halinski, 2014). This study will attempt to gain insight into the wants and needs of teleworkers concerning the number of hours per week they would prefer to telework. The study will also examine the moderating effects of the number of teleworking hours per week on the relationship between perceived leadership quality and job satisfaction.

Summary and Conclusions

My literature search revealed a need for strong leadership in times of crisis, such as the COVID-19 pandemic (Brazeau et al., 2020). The pandemic has taught us that teleworkers need guidance, assurance, and encouragement. Leaders must be aware of the nuances and intricacies of relationship-building with employees (Kuofie & Muhammad, 2021). The LMX theory provides the basis for developing the critical two-way (dyadic) relationship needed for optimum results. Of course, other factors contribute to job satisfaction, and teleworkers need the full array of support and job design to accommodate these other factors. However, the best implementations may fail without capable leadership (Gibson et al., 2002).

The literature review revealed that teleworkers' perceived leadership quality and job satisfaction levels would be important discoveries. I did not find much literature to address this leadership and job satisfaction approach; therefore, this study helps fill the gap.

Chapter 3: Research Method

The work world has changed dramatically since the outbreak of the COVID-19 pandemic, and there may be no turning back soon. Millions of office workers are now working remotely, and organizations are trying to manage the many challenges this pandemic is causing (Belzunegui-Eraso & Erro-Garcés, 2020). This study aims to examine the relationship between the perceived quality of leadership teleworkers are experiencing and their level of job satisfaction as moderated by the number of hours per week spent teleworking. Organizations need to know how to maintain a high level of job satisfaction during chaotic times, and competent leadership may be one of the most important keys to solving this problem (Kwon & Jeon, 2020). Knowing more about this relationship may be helpful to organizations when they attempt to evaluate the importance of leadership recruitment and training. A review of the existing literature revealed few studies that examined this relationship, and more studies are needed to help organizations determine the optimum hours per week employees should telework.

This chapter will describe the research methods for the study. The chapter includes five main sections: (a) Research Design and Rationale, (b) Methodology (c) Data Analysis Plan, (d) Threats to Validity, and (e) Ethical Procedures. In the research design section, I will define the variables, identify the research design, and explain time and resource constraints. In the methodology section, I will describe the target population, present the sampling strategy, define the sample frame, discuss a power analysis, and describe the instrumentation. The data analysis plan will identify software

for analysis, explain data cleaning and screening procedures, and restate the research questions and hypotheses.

Research Design and Rationale

This study used a quantitative correlational design to determine any statistically significant associations between the predictor and criterion variables. Because of time and resource constraints, a set of questionnaires will only be administered one time. The questionnaires will consist of three parts: (a) a demographic questionnaire, (b) a leadership questionnaire, and (c) a job satisfaction questionnaire.

Research Questions and Hypotheses

RQ1

Do perceptions of leadership quality that teleworking employees have of their leaders predict levels of job satisfaction?

Predictor Variable Perception of Quality of Their Leadership. Leadership quality in this study is the mutual respect that leaders and members have for each other. It is also the degree subordinates feel that they are in a functional, dyadic relationship with their leaders (Kahn et al., 2020; Tse et al., 2018).

Criterion Variable: Level of Teleworker Job Satisfaction. In this study, the Level of Teleworker Job Satisfaction refers to the self-rated degree of job satisfaction.

Moderating Variable. The moderating variable is the number of hours teleworkers work remotely per week.

Hypotheses

H₀₁. No relationship exists between the teleworkers' perceived leadership quality and job satisfaction.

H₁₁. Teleworkers' perceived quality of leadership predicts their job satisfaction levels.

RQ2

Does the number of hours teleworking per week moderate the relationship between perceived leadership quality and job satisfaction?

Hypotheses

H₀₂. The number of hours teleworking per week does not moderate the relationship between perceived leadership quality and job satisfaction.

H₁₂. The number of hours teleworking per week moderates the relationship between perceived leadership quality and job satisfaction.

Rationale

The leadership and job satisfaction data were gathered using a self-report instrument. Questionnaires are consistent with research designs that acquire knowledge in this discipline. The questionnaires served as a convenient and efficient data collection process. The leadership and job satisfaction questionnaires are reasonably valid and reliable instruments. Conducting a quantitative correlational analysis should reveal answers to the research questions. The knowledge gained should be helpful to employers to assist them in evaluating the effectiveness of their leaders.

Methodology

Population

The target population for this study begins with the total number of workers teleworking in the United States. According to Kumouri and Lister (2020), 29% of the entire workforce would be teleworking by the end of 2021, amounting to millions of workers across government and private organizations in the United States.

Sampling and Sampling Procedures

From this population, purposive sampling was used to arrive at the sampling frame. The study was limited to potential candidates from corporations with sizable numbers of employees who are mandated to work remotely at least one day per week. Additionally, candidates were required to be at least 18 years old and employed with their respective organizations for at least 6 months.

A priori power analysis was performed to ascertain the minimum number of participants needed utilizing the G*Power 3.1.9.4 statistical program (Faul et al., 2009). The G*Power results (see Appendix A) indicated the need for 134 participants at an alpha level of .05 and a power level of .95. G*Power results in similar studies were consistent with my findings. For example, Csikortos (2019) reported G*Power results of a need for 128 participants at an alpha level of .05 and a power level of .80. In another study, Mansfield (2018) reported G*Power results of a need for 129 participants at an alpha level of .05 and a power level of .95. Chukwuba (2015) also reported similar results with an alpha level of .05 and a power level of .80; the minimum required number of participants was 170.

Procedures For Recruitment, Participation, and Data Collection (Primary Data)

I hired Qualtrics to solicit participants and to collect completed questionnaires. Qualtrics has a large pool of preregistered employees from large private companies and organizations across the United States. The recruitment procedure and data collection process involved emailing an invitation letter and a consent form. The surveys were attached to the consent form. If the participant provided the right answers in the demographic section, they would then be permitted to complete the LMX-7 and the JSS surveys.

Second, employees who followed the survey link first saw the consent form. This form indicates how long it should take to complete the surveys and assures that the study will be anonymous. It also includes a statement concerning any risks associated with participating and confirmation that the participants could withdraw from the study at any time without consequence. The consent form page includes a link to the survey instruments that the employees can follow. When the participants completed the surveys, they were able to submit them online.

After a sufficient number of teleworkers completed the surveys, I downloaded the results in table form to be available for the required statistical analyses.

Instrumentation and Operationalization of Constructs

I created a survey instrument to collect demographic information. A copy of this survey is included in Appendix B. I used two questionnaires to obtain information from the participants concerning the constructs relevant to this study. To determine the perceptions of leadership quality that the participants have of their leaders, I used the

LMX-7 questionnaire. I used the JSS to determine the current level of job satisfaction (Mount, 1984).

Demographic Questionnaire

The demographic information request form asked for age, gender, number of years with the organization, whether they work full- or part-time, the number of hours per week that the participants telework, and the number of hours they would like to telework. Age, gender, number of years with the organization, and whether they work full- or part-time was reported in table form to monitor the mix of ages, gender, and time in the participants' jobs. The purpose of knowing this mix is to determine whether or not there would be any added limitations to the generalizability of the study. The number of hours worked per week by the teleworkers remotely is a factor that was important to analyze statistically as a possible moderator of the relationship of leadership to job satisfaction. The number of hours participants would like to telework served as useful anecdotal information. This information may help employers decide the optimum number of hours per week employees should telework.

Leadership Questionnaire

The leadership questionnaire gathered data regarding the teleworker's perception of the quality of the leadership that they are experiencing. The questionnaire for the leadership data was the LMX-7 Scale (Scandura et al., 2005). I selected this instrument because of the high face validity, and numerous studies have indicated the LMX-7 has acceptable reliability and validity. The LMX-7 has only seven items, but they have proved to effectively measure perceived leadership quality. Most leadership theories

address the relationship between leaders and their subordinates. The LMX theory concerns the two-way, dyadic relationship between the leader and each member (Northhouse, 2012).

In LMX theory, subordinates feel good about the organization, which leads to better performance. Research shows that the positive relationships between leaders and members also result in lower turnover rates, high employee loyalty, higher job satisfaction, and for the employee, a better overall work environment (Harris et al., 2009). In LMX theory, leaders should establish a positive relationship with all of their subordinates, not just a few. The members should feel part of the in-group (Graen & Uhl-Bien, 1995). Being a member of the in-group fosters a feeling of empowerment. This in-group relationship encourages loyalty, trust, respect, increased obligation, and higher performance. Members may strive for higher performance because of fear of being shut out of the in-group. The LMX theory is appropriate for my study because leaders can utilize many available communication options today to build one-on-one relationships remotely. The LMX focus on the individual relationship is critical because it can enable a stronger connection than trying to relate to all members.

Graen and several other associates developed the initial versions of the LMX-7 scale in 1975. Since then, the scale has evolved (see Appendix C for the current version of the scale). The following is an example of one of the scale items:

1. Do you know where you stand with your leader . . . do you usually know how satisfied your leader is with what you do? (Does your member usually know)
Rarely Occasionally Sometimes Fairly Often Very Often

(Graen & Uhl-Bien, 1995).

The LMX-7 is a continuous scale comprised of the sum of 5-point items (1 left to 5 right). The leader's form consists of the same seven items asked about member of (leader in parentheses). The expected agreement between leader and member reports is positive and strong. Furunes et al. (2015) investigated the validity of the LMX-7 in Norway. Data were collected from teachers ($n = 409$), industrial workers ($n = 406$), and bus drivers ($n = 1024$). The results by factor structure indicated that the LMX-7 was high in construct validity, discriminant validity, and internal consistency as measured by Cronbach alpha above .90.

In another study, Joseph et al. (2011) summarized LMX measurement practices since influential reviews were published by Schriesheim et al. (1999). The researchers clarified the status of the LMX-7 as a broad construct from a hierarchical factor model, and they reported high discriminant validity between Member LMX and satisfaction with supervisors. The study also pointed out that the LMX, the LMX-7, and the LMX-MDM, are highly correlated.

A good example of the utility of the LMX-7 is the application of the instrument in sports. Caliskan (2015) conducted a study that examined the reliability and validity of the LMX-7 as applied to the coach-player relationships in a soccer Turkish Super League. Exploratory factor analysis revealed a one-factor solution for the LMX-7. Confirmatory factor analysis showed that the reliability of the LMX-7 was quite good.

The JSS

The JSS was administered to measure the current level of job satisfaction. I chose the JSS because it tests for a comprehensive list of general work satisfaction considerations such as pay, promotion, supervision, fringe benefits, contingent rewards, operating procedures, coworkers, nature of work, and communications (Spector et al., 2007). The JSS is a nine-facet scale with four items to access each facet. The items are written in both directions requiring that about half of the items have to be reverse scored. The Instrument utilizes a 6-point Likert scale with 1 = *Disagree very much*; 2 = *Disagree moderately*; 3 = *Disagree slightly*; 4 = *Agree slightly*; 5 = *Agree moderately*; 6 = *Agree very much* (Spector et al., 2007). The following are examples of items on the JSS survey:

1. Many of our rules and procedures need to be streamlined
 5. I have too many duties and responsibilities
 10. I know how to measure the quality of my work
 15. I would consider leaving my job for another with better pay
 20. I would like to be cross-trained for another area of BCHD
 25. My supervisor shows interest in my feelings and acknowledges my concerns
- (See Appendix D for a complete list of scale items.)

The JSS scale was appropriate for this study because it comprehensively assesses most of the main factors that affect job satisfaction. I anticipated that the correlation of these scales would reveal the relationship between the teleworkers' perception of leadership quality and their job satisfaction levels. The study was an attempt to discover

whether the scores on the LMX-7 scale would be predictive of the Job Satisfaction scale scores.

Numerous studies have concluded that the JSS is valid and reliable. Ogunkuade and Ojiji (2018) designed a study to validate the JSS to adapt the research instrument for the Nigerian research environment. Study participants were 108 employees (47 males and 61 females) of public and private organizations. The researchers found that JSS has both face and content validity. The instrument generated a reliability Cronbach alpha = .75, which is sufficiently reliable.

To fill a gap in research on the application of the JSS in the military, Ang et al. (2014) administered the JSS to a group of male navy personnel from selected naval bases in Malaysia. Their study utilized exploratory factor analysis, which yielded a five-subscale model with 28 items: recognition, affection, fairness, expectation, and workload. The results confirmed the scale's psychometric properties, and the authors concluded that the JSS has sufficient validity and reliability to measure job satisfaction in armed force settings.

Tsounis and Sarafis (2018) translated the JSS into Greek. A factor analysis resulted in high factor loads ranging from 0.61 to 0.90 with satisfactory reliability coefficients. Cronbach's alpha for eight of the nine dimensions of the Greek JSS scale ranged from 0.62 to 0.87 except for the dimension "Operating procedures," which was 0.48, while Cronbach's alpha for the total scale was 0.87 and the Gutman Split-Half Coefficient was 0.88.

In September 2010, 301 Najmiyeh e Subspecialty Hospital employees were selected and answered the JSS questionnaire. Concurrent validity and confirmatory and exploratory factor analysis were used to examine the construct validity, and Cronbach's Alpha method was used to determine the reliability. SPSS 16 and AMOS 18 were used to analyze data. Chi-square test. Results indicated that the explanatory factor analysis showed seven factors with 62 total variance and 0.82 Kaiser-Meyer-Olkin Index. The reliability of the questionnaire was reported to be 0.86 using the Cronbach's Alpha method. Conclusion: Considering that the validity and reliability indexes of the questionnaire are reported to be in acceptable range, the new version of the JSS questionnaire is a valid and reliable questionnaire for measuring job satisfaction among military health care workers.

Data Analysis Plan

Data will be analyzed using SPSS. I will correlate the total scores of the LMX-7 to the total scores of the JSS. I will conduct a regression analysis to determine the extent of the interaction of the number of hours participants work each week to the relationship of the LMX-7 scores to the JSS scores. A relationship will be considered statistically significant if it achieves at least the .05 significance level. Data will be downloaded from Qualtrics and entered into the SPSS statistics program. The data will be cleaned and prepared for statistical analysis. First, the responses to the demographic questionnaire and the two instruments will be checked for completion. There will be no problem with uncompleted instruments because the instruments will be programmed so that participants will not be able to move to a new instrument until responses have been made

to all items on the previous instrument. However, if a participant's information about gender, age, job tenure, and hours per week teleworking were missing, that participant's questionnaires would be dropped.

Limitations and Challenges

My first concern was to be sure to see if my participants fell mainly in the organization's normal age, gender, and years curve. I will report the participants' age, gender, and tenure from the demographic survey. A discussion will be included to summarize the characteristics of this data and the extent to which these variables may affect the generalizability of the study's findings.

My second concern was that the teleworkers may telework a different number of hours per week while participating in the study, affecting their job satisfaction. I will report the number of hours per week they are presently working and how many hours per week they would like to telework, and this may be helpful when analyzing and reporting the results.

Threats To Validity

Threats to External Validity

External validity refers to the generalizability of the results of a study. In this study, several threats to external validity should be considered when analyzing the results. First, because the study's sample size was small compared to the total target population, the generalizability of the results will be limited. In addition, the sample was a purposive sample, further limiting the generalizability. Random selection was not used

because there will only be one group of participants. Without random sampling and a control group, there is less potential to generalize the results (Liang et al., 2022).

In addition, since the participants were teleworkers from large privately owned and public corporations, the study's findings may not apply to government employees, small private companies, and non-profit companies.

Threats to Internal Validity

One potential threat to internal validity is the possible systemic occurrence of bias because the participants will choose to participate. Some candidates may elect to participate because they may feel it would be a way to vent some frustrations. Some candidates may participate because they are satisfied with their working conditions, and others may decide not to participate because they are very dissatisfied. Therefore, the participants may have a different attitude than other workers who chose not to participate. There may also be systemic differences among age, gender, and tenure groups that could affect the results. If the mix in these groups is highly skewed in one direction, these differences could significantly affect the results.

Another type of bias may result because some candidates may think it would be advantageous to impression manage their responses. They may feel that they should respond to the items on the questionnaire in a socially desirable manner (King & Bruner, 2000).

Finally, although this study determined that there was a statistical correlation between the variables, it cannot be assumed that the relationship between the variables will be a causal relationship (Campbell & Stanley, 1963).

Threats to Construct Validity

Construct validity concerns whether or not an instrument measures the construct properly. The leadership and job satisfaction questionnaires have been analyzed extensively, and the overall results indicate that they are valid and reliable instruments. The LMX-7 has only seven items, but they have proved to measure perceived leadership quality (Northouse, 2012) effectively. Numerous studies have concluded that the JSS is valid and reliable (Ogunkuade & Ojiji, 2018).

Ethical Procedures

Before communicating with potential participants for this study, I obtained approval from the Walden University Institutional Review Board (IRB) to conduct my study. I included the approval number in my informed consent form that I provided to the participants. I also abided by the Protection of Human Subjects guidelines of the American Psychological Association (Smith et al., 2018).

Research seeks to find accurate answers to important questions. In most cases, the research process starts with measuring something because if you can measure it, you may be able to manage or analyze it. This study begins with gathering demographic data and will measure perceptions of leadership and levels of job satisfaction. When these data are obtained, we will understand how vital leadership perceptions correlate to teleworkers' job satisfaction.

Chapter 4: Results

The main purpose of this quantitative study was to determine to what extent perceptions of leadership quality that teleworking employees have of their leaders predict levels of job satisfaction as moderated by the number of hours employees spend teleworking per week. Surveys from 145 respondents were used for this study.

The following research questions were answered in this study:

- **RQ1:** Do perceptions of leadership quality that teleworking employees have of their leaders predict levels of job satisfaction?
- **RQ2:** Does the number of hours teleworking per week moderate the relationship between perceived leadership quality and job satisfaction?

The following hypotheses were also addressed:

- **H₀₁:** No statistically significant relationship exists between the teleworkers' perceived leadership quality and job satisfaction.
H₁₁: Teleworkers' perceived quality of leadership significantly predicts their job satisfaction levels.
- **H₀₂:** The number of hours teleworking per week does not moderate the relationship between perceived leadership quality and job satisfaction.
- **H₁₂:** The number of hours teleworking per week moderates the relationship between perceived leadership quality and job satisfaction.

In this chapter, I discuss the recruitment and selection process, the data collection procedure, data cleaning, and the study results. A chapter summary is also provided.

Participant Recruiting and Selection

Qualtrics, a company that specializes in data collection, was used to recruit and select participants and to administer the three questionnaires. Qualtrics has a large preregistered pool of employees from different organizations around the United States and other countries. Qualtrics was directed to choose potential participants from large private (not government) corporations in the United States that teleworked at least one day per week and that were on their jobs for at least six months. Qualtrics was directed to invite equal numbers of male and female employees and to ensure that there was a good mix of all ages from 18 years old to over 60 years old. Qualtrics delivered 145 completed questionnaires in March of 2023.

Data Collection Procedure

Potential participants were invited to participate by email. The email consisted of an invitation letter, a consent form, and the demographic, LMX-7, and JSS questionnaires. If a candidate successfully filled out the demographic questionnaire, they would be allowed to continue to complete the LMX-7 and the JSS instruments.

Data Cleaning

Qualtrics provided 145 completed surveys. The number of missing answers was calculated. It was determined that 122 respondents answered all the survey items, 19 did not answer one item, and four did not answer two items. Those missing answers were estimated / imputed using either the grand mean for continuous variables or the grand mode for categorical variables. The scales were calculated based on the recommendations of the scale authors (Spector et al., 2007; see also Scandura et al., 2003).

Results of the Descriptive Analysis of Data

Table 1 displays the descriptive statistics for selected variables. The mean number of hours typically worked was 40.52 ($SD = 7.14$). The mean number of hours worked as a telecommuter employee was 29.47 ($SD = 13.37$). The ages of the respondents ranged from 19 to 74 years ($M = 45.26$, $SD = 14.03$). The years with the organization was a mean of 12.88 ($SD = 9.31$). The mean number of hours preferred to work remotely was 29.98 ($SD = 12.94$).

Table 1

Descriptive Statistics for Selected Variables

Variable	<i>M</i>	<i>SD</i>	Low	High
The number of hours typically worked per week	40.52	7.14	10.00	60.00
The number of hours worked remotely (telework) per week.	29.47	13.37	8.00	60.00
Age	45.26	14.03	19.00	74.00
The number of years working with your organization.	12.88	9.31	1.00	38.00
The number of hours per week that preferred to work remotely.	29.98	12.94	0.00	52.00

Note. $N = 145$.

Table 2 displays the frequency counts for gender and the median split for hours of telecommuting work. There were slightly more females (51.7%) than males (48.3%) in the sample. As shown in Table 1, the hours of telecommuting ranged from 8 to 60 ($M = 29.47$, $SD = 13.37$). For the moderation analysis, a median split was developed: 0 to 30 hours (49.7%) and 31+ hours (50.3%; see Table 2).

Table 2*Frequency Counts for Gender and Telecommuting Hours*

Variable	Category	<i>n</i>	%
Gender	Male	70	48.3
	Female	75	51.7
Median split for telecommuting hours ^a	0 to 30 hours	72	49.7
	31+ hours	73	50.3

Note. *N* = 145.

^a Telecommuting Hours: *M* = 29.47, *SD* = 13.37.

Table 3 displays the psychometric characteristics for the two scale scores. The leadership scores had a mean of 4.04 on a 5-point scale and the job satisfaction had a mean of 4.23 on a 6-point scale. Both Cronbach alpha reliability coefficients were acceptable: leadership ($\alpha = .90$), and job satisfaction ($\alpha = .93$; see Table 3). A negative skew was present for leadership but not for job satisfaction.

Table 3*Psychometric Characteristics for the Scale Scores*

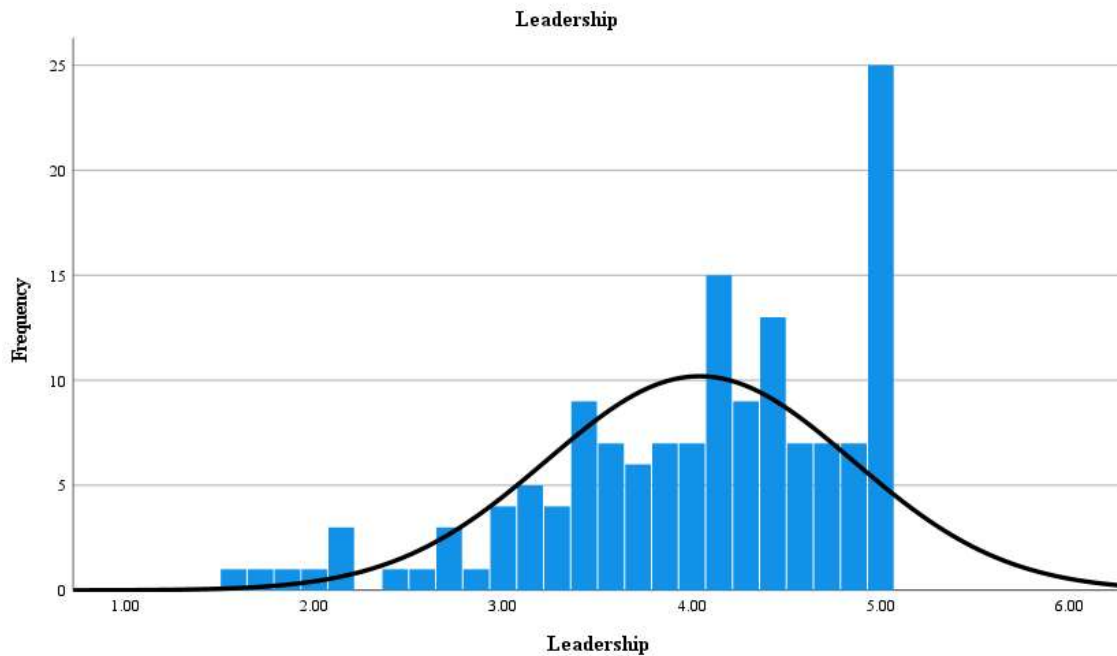
Scale	Items	<i>M</i>	<i>Mdn</i>	<i>SD</i>	Skewness	Kurtosis	Low	High	α
Leadership	7.00	4.04	4.14	0.81	-0.87	0.39	1.57	5.00	.90
Job satisfaction	36.00	4.23	4.25	0.83	0.07	-1.21	2.56	5.86	.93

Note. *N* = 145.

As for kurtosis, the leadership score was normal, but the job satisfaction was flatter than normal (i.e., platykurtic, see Figure 1).

Figure 1

Frequency Histograms for the Scale Scores



Assumption Testing for Moderated Multiple Regression

According to the Laerd Statistics website (2023), there are nine assumptions that need to be met for moderated multiple regression:

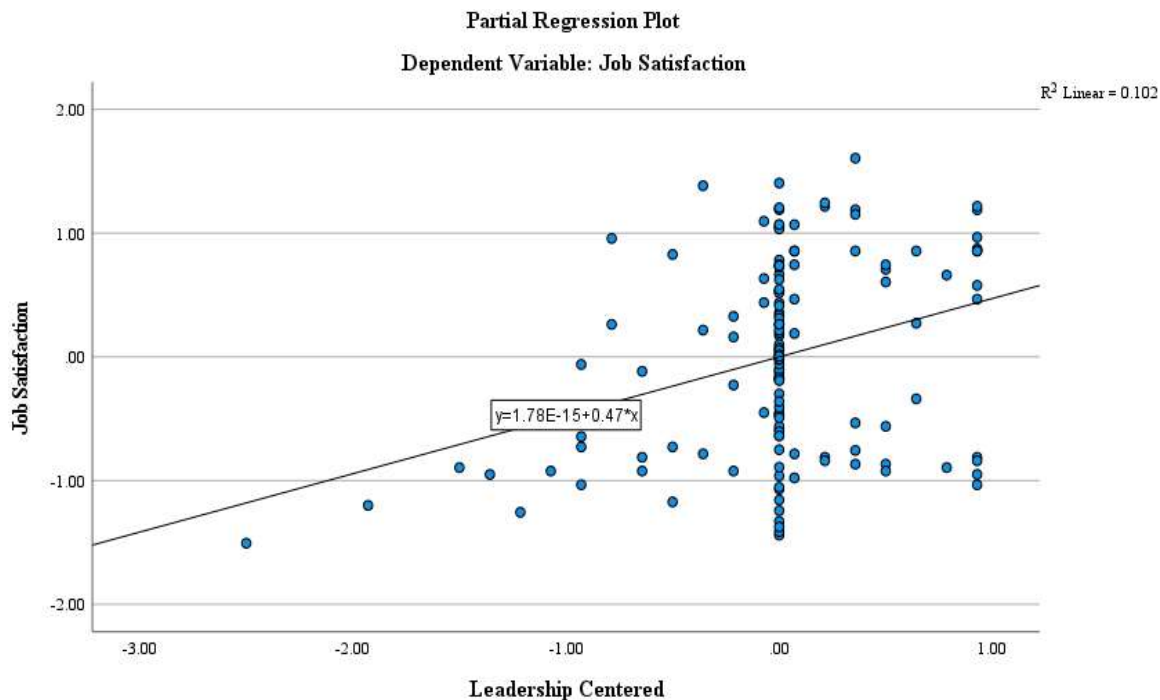
1. Dependent variable is a continuous scale;
2. Continuous independent variable;
3. Moderator variable is dichotomous;
4. Independent observations;
5. Linear relationship between the dependent variable and each non-dichotomous independent variable both individually and collectively;
6. No multicollinearity;

7. No significant outliers, high leverage points or highly influential points;
8. Homoscedasticity; and
9. Normally distributed residual scores.

Assumptions 1 (continuous dependent variable), 2 (continuous independent variable), and 3 (dichotomous moderator variable) were met based on the design of the study. Assumption 4 (independent observations) was met based on the Durbin-Watson statistic of 1.77. Assumption 5 (linear relationship) was met based on the scatterplot of the dependent variable and the independent variables (see Figure 2). Assumption 6 (no multicollinearity) was met by inspection of the VIF statistics in the regression model (see Table 4). Assumption 7 (no outliers or other influential points) was met based on examination of the case wise diagnostics, identifying no studentized deleted residuals greater than ± 3 standard deviations, Cook's scores all less than 1.0, and leverage values all less than 0.20. Assumption 8 (homoscedasticity) was met based on inspection of the scatterplot of studentized residuals against the unstandardized predicted values (see Figure 3). Assumption 9 (normally distributed residuals) was met based on the inspection of the residual histogram and the Normal P-P plot (see Figure 4). Taken together, along with the General Linear Model being robust to assumption violations in large samples ($N = 145$), the assumptions for moderated multiple regression were adequately met.

Figure 2

Partial Regression Plot for Job Satisfaction with Centered Leadership Score



Note. $N = 145$.

Table 4

Moderated Multiple Regression Model Predicting Job Satisfaction Based on Leadership Moderated by Hours Worked as a Telecommuter

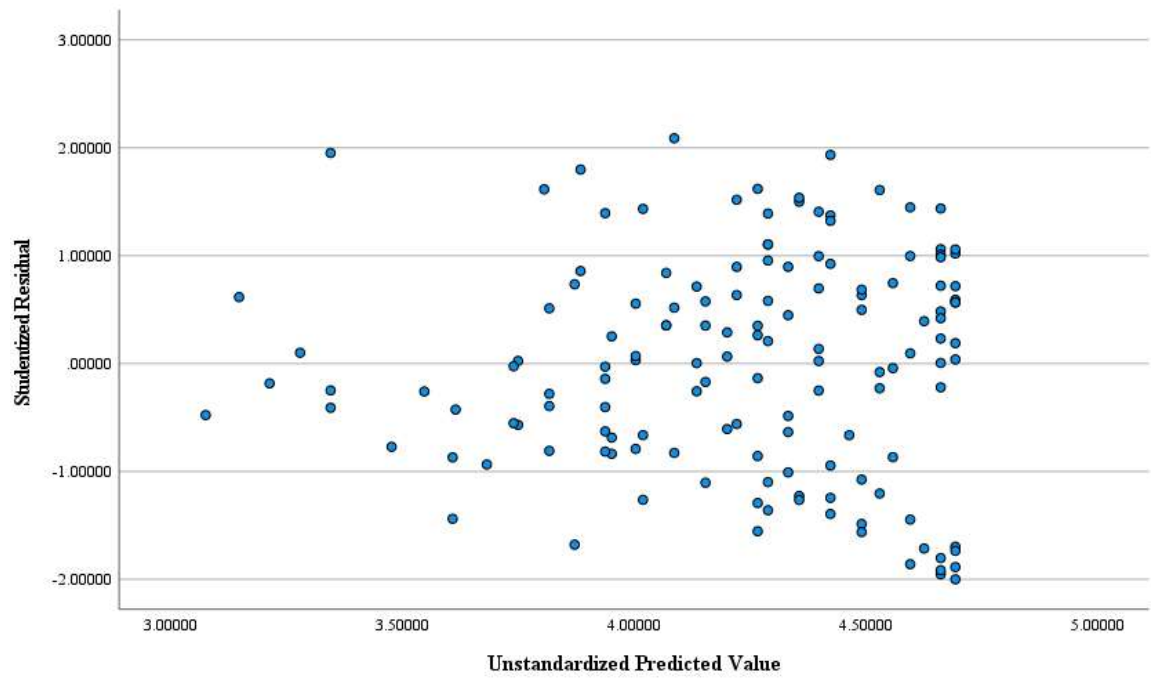
Model	Variable	B	SE	β	p	VIF
Model 1						
	Intercept	4.24	0.09		.001	
	Leadership centered	0.47	0.08	.45	.001	1.00
	Median split on hours telecommuting ^a	-0.02	0.12	-.01	.865	1.00
Model 2						
	Intercept	4.24	0.09		.001	
	Leadership centered	0.47	0.12	.46	.001	2.33
	Median split on hours telecommuting ^a	-0.02	0.12	-.01	.866	1.00
	Interaction Effect	-0.01	0.16	-.01	.944	2.33

Note. $N = 145$. Model 1 Summary: $F(2, 142) = 18.44, p = .001, R^2 = .206$. Durbin-Watson = 1.77. Model 2 Summary: $F(3, 141) = 12.21, p = .001, R^2 = .206, \Delta R^2 = .000$.

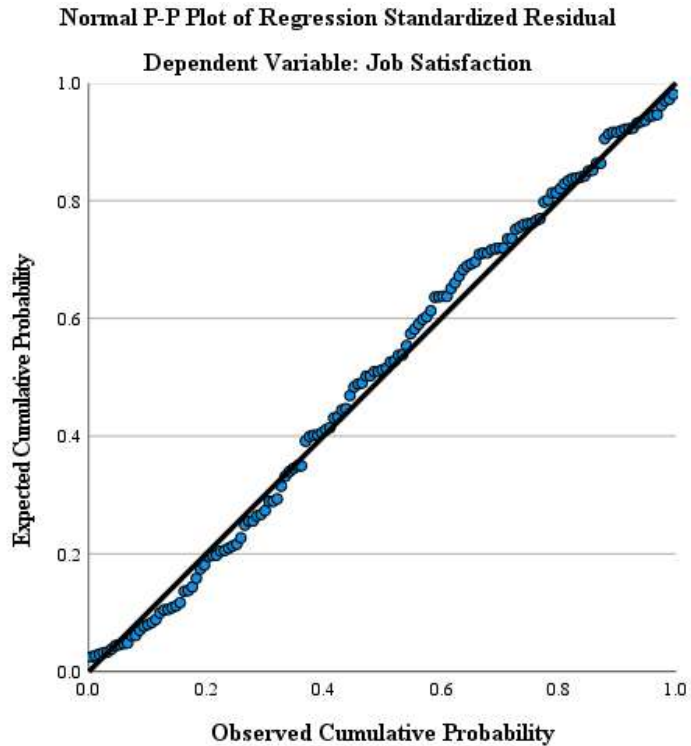
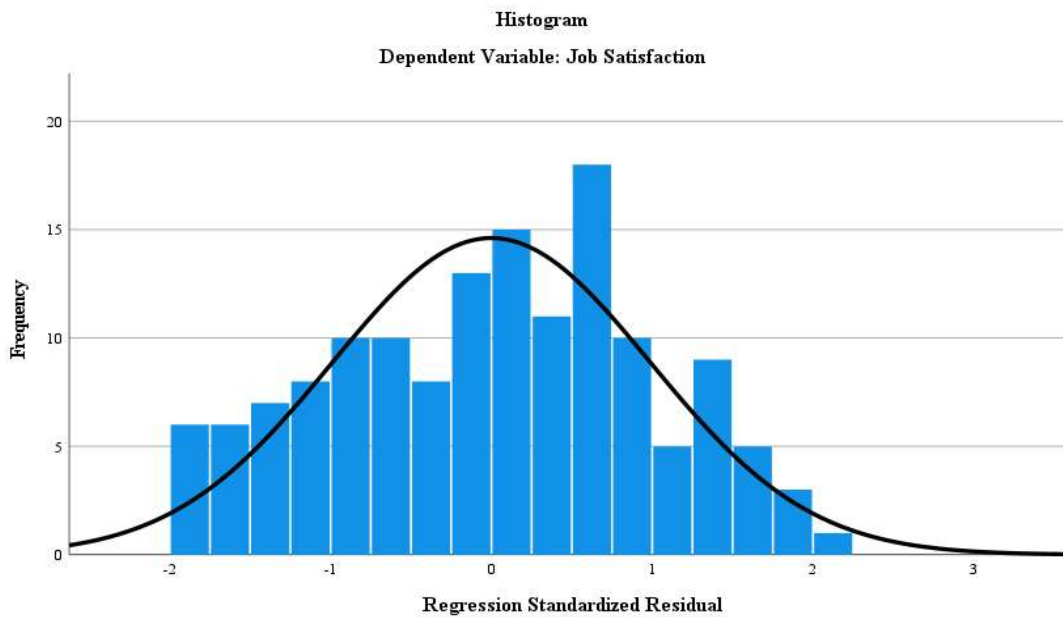
^a Telecommuting Coding: 0 = 0-30 hours, 1 = 31+ hours.

Figure 3

Homoscedasticity Plot for the Regression Model



Note. $N = 145$

Figure 4*Regression Residual Graphics*

Note. $N = 145$.

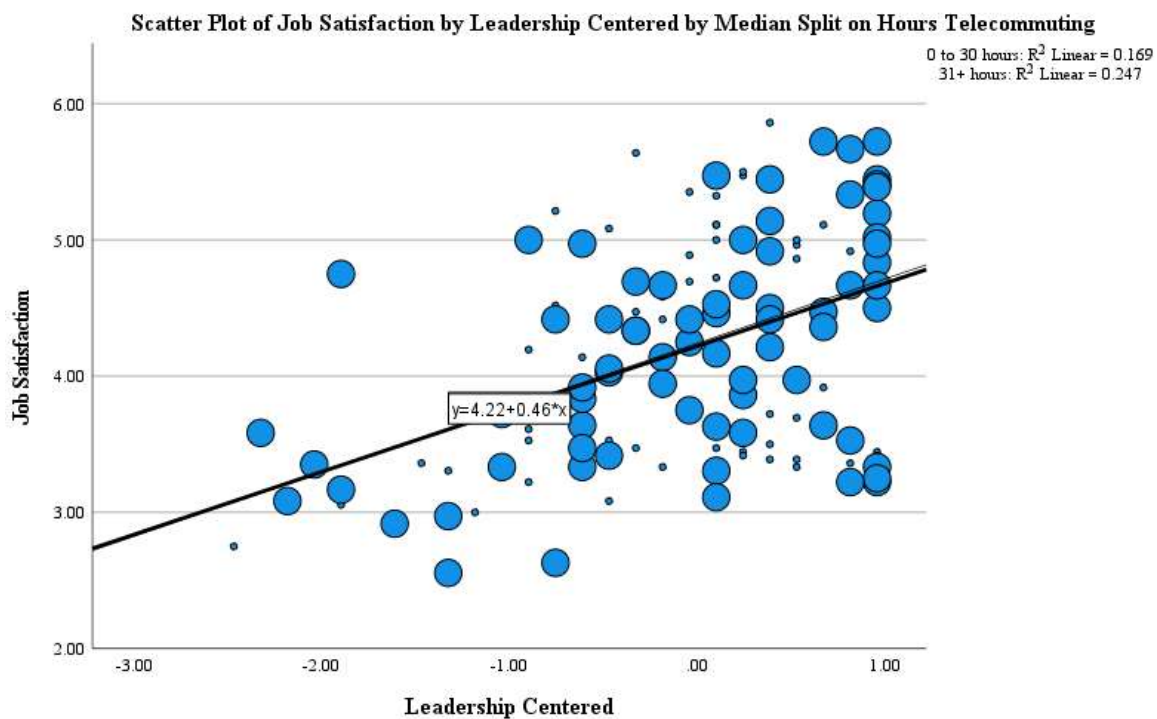
Results of the Inferential Analysis

Research Question 1 was, Do perceptions of leadership quality that teleworking employees have of their leaders predict levels of job satisfaction? The related null hypothesis (H_{01}) was that no statistically significant relationship exists between the teleworkers' perceived leadership quality and job satisfaction. To answer this question, Table 4 displays the relevant multiple regression model. The first step of the model contained the centered leadership score and the dichotomous moderator variable (0 = 0-30 hours, 1 = 31+ hours). The overall model was significant, $F(2, 142) = 18.44, p = .001, R^2 = .206$. Inspection of the beta weights found a significant positive relationship between leadership and job satisfaction ($\beta = .45, p = .001$) and a non-significant relationship between the telecommuting moderator variable and job satisfaction ($\beta = -.01, p = .865$). This combination of findings provided support for the first hypothesis (see Table 4).

Research Question 2 was, Does the number of hours teleworking per week moderate the relationship between perceived leadership quality and job satisfaction? The related null hypothesis (H_{02}) was that the number of hours teleworking per week does not moderate the relationship between perceived leadership quality and job satisfaction. To answer this question, Table 4 displays the relevant regression model. Step 2 of the model included the interaction effect which was not significant ($\beta = -.01, p = .944$) and did not determine any variance for job satisfaction ($\Delta R^2 = .000$). The lack of interaction is highlighted in the parallel regression lines in interaction plot (see Figure 5) as well as the separate scatterplots for the two groups (see Figure 6). This combination of findings provided support to retain the second null hypothesis.

Figure 5

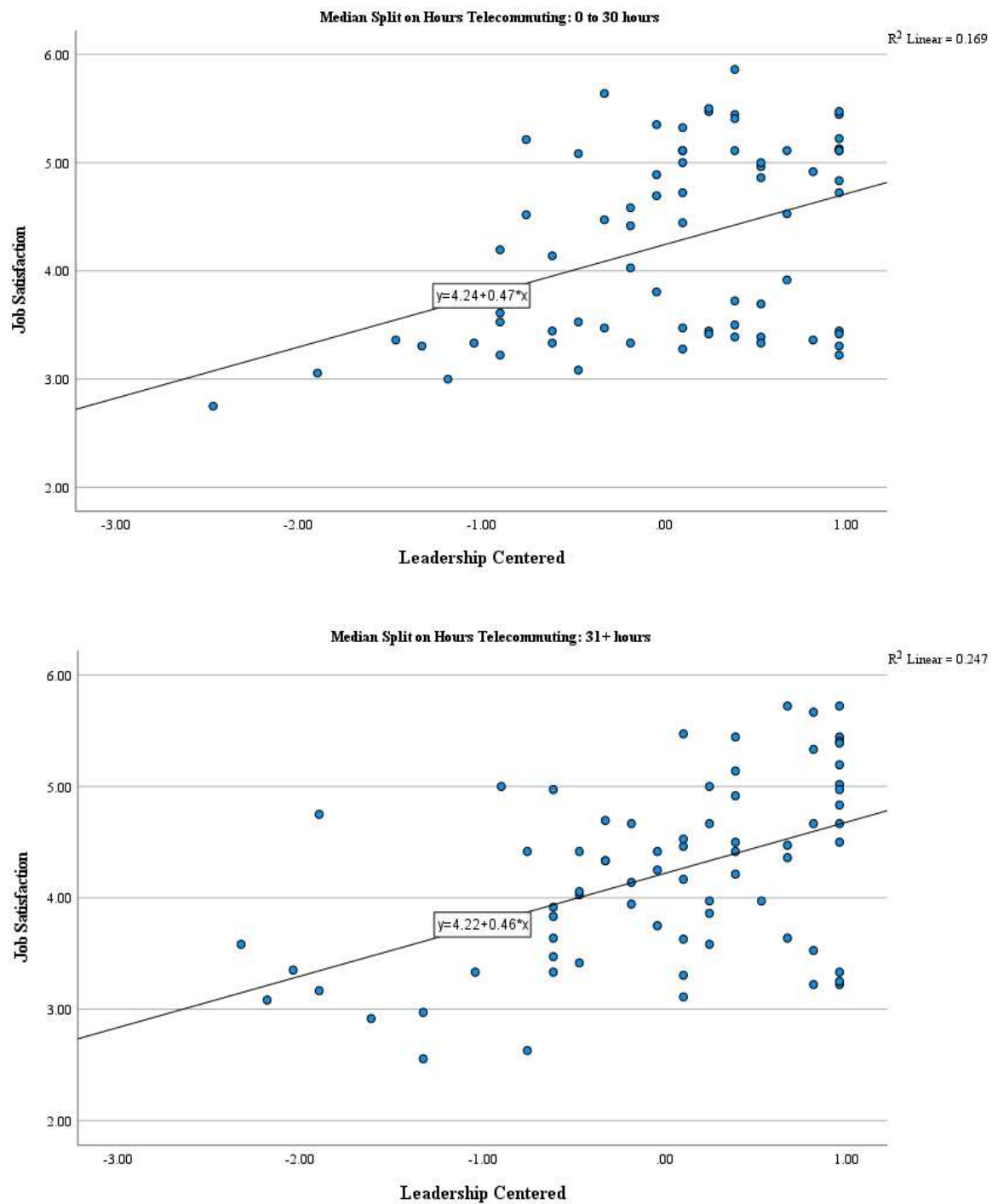
Interaction Plot for the Regression Model



Note. $N = 145$. Smaller dots reflect respondents in the 0 to 30 hours group while larger dots reflect respondents in the 31+ hours group.

Figure 6

Scatterplots for Leadership and Job Satisfaction Broken Down By Hours of Telecommuting



Additional Findings

As an additional set of findings, Table 5 displays the Pearson correlations for selected variables with the respondents' leadership and job satisfaction scores. The leadership score was positively related to the job satisfaction score ($r = .45, p = .001$). In addition, the leadership score was negatively related to the number of hours preferred to work remotely ($r = -.20, p = .05$). Furthermore, the respondent's job satisfaction score was positively related to their number of hours worked per week ($r = .17, p = .05$), and their age ($r = .23, p = .005$).

Table 5

Pearson Correlations for Selected Variables with Leadership and Job Satisfaction Scores

Variable	1		2	
1. Leadership	1.00			
2. Job satisfaction	.45	****	1.00	
Hours typically worked per week	-.08		.17	*
Hours worked remotely (telework) per week.	-.03		-.06	
Median split on hours telecommuting ^a	-.04		-.03	
Age	-.08		.23	***
Gender ^b	-.10		.04	
Number of years working in organization.	.06		.15	
Number of hours per week preferred to work remotely	-.20	*	.03	

Note. $N = 145$.

* $p < .05$. ** $p < .01$. *** $p < .005$. **** $p < .001$.

^a Telecommuting Coding: 0 = 0-30 hours, 1 = 31+ hours.

^b Gender Coding: 1 = Male 2 = Female.

Summary of the Chapter

In summary, this quantitative study used survey data from 145 respondents to determine to what extent perceptions of leadership quality that teleworking employees have of their leaders predict levels of job satisfaction as moderated by the number of hours employees spend teleworking per week. Hypothesis 1 (leadership and job satisfaction) was supported (see Table 4). Hypothesis 2 (hours of telecommuting moderated leadership and job satisfaction) was not supported (see Table 4). In the final chapter, these findings will be compared to the literature, conclusions and implications will be drawn, and a series of recommendations will be made.

Chapter 5: Discussion, Conclusions, and Recommendations

In this chapter, I compare the study results with what I found in the literature, and I discuss conclusions, implications, and limitations regarding the generalizability of the results. The chapter also focuses on e-leadership as it pertains to teleworking and why developing a greater body of knowledge about this subject is important. Current teleworking trends will also be discussed, and recommendations for future studies will be proposed.

Purpose of the Study and Research Question

The purpose of the study was to determine whether teleworkers' perceptions of the leadership quality of their leaders affected their job satisfaction as moderated by the number of hours they worked remotely per week. Specifically, I sought to determine whether teleworkers' perception of leadership quality predicted job satisfaction levels, as moderated by the number of hours per week of teleworking. I also gathered information concerning how many hours per week teleworkers prefer to work remotely.

Summary of the Study Results

The results indicated that there was a significant effect of perceptions of leadership quality on job satisfaction, but there was not a significant moderation effect of hours per week employees spent teleworking. The demographic survey indicated that most teleworkers preferred to telework 25 to 32 hours per week. In other words, they preferred to work one or two days in the office and three to four days remotely.

Comparison of Study Results to the Literature

The results of the study are like those of several studies that I presented in Chapter 2. Mansfield (2018) reported that LMX was a significant moderator for the relationship between the attitude toward telecommuting and job satisfaction. The one-on-one relationship of the LMX approach was a significant factor in the participants' job satisfaction. Willis (2016) determined that trust and respect for leaders were important to job satisfaction. The LMX approach centers on mutual trust and respect of the leader and member. A study by Csikortos (2019) indicated that employees who spent more than 75% of their time each week teleworking had higher job satisfaction, stronger organizational commitment, and higher perceived supervisor support. This finding coincides with my study regarding the preferences of teleworkers in terms of the number of hours teleworking per week. My study revealed that most teleworkers preferred to work 25 to 32 hours per week. I was not able to find any studies that indicated that leadership quality was not an essential factor in job satisfaction.

Interpretation of the Findings

According to the regression procedure used to analyze the data, the study has shown that there is a significant relationship between teleworkers' perception of their leadership quality and their job satisfaction. An essential finding of this study is that the number of hours an employee works remotely does not significantly affect the relationship between Perceived Leadership Quality and Job Satisfaction. In the demographics survey, the participants were asked what they felt was the ideal number of hours they would like to work remotely per week. This study revealed that more

teleworkers preferred to telework more than 24 hours per week, with the strongest showing at 25 to 32 hours per week. The study implies that the number of hours teleworking per week that teleworkers prefer may vary from employee to employee, but hours per week teleworking is an independent employee consideration and is not necessarily linked to job satisfaction. The issue is more subjective from employee to employee, and each employee may have to be interviewed to determine their preferences. This is information that can be useful in deciding how many hours per week employees should be scheduled for teleworking.

Limitations of the Study

This study is limited in generalizability to teleworkers working with large nongovernment organizations in the United States. To be a participant, candidates had to be 18 years or older, they had to be on their jobs for at least 6 months, and they had to be teleworking at least one day per week. The study is also limited because of the relatively small sample size, and it did not take into consideration cultural differences. Also, the participants only completed one set of questionnaires with no treatments or follow-up testing. Since the study used questionnaires only, the participants could only respond to the pre-published questions, which limited the range and depth of the participants' responses.

In this study, I used the split-half system instead of the continuous variable method in analyzing the moderation effect of the number of hours per week teleworking on job satisfaction. With just two halves, there is a much greater chance of having a difference between the two segments. The participants were divided into two equal parts,

with one part representing teleworkers who worked lower numbers of hours per week teleworking and the other part was those working more hours per week teleworking. Then the two groups were compared to determine if more hours of teleworking per week moderated the job satisfaction levels of the teleworkers. The results showed that there was no significant difference between the two groups. The null hypothesis was retained. Although there was a degree of loss of power by splitting the teleworkers into two groups, the results are still worth noting. However, future studies should be completed with larger numbers of participants to ascertain whether the number of hours teleworking per week has a moderating effect on teleworker job satisfaction. Since the current study showed that the results were far from significant, it was obvious that trying to use the continuous method would not produce significant results either. Therefore, I did not rerun the data using the continuous method.

Conclusions and Implications

Even though COVID-19 as an out-of-control epidemic is becoming less of a concern, teleworking will continue to be a viable option for employers and employees. Employers have found that their employees have been able to make the change to work remotely and that productivity has not suffered. In some cases, production and cost-effectiveness have increased. However, with so many factors affecting job satisfaction, there will always be a constant requirement to learn more about the preferences of employees. Every employee may have different circumstances to address when considering teleworking versus office working. It will always be important to monitor what employees prefer (Van de Brake et al., 2019).

Implications for Social Change

This study supports the idea that increased perceptions of leadership quality that teleworkers receive from their leaders positively affect job satisfaction. This has a bearing on potential social change because when workers are more satisfied, their performance quality increases (Kaplan & Norton, 2007). This can then affect customer satisfaction. Higher customer satisfaction can lead to a greater market share and higher bottom-line profit for stakeholders. In addition, more funds would be available for a more robust corporate social responsibility program and employee benefits. Jobs become more secure, and corporate profits are more likely to be sustained from year to year. In summary, a higher level of leadership quality can affect social change by helping organizations to spiral up their profits year after year, thus providing a positive social change in the lives of customers, employees, and employers.

Recommendations for Future Research

Further research is needed to explore the influence of various factors, including pay, benefits, job autonomy, training and development, promotion opportunities, and corporate climate, on job satisfaction (Peng et al., 2019). Employee cultural differences will always be an area that requires special leadership skills (Bolton, 2020). Knowing more about how each factor affects job satisfaction would help employers and practitioners to reset criteria for employee selection, to enable a more appropriate training program, and determine a more optimum array of resources to commit to job satisfaction (Abid et al., 2020).

Analyzing leadership styles in the context of job satisfaction and organizational commitment will also become more important. Dahlstrom (2013) reported a dichotomy of leadership styles that is important to consider regarding leadership and its effects on the job satisfaction of teleworkers. On the one hand, there are task-related leadership styles; on the other hand, there are relationship-based leadership styles (Dahlstrom, 2013). Task-related leadership refers to a more transactional or situational context in which leaders and employees negotiate on a just-in-time basis. Relationship styles rely on the building of trust, respect, fairness, understanding, and empowerment. Both have their advantages and their degrees of success. More studies are needed, however, to develop optimal approaches to the relationship of leadership to job satisfaction.

The LMX leadership style embodies the relationship-based type of leadership. Kashive et al. (2022) reported that leadership is now either standard or more oriented toward electronic leadership, known as e-leadership. He emphasized that e-leadership has evolved as a distinctly different form of leadership than standard (in-office) leadership. Information technology and communication technologies have become much more complex, and there are so many new technologies that e-leaders must become more familiar and adept with many of these technologies than standard leaders. The challenge for e-leadership leaders is to strengthen the one-on-one relationship, as is the central theme of the LMX style while guiding employees through the myriad of technical changes in information and communication systems. Advanced information technologies (AIT) are developing at a constantly accelerating rate, and organizations are destined to fail if they do not keep pace with the many changes occurring (Avolio & Kahai, 2003).

Lately, AIT has become information and communication technologies to reflect the growing importance of different communication systems in use (Abid et al., 2020). More research is needed to determine the best information-sharing and communication strategies e-leaders should use.

E-leadership has emerged over the last 30 years or so as an independent concept, and it is vital to know how e-leadership differs from standard leadership (Abid et al., 2020). Recruiting and selecting e-leaders should be done with a different set of criteria than for standard leaders. E-leaders need to be more adaptive, innovative, and creative. There are numerous factors that employers should consider before hiring e-leaders. Such considerations as communication skills, social skills, team building skills, change management skills, technological knowledge, trustworthiness, and innovative skills are some of the areas of consideration that require a different set of skills with e-leadership (Abid et al., 2020; Cuhadar, 2022). Management needs to rethink the organizational management structure from the vision and mission statement, strategic planning, goal setting, and feedback systems to performance appraising, considering the new demands of having a workforce disbursed remotely from the central offices. Job descriptions will need to be reexamined, and benefits and perks may need to be adjusted (Kaplan & Norton, 2007). Much research is needed on all aspects of e-leadership.

Policy Recommendations

Employers and practitioners will benefit from learning more about the leadership preferences of teleworkers and how these preferences affect their job satisfaction. When creating organization policies, considering employees' preferences may help obtain buy-

in from employees (Abid et al., 2020). The results of this study were intended to help employers and practitioners to understand more about how perceptions of leadership quality can affect job satisfaction. These results may be helpful in determining the extent of allocating resources in creating and disseminating organizational policies to the employees (Abid et al., 2020).

Practitioner Recommendations

Practitioners should consider administering leadership and job satisfaction questionnaires to employees of their clients because this study shows that this would be important data to have when designing jobs and work schedules. Knowing more about the preferences of employees would help in the determination of the allocation of resources to hire and train leaders and to also know what makes employees more satisfied on the job.

Summary

Since this study has determined teleworkers' perceived level of leadership quality to explain a substantial amount of the variance in job satisfaction of teleworkers, it can be inferred then that leadership is a significant factor in job satisfaction. Therefore, employers and practitioners should discuss the allocation of organizational resources to be set at an optimal level bearing in mind the importance of e-leadership. More money may be spent on recruiting, selecting, hiring, and training of leaders to optimize the potential of increasing teleworker job satisfaction.

Overall, this is a very positive finding concerning the attitude of employees toward telecommuting. This implies that most teleworkers would like to work at least

three to four days a week remotely. An important aspect of this study is the fact that employers and practitioners should not overlook this significant nexus of leadership to job satisfaction when determining support programs for leaders and employees. Some employers today are closing their offices and the only option for the employees is to work remotely. This study confirms that most teleworking employees prefer to work 25 to 32 hours per week teleworking, so the idea of closing the offices and sending employees home to work is supported by this study.

It must be kept in mind that even though teleworking has become very common over the last couple of years, it still poses many challenges, and universal solutions have not necessarily taken care of these problems yet. Working in a virtual environment is still very challenging for many employees. Some feel that they are socially isolated or critically absent from building relationships with other workers who they feel could have a positive effect on their job satisfaction. Some feel that they need a more constant coaching environment to maintain a higher level of motivation. Some feel they are not getting access to the resources they would normally have access to if they were working in the office more (Donovan, 2022). Even if a large percentage of the teleworking force is happy and dealing well with the challenges, it is important to be on the lookout for the 20% who are having issues dealing with teleworking.

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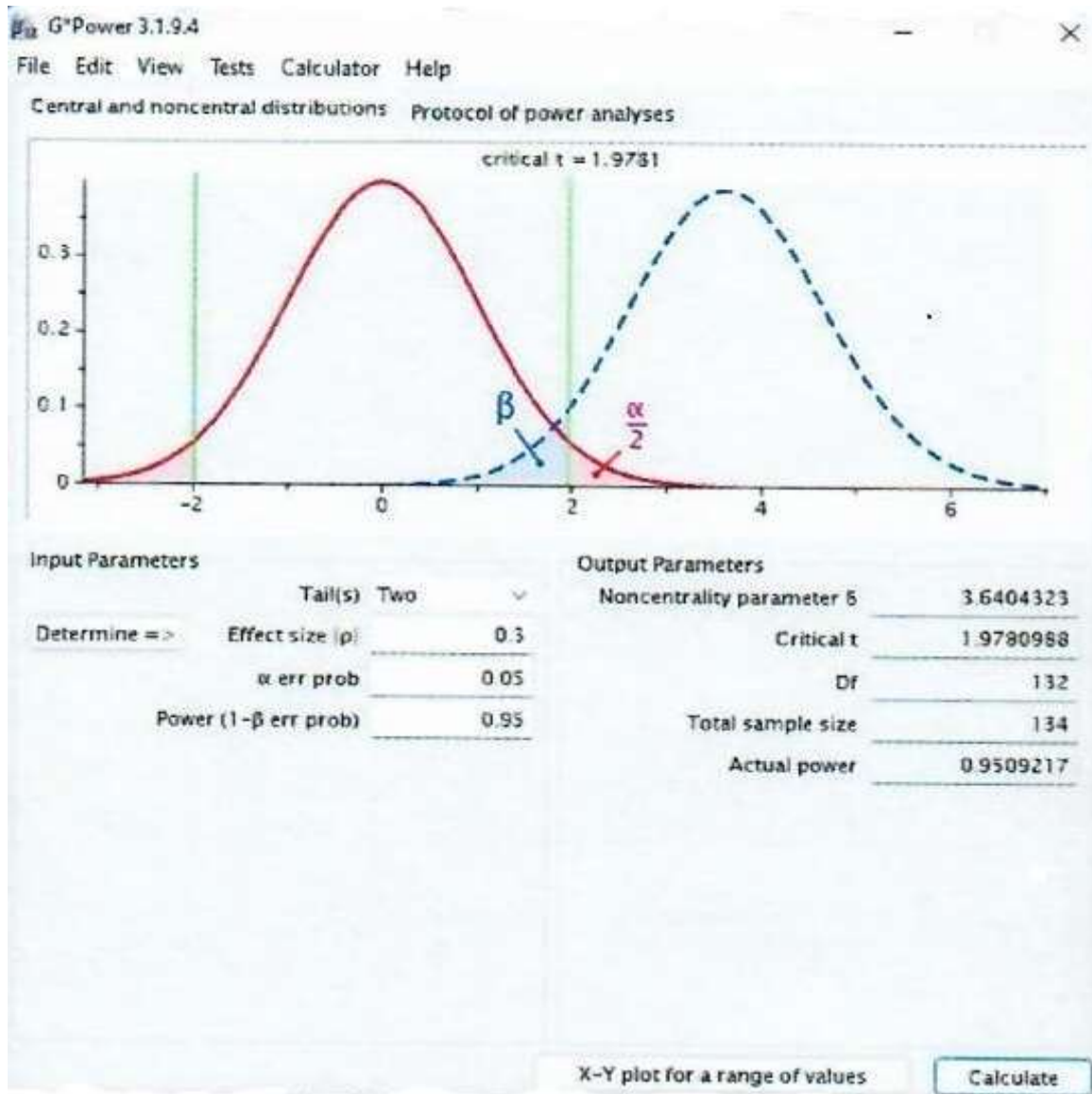
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Appendix A: G*Power Results



Appendix B: Demographic Questionnaire

Are you a full-time employee? _____ Yes _____ No

How many hours do you typically work per week? _____.

Please indicate how many hours you work remotely (telework) per week _____.

Please enter your age: _____

Gender? _____ Male _____ Female _____ Prefer Not To Answer

Please enter the number of years that you have been working with your organization:

Please enter the number of hours per week that you would prefer to work remotely

Appendix C: Leader–Member Exchange-7 (LMX-7) Scale

Recommended Measure of LMX (LMX 7)

-
1. Do you know where you stand with your leader . . . do you usually know how satisfied your leader is with what you do? (Does your member usually know) Rarely
Occasionally Sometimes Fairly Often Very Often
 2. How well does your leader understand your job problems and needs? (How well do you understand)
Not a Bit A Little A Fair Amount Quite a Bit A Great Deal
 3. How well does your leader recognize your potential? (How well do you recognize)
Not at All A Little Moderately Mostly Fully
 4. Regardless of how much formal authority he/she has built into his/ her position, what are the chances that your leader would use his/ her power to help you solve problems in your work? (What are the chances that you would)
None Small Moderate High Very High
 5. Again, regardless of the amount of formal authority your leader has, what are the chances that he/she would “bail you out,” at his/ her expense? (What are the chances that you would)
None Small Moderate High Very High
 6. I have enough confidence in my leader that I would defend and justify his/ her decision if he/she were not present to do so? (Your member would)
Strongly Disagree Disagree Neutral Agree Strongly Agree

7. How would you characterize your working relationship with your leader? (Your member)

Extremely	Worse Than	Average	Better Than	Extremely
Ineffective	Average		Average	Effective

(Graen & Uhl-Bien, 1995)

Appendix D: Job Satisfaction Survey

JOB SATISFACTION SURVEY Paul Spector, Department of Psychology University of South Florida <small>Copyright Paul E. Spector 1994, All rights reserved.</small>		
	PLEASE CIRCLE THE ONE NUMBER FOR EACH QUESTION THAT COMES CLOSEST TO REFLECTING YOUR OPINION ABOUT IT.	1 Disagree very much 2 Disagree moderately 3 Disagree slightly 4 Agree slightly 5 Agree moderately 6 Agree very much
1	I feel I am being paid a fair amount for the work I do.	1 2 3 4 5 6
2	There is really too little chance for promotion on my job.	1 2 3 4 5 6
3	My supervisor is quite competent in doing his/her job.	1 2 3 4 5 6
4	I am not satisfied with the benefits I receive.	1 2 3 4 5 6
5	When I do a good job, I receive the recognition for it that I should receive.	1 2 3 4 5 6
6	Many of our rules and procedures make doing a good job difficult.	1 2 3 4 5 6
7	I like the people I work with.	1 2 3 4 5 6
8	I sometimes feel my job is meaningless.	1 2 3 4 5 6
9	Communications seem good within this organization.	1 2 3 4 5 6
10	Raises are too few and far between.	1 2 3 4 5 6
11	Those who do well on the job stand a fair chance of being promoted.	1 2 3 4 5 6
12	My supervisor is unfair to me.	1 2 3 4 5 6
13	The benefits we receive are as good as most other organizations offer. 1	1 2 3 4 5 6
14	I do not feel that the work I do is appreciated.	1 2 3 4 5 6
15	My efforts to do a good job are seldom blocked by red tape.	1 2 3 4 5 6
16	I find I have to work harder at my job because of the incompetence of people I work with. 1	1 2 3 4 5 6
17	I like doing the things I do at work.	1 2 3 4 5 6
18	The goals of this organization are not clear to me.	1 2 3 4 5 6
19	I feel unappreciated by the organization when I think about what they pay me.	1 2 3 4 5 6

20	People get ahead as fast here as they do in other places.	1	2	3	4	5	6
21	My supervisor shows too little interest in the feelings of subordinates. 1	1	2	3	4	5	6
22	The benefit package we have is equitable.	1	2	3	4	5	6
23	There are few rewards for those who work here.	1	2	3	4	5	6
24	I have too much to do at work.	1	2	3	4	5	6
25	I enjoy my coworkers.	1	2	3	4	5	6
26	I often feel that I do not know what is going on with the organization.	1	2	3	4	5	6
27	I feel a sense of pride in doing my job.	1	2	3	4	5	6
28	I feel satisfied with my chances for salary increases.	1	2	3	4	5	6
29	There are benefits we do not have which we should have.	1	2	3	4	5	6
30	I like my supervisor.	1	2	3	4	5	6
31	I have too much paperwork.	1	2	3	4	5	6
32	I don't feel my efforts are rewarded the way they should be.	1	2	3	4	5	6
33	I am satisfied with my chances for promotion.	1	2	3	4	5	6
34	There is too much bickering and fighting at work.	1	2	3	4	5	6
35	My job is enjoyable.	1	2	3	4	5	6
36	Work assignments are not fully explained.	1	2	3	4	5	6

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1. Means per subscale and total score
2. Sample size
3. Brief description of sample, e.g., 220 hospital nurses. I don't need to know the organization name if it is sensitive.
4. Name of country where collected, and if outside of the U.S., the language used. I am especially interested in nonAmerican samples.
5. Standard deviations per subscale and total score (optional)
6. Coefficient alpha per subscale and total score (optional)

Results can be shared by providing an e-copy of a published or unpublished research report (e.g., a conference paper, dissertation, journal article, thesis, etc.) where one or more of these assessments are used.

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Appendix F: Permission to use the LMX-7

Sent VIA Email to arthur.moffa@waldenu.edu

Dear Arthur,

The LMX-7 is available for non-profit research, and this includes dissertations. Approval is granted. Good luck with your research.

Dr. Scandura

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