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PANDEMIC PANIC: EXAMINING THE ASSOCIATIONS BETWEEN
TRANSFORMATIONAL VERSUS SERVANT LEADERSHIP ON IN-ROLE
PERFORMANCE AND BURNOUT IN THE CONTEXT OF THE COVID-19 PANDEMIC

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PANDEMIC PANIC: EXAMINING THE ASSOCIATIONS BETWEEN
TRANSFORMATIONAL VERSUS SERVANT LEADERSHIP ON IN-ROLE
PERFORMANCE AND BURNOUT IN THE CONTEXT OF THE COVID-19 PANDEMIC

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Table of Contents

Abstract.....	viii
Introduction.....	1
Burnout	2
In-role performance	6
Transformational leadership	7
Servant leadership.....	10
Self-determination theory	15
Methods.....	25
Participants and procedures	25
Measures	26
Transformational leadership	26
Servant leadership.....	26
Self-determination theory	27
Burnout	27
In-role performance	27
Data Analyses	28
Results.....	28
Hypothesis 1.....	28
Hypothesis 2.....	28
Hypothesis 3.....	29
Hypothesis 4.....	29
Hypothesis 5.....	29

Hypothesis 6.....	29
Hypothesis 7.....	30
Hypothesis 8.....	31
Hypothesis 9.....	32
Discussion.....	32
Implications.....	35
Limitations of the study	36
Directions for future research	36
Conclusion	37
References.....	39
Tables	48
Appendix A: IRB Approval Letter	49
Appendix B: Recruitment Material.....	50
Appendix C: Global transformational leadership scale	51
Appendix D: General measure of servant leadership	52
Appendix E: Work-related basic need satisfaction scale.....	54
Appendix F: Oldenburg Burnout Inventory	56
Appendix G: In-role performance.....	58

List of Tables

Table 1. Means, standard deviations, and correlations	48
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List of Figures

Figure 1: A proposed model illustrating the relationships between leadership style, self-determination theory, and follower outcomes of burnout and in-role performance.....	25
Figure 2: Significant mediation model in which SDT mediates the relationship between TFL and burnout	30
Figure 3: Significant mediation model in which SDT mediates the relationship between TFL and IRP	30
Figure 4: Significant mediation model in which SDT mediates the relationship between SL and burnout.....	31
Figure 5: Significant mediation model in which SDT mediates the relationship between SL and IRP.....	31

Abstract

The COVID-19 pandemic fundamentally altered the way people live and work. Organizations were forced to adjust to an unprecedented event, and in doing so, relied on leaders to help their followers navigate this external organizational crisis. This thesis explored two styles of leadership, transformational and servant, and their relationships to follower burnout and in-role performance. Additionally, the mediating role of self-determination theory was investigated to understand how the fulfillment of follower needs may be associated with burnout and in-role performance. Relatedness, one component of self-determination theory, was hypothesized to have the strongest relationship with both burnout and performance. Finally, the thesis proposed that servant leadership would be a better predictor of the two follower outcomes examined than transformational leadership. A total of 159 participants provided usable data from the online questionnaire. Results indicated both leadership styles were related to reduced burnout but had little association with performance. Additionally, the relationship between leadership style and self-determination theory and the relationship between self-determination theory and follower outcomes was supported. Self-determination theory as a mediator for both leadership styles and both follower outcomes was supported but relatedness as the strongest relationship with follower outcomes was not supported. Finally, the proposed model with servant leadership was found to explain more variance in burnout and in-role performance. Limitations and directions for future research are suggested. The implication for managers is that the servant leadership style might be a successful avenue for leadership in a crisis situation.

Key Words: Transformational leadership, servant leadership, self-determination theory, burnout, in-role performance, crisis, COVID-19

**Pandemic Panic: Examining the Associations between Transformational versus Servant
Leadership on In-Role Performance and Burnout in the Context of the COVID-19
Pandemic**

The COVID-19 pandemic has made an indelible impact on the global working population. Overnight, the state of work shifted as countless employees transitioned out of the office and into their homes to mitigate the spread of the virus. Essential workers, who were forced to serve on the frontlines of the pandemic due to the nature of their jobs, scrambled to continue their services without compromising their own health and safety. Within weeks, it was estimated that 3.3 billion people worldwide had their work lives affected because of the pandemic (Chappell, 2020). These abrupt and drastic changes led to workers feeling micro-managed (Green, 2020), isolated (Moss, 2020), ill-equipped to work at home or lacking personal protective equipment on-the-job (Baker et al., 2020; Westfall, 2020) and burned out (Agovino, 2021; Reynolds, 2020).

Crises are often perceived as uncommon and unprecedented, with organizations rationalizing that the infrequency of these events does not necessitate crisis management planning as a cardinal business function. Lalonde (2007), however, avers that crises are not nearly as rare and as improbable as people assume. Moreover, the occurrence, diversity, and location of crises have increased and will only continue to do so as the population grows and globalization transpires (Hart et al., 2001). Lalonde (2007) notes that crises can include industrial accidents, such as the Three Mile Island or Chernobyl incidents; political and humanitarian disasters, such as the Rwandan genocide; national and international threats of terrorism, such as the attack on the World Trade Center or the Oklahoma City bombing; business-related events, such as the Enron scandal; and environmental developments, such as global warming and ozone

depletion, which in turn can result in natural disasters such as Hurricane Katrina or the California wildfires. Currently, one of the most salient and global crises is the COVID-19 pandemic. Employees and employers alike have pandemic experiences that range from the inconvenient to the deadly; because of this, a deluge of articles in the past year have called for crisis leadership models, integrated crisis learning theories, and deeper analyses of how to successfully navigate a crisis (Fernandez & Shaw, 2020; Kaiser, 2020; Kniffin et al., 2020). This thesis seeks to utilize COVID-19 as a case study for leadership outcomes in such a crisis to contribute to the growing body of research that aims to uncover successful methods of crisis management. The purpose of this research is to explore the relationship between leadership style, follower outcomes, and a proposed mediator mechanism to determine what might be the most effective leadership response to the COVID-19 pandemic.

Burnout and in-role performance

The COVID-19 pandemic, described as a “once-in-a-lifetime event” (Guterres, 2020, headline), brought novel stressors worldwide. During the spring and summer of 2020, societies were confronted with the realities of a global health crisis: COVID-19 brought sickness and death to their communities, and neither a treatment nor a cure were available. Towards fall and winter, multiple countries raced to create a vaccine and then waited for approval to disseminate doses. When the vaccine was finally available, delayed distribution, convoluted sign-up practices, and lengthy waiting periods evinced that the vaccine would slowly ameliorate the impact of the COVID-19 pandemic over the course of many months, perhaps even years. Moreover, a major vaccine campaign would be required to combat the public’s skepticism and hesitancy; vaccines would not be a quick fix (Breslow, 2020). Furthermore, constant media coverage of the pandemic, worry for the health of loved ones, and fear of contracting the disease

resulted in people feeling exceptionally stressed, and in some cases, burned out (Agovino, 2021; Queen & Harding, 2020).

The concept of burnout has captivated both researchers and professionals for decades because of its ubiquitous presence and deleterious consequences. Burnout is a state of emotional, physical, and mental exhaustion caused by prolonged stress (Schaufeli et al., 2009). The term “burnout” was originally coined in the 1970s by Herbert Freudenberger to explain the high stress that plagued those who worked in the health and human services field, such as doctors and nurses, who sacrificed their time and energy to support other people (Schaufeli et al., 2009). Freudenberger (1974) noted that these professionals seemed “burned out” as a consequence of the constant supporting—worn, drained, and apathetic. Later, Maslach et al. (1996) similarly identified burnout as a “syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among individuals who work with people in some capacity” (p. 4). Although Maslach based her initial construct of burnout around human service workers, researchers gradually began to ascribe burnout to domains outside of health professionals. Schaufeli et al. (2009) eloquently likened burnout as “the smothering of a fire or the extinguishing of a candle” (p. 205) to illustrate just how overwhelming the burnout experience can be. Today, burnout is recognized as a phenomenon that is apparent in all industries and occupations, with millions of Americans reporting that they have felt the depleting effects of burnout in the midst of the pandemic (Reynolds, 2020).

Burnout can manifest physically and mentally, commonly taking the form of extreme exhaustion, reduced performance, cynicism, depression, and dwindling engagement (Luciano & Brett, 2021). Recently, the World Health Organization (2019) classified burnout as an “occupational phenomenon that has not been successfully managed” (para. 4), which speaks to

the widespread concern and severity of this experience. Burnout is a concern for organizations because studies have shown that burnout leads to a variety of adverse employee outcomes such as absenteeism (Swider & Zimmerman, 2010), turnover (Leiter & Maslach, 2009), and decreased in-role performance (Bakker & Heuven, 2006). With such pernicious and costly effects for both employer and employee, it is cardinal to identify burnout- the first step in addressing this problem.

One prevalent measure for burnout is the Maslach Burnout Inventory (MBI), wherein burnout is conceptualized with three dimensions: Exhaustion, cynicism, and lack of professional efficacy. Professional efficacy, however, is often omitted from burnout inventories due to its weak correlation with the other dimensions (Maslach et al., 1996). Although extremely popular, some researchers wonder if the one-dimensionality of the MBI scale is too limiting, as all the items are negatively worded. Contrastingly, the Oldenburg Burnout Inventory (OLBI) avers that burnout and work engagement are bipolar constructs that exist on a continuum, not as separate concepts (Demerouti & Nachreiner, 1998). The OLBI instrument distinguishes burnout into two subscales, dedication-disengagement and vigor-exhaustion, and has items that are negatively and positively worded. Here, disengagement is defined as “distancing oneself from one’s work, and experiencing negative attitudes toward the work object, work content, or one’s work in general” and exhaustion is conceptualized as “a consequence of intensive physical, affective, and cognitive strain” (Demerouti et al., 2001, p. 503). Thus, the OLBI is able to capture the essence of the burnout experience and allows organizations and individuals to recognize when action is needed.

Accordingly, it is imperative to understand why burnout might transpire in the first place. Researchers believe that there are two major contributors to explain why burnout occurs. One

model posits that job demands are linked to the exhaustion dimension of burnout and that a lack of job resources is linked to the disengagement dimension of burnout (Demerouti et al., 2001). Every position produces job demands, which are the aspects of the job that mandate psychological and physical efforts that exact a psychological or literal toll on the employee (Demerouti et al., 2010). Examples of job demands include work pressure, emotional stresses, workload, and role conflict. Thus, when demands increase but resources fail to commensurately increase, the imbalance of the two results in exhaustion. Job resources refer to aspects of the job that help achieve work goals, reduce job demands and their costs, and foster growth and development within employees. When an organizational environment lacks resources, employees cannot manage demands nor meet their professional goals, leading to withdrawal and eventual disengagement. During the course of the pandemic, numerous employees have had to transform their personal spaces into a home office often without extra work resources, take on additional work responsibilities, manage childcare and eldercare, and deal with constant interruptions (O'Donnell, 2020). Countless individuals experienced increased job demands and too few job resources, resulting in exhaustion and disengagement (Grant, 2020).

The second theory of why burnout occurs is that when personal motives and values do not align with the organization's mission, vision, and values, employees feel conflicted or unhappy about the discrepancy (DylAg et al., 2013). When employees notice the difference between what is said and what is done, they are likely to feel cynical or detached from the organization. During the pandemic, many people have had to sacrifice their time and energy to try to deliver satisfactory work in unusual conditions. It is common for organizations to claim that they value work-life balance and are family-oriented while at the same time, push for employees to deliver even when the employees now have to balance caregiving duties, health

and safety concerns, and managing the emotions of living through a global pandemic (Capella University, 2019). Attempting to adjust to a new normal while still being expected to constantly provide strong work performance can lead to deep frustrations and unhappiness when an organization is supposedly invested in employee wellbeing.

With the COVID-19 pandemic disrupting the working experience, performance has been another casualty for some employees (Lucchesi, 2020). In-role performance (IRP) describes the officially required outcomes and behaviors that directly serve organizational objectives (Motowidlo & Van Scotter, 1994). Performance is a classic barometer of employee accomplishments - the nature of a job is to fulfill specific duties, so organizations monitor and assess how well employees execute their tasks and responsibilities. Although some employees report being more productive when they work remotely, for others the pressures stemming from the pandemic such as fostering distance learning and household interruptions has caused performance to suffer (Birkinshaw, 2020).

To understand what might mitigate burnout and IRP during the COVID-19 pandemic, this study examined two styles of leadership, transformational leadership and servant leadership, and how they relate to meeting follower needs and are associated with follower performance and burnout. These styles were selected because of their antipodal foci, the organization and the individual (Stone et al., 2004). The relationship between leadership and follower outcomes has been thoroughly established during times of normalcy, so this study posits that strong links will still exist during the pandemic, as explored in the following sections (Breevaart et al., 2014; Chaudhry et al., 2015; Diebig et al., 2017; Hamstra et al., 2013; Kiker et al., 2019; Liden et al., 2014).

Transformational leadership and servant leadership

Transformational leadership (TFL) is centered around motivating and inspiring followers to achieve organizational goals and is comprised of inspirational motivation, intellectual stimulation, idealized influence, and individualized consideration (Bass & Avolio, 1994; Burns, 1978). Through identifying a need for change, building a vision, and then guiding their followers through the process, leaders can help their followers accomplish organizational objectives (Bass, 1985). Transformational leaders emphasize intrinsic motivation, creating shared goals, and comporting oneself with high moral standards and for years, TFL reigned supreme over other styles of leadership research and dominated the conversation on successful leadership (van Dierendonck, 2011).

James MacGregor Burns, a historian, presidential biographer, and political scientist, introduced the concept of transformational leadership in the context of political leadership when comparing transactional versus transformational leaders (Simonton, 1988). He stated that the difference between transformational and transactional leadership is what leaders and followers can offer one another. Transformational leaders offer the opportunity to look past short-term goals and instead find alignment with meaningful long-term, high-level goals. In contrast, transactional leaders offer something followers want in exchange for something a leader wants. He believed that all leaders could be classified as either transactional or transformational, based on the type of exchanges they have with their followers. Notably, Burns did not base his research on TFL around organizational goals nor did he write about how to challenge and motivate followers to achieve personal or professional goals.

Bernard Bass (1985) built on Burns' theory and expanded it to apply to organizational settings, as he believed that TFL exists on all levels of the business hierarchy. Additionally, he

countered that transformational and transactional leadership do not exist on a continuum but are instead entirely independent constructs. He believed that the best leaders exhibit both transformational and transactional qualities, and that TFL is the superior form of leadership, regardless of organization, industry, or country. Finally, he postulated the four distinct dimensions of TFL: Idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration.

The first dimension is idealized influence (II), which concerns a leader's ability to set strong, ethically-centered personal examples for followers (Bass, 1985). The leader serves as a role model and embodies the qualities that they preach, which in turn makes the followers strive to emulate this exemplar. The second dimension is inspirational motivation (IM), which is how a leader creates and conveys an attractive vision for the future, often by way of emotional arguments and glowing optimism (Bass, 1985). These two dimensions combine to produce a transformational leader's charisma, the compelling, charming force that inspires others to be moved and devoted to a leader. The third dimension is intellectual stimulation (IS) wherein the leader challenges followers to assess a problem or situation in a novel, creative manner and encourages perspective taking (Bass, 1985). Here, leaders embolden followers to see beyond the status quo and engage with new ideas. The fourth dimension is individualized consideration (IC), where a leader provides encouragement, support, and coaching tailored to what followers need (Bass, 1985). Transformational leaders exhibit genuine interest, support, and concern for their followers and want to help them self-actualize.

Kark et al. (2003) found support for the theory that TFL enacts influence on followers by way of followers' identification with the leader and with their work group, ultimately resulting in follower empowerment. Essentially, it is through identification with the leader who utilizes the

four I's of TFL that followers are able to accomplish goals. The followers perceive the leader as charismatic, exemplifying strong moral character, and proposing compelling, motivating goals and thus choose to identify with and commit to the leader and the organizational goals. Successes and failures do not belong to individuals but rather to the organizational unit.

There exist multiple measures of TFL. The original measure, the Multifactor Leadership Questionnaire (MLQ) is the most widely used. It was developed by Bass and Avolio in 1995 to identify effective leaders in an organization. The current version of this instrument, the MLQ5X, contains 36 items, which measure the four I's of TFL. Although long considered the gold standard for measuring TFL, the length of this instrument in combination with additional scales inspired other researchers to create and validate a shorter TFL inventory. The Global Transformational Leadership Scale (GTL) created by Carless et al. (2000) simplifies the measurement of TFL by delineating seven distinct behaviors: Vision, staff development, support, empowerment, innovative or lateral thinking, leading by example, and charisma.

Transformational leadership's impact depends on how successfully a leader cultivates their followers' development and empowerment needs, utilizing the four I's of TFL (Bass, 1997). Research demonstrates that TFL results in favorable employee outcomes such as enhanced organizational learning (Hsiao & Chang, 2011), employee satisfaction (Podsakoff et al., 1990), managing burnout in employees (Diebig et al., 2017), as well as positively influencing performance (Breevaart et al., 2014; Hamstra et al., 2013). This study explores the relationship between TFL and follower outcomes in the context of COVID-19, asserting that the relationship would still be present regardless of the effect of the pandemic due to TFL's well-established validity (Judge & Piccolo, 2004).

During the COVID-19 pandemic, transformational leaders who utilize idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration likely alleviate some of the stress followers confront. In regard to II, leaders who continue to comport themselves with grace and probity demonstrate high moral character to followers, serving as a role model, which is cardinal during a high-stress time. Consequently, followers who have a role model to identify with will perform at a higher standard (Kark et al., 2003). Leaders who are able to utilize IM and encourage followers to continue focusing on and working towards organizational goals despite the trials of the COVID-19 pandemic provide followers a path to avoid the pitfalls of burnout. Additionally, leaders who use IS to continue to set challenging objectives and encourage followers to find creative solutions to novel problems keep followers engaged. This could take the form of figuring out how to provide excellent customer service remotely or how to schedule office workers in shift while still keeping a cohesive team environment. Finally, leaders who allow employees to work flexible schedules and permit followers to attend to childcare or eldercare needs demonstrate IC, which allows followers to perform well and feel less burned out. Thus, it is hypothesized:

Hypothesis 1: Transformational leadership will be negatively related to burnout (H1a) and positively related to performance (H1b).

In recent years, research has moved away from focusing on transformational leadership and servant leadership (SL) has emerged as a distinct contrast to the organization-centric approach. First introduced by Robert Greenleaf in his 1970 essay, “The Servant as Leader,” SL presents stewardship, altruism, and selflessness as tenets of successful leadership. Although other leadership styles have incorporated ideas about serving others into their philosophy, Greenleaf was the first to make this a central theme. Servant leadership is focused on supporting and

fulfilling the multidimensional needs of followers to achieve their goals (Greenleaf, 1970).

Perhaps the most recognized quote from his seminal paper that encompasses the nature of SL is:

The Servant-Leader is servant first. . . . It begins with the natural feeling that one wants to serve, to serve first. Then conscious choice brings one to aspire to lead. . . . The best test, and difficult to administer is this: Do those served grow as persons? Do they, while being served, become healthier, wiser, freer, more autonomous, and more likely themselves to become servants? And, what is the effect on the least privileged in society? Will they benefit, or at least not further be harmed? (p.7)

Although this leadership theory is clearly established, SL lacks the construct clarity of TFL - a literature review by van Dierendonck (2011) identified more than 44 proposed characteristics of a servant leader. This list of characteristics was compiled from the most prolific researchers in the SL field: Spears (1995), Laub (1999), Russell and Stone (2002), and Patterson (2003). Spears (1995) translated Greenleaf's ideas into a model to describe the qualities that he believed a servant leader must possess. Based on years of studying Greenleaf's (1995) essays, Spears posited that the 10 characteristics of a servant leader were listening, empathy, healing, awareness, persuasion, conceptualization, foresight, stewardship, commitment to the growth of people, and building community. Despite his deep commitment to and understanding of SL (and serving as the President and CEO from 1990 -1997 at the Robert K. Greenleaf Center for Servant-Leadership), Spears neither operationalized his terms nor empirically studied these proposed characteristics (Robert K. Greenleaf Center for Servant Leadership, 2021). Using Spears's research as a foundation, Laub (1999) delineated six clusters of SL characteristics. He believed servant leaders must develop people, share leadership, display authenticity, value people, provide leadership, and build community. He used these six dimensions to create the first

instrument to measure SL. Although his scale is not often utilized anymore, it laid the groundwork for subsequent research.

Russell and Stone (2002) were the first to create a model for SL and asserted that there are nine functional and 11 additional attributes of a servant leader. The functional attributes include vision, honesty, integrity, trust, service, modeling, pioneering, appreciation of others, empowerment while the additional attributes include communication, credibility, competence, stewardship, visibility, influence, persuasion, listening, encouragement, teaching, and delegation (Russell & Stone, 2002). The biggest weakness of this model is that it is unclear how the characteristics constitute the two categories (van Dierendonck, 2011). Lastly, Patterson (2003) proposed a seven-dimensional model based on virtues rather than characteristics of a servant leader, arguing that virtue is about appropriately and ethically rising to meet challenges, which is how a servant leader operates. She believed agape love (doing what is right for someone), humility, altruism, vision, trust, empowerment, and service were the virtues by which servant leaders live (Patterson, 2003).

Despite the ambiguity of a robust definition of SL, humility, authenticity, emotional healing, empowerment, and stewardship are some of the overlapping themes in the research (Eva et al., 2019; van Dierendonck, 2011). The murkiness of the terminology for behaviors, antecedents, moderators, and characteristics give way to the pith of SL's ideology: Serving and leading. van Dierendonck (2011) succinctly stated, "Serving and leading become almost exchangeable. Being a servant allows a person to lead; being a leader implies a person serves," (p. 1231). Additionally, the growing interest in the ethical component of leadership research in the early 2000's further amplified interest in SL as attention moved away from the organization and onto the individual follower. Chaudhry et al. (2015) theorized that as the media uncovered

evidence of corporate scandals and unethical business practices, people increasingly became concerned with the notion of organizational ethics. Thus, SL materialized as an answer to leadership styles that provided an ethical core.

Due to the many interpretations of what defines a servant leader, multiple measurements for measuring SL exist. As noted above, Laub (1999) proposed the first SL measurement based on an extensive literature review. Accordingly, in 2000, Page and Wong developed the popular Servant Leadership Profile, originally comprised of 99 items in 12 categories before it was abbreviated. Other multidimensional scales were developed over the years, but many of these instruments were plagued with issues of poor factorial structure replication. One of the most prominent SL instruments, Ehrhart's General Measure of Servant Leadership (GMSL), measures two facets of SL, ethical behavior and prioritization of followers' concerns. It identifies seven features of SL: Forming relationships with followers; empowering followers; enabling follower growth and success; behaving ethically; conceptualizing; prioritizing followers; and creating value for others (Ehrhart, 2004).

Transformational and servant leadership are regularly compared, with researchers denoting multiple distinctions between the two. Graham (1991) proposed that the difference between TFL and SL was twofold. First, she believed that SL "acknowledges the responsibility of the leader not just to the organization's goals and to the personal development of followers, but also a wider range of organizational stakeholders" (Graham, 1991, p. 110). Second, Graham posited that SL adds a "moral compass" (p. 111) to the TFL theory, arguing that within the TFL model, there is no call to develop followers for their own good, whereas in SL, the growth of followers is seen as worthy end unto itself. Stone et al. (2004) further investigated the differences between TFL and SL and found that

the transformational leader's focus is directed toward the organization, [] while the servant leader's focus is on the followers []. The extent to which the leader is able to shift the primary focus of leadership from the organization to the follower is the distinguishing factor in classifying leaders as either transformational or servant leaders. (p. 1)

The diametric foci, the organization and the individual, make TFL and SL worthy of comparison in this present study.

Numerous researchers have found that the relationship between servant leader and follower results in beneficial employee outcomes. A study by Newman (2017) of SL's effects on follower outcomes provides support for a positive relationship between SL and organizational citizenship behavior. Chaudhry et al. (2015) conducted a meta-analytic review of SL and found that SL directly affects follower outcomes such as performance, creativity, justice, trust, organizational commitment, job satisfaction, and turnover. Furthermore, Kiker et al. (2019) recently performed a meta-analysis and, consistent with extant research, found support for SL being positively associated with follower outcomes such as job performance, organizational citizenship behavior, job satisfaction, and trust. Additionally, Kiker et al.'s (2019) research demonstrates that SL can lead to reduced burnout in employees. Moreover, in another central study, the utilization of SL has been demonstrated to positively impact performance (Liden et al., 2014).

The present study explores these phenomena in the context of COVID-19, assuming that despite the impact of the pandemic, these relationships will still be evident. Servant leaders who focus on supporting and empowering their followers likely have more engaged, higher-performing followers than counterparts who do not utilize SL. This could take the form of listening to safety concerns, making alternative working arrangements or allowing followers to

allocate traditional working hours to assist with distance-learning. Effective servant leaders understand the value and duty of exploring the needs of followers. In turn, when followers feel that they can accomplish work in a way that feels empowering and tailored to their needs, they are less likely to experience burnout and more likely to perform at a higher level. Thus, it is hypothesized:

Hypothesis 2: Servant leadership will be negatively related to burnout (H2a) and positively related to in-role performance (H2b).

Self-determination theory

Self-determination theory (SDT), a theory of human motivation, states people require that their needs for autonomy, competence, and relatedness be filled to be able to self-actualize (Deci & Ryan, 2000). The need to be self-actualized is critical for both growth and intrinsic motivation. Ideally, leaders would choose to exhibit need supporting behavior to encourage and accelerate the process. *Autonomy* refers to an individual's belief that they have the freedom to exercise their judgment and free will to control their behaviors and actions. Autonomy needs are met when followers are permitted to have the space and support to make their own choices. *Competence* refers to effectively mastering one's environment. Competence needs are met when individuals are able to tackle challenges while receiving constructive feedback. *Relatedness* refers to feelings of community, connection, and belonging with other individuals. Relatedness needs are met when an individual feels warmth and acceptance from others. Together, the fulfillment of these three needs results in feelings of self-determination. Research has explored the relationship between leadership style and SDT with the focus of TFL and SL being on opposite ends of the organization-individual dichotomy, the mechanisms by which leadership style and SDT are related are subsequently different.

Transformational leadership and self-determination theory have been linked in several ways. Bass and Riggio (2006) found support for the notion that leadership that involves inspiration, positive role modeling, and follower empowerment is positively related to need satisfaction in the workplace. Similarly, Hetland et al. (2011) found that leadership can positively influence need fulfillment by way of the empowering and motivational components of TFL. Beyond simply linking TFL and SDT, researchers have investigated why and how this might occur.

To explain how TFL and SDT are linked, Deci et al. (1994) state that there are three ways in which TFL operates within the SDT context. First, perceptions of SDT increase when followers can ascribe meaning and purpose to their work- TFL does this by utilizing inspirational motivation (Bono, 2001). Leaders help followers rally around a vision, increasing organizational goal commitment. This fulfills followers' needs for both autonomy and competence, as the followers execute challenging and engaging goals. Second, SDT is enhanced when leaders acknowledge and respect the opinions and ideas of followers - this is individualized consideration because valuing the needs of individuals is cardinal in TFL. When followers feel seen, this promotes relatedness needs fulfillment. Third, when TFL leaders present goals and ideas in a way that demonstrates to followers that they have a choice in participating in the process, followers are far more willing to invest in goals (Deci et al., 1994). This corresponds to fulfilling autonomy needs for followers. Additionally, when the goals and ideas are novel and challenging, thereby providing intellectual stimulation, followers are able to creatively think about solutions, further tying into competence needs fulfillment.

Leaders who employ the four I's of TFL to fulfill follower needs during the COVID-19 pandemic might not even know how much they are contributing to follower self-actualization.

For example, a leader could utilize intellectual stimulation and help followers set challenging, thought-provoking goals so that they feel competent even when they are isolated at home. Or the leader could set daily check-ins with their followers, so they feel related to the leader, even if they are working remotely. These touch points might serve as a way to demonstrate individualized consideration, so followers can let their manager know if they need additional time to complete a project because of an ill child or share input on how a department report is progressing. Even if not consciously elected, the four I's of TFL can appropriately fill all three SDT components for followers. Thus, it is hypothesized:

Hypothesis 3: TFL will be positively related to SDT during the COVID-19 pandemic.

The relationship between servant leadership and SDT has been observed in multiple studies (Chiniara & Bentein, 2016; Lumpkin & Achen, 2018; van Dierendonck et al., 2014). This link should not be a surprise as follower need satisfaction is the crux of SL: Servant leaders devote time and energy to understanding and fulfilling follower needs (van Dierendonck et al. 2014). Chiniara and Bentein (2016) explored the relationship between SL and SDT and found positive correlations between SL and need satisfaction in leader-follower dyads when the leader promotes an autonomous environment wherein individuals feel freedom and empowerment. By building this type of environment, leaders ensure that their followers are on a path to self-actualization.

To explain why SL is so successful in satisfying follower needs, Chiniara and Bentein (2016) proposed that social exchange theory (Blau, 1964) and the norm of reciprocity (Gouldner, 1960) might hold the answers. In the context of social exchange theory, followers who have their autonomy, competence, and relatedness needs filled by servant leaders subsequently desire to contribute to the need satisfaction of their leader. This phenomenon is rooted in trust, and studies

have supported the idea that servant leaders are able to effectively build trust with followers, forming meaningful relationships (Joseph & Winston, 2005; Liden et al., 2008). This works in tandem with norm reciprocity, where followers feel a need to repay a debt (need fulfillment) with their leader - the need to reciprocate perpetuates the process (Gouldner, 1960).

During the COVID-19 pandemic, followers are likely to have a variety of novel needs. Some need to administer distance learning to children attending remote school, others need to rearrange their workplace to conform to social-distancing policies, and still others need to take time off after they or a loved one contracts the virus. Servant leaders who listen and respond to the individual needs of followers are fulfilling SDT needs. A follower who needs to work alternative work hours and knows that their leader trusts them to continue to accomplish work tasks will experience autonomy needs being filled. A follower who is commended for tackling a challenging project without traditional support or resources will experience competence needs being filled. Finally, a follower who feels their leader is regularly and earnestly checking in on their well-being will have their relatedness needs met. So, it is hypothesized that:

Hypothesis 4: SL will be positively related to SDT during the COVID-19 pandemic.

The relationship between SDT and a myriad of follower outcomes has been investigated extensively. Bartholomew (2011) found that need supporting behavior leads to positive affect and that need thwarting behavior leads to burnout, which suggests that SDT directly affects well-being. A study by Arshadi (2010) about need satisfaction of workers at an industrial company found that SDT need fulfillment predicted work motivation and job performance. Moreover, a meta-analysis by Van den Broeck et al. (2010) demonstrated that perceived employee need satisfaction at work resulted in positive employee attitudes, job behaviors, and motivation. The researchers posited that the effort of a leader trying to fulfill needs leads to positive follower

outcomes, even if the follower needs were not completely fulfilled. Additionally, they found that autonomy need satisfaction predicted three aspects of performance - task, organizational citizenship behaviors directed towards individuals (OCB-I), and organizational citizenship behaviors directed toward the organization (OCB-O; Van den Broeck et al., 2010). Clearly, the links between SDT and both IRP and burnout are well-supported and significant; need fulfillment is an essential component of positive employee outcomes.

The abrupt, profound changes that the pandemic brought has forced people to greatly alter the way they work, and in doing so causes disruption of need fulfillment (Lucchesi, 2020). Some employees face instances of supervisors monitoring keystrokes or requesting constant updates, leading to autonomy needs being unmet (Green, 2020). Other employees do not have access to adequate resources to fulfill their tasks, such as personal protective equipment (Chaib, 2020) or home office supplies (Webber, 2020), resulting in competence needs being unmet. Additionally, employees who work at home no longer have face-to-face, in-person interactions with other employees, while the employees who continue to work onsite deal with physical barriers such as plastic dividers, closed office doors, and social distancing, leading to diminished relatedness need satisfaction (Moss, 2020). The pandemic's need thwarting effects led to decreased wellbeing for some employees, resulting in burnout and lower performance (Queen & Harding, 2020). It stands to reason that leaders who meet follower needs have followers who have higher performance and lower levels of burnout. Thus, it is hypothesized that:

Hypothesis 5: SDT will be negatively related to burnout (H5a) and positively related to performance (H5b).

As evidenced in the preceding sections (Breevaart et al., 2014; Chiniara & Bentein, 2016; Deci et al., 1994; Diebig et al., 2017; Kiker et al., 2019), the connections between leadership style, self-determination theory, and follower outcomes have been explored independently, but

researchers are interested in the mediating mechanism between leader and follower.

Accordingly, some studies have posited that SDT explains the relationship between leadership and follower outcomes. In general, the prevailing belief is that leaders who satisfy follower needs will have followers who perform well and are less burned out; however, depending on the leadership style, the process is slightly different.

A qualitative study by Leon (2016) attempted to establish that TFL relates to engagement by way of SDT. He noted that TFL contains elements that should be well-suited for fulfilling SDT needs of followers. Based on other research establishing the link between SDT and levels of engagement, he expected to confirm the mediation hypothesis, but his results were inconclusive. Leon (2016) recommended to further explore this relationship with an instrument that measures the psychological components of engagement and burnout, rather than the instrument he utilized that captured the physical, cognitive, and emotional components. A study by Bono (2001) found weak evidence of TFL and follower performance being mediated by SDT, but the results were inconsistent across conditions. She cautioned that how follower performance is operationalized and measured might impact study outcomes. Both researchers suggest that when transformational leaders utilize the four I's of TFL, they are able to satisfy employee needs, resulting in positive employee outcomes of follower engagement and IRP. The present study attempts to provide support for the SDT mediation hypothesis. This thesis posits that followers who experience TFL will have their needs for autonomy, competence, and relatedness fulfilled by being inspired, motivated, and challenged to succeed in the midst of COVID-19, and will report higher in-role performance and lower burnout. Thus, it is hypothesized that:

Hypothesis 6: The relationship between TFL and burnout (H6a) and IRP (H6b) will be partially mediated by SDT in the context of COVID-19.

The relationship between leadership style and employee outcomes as mediated by SDT is also evidenced in SL contexts. Chinara and Bentein (2016) found that leaders who exhibited SL behaviors and fulfilled follower needs for autonomy, competence, and relatedness had employees with better performance as compared to those who did not fulfill follower needs. They asserted “undeniably, our results demonstrate that the more a leader behaves as a servant leader, the more followers have their basic psychological needs for autonomy, competence, and relatedness met” (p. 135). Brière et al. (2020) also examined the role of SDT mediating follower outcomes and showed that servant leaders were able to influence positive deviant behavior in their followers by way of fulfilling employee needs. Followers who reported perceived SL in their leaders were able to engage in positive and non-conforming behaviors when they felt that their SDT needs were met as opposed to followers who did not report that their leader behaved as a servant leader (Brière et al., 2020). COVID-19 affected followers in a myriad of ways, but it is plausible that servant leaders who prioritize fulfilling follower needs for autonomy, competence, and relatedness likely have followers who perform better and are less burned out than employees who do not have a servant leader. Therefore, it is hypothesized that:

Hypothesis 7: The relationship between SL and burnout (H7a) and IRP (H7b) will be partially mediated by SDT in the context of COVID-19.

The three components of SDT theory, autonomy, competence, and relatedness, are not viewed as equally essential: the greatest consideration is paid to the need for autonomy. This is because within the SDT framework, autonomy is responsible for intrinsic motivation, a type of autonomous motivation (Deci & Ryan, 2000; Gagné & Deci, 2005). If someone is intrinsically motivated, they are committed to a goal out of a sense of volition, not out of a sense of force; in contrast, if someone is extrinsically motivated, they are motivated out of a sense of tangible reward or external pressure (Gagné & Deci, 2005). While external motivation is not inherently

bad, it is often seen as a short-term motivation, one not necessarily aligned with the follower's deeper needs. While the need for autonomy did not disappear during the COVID-19 pandemic, this study contends that another need became more salient.

The pandemic necessitates social distancing, which for countless followers means the loss of social connections. Employees who work from home have limited, strictly digital interactions with their coworkers, team members, and managers, and even those employees who remain working outside of their homes must adhere to strict social distancing policies, or in some cases, create shifts to eliminate overlap in the workplace. Ergo, the routine, organic relatedness need satisfaction that workers were accustomed to essentially disappeared, or at the very least, enervated considerably. This is a serious concern, as workplace loneliness has been linked to a variety of negative employee outcomes such as poor performance (Ozcelik & Barsade, 2018). A study by Jehn et al. (1997) measured job performance of groups of acquaintances versus groups of friends and discovered that the groups of friends performed significantly better on decision-making and motor tasks via interpersonal commitment and cooperation. Similarly, Tran et al. (2018) studied teams of nurses at a hospital and concluded that enhancing interpersonal workplace relationships led to increased job performance, which in turn led to increased job commitment, reduced stress levels, and improved awareness of societal impact. These studies demonstrate just how essential relatedness needs are for followers.

In regard to the relationship between relatedness and burnout, a longitudinal study by Fernet et al. (2010) uncovered two significant findings. First, they found that when a follower reported high-quality relationships with other employees, they were more likely to report that they appreciated and enjoyed their work, leading to decreased reports of burnout over the two-year timespan of the study. Second, they found that followers who reported low self-determined

work motivations significantly benefited from forming and maintaining quality work relationships, experiencing a reduction of both exhaustion and depersonalization (Fernet et al., 2010). Furthermore, Nobel (2019) claimed the relationship between loneliness and burnout can become reciprocal, as employees who feel isolated tend to disengage, then the feelings of burnout lead to increased feelings of loneliness. Although nearly all studies identify autonomy as the most salient need (Deci et al., 2017; Gagné & Deci, 2005), this study states that within the context of COVID-19, relatedness needs impact burnout and IRP more than autonomy and competence. The sudden shift to working from home and social-distancing results in the pandemic's main psychological casualty - the elimination of standard relatedness needs fulfillment. It is possible to provide followers with resources to support their autonomy and competence needs, but it is far more difficult to replicate in-person relatedness needs, even with the best technology and thoughtful considerations.

Hypothesis 8: Out of the three components of SDT, relatedness will have the strongest association with burnout (H8a) and IRP (H8b) during COVID-19.

The COVID-19 pandemic is a dangerous, uncertain, and volatile event. The way that countries, governments, healthcare institutions, and individuals respond to the pandemic carries lasting repercussions. A calamity such as a global health crisis demands both action and response - consequently, people turn to leaders to help manage this unprecedented emergency. Boin et al. (2013) define crisis management as “the sum of activities aimed at minimizing the impact of a crisis” (p. 82) wherein the term impact encompasses damage to people, infrastructures, and institutions. Aside from the world, national, and state leaders that people turn to for guidance, organizational leaders also have the responsibility of crisis management.

Notably, research on crisis management is often scarce due to the difficult nature of measuring crises. Studies are often forced to rely on qualitative case studies of disasters (Elliott

& Macpherson, 2010; Useem et al., 2005) or lab experiments simulating crisis situations (Halverson et al., 2004). Generally, in the crisis management literature, TFL appears to be the most prevalent and recommended style of leadership to navigate crises. Indeed, a review by Bowers et al. (2017) suggests that organizations embracing TFL during a crisis, even if it is not currently the prevailing leadership style in the organization, results in favorable employee and organizational outcomes. They compared TFL to transactional and directive leadership styles and concluded that the ability to motivate and inspire followers leads to better short and long-term outcomes (Bowers et al., 2017). Furthermore, a study by Smith et al. (2004) noted that because TFL focuses on change and organizational innovation, this leadership style is especially effective in times of uncertainty wherein an organization is forced to adapt amid ambiguity.

When reviewing the relevant literature, SL as a prescription for crisis leadership appeared in far fewer published studies. Fernandez and Shaw (2020) identified SL behaviors as key to successfully navigating the unprecedented trials of the pandemic. The authors believe that followers are cardinal to the success of an organization, so they must feel considered and valued, which is natural for servant leaders. Fernandez et al. (2020) suggest best practices: Specifically connecting with people as individuals and establishing mutual trust, distributing leadership throughout the organization, and communicating clearly and often with all stakeholders. They assert that even though these best practices are conceived in the context of academic institutions pivoting to distance learning, the way the COVID-19 pandemic has impacted schools is generalizable to the way the pandemic has changed organizations across all industries. Fernandez and Shaw (2020) believe the most important leader traits are emotional intelligence and emotional stability, which are exemplified in servant leaders, thus SL should be more effective than TFL because of its central theme of focusing on follower needs. Additionally, during a

global health crisis, paying attention to and supporting what followers require might be more beneficial than focusing on organizational goals. COVID-19 necessitates a fundamental shift in how leaders approach their role as a manager, and this study posits that leaders who utilize SL have followers who are less likely to experience burnout and more likely to exhibit high levels of performance. Thus, it is hypothesized that:

Hypothesis 9: SL will explain more variance in burnout (H9a) and performance (H9b) compared to TFL in the context of COVID-19.

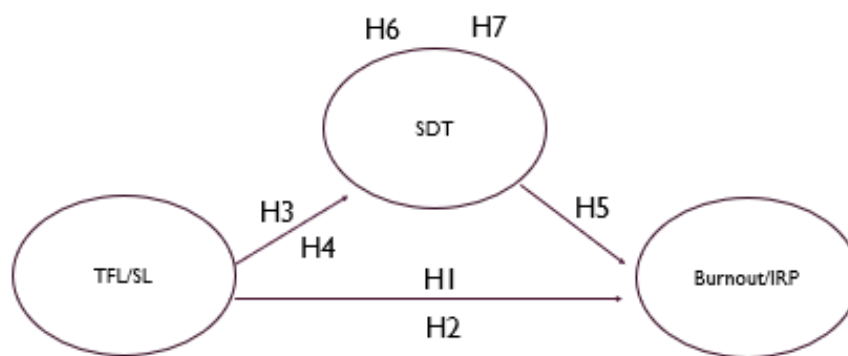


Figure 1. A proposed model illustrating the relationships between leadership style, self-determination theory, and burnout and in-role performance as follower outcomes.

Methods

Participants and Procedure

A link to an internet-based survey was sent to a convenience sample derived from the researcher’s social network after receiving approval from the Institutional Review Board (Appendix A). A statement at the end of the recruitment paragraph encouraged participants to pass on the survey link to people in their network, thereby producing a network sample. A total of 246 responses to the survey were recorded, but 36 responses failed to consent to the study, 23 responses were missing all data, and 13 responses were missing more than 30% of the responses. Thus, the data of 159 working adults were analyzed.

The total usable number of responses was $N=159$. The participant sample was 72.3% female and 25.2% male, and 1.9% chose not to disclose a gender. The age category with the highest frequency was 25-34 years (34.6%), and 86.8% were White or Caucasian. The sample was comprised of 28% respondents who only were working from home, 31% of respondents who were only working onsite, and 42% respondents who were working a blend of working from home and onsite. Responses indicated that 57% of participants worked in the for-profit sector, 25% worked in the non-profit sector, and 17% worked in government.

Measures

The study employed a cross-sectional design. The survey assessed two predictor variables, transformational leadership and servant leadership; self-determination theory as a mediator variable; and burnout and IRP as criterion variables.

Transformational leadership. Participants completed the Global Transformational Leadership scale (GTL, $\alpha = .93$, Carless et al., 2000), evaluating how often they experienced transformational leadership behaviors from their supervisor on a 5-point frequency scale (1= *rarely*, 5= *very frequently, if not always*). The GTL has seven items that capture facets of TFL: Vision, staff development, supportive leadership, empowerment, innovative thinking, leading by example, and charisma. A sample item includes, “My manager encourages thinking about problems in new ways and questions assumptions.” Confirmatory factor analysis (CFA) supported this factor structure (Carless et al., 2000).

Servant leadership. Participants completed Ehrhart’s (2004) 14-items General Measure of Servant Leadership instrument (GMSL, $\alpha = .93$). Respondents evaluated to what degree they experienced servant leadership behavior from their supervisor on a 5-point scale (1= *to a very*

small extent to 5= *to a great extent*). A sample item includes, “My department manager does what he/she promises to do.” CFA supported this factor structure (Ehrhart, 2004).

Self-determination theory. Participants completed the 16-item Work-related Basic Need Satisfaction scale ($\alpha = .87$, Van den Broeck et al., 2010) and rated their work experience of autonomy (6 items; e.g., “The tasks I have to do at work are in line with what I really want to do”), competence (4 items; e.g., “I am good at the things I do in my job”), and relatedness (6 items; e.g., “At work, I can talk with people about things that really matter to me”) on a 5-point Likert-type scale (1= *totally disagree* to 5= *totally agree*). The Cronbach alpha values found by Van den Broeck et al. (2010) for the subscales are $\alpha = .81$, $\alpha = .85$, and $\alpha = .82$, respectively, and CFA supported the factor structure.

Burnout. Burnout was measured by the 16-item Oldenburg Burnout Inventory (OLBI, $\alpha = .83$, Demerouti et al., 2010). This instrument is comprised of two dimensions, exhaustion ($\alpha = .87$) and disengagement ($\alpha = .81$), with eight items per dimension. Participants were asked to rate their level of agreement on a 4-point Likert-type scale (1= *strongly agree* to 4 = *strongly disagree*). A sample item for exhaustion is “I can tolerate the pressure of my work very well.” A sample item for disengagement is “Lately, I tend to think less at work and do my job almost mechanically.” CFA was performed and supported this factor structure (Demerouti et al., 2010).

In-role performance. IRP was measured by five items from Lynch, Eisenberger, and Armeli ($\alpha = .87$, 1999). Participants rated their performance on a 4-point Likert-type scale ranging from 1= *strongly disagree* to 4= *strongly agree*. A sample item from the scale is “I perform tasks that are expected of me.” Factor analysis has been performed on this scale (Lynch et al., 1999). One item was removed (“I spend time in idle conversation”) due to its low correlations with the other items in this present study.

Data Analyses

Descriptive statistics, correlation coefficients and scale reliabilities (Cronbach's alphas) were calculated with IBM SPSS Statistics Version 24. To estimate the parameters of the mediation models, the SPSS-Macro PROCESS based on Model 4 was utilized (Hayes, 2019); indirect effects were estimated via bootstrapping (5000 bootstrap samples). To compare the explained variance of the different predictor variables, stepwise regression analyses were performed. The level of significance was set at $p < .05$.

Results

Table 1 depicts means, standard deviations, bivariate correlations, and Cronbach alphas for the variables. All Cronbach alpha coefficients were acceptable to very good, varying between .77 (IRP, Lynch et al., 1999) and .94 (GTLS and GMSL). Notably, a high correlation between TFL and SL was observed with $r(159) = .88, p < .001$. As directed by the OLBI, burnout scores were interpreted on a scale with values from 1 to 4 with the cutoff for exhaustion at 2.25 and disengagement at 2.1. Results on the exhaustion dimension were $M = 1.40$ and $SD = .53$ and $M = 1.25$ and $SD = .56$ for disengagement, indicating that participants, on average, were not burned out.

Hypothesis 1: The first hypothesis posited that transformational leadership would be negatively related to burnout (H1a) and positively related to performance (H1b). Results for H1a were statistically significant with $B = -.29, SE = .04, t = -7.61, p < .001, R^2 = .29$, and H1a was supported. The results for H1b failed to reach significance with $B = .08, SE = .04, t = 1.92, p = .06, R^2 = .02$; thus, H1b was not supported.

Hypothesis 2: It was hypothesized that servant leadership would be negatively related to burnout (H2a) and positively related to in-role performance (H2b). Results for H2a were

significant with $B=-.33$, $SE=.04$, $t=-8.11$, $p<.001$, $R^2=.30$, therefore H2a was supported. The data also supported the relationship to IRP with $B=.10$, $SE=.04$, $t=2.45$, $p<.015$, $R^2=.04$, and thus, H2b was supported.

Hypothesis 3: The study hypothesized that transformational leadership would be positively related to self-determination theory. This hypothesis was supported with $B=.34$, $SE=.05$, $t=7.59$, $p<.001$, and H3 was supported. TFL explained $R^2=.27$ of the outcome variance.

Hypothesis 4: The study hypothesized that servant leadership would be positively related to self-determination theory. This hypothesis was supported with $B=.41$, $SE=.05$, $t=8.79$, $p<.001$, and H4 was supported. SL explained $R^2=.33$ of the outcome variance.

Hypothesis 5: The fulfillment of SDT needs was hypothesized to be negatively related to burnout (H5a) and positively related to performance (H5b). Results supported H5a with $B=-.56$, $SE=.06$, $t=-9.03$, $p<.001$; SDT explained $R^2=.34$ of the outcome variance. SDT was also significantly related to IRP, $B=.23$, $SE=.06$, $t=-2.90$, $p<.004$, with $R^2=.05$. Thus, H5b was supported.

Hypothesis 6: The study hypothesized the relationships between TFL and burnout (H6a) and IRP (H6b) would be partially mediated by SDT. For H6a, $B=-.13$, $SE=.03$, $p<.001$; the 95% bootstrap confidence interval of the direct effect did not include zero [.08, .18] and partial mediation was confirmed for H6a. For H6b, results showed $B=.05$, $SE=.03$, and the 95% bootstrap confidence interval of the direct effect did not include zero [.01, .11]. Thus, both hypotheses H6a and H6b were supported.

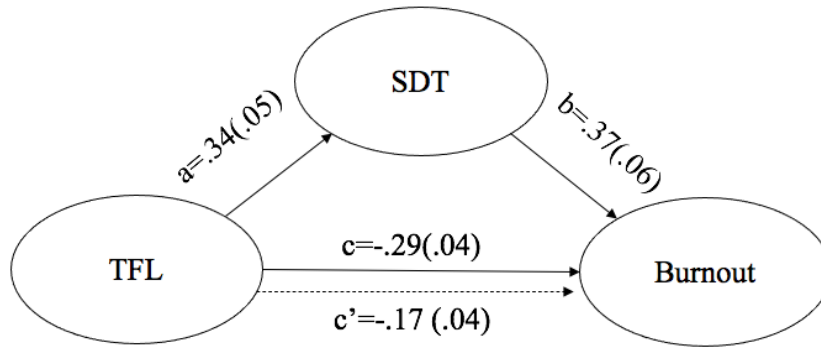


Figure 2. Significant mediation model in which SDT mediates the relationship between TFL and burnout.

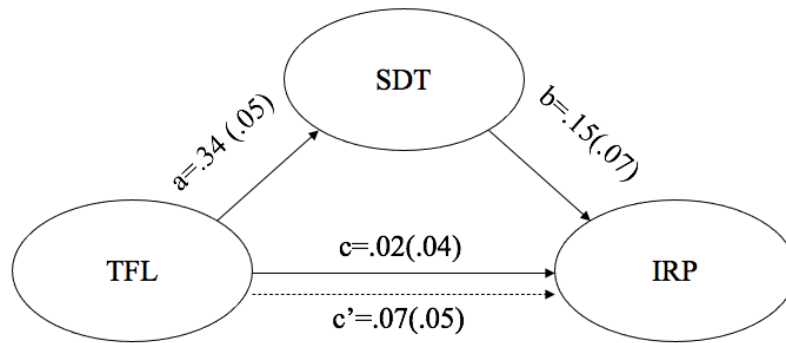


Figure 3. Significant mediation model in which SDT mediates the relationship between TFL and IRP.

Hypothesis 7: The study hypothesized the relationship between SL and burnout (H7a) and IRP (H7b) would be partially mediated by SDT. For H7a, $B = -.14$, $SE = .03$, the 95% bootstrap confidence interval of the direct effect did not include zero [.09, .20] and H7a was supported. For H7b, $B = .05$, $SE = .03$, and the 95% bootstrap confidence interval did not contain zero [.01, .11]. Thus, H7b was also supported.

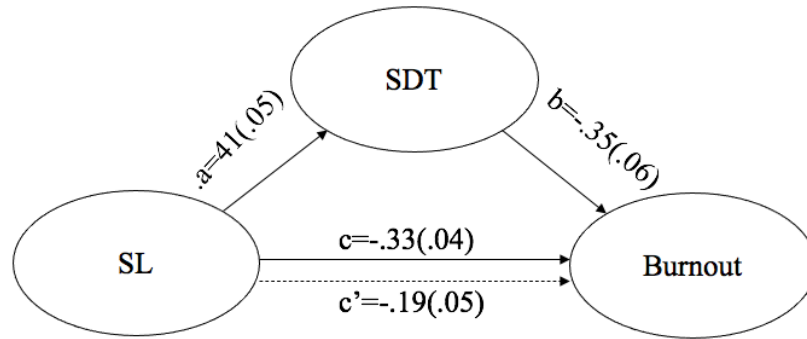


Figure 4. Significant mediation model in which SDT mediates the relationship between SL and burnout.

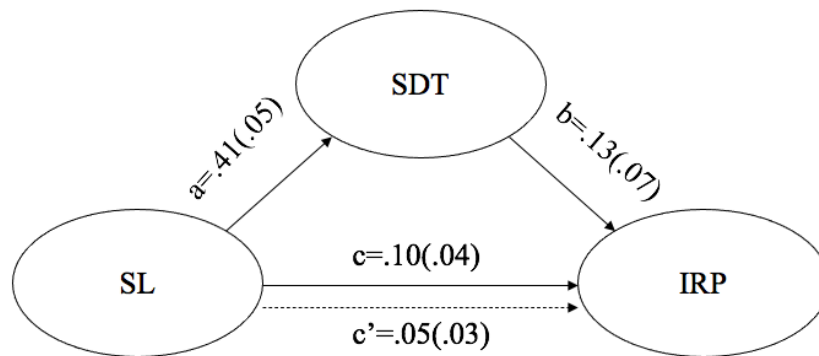


Figure 5. Significant mediation model in which SDT mediates the relationship between SL and IRP.

Hypothesis 8: This study hypothesized that out of the three components of SDT, relatedness has the strongest association with burnout (H8a) and performance (H8b). A stepwise regression analysis was performed for burnout, with autonomy being the only significant predictor of burnout with $B = .66$, $SE = .04$, $t = 10.93$, $p < .001$, and $R^2 = .43$. Competence and relatedness were excluded from the model with $p > .10$. The data for competence showed $B = .41$, $t = .66$, ns and $B = .08$, $t = 1.12$, ns for relatedness. Thus, H8a was not supported. A stepwise regression was performed for IRP and the results showed only competence as a significant predictor of IRP with $B = .34$, $SE = .06$, $t = 4.45$, $p < .001$, and $R^2 = .11$. Autonomy and relatedness

were excluded from the model with $p > .10$. The data for autonomy showed $B = .10$, $t = 1.27$, *ns* and $B = .04$, $t = .56$, *ns* for relatedness. Thus, H8b was also not supported.

Hypothesis 9: The study hypothesized that SL would explain more variance in burnout (H9a) and IRP (H9b) compared to TFL in the context of COVID-19. A stepwise regression analysis was performed for burnout and SL significantly related to burnout, $B = -.54$, $SE = .04$, $t = -8.11$, $p < .001$, with SL explaining 30% of the burnout variance. TFL was excluded from the model with $B = .18$, $t = 1.27$, $p = .22$. Another stepwise regression analysis was performed for IRP and SL was significantly related to IRP, $B = .19$, $SE = .04$, $t = 2.45$, $p < .015$, with SL explaining 3% of the variance in the data. TFL was again excluded from the model with $B = -.08$, $t = -.48$, $p = .63$. Based on the data, this study was able to support H9a and H9b.

Discussion

This study sought to assess whether TFL or SL are better suited to fulfill follower needs and result in lower burnout and higher IRP within the context of the COVID-19 pandemic. The study first hypothesized that TFL would be negatively related to burnout (H1a) and positively related to IRP (H1b), which was supported. Results for H1a were congruent with other studies on the relationship between TFL and burnout (Diebig et al., 2017). Conversely, the study was not able to support H1b, although the relationship between TFL and IRP has been shown in other studies (Hamstra et al., 2013; Kark et al., 2003). Second, it was hypothesized that SL would be negatively related to burnout (H2a) and positively related to in-role performance (H2b). Both H2a and H2b were supported, adding provision to the relationship with SL and decreased burnout (Kiker et al., 2019) and the relationship between SL and IRP (Chaudhry et al., 2015; Liden et al., 2014). Both leadership styles were related to reduced burnout, which might suggest that their ideologies are such that followers experience engagement via the four I's of TFL or the

follower-centric focus of SL. Servant leadership had a marginal relationship with performance, which might be due to SL's individually tailored coaching for followers.

Additionally, the study hypothesized that TFL (H3) and SL (H4) would be positively related to self-determination theory. Both styles demonstrated a significant positive relationship with SDT, supporting similar findings for TFL and SDT (Deci et al., 1994) and SL and SDT (van Dierendonck et al., 2014). This relationship has been previously established, but this study sought to confirm its existence in the context of the COVID-19 pandemic. The literature suggests that the strong connection between TFL and SDT is due to leaders' ability to provide empowerment via the central tenets of TFL to satisfy follower needs (Hetland et al., 2011). Similarly, Chiniara and Bentein (2016) state that the relationship between SL and SDT can be explained because SL provides freedom and support to satisfy follower needs.

Furthermore, this study hypothesized that the fulfillment of SDT needs would be negatively related to burnout (H5a) and positively related to performance (H5b). The study was able to provide support for H5a, evidencing the association between SDT and burnout. Additionally, the study was able to give provision to H5b, supporting the association between SDT and IRP. Previous research indicates a negative relationship between SDT and burnout and positive links between SDT and IRP, so the results were in accordance with past studies that suggest that needs satisfaction leads to decreased burnout and increased performance (Arshadi, 2010; Bartholomew, 2011; Queen & Harding, 2020).

Next, the study hypothesized the relationship between TFL and burnout (H6a) and IRP (H6b) would be partially mediated by SDT. The study was able to provide support for H6a, showing evidence for leadership style and burnout being mediated by SDT need fulfillment. Additionally, results supported H6b that TFL and IRP were mediated by SDT. These findings are

encouraging, as other studies had struggled to confirm this association (Bono, 2001; Leon, 2020). Additionally, the study hypothesized that the relationship between SL and burnout (H7a) and IRP (H7b) would be partially mediated by SDT. Again, results supported the mediated relationship between SL and burnout (H7a) and IRP (H7b), thus providing further evidence for Chiniara and Bentein's (2016) study showing that SDT mediates between SL and follower outcomes.

This study hypothesized that out of the three components of SDT, relatedness would have the strongest association with burnout (H8a) and IRP (H8b). Hypothesis H8a was not supported because only autonomy had a significant relationship with burnout. This is in line with previous research that supports autonomy as being the most essential follower need (Deci et al., 2017; Gagné & Deci, 2005). Although this study presupposed relatedness would be the most salient need due to the rapid imposition of social-distancing, quarantine, and isolation mandates, control and volition over their work continues to be the most relevant need for followers. Perhaps the ability to experience autonomy in one's work life combated the lack of control in other aspects of the pandemic. Hypothesis H8b was also not supported because only competence had a significant relationship with IRP. This is logical as a follower must be competent in their role to perform at a high standard. Although some studies suggest that employee performance can be directly impacted by the fulfillment of work relationships (Tran et al., 2018), this study suggests that the ability to master a work role is still more imperative.

Finally, the study hypothesized that SL would explain more variance in burnout (H9a) and IRP (H9b) compared to TFL in the context of COVID-19, which was supported by the data. Previous studies have argued that SL lacks construct clarity and thus cannot be compared to TFL (Anderson, 2018), but results showed SL to be slightly more impactful and TFL not having

incremental validity. Servant leadership's ideology is centered around supporting and developing followers, which requires being attuned to their individual growth needs, often comprised of variations of autonomy, competence, and relatedness. Consequently, when followers have their needs fulfilled, they are able to avoid burnout and perform at higher capacity, which is beneficial for the follower, the leader, and the organization as a whole.

A study by Kaiser (2020) investigating successful leaders during the COVID-19 pandemic may explain why SL explained more variance in the outcome variables than TFL. His research on volatile, uncertain, complex, and ambiguous (VUCA) events sought to uncover what types of leaders were best at navigating during this crisis. He found that leaders who were able to appropriately adapt and be flexible during this VUCA event had followers that were more effective in terms of team adaptability, productivity, and overall effectiveness. Servant leadership is underscored by the need to be versatile with growing, motivating, and serving followers, which may lead to successful follower outcomes, specifically within a crisis. While TFL is undoubtedly beneficial, the focus on organizational goals is more rigid compared to the emphasis of responding to individual follower needs within SL.

Implications for Managers

The results of this study suggest that leaders who employ SL successfully fulfill follower needs, which in turn impacts follower burnout and performance. Mitigating burnout is a focus for organizations everywhere as burned-out employees yield negative outcomes at the individual and organizational level. Understanding this, organizations should consider implementing training workshops that cultivate tenets of SL such as stewardship, empathy, and ethical behavior. If an organization is willing to develop their leaders as servant leaders, they will benefit from more effective leaders and high performing, engaged followers. Additionally, providing training

regarding follower need fulfillment would help leaders become more cognizant on how they can contribute to follower success. If a leader learns the importance of fulfilling competence, relatedness, and especially autonomy needs, they can become intentional in how they satisfy these intrinsic follower needs.

Nevertheless, SDT training for leaders cannot be uniformly applied in every organization. Tafvelin et al. (2019) conducted a study that hypothesized need-supportive leadership training would enhance fulfillment of autonomy, competence, and relatedness support in the workplace, leading to better well-being and performance. They were not able to support their hypothesis, concluding they failed to align the interventions with the organization and that the trainings were too long, becoming onerous to the leaders involved. Therefore, SDT trainings should be engaging, concise, and most importantly, be aligned with organizational goals and objectives. This will bring value to the leaders, so that they are able to absorb and apply the new training.

Limitations and Future Directions

This study was limited by utilizing a convenience sample, which may not be representative of the general population. Furthermore, this study relied on self-reported data, which may not be accurate and can lead to issues with common method variance (Podsakoff et al., 2003). Additionally, this study was conducted post-pandemic onset, so there is no data pre-COVID-19 to use as a comparison, therefore this study cannot make any causal conclusions. This study did not ask participants if they were self-employed, so it is possible that many of the unusable survey responses were due to people beginning the study only to realize that they could not actually participate. Furthermore, respondents did not indicate for how long they had been working for a leader. For example, one participant may have worked for the same leader for a decade whereas another participant might have started a new job the same day they took the

survey. This could impact how a follower interacts with a leader and how influential a leader might be. Finally, this study might have benefited from collecting data on income or job type. For those in higher level positions, the financial impact of the COVID-19 pandemic has been less detrimental as higher earners have access to more resources. Thus, high income earners might be less burned out as compared to their counterparts in lower income positions.

Future research may replicate this study longitudinally to assess if the effects of TFL versus SL last the duration of the pandemic and/or post-pandemic. In addition, this study could be administered to three groups: One group with leaders who receive TFL training, one group whose leaders receive SL training, and a control group to determine cause and effect relationships between leadership style, performance, and burnout. Future research might also benefit from capturing performance ratings from supervisor-employee dyads for more accurate follower performance scores. Finally, if this study were replicated, it may be beneficial to utilize an alternative measure of IRP as this study was not able to support several hypotheses with performance, which was not in accordance with other research findings.

Conclusion

Understanding the most effective style of leadership in the COVID-19 crisis will allow for organizations to prepare their leaders for guiding their followers, especially as the future of the pandemic continues to be uncertain. Evaluating which leadership style is most effective for meeting follower's needs will allow organizations to train and equip their leaders with the necessary resources and skills to support their followers. Crises of this magnitude are difficult to study, so by utilizing the COVID-19 pandemic as a learning opportunity, researchers and organizations can better understand how to prepare for potential future crises. Although the COVID-19 pandemic is a unique crisis, investigating the relationship between leadership style

and follower outcomes in the context of an external organizational crisis might yield important leadership lessons that could be applied in the event of another unprecedented event.

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Table 1*Means, standard deviations, and correlations*

	Variable	1	2	3	4	5	6	7	8
1.	TFL	(.94)							
2.	SL	.88***	(.94)						
3.	SDT	.52***	.57**	(.79)					
4.	SDT-A	.58***	.62***	.82***	(.79)				
5.	SDT-C	.15	.19*	.23**	.23*	(.83)			
6.	SDT-R	.35***	.39***	.49***	.49***	.19*	(.86)		
7.	Burnout	-.52***	-.54***	-.66***	-.66***	-.19*	-.38***	(.90)	
8.	IRP	.15	.19*	.17*	.17*	.34***	.38***	-.30***	(.77)
	Mean	3.72	3.57	3.79	3.45	4.35	3.77	1.32	3.55
	SD	.90	.83	.60	.78	.57	.90	.51	.45

N=varies between 157 and 159 due to missing responses; * $p < .05$; ** $p < .01$, *** $p < .001$

Note: Cronbach alpha coefficients are listed on the diagonal.

Appendix A
IRB Approval Letter



Institutional Review Board for the Protection of Human Subjects
Approval of Initial Submission – Exempt from IRB Review – AP01

Date: January 26, 2021

IRB#: 12941

Principal Investigator: Alison S Frech

Approval Date: 01/26/2021

Exempt Category: 2

Study Title: Pandemic Panic: Exploring the Associations between Transformational versus Servant Leadership on In-Role Performance and Burnout in the Context of the COVID-19 Pandemic

On behalf of the Institutional Review Board (IRB), I have reviewed the above-referenced research study and determined that it meets the criteria for exemption from IRB review. To view the documents approved for this submission, open this study from the *My Studies* option, go to *Submission History*, go to *Completed Submissions* tab and then click the *Details* icon.

As principal investigator of this research study, you are responsible to:

- Conduct the research study in a manner consistent with the requirements of the IRB and federal regulations 45 CFR 46.
- Request approval from the IRB prior to implementing any/all modifications as changes could affect the exempt status determination.
- Maintain accurate and complete study records for evaluation by the HRPP Quality Improvement Program and, if applicable, inspection by regulatory agencies and/or the study sponsor.
- Notify the IRB at the completion of the project.

If you have questions about this notification or using iRIS, contact the IRB @ 405-325-8110 or irb@ou.edu.

Cordially,

A handwritten signature in black ink, appearing to read 'Ioana A. Cionea', written over a light blue grid background.

Ioana Cionea, Ph.D.
Vice Chair, Institutional Review Board

Appendix B

Dear Online Friend,

I am pursuing a master's degree in Organizational Dynamics at The University of Oklahoma-Tulsa. I am currently recruiting participants for my research project titled "Pandemic Panic: Exploring the Associations between Transformational versus Servant Leadership on In-Role Performance and Burnout in the Context of the COVID-19 Pandemic". Would you please take a quick survey to help me with my research? The survey is completely anonymous and should take 15 minutes or less to answer. The survey can be accessed by clicking the following link:

.....

To help me recruit additional participants for my study, please forward this link to others in your network. If you have any additional questions about my graduate program or research study, please feel free to contact me at alison.s.frech-1@ou.edu
Thank you!

Appendix C

Global Transformational Leadership Scale (GTLS)

Please respond to the following statements evaluating your direct supervisor.

	Rarely to never (1)	Rarely (2)	Occasionally (3)	Frequently (4)	Very frequently, if not always (5)
My supervisor communicates a clear and positive vision of the future	1	2	3	4	5
My supervisor treats staff as individuals and supports and encourages their development	1	2	3	4	5
My supervisor gives encouragement and recognition to staff	1	2	3	4	5
My supervisor fosters trust, involvement, and cooperation among team members	1	2	3	4	5
My supervisor encourages thinking about problems in new ways and questions assumptions	1	2	3	4	5
My supervisor is clear about his/her values and practices what he/she preaches	1	2	3	4	5
My supervisor instills pride and respect in others and inspires me by being highly competent	1	2	3	4	5

Appendix D

General Measure of Servant Leadership

Please respond to the following statements evaluating your direct supervisor

	Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly Agree (5)
My supervisor spends the time to form quality relationships with department employees	1	2	3	4	5
My supervisor creates a sense of community among department employees	1	2	3	4	5
My supervisor's decisions are influenced by department employees' input	1	2	3	4	5
My supervisor tries to reach consensus among department employees' input	1	2	3	4	5
My supervisor encourages thinking about problems in new ways and questions assumptions	1	2	3	4	5
My supervisor is sensitive to department employees' responsibilities outside of the workplace	1	2	3	4	5
My supervisor makes the personal development of department employees a priority	1	2	3	4	5
My supervisor holds department employees to high ethical standards	1	2	3	4	5

My supervisor does what he/she promises to do	1	2	3	4	5
My supervisor balances concern for day-to-day details with projections for the future	1	2	3	4	5
My supervisor displays wide-ranging knowledge and interest in finding solutions to work problems	1	2	3	4	5
My supervisor makes me feel like I work with him/her, not for him/her	1	2	3	4	5
My supervisor works hard at finding ways to help others be the best they can be	1	2	3	4	5
My supervisor encourages department employees to be involved in community service and volunteer activities outside of work	1	2	3	4	5
My supervisor emphasizes the importance of giving back to the community	1	2	3	4	5

Appendix E

Work-related Basic Need Satisfaction scale (WNBS)

Please respond to the following statements describing your work experience

	Totally disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Totally Agree
Need for Autonomy					
I feel like I can be myself at my job	1	2	3	4	5
At work, I often feel like I have to follow other people's commands*	1	2	3	4	5
If I could choose, I would do things at work differently*	1	2	3	4	5
The tasks I have to do at work are in line with what I really want to do	1	2	3	4	5
I feel free to do my job in the way I think it could best be done	1	2	3	4	5
In my job, I feel forced to do things I do not want to do*	1	2	3	4	5
Need for Competence					
I really master my tasks at my job	1	2	3	4	5
I feel competent at my job	1	2	3	4	5
I am good at the things I do in my job	1	2	3	4	5
I have the feeling that I can accomplish even the most difficult tasks at work	1	2	3	4	5

Need for Relatedness

I don't really feel connected with other people at my job*	1	2	3	4	5
At work, I feel part of a group	1	2	3	4	5
I don't really mix well with other people at my job	1	2	3	4	5
At work, I can talk with people about things that really matter to me	1	2	3	4	5
I often feel alone when I am with my colleagues*	1	2	3	4	5
Some people I work with are close friends of mine	1	2	3	4	5

Note: * Reversed item

Appendix F

Oldenburg Burnout Inventory (OLBI)

Please respond to the following statements describing your work experience

	Totally disagree	Disagree	Agree	Strongly agree
I always find new and interesting aspects in my work	1	2	3	4
It happens more and more often that I talk about my work in a negative way	1	2	3	4
Lately, I tend to think less at work and do my job almost mechanically	1	2	3	4
I find my work to be a positive challenge	1	2	3	4
Over time one can become disconnected from this type of work	1	2	3	4
Sometimes, I feel sickened by my work	1	2	3	4
This is the only type of work that I can imagine myself doing	1	2	3	4
I feel more and more engaged in my work	1	2	3	4
There are days I feel tired before I arrive at work	1	2	3	4
After work, I tend to need more time than in the past in order to relax and feel better	1	2	3	4
I can tolerate the pressure of my work very well	1	2	3	4

During my work, I often feel emotionally drained	1	2	3	4
After work, I have enough energy for my leisure activities	1	2	3	4
After my work, I usually feel worn out and weary	1	2	3	4
Usually, I can manage the amount of my work well	1	2	3	4
When I work, I usually feel energized	1	2	3	4

Note: Disengagement items are 1, 3(R), 6(R), 7, 9(R), 11(R), 13, 15. Exhaustion items are 2(R), 4(R), 5, 8(R), 10, 12(R), 14, 16. (R) means reversed item when the scores should be such that higher scores.

Appendix G

In-role Performance

Please respond to the following statements about your work behavior.

	Strongly disagree	Disagree	Agree	Strongly agree
I perform tasks that are expected of me	1	2	3	4
I exhibit punctuality in arriving at my workstation	1	2	3	4
I spend time in idle conversation	1	2	3	4
I adequately complete assigned duties	1	2	3	4
I fulfill responsibilities specified in my job description	1	2	3	4

Note: “I spend time in idle conversation” was removed from the final data analysis.